

AIRBEST – A brand by Piab Group

Make Smart



Go Together

AIRBEST

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AIRBEST



Vacuum Solutions Supplier

AIRBEST

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Company Introduction

AIRBEST was established in 2006, engaged in R&D, production and sales of vacuum gripping products (vacuum generators, vacuum suction cups and vacuum grippers, etc).

Products are used in different industries, mainly including intelligent manufacturing, automotive metal stamping, packaging, woodworking, industrial robots, foods, pharmaceuticals, electronics, etc.

We pay attention to the practical application of products, quality-orientation and innovation first. So far we acquired many patents.

In 2022, AIRBEST became a brand by Piab Group. AIRBEST constantly serves customers and makes improvements, contributes our professional technology in vacuum gripping field.

Appreciate your attention and support to AIRBEST.



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| 462 | ZVAC Series |
| 463 | ZVAA Series |
| 464 | ZVEA Series |
| 465 | ZVR Series |
| 466 | ZVRM Series |
| 468 | ZVCM Series |
| 469 | ZVD Series |
| 470 | ZVS Series |
| 472 | ZVT Series |
| 473 | ZPDT Series |
| 477 | ZPDE Series |
| 481 | ZPMR Series |
| 482 | ZSA Series |



A Vacuum Technology

Vacuum level

The difference between standard atmospheric pressure and absolute pressure.

Pressure unit

Positive pressure conversion table

| | Pa(N/m ²) | kPa | bar | kg/cm ² | torr | psi(ibf/in ²) | inHg |
|----------------------------|-----------------------|----------|--------------------------|--------------------------|--------------------------|---------------------------|----------------------|
| 1 Pa | 1 | 0.001 | 0.00001 | 10.1792×10 ⁻⁶ | 7.50062×10 ⁻³ | 0.145038×10 ⁻³ | 0.3×10 ⁻³ |
| 1 kPa | 1,000 | 1 | 0.01 | 10.1792×10 ⁻³ | 7.50062 | 0.145038 | 0.3 |
| 1 bar | 100,000 | 100 | 1 | 1.01972 | 750.062 | 14.5038 | 30 |
| 1 kg/cm² | 98,066.5 | 98.0665 | 0.980665 | 1 | 735.559 | 14.2233 | 29.42 |
| 1 torr | 133.322 | 0.133322 | 1.33322×10 ⁻³ | 1.35951×10 ⁻³ | 1 | 19.3368×10 ⁻³ | 0.04 |
| 1 psi | 6,894.76 | 6.89476 | 68.9476×10 ⁻³ | 70.3096×10 ⁻³ | 51.7149 | 1 | 2.07 |

Negative pressure conversion table

| | mbar | kPa | -kPa | %vacuum | torr | -mmHg | -inHg |
|-----------------------------|-------|-------|-------|---------|------|-------|-------|
| Atmospheric pressure | 1,013 | 101.3 | 0 | 0 | 760 | 0 | 0 |
| | 913 | 91.3 | 10 | 9.9 | 685 | 75 | 3 |
| | 813 | 81.3 | 20 | 19.7 | 610 | 150 | 6 |
| | 713 | 71.3 | 30 | 29.6 | 535 | 225 | 9 |
| | 613 | 61.3 | 40 | 39.5 | 460 | 300 | 12 |
| | 513 | 51.3 | 50 | 49.3 | 385 | 375 | 15 |
| | 413 | 41.3 | 60 | 59.2 | 310 | 450 | 18 |
| | 313 | 31.3 | 70 | 69.1 | 235 | 525 | 21 |
| | 213 | 21.3 | 80 | 79 | 160 | 600 | 24 |
| | 113 | 11.3 | 90 | 89 | 85 | 675 | 27 |
| Absolute vacuum | 0 | 0 | 101.3 | 100 | 0 | 760 | 30 |

Flow

Air volume flows through specified cross section per unit time

Flow conversion table

| | m ³ /s | m ³ /h | NL/min | NL/s | ft ³ /min(scfm) |
|-----------------------------|------------------------|-------------------|---------|--------|----------------------------|
| 1 m³/s | 1 | 3,600 | 60,000 | 1,000 | 2,118.9 |
| 1 m³/h | 0.28×10 ⁻³ | 1 | 16.6667 | 0.2778 | 0.5885 |
| 1 NL/min | 16.67×10 ⁻⁶ | 0.06 | 1 | 0.0167 | 0.035 |
| 1 NL/s | 1×10 ⁻³ | 3.6 | 60 | 1 | 2.1189 |
| 1 ft³/min | 0.472×10 ⁻³ | 1.6992 | 28.32 | 0.4720 | 1 |

How to produce vacuum

Compressed air flows in high speed, which sucks the air in vacuum chamber, then vacuum chamber has negative pressure

Instructions for suction cups' applications

We separated applications in vacuum applied to sealed and unsealed systems. Sealed systems are all applications where there is no leakage between the suction cup and the substrate

Examples: Handling of glass plates / handling of smooth surface metal plates / Evacuation of containers / Tests of tightness

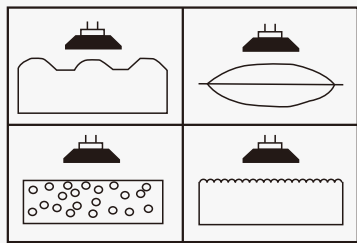


Figure 1.1 types of surface

Unsealed systems applications are that where there is leaking through the suction cup and the substrate, where the product is porous, or through the edge of the pad in the case of rough substrates. There is the possibility of applications where leakage occurs by both ways

Examples: Handling of cardboard box / Handling of foam / Handling of rough ceramic floor

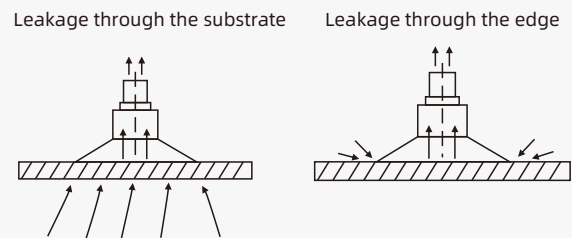


Figure 1.2 Unsealed system

Types of suction cups

Flat suction cups

- Small course of work, suitable for fast gripping
- Good for handling flat objects
- Suitable for horizontal or vertical loads and flip over

1.5 Bellows suction cups

- Good for handling objects with uneven surface and curved objects
- Large course of work, compensate for varying workpiece heights
- Suitable for horizontal or vertical loads, slightly flip over

Multiple bellows suction cups

- Large course of work, compensate for varying workpiece heights
- Good for handling objects with uneven surface and curved objects
- Limited load capacity, not suitable for fast gripping and flip over

We recommend the ideal vacuum level for suction cups working is -60kPa~-80kPa, because the energy consumption ratio is greatly reduced when the vacuum level beyond -80kPa

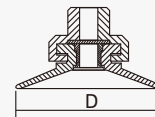


Figure 1.3 Flat suction cups

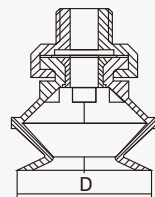


Figure 1.4 1.5 Bellows suction cups



Figure 1.5 Multiple bellows suction cups

Suction force

Suction force means the maximum weight of the object, which can be gripped in vertical lifting; it is proportional to the pressure difference and effective suction area

Calculation formula of suction force: $F = P \times S$

F = Suction force

P = Vacuum level, the difference between atmospheric pressure and internal pressure of suction cups.

S = Effective suction area

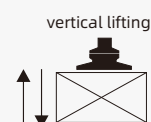


Figure 1.6 Movement

Lateral force

Lateral force means the maximum weight of the object, which can be gripped in lateral lifting; it is related to suction force of suction cups and friction

Calculation formula of lateral force: $F_L = P \times S \times \mu$
 μ = Friction coefficient

Friction coefficient “ μ ” is the ratio of friction and suction force between the suction cups and workpiece, the inner structure of suction cups and surface of workpiece has influence on the friction coefficient. For the same type surface of workpiece, the friction coefficient of suction cups with inner support is larger than the flat suction cups; for the same suction cup, the friction coefficient of workpiece with dry and rough surface is larger than the smooth surface workpiece

Table 1.1 Friction coefficient (reference)

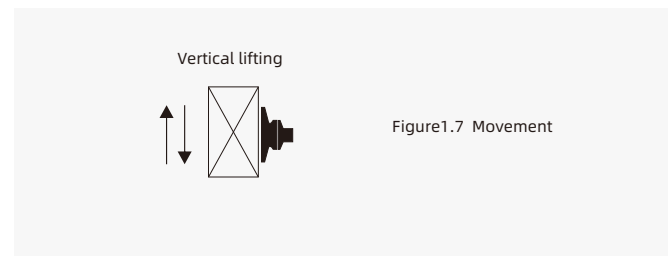
| Surface of workpiece | Friction coefficient μ |
|--|----------------------------|
| Wet or oily surface | 0.1~0.4 |
| Smooth and flat surface (glass, slate, plastic, metal) | 0.5 |
| Rough and flat surface (dry) | 1 |

Safety factor

The suction force or lateral force is theoretical value, many other important factors should be considered in practical application, such as the size and shape of suction cups, smoothness, hardness and shape of workpiece, handling speed, flip over, etc. The safety factor k should be considered when choose the model of suction cups, $k \geq 2$

Table 1.2 Safety factor (reference)

| Type of workpiece or working type | Safety factor k |
|---|-----------------|
| Smooth and flat workpiece | 2 |
| Smooth and flat workpiece with fast movement or flip over | 4 |
| Rough or irregular workpiece | 4 |
| Carton packages | 4 |
| Softbag packages | 6 |



Selection of diameter of the suction cup

According the formulas, we could calculate the approximate diameter of suction cups

D=diameter of suction cup (mm) V=vacuum level (-kPa)
 k=safety factor (refer to table 1.2) m=weight of workpiece (kg)
 n=number of suction cups in the application

Table 1.3 Formulas for diameter for different type of suction cup

| Type of suction cups | Formula | Type of suction cups | Formula |
|----------------------------|---|--|--|
| 1.5 bellow type | $D = 152 \times \sqrt{\frac{m \times k}{V \times n}}$ | Multiple bellows | $D = (223.5 \sim 558.5) \times \sqrt{\frac{m \times k}{V \times n}}$ |
| Flat type | $D = 139.5 \times \sqrt{\frac{m \times k}{V \times n}}$ | Theoretical (without deformation) | $D = 117 \times \sqrt{\frac{m \times k}{V \times n}}$ |

Example

Sealed system

Determine the type and number of suction cups for handling an aluminum plate, with smooth and flat surface, size 2000x2000mm, weight 260kg. The manipulation will be done through a pulley in the horizontal direction at low speed

The handling surface is nearly smooth and flat
Safety factor is 2

To ensure the stability of handling and avoid the deformation and bending of aluminum plate under gravity, we use 8pcs suction cups and calculate the result in case of vacuum level -60kPa

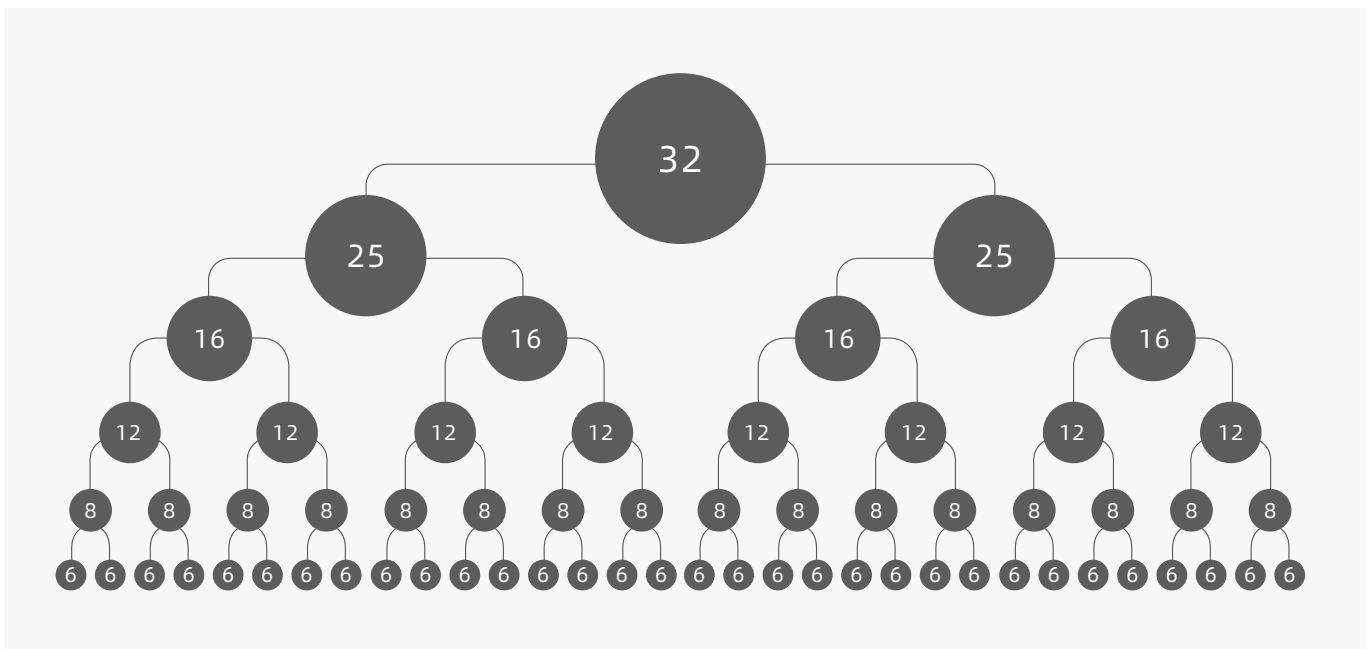
From Table 1.3, we could conclude that:

$$m=260\text{kg} \quad k=2 \quad V=-60\text{kPa} \quad n=8$$

$$D=139.5 \times \sqrt{\frac{m \times k}{V \times n}} \Rightarrow D=139.5 \times \sqrt{\frac{260 \times 2}{60 \times 8}} = 145.19\text{mm} \approx \boxed{150\text{mm}}$$

According to the result, we could choose AIRBEST flat suction cup SPF150 or SF150

Layout of hoses



Common application (for reference):

- ◇ The diameter mentioned above, for hoses dia. ≤ 16mm means outer diameter; dia. > 16mm, means inner diameter
- ◇ The hoses layout above is for reference only, please consider the actual application

Material characteristic

| Material | Short time contact temperature(°C) ≤ 30s | Long time contact temperature(°C) > 30s | Wear resistance | Oil resistance | Weather and ozone | Resistivity |
|--|--|---|-----------------|----------------|-------------------|----------------------------------|
| N - NBR | - 20 ~ +110 | - 10 ~ +80 | ◎ | ◎ | ○ | - |
| S - Silicone | - 40 ~ +250 | - 30 ~ +200 | × | × | ◎ | - |
| CN - Conductive NBR | - 10 ~ +100 | - 10 ~ +70 | ◎ | ◎ | ○ | 10 ⁵ -10 ⁹ |
| CS - Conductive silicone | - 30 ~ +200 | - 20 ~ +160 | × | × | ○ | 10 ⁵ -10 ⁹ |
| U - Polyurethane | +10 ~ +60 | +10 ~ +40 | ◎ | ◎ | ◎ | - |
| HK - Extra high temp rubber | - 10 ~ +350 | - 5 ~ +250 | ◎ | ○ | ○ | - |
| E - EPDM | - 30 ~ +150 | - 20 ~ +120 | ○ | × | ◎ | - |
| HS - High temp silicone | - 20 ~ +300 | - 10 ~ +250 | △ | × | ◎ | - |
| HD - High temp/mark free material | - 10 ~ +180 | - 5 ~ +160 | ◎ | ◎ | ◎ | - |
| NR - Natural rubber | - 20 ~ +80 | - 10 ~ +60 | ◎ | × | △ | - |
| NF - Neoprene foam rubber | - 20 ~ +80 | - 10 ~ +60 | ◎ | △ | ◎ | - |
| OF - Geranium foam rubber | - 20 ~ +80 | - 10 ~ +60 | ◎ | × | × | - |

◎: Excellent ○: Good △: Fair ×: Unsuitable

Suction cups storage instruction

Temperature

The suitable temperature for suction cups storage is 15°C~25°C (59°F~77°F)

Humidity

The relative humidity of storage environment should be less than 65% and without condensation, avoid extremely wet or dry storage environment

Lights

Please store in dark environment, avoid direct sunlight or strong UV

Radiation

Keep away from ionizing radiation

Ozone

Ozone will cause harm to the products

Deformation

The products should be stored in a loose space to avoid being squeezed

Stock turnover

Follow "First In First Out" for the stocks

Color and hardness of suction cup

Examples

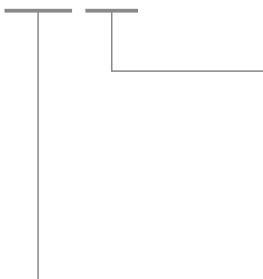
| | | |
|---------------------------------|--|--|
| S - Silicone | | Color is red, calibration hardness is 50° |
| WS - White silicone | | Color is white, calibration hardness is 50° |
| CS - Conductive silicone | | Color is black, there is red dot on surface ,calibration hardness is 55° |

Suction cup's color, hardness are shown as above icon for your reference. Besides, slight color difference caused by catalogue printing and difference between calibration hardness of material and actual hardness of suction cup are normal. (Generally within ±5°)

| UI | Industry | Description | Recommendation | | Applicable Suction cups |
|----|--------------------------------|---|--|---|---|
| | | | Vacuum generator | Suction cup | |
| | PACKAGING (Carton) | Mainly for handling, logistics, stacking, storage of carton and soon. The features are that the workpiece is easy to deform, porous, medium weight, various sizes, and has high requirement for wear resistance of the suction cup | Vacuum gripper, multi stage vacuum pump, etc take advantage of flow to compensate leakage loss | NBR, PU, etc. Excellent wear resistance, recommend bellows suction cups | TXC, TXM SB, SPC |
| | PACKAGING (Plastic Bag) | Mainly for gripping, destacking, handling of plastic bag, purchasing bag, cat food bag and dog food bag. The features are that the workpiece can be both soft and hard and has wrinkles, and has high requirement for deformation and adaptability of suction cup itself | Select vacuum generator according to weight and characteristic of workpiece | Silicone, soft and flexible, recommend multiple bellows suction cups | SBL, SBLP STP, SPJ SFA |
| | GLASS | Mainly for handling, gripping of universal glass, industry glass, float glass and so on. The features are that workpiece is heavy, flat, smooth, hard and it has requirement of powerful lateral gripping force | Select vacuum generator according to weight and characteristic of workpiece | NBR, excellent wear resistance, recommend flat suction cups | SFG, SF |
| | METAL SHEET (Sheet Metal) | Metal sheet industry, mainly for handling, fixing and processing of metal plate. The features are that the workpiece is easy to deform, with oily surface, curved metal plate, heavy weight and has high requirement for big internal support, anti slip, anti deformation of suction cup | Select vacuum generator according to weight and characteristic of workpiece | NBR, PU etc. excellent wear resistance, recommend flat or 1.5 bellows suction cups | SFF, SFM STC, SBF SOF, SOB SDM, SOM |
| | META SHEET (Thick Metal Plate) | Metal sheet industry, mainly for handling, fixing and processing of metal plate. The features are that the workpiece is, with oily surface, heavy weight and has high requirement for large internal support, slip resistance, anti deformation of suction cup | Select vacuum generator according to weight and characteristic of workpiece | NBR, PU, etc. excellent wear resistance, recommend flat suction cups | SFF, SFM SDM, SOF SFK |
| | AUTOMOTIVE | Automotive industry, mainly for glass, curved metal plate, tyre and so on. The features are that metal plate is with uneven and curved surface, glass is smooth and with heavy weight, and has high requirement for slip resistance | Select vacuum generator according to weight and characteristic of workpiece | NBR, PU etc. excellent wear resistance and good oil resistance | SBF, SFG SFF, SFM STC, SBF SOF, SOB |
| | WOOD | Wood industry, mainly for handling of wood plate, fiberboard, wooden handicraft and so on. The features are uneven surface, porous, heavy weight, good sealness and large internal support for suction cup | Multistage vacuum generator AM/AL, etc. Take advantage of flow to compensate the flow loss between suction cup and workpiece | NBR, excellent wear resistance | SF, SPF SFU, SFD SOM |
| | FABRIC | Fabric industry, mainly for handling of cloth, gauze and so on. The features are workpiece is easy to deform, porous, light weight, overlap, and has requirement of large vacuum flow for suction cup | Select vacuum generator according to weight and characteristic of workpiece | POM material special gripper, which is with suction cup, recommend flow gripper | SLP, SLB |
| | COMPOSITE MATERIAL | Mainly for handling leather, fiber plate, the features are that the workpieces are porous, light, and overlapping and has requirement of large vacuum flow for suction cup | Select vacuum generator according to weight and characteristic of workpiece | Select suction cup according to actual condition | SLB |
| | STONE | Stone industry, mainly for handling marble, bricks, and so on. The features are that workpiece is with uneven surface and has requirement for large deformation of suction cup | Multistage vacuum generator AM/AL, etc. Take advantage of flow to compensate the flow loss between suction cup and workpiece | NF-Neoprene foam rubber OF-Geranium foam rubber large deformation and good tightness, recommend foam rubber suction cup | SOP, SNP |
| | INJECTION MOLDING | Plastic industry, mainly for handling in latter procedure of plastic injection molding. The features are high temperature resistance, workpiece with curved surface, and has high requirement for high temperature | Select vacuum generator according to weight and characteristics of workpiece | Silicone, HD high temp material, recommend high temp material suction cup | Silicone, HD high temp material, other special custom-made products |
| | ROBOT | Robot terminal components, supporting robot to grip and handle. The features are that it requires fast response, combined type saving pipes, system with high safety factor. | Select vacuum generator according to weight and characteristics of workpiece | Select suction cup according to workpiece | -- |
| | MACHINE | Machine terminal components, supporting intelligent manufacture equipment to grip and handle. The features are that they are small size, light weight, compact and most of them are metal products | Select vacuum generator according to weight and characteristics of workpiece | Select suction cup according to workpiece | -- |
| | ELECTRONICS (Screen) | Handling of the screen of mobilephone, tablet PC, etc. The features are mark free, without deformation, slip resistance, small and light, etc. | Select vacuum generator according to weight and characteristics of workpiece | Flat suction cup, mark free suction cup which is HD material, halogenation, and teflon tape | SNT, SZU SZC, SZB SPC, SLP SP3, etc. |
| | ELECTRONICS (PCB Board) | Electronics industry, mainly for handling electronic components. The features are that workpiece is with small surface, light weight, without mark, and has high requirement for conductivity of suction cup | Select vacuum generator according to weight and characteristics of workpiece | Materials like NBR, Si or conductive NBR, Conductive Si, etc are soft, wear resistant and conductive. Recommend flat, or 1.5 bellows suction cups | SZU, SZC SZB, SAN SAO, SLB TXC, SP3, etc. |
| | PHARMACEUTICALS | Pharmaceuticals industry, mainly for handling of medical kits, medical devices, etc. The features are that there is alcohol, chemical reagent on the surface of workpiece, and it has high requirement for chemical resistance of suction cup | Select vacuum generator according to working environment and characteristic | Special plastic material, corrosion resistance, alcohol resistance, wear resistance, weather resistance | SBOF |
| | FOOD | Food industry, mainly for handling of bread, chocolate, milk, etc. The features are irregular shape of surface of workpiece, light weight, plastic bag package, and it has high requirement for material of suction cup | Select vacuum generator according to weight and characteristics of workpiece | FDA silicone, soft seal or FDA POM suction cup | SBL, SBLP SNT, SBS |
| | NEW ENERGY (Photovoltaic) | New energy industry, mainly for handling of solar cell, circuit board. The features are that the workpiece is porous, fragile and require soft contact and large vacuum flow and average air flow | Air flow is well distributed, smoothly gripping | Wafer gripper | SLW |
| | NEW ENERGY (Li Battery) | New energy li battery industry, mainly for handling of battery pack, battery. The features are corrosion resistant, explosion proof of soft package gripping, safe and reliable | Select vacuum generator according to weight and characteristics of workpiece | Suction cup with corrosion resistant material, such as EPDM, fluorine rubber | SLB, SF SB, etc. |

| UI | Characteristic | Description | Applicable suction cups |
|----|------------------------------------|--|---|
| | Porous | Suitable for porous workpiece, main features are that vacuum generator with low vacuum level and large vacuum flow(usually use flow gripper)is through flow to compensate air permeability loss to create vacuum to grip workpiece | SLB, SLP |
| | Curved surface | Suitable for workpiece with curved surface or certain slope surface. Usually adopt bellows suction cups to compensate the plane. | All bellows suction cups |
| | Slip resistance | For workpiece with smooth surface and prevent it from side slip when grip. Generally adopt flat with ribs or flat with pattern suction cup | All flat with ribs suction cups and flat with pattern suction cups |
| | Rough surface | Mainly for workpiece with rough surface such as wood plate, stone. In order to prevent air leakage, usually adopt sponge suction cup to compensate the micro space to grip the workpiece | SNP, SOP |
| | Heavy load | For gripping workpiece with heavy load, generally adopt heavy load suction cups and mounting parts | Flat suction cup with big diameter PSPH heavy load level compensator. |
| | Non-rotating | Mainly for workpiece having precise positioning and direction requirement.It needs non-rotating function | Non-rotating level compensator etc. |
| | FDA | For workpiece requiring safety certificate in food industry of medical industry, usually adopt food grade white silicone of POM suction cups with FDA | WS material suction cup, SNT-P series |
| | Tube shaped object | Adopt special concave suction cups for tube shaped or stick shaped workpieces | SOG |
| | Long and narrow object | Adopt oval suction cups special for long and narrow workpiece | SOB, SOF |
| | Corrosion resistance | Adopt fluorine rubber or EPDM suction cups for requirements of corrosion resistance, (such as battery liquid, chemical environment) | F/E material suction cups |
| | Long life time | Adopt suction cups with special material for high weariness occasion which is longer than average life | V/U material suction cups |
| | Spherical objects | Adopt deep taper suction cup to grip spherical objects | SZD, SBS |
| | Water resistance Oil resistance | Adopt special suction cups with oil resistant material and design | SFM, SBF, STC, SFF, etc. |
| | Composite product | Composite product integrated with vacuum generator and suction cups, save space,easy to assemble and wide usage | SLB, SLW, SLP, SNT, SLF, etc. |
| | Anti-deformation | Select different suction cups for different workpieces and conditions to grip workpiece without deformation | SF, SFF, SFT, SFA, etc. |
| | Temperature resistance up to 180°C | Adopt suction cups with high temperature resistant material for gripping workpiece with high temperature 180°C | HD suction cup, Silicone suction cup |
| | Temperature resistance up to 400°C | Gripping workpiece with high temperature 400°C | SHT |

M5 M



Thread

| | |
|----------|---------------|
| M | Male thread |
| F | Female thread |

Types of thread

| | |
|----------|------------------------------|
| M | Metric thread |
| G | British standard pipe thread |
| T | NPT thread |
| N | NPSF thread |
| R | British conical pipe thread |

Example

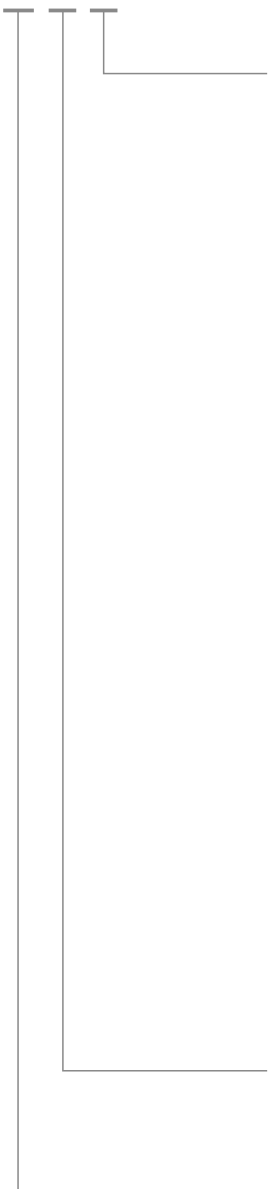
| Types of thread | Size | |
|-----------------|------|--------------------|
| M | 5 | M5: M5 |
| G | 1 | G1: G1/8 |
| T | 4 | T4: NPT1/2 |
| N | 8 | N8: NPSF1" |
| R | 12 | R12: R1"1/2 |
| ... | ... | |

Connection thread instruction

| | | | |
|------------|--------------------|-------------|----------------------|
| G1M | G1/8 Male thread | G6F | G3/4 Female thread |
| G2M | G1/4 Male thread | G8F | G1" Female thread |
| G3M | G3/8 Male thread | G12F | G1"1/2 Female thread |
| G4F | G1/2 Female thread | | |

Note: Thread pitch which is not indicated in the catalogue, is considered as national standard coarse thread specification.

P J S - ***



Categories of connector

| | |
|----------|--|
| S | Universal inserted fitting for suction cup |
| T | Adapter |
| F | Locking fitting |
| B | Ball joint |
| H | Universal holder |
| E | Flexible joint |
| P | One-touch fitting |
| Q | Pagoda fitting |

Product code for connector

| | |
|----------|-----------|
| J | Connector |
|----------|-----------|

Product code for mounting parts

| | |
|----------|----------------|
| P | Mounting parts |
|----------|----------------|

Mounting Parts for Universal Suction Cup -Locking Fitting Selection Instruction

| Series | Size range | Suction cup connection | | | | |
|--------|------------|------------------------|-----|-----|-----|-----|
| | | M5F | M8F | G1F | G2F | G3F |
| SB | 5-15 | ● | | | | |
| | 17-40 | | | ● | | |
| | 50 | | | | ● | ● |
| | 75 | | | | ● | |
| SBA | 11-25 | ● | | | | |
| | 33-78 | | | | ● | |
| SBF | All sizes | | | | ● | ● |
| SBOF | All sizes | | | | ● | |
| SFT | 15-24 | ● | | ● | | |
| | 30-40 | | | | ● | |
| SBL | 15 | ● | | | | |
| | 20-40 | | | ● | | |
| | 50 | | | | ● | ● |
| SBLP | 30 | | | | ● | |
| | 40 | | | | | ● |
| SF | 15 | ● | | | | |
| | 20-40 | | | ● | | |
| | 50 | | | | ● | ● |
| SU | 2-8 | ● | | | | |
| | 20-40 | | | ● | | |
| | 50 | | | | ● | ● |
| SUF | All sizes | ● | | | | |
| STC | All sizes | | | | ● | |
| SFF | All sizes | | | | ● | |
| SFM | 50-120 | | | | ● | |
| SOB | All sizes | | | | ● | |
| SOF | All sizes | | | | ● | |
| SOG | 15×40 | ● | | | | |
| | 35×100 | | | | ● | |
| SFP | All sizes | | | ● | | |
| SBP | 10-15 | ● | | | | |
| | 20-40 | | | ● | | |
| | 50 | | | | ● | ● |
| | 70 | | | | | ● |
| SXP | 20-40 | | | ● | | |
| | 50 | | | | ● | ● |
| | 70 | | | | | ● |

Mounting Parts for Universal Suction Cup -Locking Fitting Selection Instruction

| Series | Size range | Suction cup connection | | | | |
|--------|------------|------------------------|-----|-----|-----|-----|
| | | M5F | M8F | G1F | G2F | G3F |
| SGP | 25-45 | | | ● | | |
| | 55 | | | | ● | ● |
| SAN | All sizes | ● | | | | |
| SAO | All sizes | | | | | |
| SPA | 10-20 | ● | | | | |
| | 30B | ● | | | | |
| | 25-50 | | ● | | | |
| SPC | 5-7 | ● | | | | |
| | 10-20 | ● | | | | |
| | 30-60 | | | | | |
| | 90 | | | | | |
| SPF | 2-3.5 | | | | | |
| | 5-8 | ● | | | | |
| | 10-15 | ● | | | | |
| | 20 | ● | | | | |
| | 25-40 | ● | | | | |
| | 50 | | | | | |
| | 60-95 | | | | | |
| | 120-300 | | | | | |
| SPJ | 4 | | | | | |
| | 6-8 | ● | | | | |
| | 10-15 | ● | | | | |
| | 20-25 | ● | | | | |
| | 30-40 | ● | | | | |
| | 50 | | | | | |
| | 60-80 | | | | | |

Adapter Selection Instruction

| Thread(1) | Thread(2) | | | | | | | | | | | |
|-----------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | M5F | M5M | M8F | M8M | G1F | G1M | G2F | G2M | G3F | G3M | G4F | G4M |
| M5F | ● | | | | | | | | | | | |
| M5M | | ● | ● | ● | | | | | | | | |
| M8F | | ● | ● | | | | | | | | | |
| M8M | | | | ● | ● | ● | | | | | | |
| G1F | | | | ● | ● | | | | | | | |
| G1M | | | | | | ● | ● | ● | | | | |
| G2F | | | | | | ● | ● | | | | | |
| G2M | | | | | | | | ● | ● | ● | | |
| G3F | | | | | | | | ● | ● | | | |
| G3M | | | | | | | | | | ● | ● | ● |

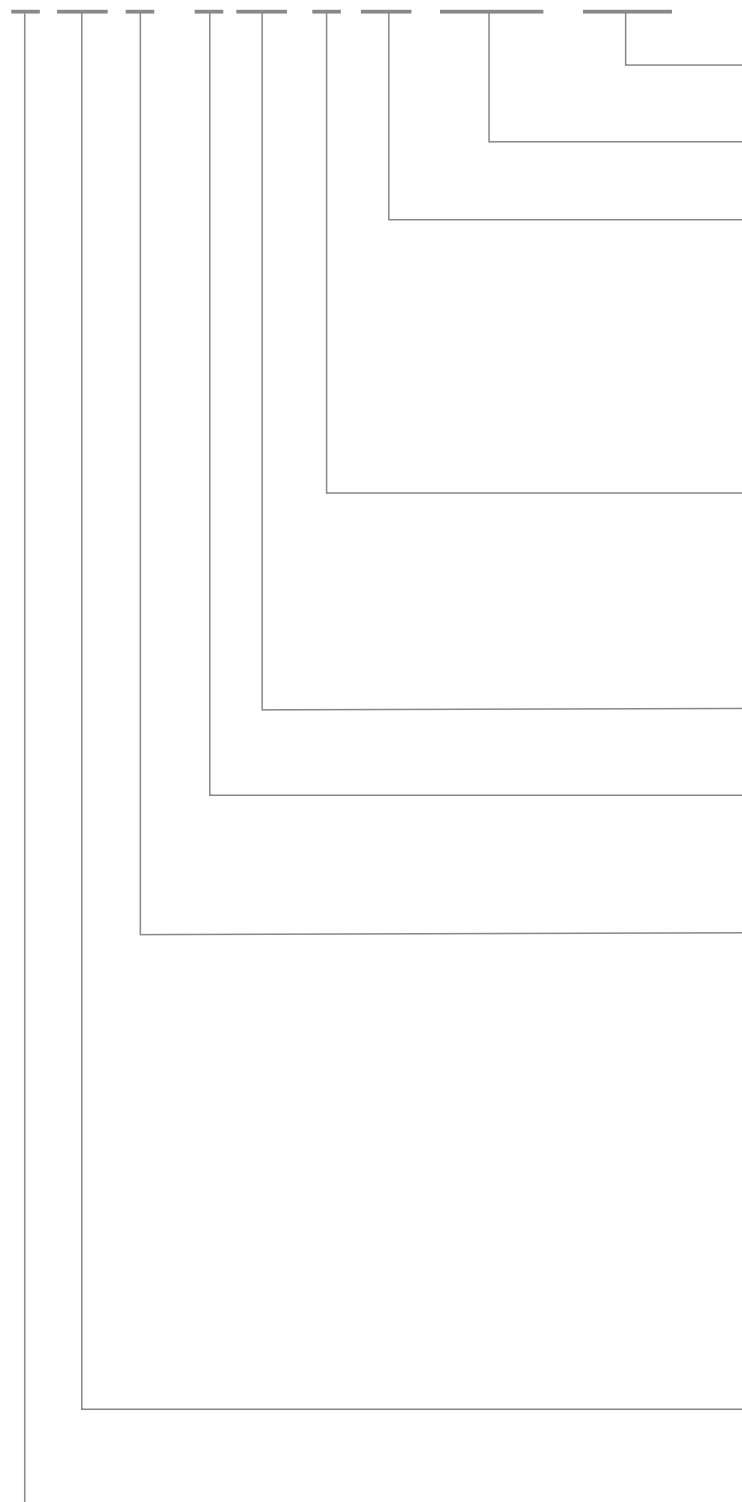
Example: PJT-M5M-M8F

◇ Note: For detailed sizes of adapter, please refer to PJT series on page 428-429

Level compensator selection instruction

| Series | Applicable industry | Description |
|--------|---|--|
| PSPE | Electronics industry for light and small load | Small and light level compensator, port specifications are M5 male thread and SC type |
| PSPT | All industries | Conventional level compensator Port specification is M8, G1/8, G1/4, G3/8 male thread and G1/8, G1/4 female thread |
| PSPH | Metal sheet, automotive, machinery, etc. for heavy load | Heavy-duty level compensator, connection thread on suction cup side is G3/8, G1/2 male thread |
| PSPF | All industries, mainly used with suction cup SPA series, SPJ series, SPF series | Compact external level compensator, port specification is M5, M8 female thread, M10 male thread |
| PSPD | Metal sheet, automotive, machinery, glass, packaging, etc. For heavy load | Double spring heavy-duty level compensator, can balance the deformation of the workpiece and the mounting plate of the level compensator |
| PSPL | For light or small size load, such as electronics industry | Retraction type level compensator, thread of connection port is M5 female thread |

P SP E - I 20 L A4 M5M - M10



Mounting thread

Suction cup connection

Lateral vacuum port connection

| | |
|------------|--|
| Nil | Non-lateral vacuum port connection |
| A | One-touch fitting, example: A4, $\phi 4$ one-touch fitting |
| B | Pagoda fitting, example: B4, $\phi 4$ pagoda fitting |
| M | Metric thread fitting, example: M5, M5 male thread fitting |
| R | Taper pipe thread connection, example: R1, Rc 1/8 taper pipe fitting |

Rotary type

| | |
|------------|-----------------------|
| Nil | Vertical rotating |
| R | Vertical non-rotating |
| L | Lateral rotating |
| B | Lateral non-rotating |

Buffer stroke

Buffer style

| | |
|----------|-----------------|
| I | Built-in spring |
| E | External spring |

Categories of level compensator

| | |
|----------|--|
| E | Small and light level compensator |
| T | Standard level compensator |
| H | Heavy-duty level compensator |
| F | Compact level compensator with external spring |
| D | Double spring heavy-duty level compensator |
| L | Retraction type level compensator |

Product code for level compensator

| | |
|-----------|-------------------|
| SP | Level compensator |
|-----------|-------------------|

Product code for mounting parts

| | |
|----------|----------------|
| P | Mounting parts |
|----------|----------------|

Level Compensator Selection Instruction

| Series | Vacuum port | Mounting connection | Buffer stroke (mm) | | | | | | | | | | | | Vacuum port+rotary type | | | | | |
|--------|-------------|---------------------|--------------------|----|----|----|----|----|----|----|----|----|----|-----|-------------------------|-------------------------|--------------------|------------------------|---|---|
| | | | 6 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 90 | 110 | Nil Vertical rotating | R Vertical non-rotating | L Lateral rotating | B Lateral non-rotating | | |
| PSPE | M5M | M8 | ● | ● | ● | | ● | | | | | | | | | | | ● | ● | |
| | M5M | M10 | | ● | | ● | | ● | ● | ● | | | | | | | | ● | ● | |
| | M5F | M10 | | ● | | ● | | ● | ● | ● | | | | | | | | | | |
| | M8M M8F | M14 | | ● | | ● | | ● | | ● | | | | | | | | ● | | |
| PSPT | M8M M8F | M14 | | ● | | ● | | ● | | ● | | | | | | | | ● | | |
| | G1/8M | M16 | | ● | | ● | | ● | | ● | | | | | | | | | ● | |
| | G1/8F | M16 | | ● | | ● | | ● | | ● | | | | | | | | | | |
| | G1/4M | M18 | | ● | | ● | | ● | | ● | | | | | | | | | ● | |
| | | | | | | | | | | | ● | ● | ● | ● | | | | | ● | |
| | G1/4F | M18 | | ● | | ● | | ● | | ● | | | | | | | | | ● | |
| | G3/8M | M18 | | ● | | ● | | ● | | ● | | | | | | | | | | ● |
| | | | | | | | | | | | ● | ● | ● | ● | | | | | ● | |
| PSPH | G3/8M | M30 | | | | | ● | | | ● | | ● | ● | | | | | ● | | |
| | G1/2M | M30 | | | | | ● | | | ● | | ● | ● | | | | | ● | | |
| PSPD | G1/4M | M20 | | | | | ● | | | ● | | | | | | | | ● | ● | |
| | G3/8M | M30 | | | | | ● | | | ● | | | ● | | | | | ● | ● | |
| | G1/2M | M30 | | | | | ● | | | ● | | | ● | | | | | ● | ● | |
| PSPL | M5F | M10 | | ● | ● | ● | | | | | | | | | | | | ● | | |

| Series | Vacuum port | Mounting connection | Buffer stroke (mm) | | | | | Vacuum port+rotary type | | |
|--------|-------------|---------------------|--------------------|---|----|----|----|-------------------------|--------------------|---|
| | | | 4 | 6 | 10 | 15 | 30 | Nil Vertical rotating | L Lateral rotating | |
| PSPF | M5F | M11 | ● | | | ● | | | ● | ● |
| | | M14 | | | ● | | ● | | ● | ● |
| | M8F | M14 | | | ● | | ● | | ● | ● |
| | M10M | M16 | | | | ● | | | ● | ● |

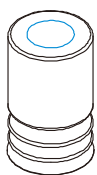
◇ Note: "●" - standard type, contact with sales if need customized one

Suction cup(without fitting)+PJS series fitting for suction cup

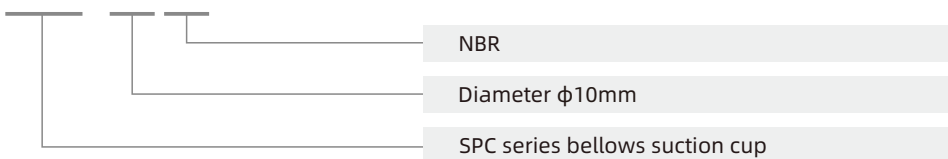
| Item | Model | Applicable suction cup |
|-------------------------|---------------|------------------------|
| Fitting for suction cup | PJS-M5M-ST2 | SPC5、7 |
| | PJS-M5M-SPC10 | SPC10 |
| | PJS-M5M-SPC20 | SPC15、18、20 |

◇ The above table is from page 319

Suction cup(without fitting)

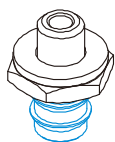


SPC 10 N

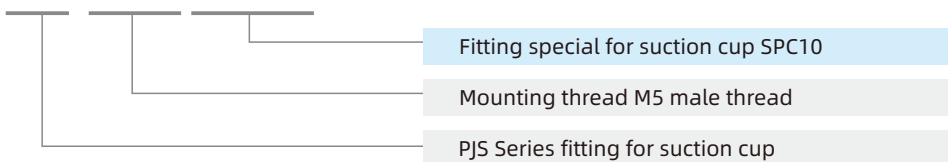


Remark: For suction cup connection, please refer to mounting parts of SPC 10

PJS series fitting for suction cup

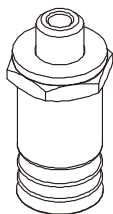


PJS-M5M-SPC10

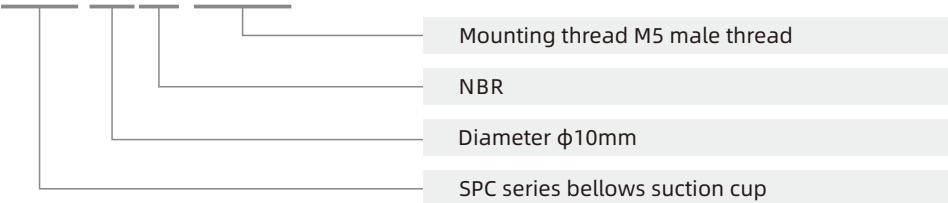


vacuum pad connection port specifications are matching

Suction cup + PJS series fitting for suction cup

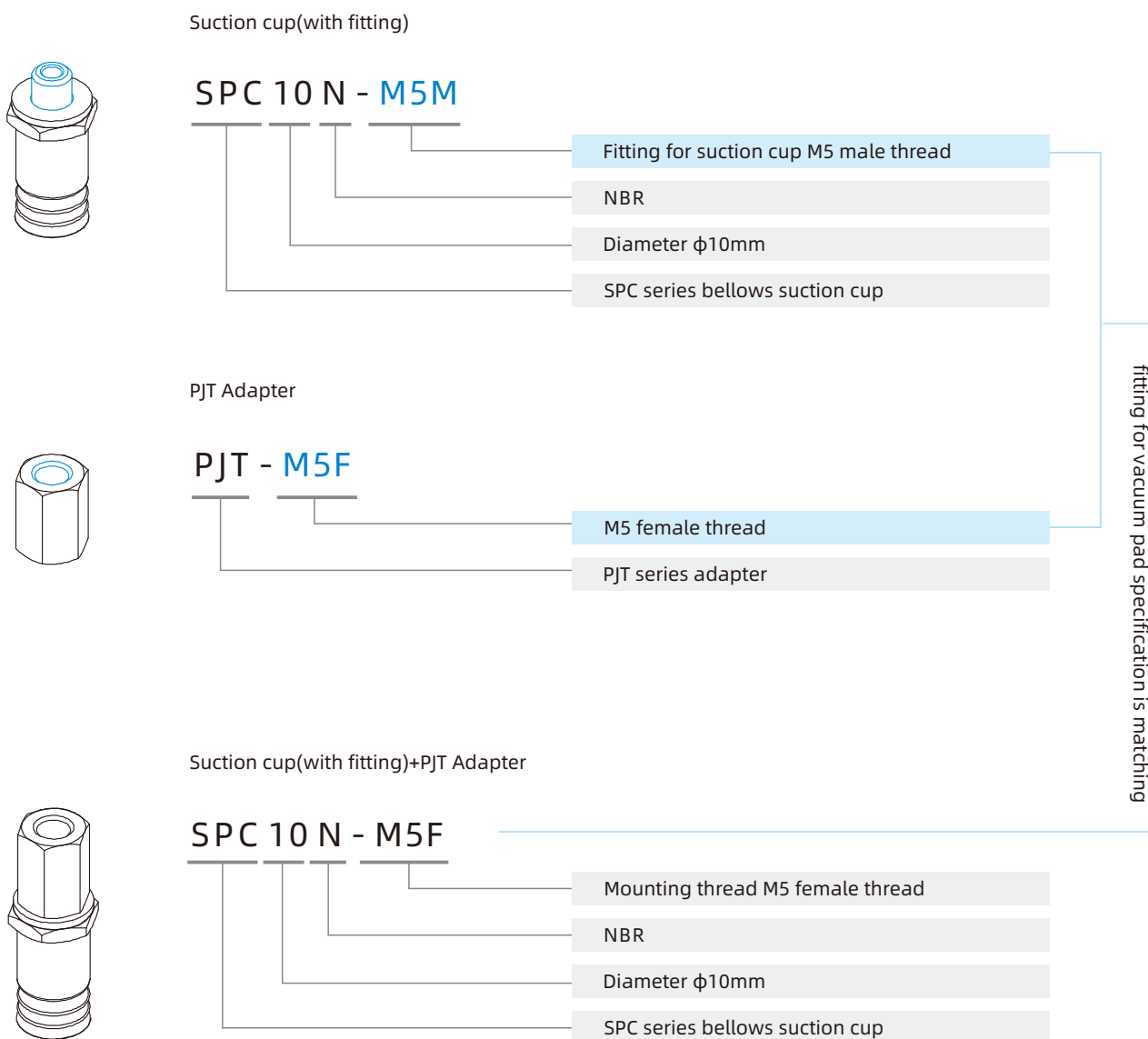


SPC 10 N - M5M



- Note:1. For description of shape of fitting for suction cup which is non-integrated vulcanized with fitting(it means that suction cup can be changed separately), please refer to PJS series fitting for suction cup on page 10-11 or parts selection of each series of suction cups. For actual dimensions of fitting, please refer to PJS series 425-427
2. All of fitting for non-integrated vulcanized suction cup can be found in instruction of each series, which is easy for customers to select model

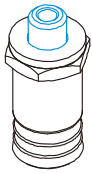
Suction cup(with fitting)+PJT adapter



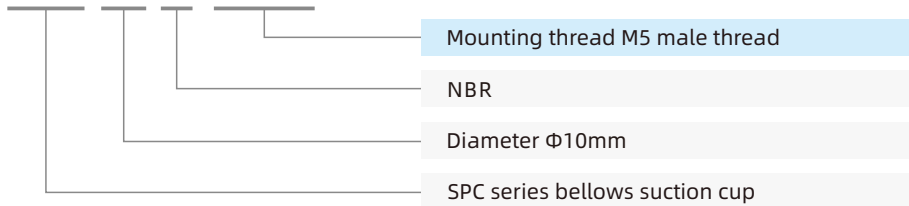
Note:1. The above example is fitting for suction cup changing from M5M to M5F
 2. Please refer to convertible specifications of PJT adapter on page 14, and real dimensions on page 428-429

Suction cup(with fitting)+PJF locking fitting

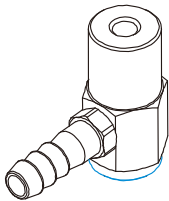
Suction cup(with fitting)



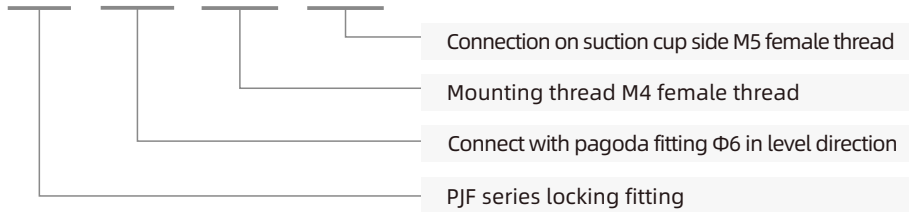
SPC 10 N - M5M



PJF Locking fitting

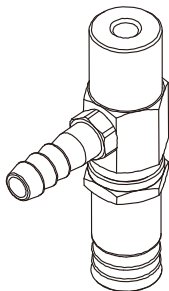


PJF - LB6 - M4F - M5F

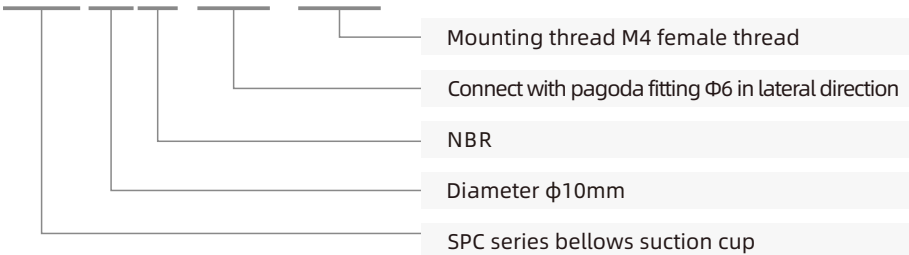


The specifications of fitting for suction cup matches

Suction cup(with fitting)+PJF Locking fitting



SPC 10 N - LB6 - M4F

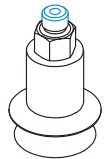


Note: 1. The above example is suction cup SPC10N with locking fitting PJF-LB6-M4F-M5F
 2. Please refer to detailed specifications of PJF adapter on page 430-431

Suction cup(with fitting)+adapter+level compensator(standard)

| model /connection | M5M |
|-------------------|-----|
| SB5 - 15 | ● |
| SB17 - 40 | - |
| SB50 | - |

◇ The above table is from page 267



Suction cup (with fitting)

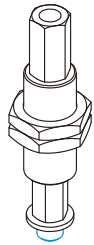
SB 15 N - M5M

- M5 male thread
- NBR
- Diameter φ15 mm
- SB series 1.5 bellows suction cup

Level compensator(E type)

PSP E - I 10 R M5M - M10

- Mounting nut M10
- M5 female thread connection
- Non-rotating type
- Buffer stroke 10 mm
- Buffer style: built-in spring
- Level compensator E type
- Fixed serial number of level compensator



Adapter (PJT series)

PJT - M5F

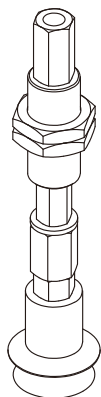
- M5 female thread
- T series universal mounting parts-adapter



Suction cup+Adapter+Level compensator

SB 15 N - E I 10 R - M10

- Mounting nut M10
- Non-rotating
- Buffer stroke 10 mm
- Buffer style: built-in
- Level compensator E type
- NBR
- Diameter φ15 mm
- SB series bellows suction cup



Not match

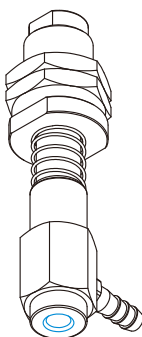
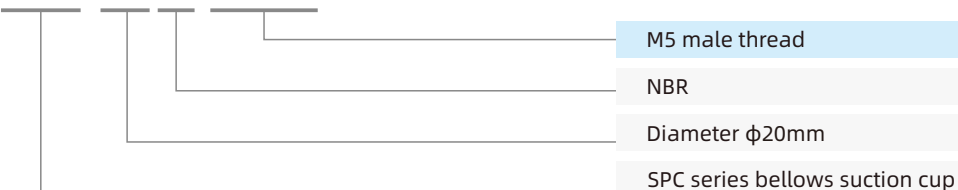
Switch

Suction cup(with fitting)+ Level compensator



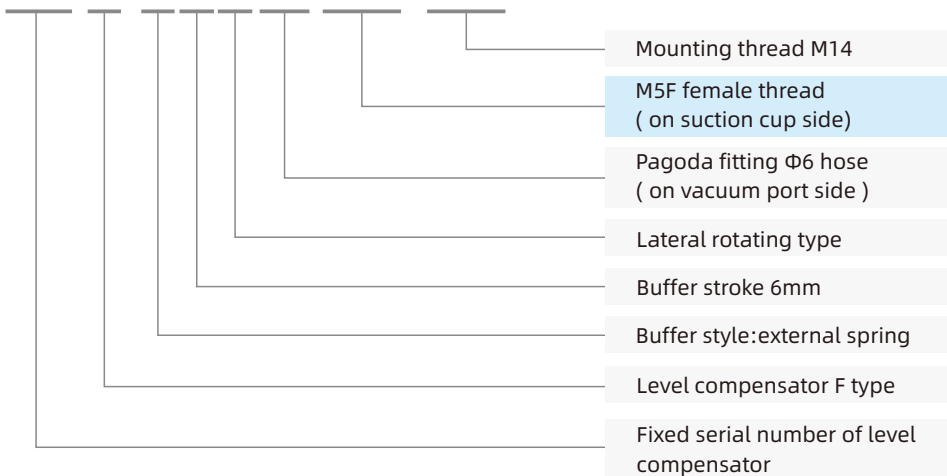
Suction cup (with fitting)

SPC 20 N - M5M

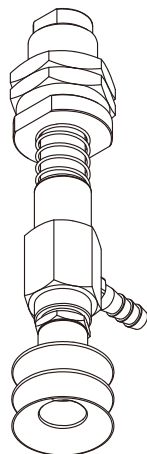


PSPF Level compensator

PSP F - E 6 L B6 M5F - M14



Specifications of fitting for suction cup matches



Suction cup(with fitting) +PSPF Level compensator

SPC 20 N - F E 6 L B6 - M14



Note: 1. The above example is suction cup SPC20N-M5M with level compensator PSPF-E6LB6M5F-M14
 2. Please refer to PSPF level compensator on page 422-423

Selection Instruction for Suction Cup +Level Compensator

Recommend applicable level compensators according to suction cups

| Series | Size range | Recommend level compensator (AIRBEST standard) | | | | |
|--------|------------|--|------|------|------|------|
| | | PSPE | PSPT | PSPH | PSPF | PSPD |
| SB | 5-15 | ● | | | | |
| | 17-75 | | ● | | | |
| | 110-150 | | | ● | | |
| SBA | 11-25 | ● | | | | |
| | 33-78 | | ● | | | |
| SBB | All sizes | | | ● | | ● |
| SBF | All sizes | | ● | | | |
| SBOF | All sizes | | ● | | | |
| SFT | 15-24 | ● | ● | | | |
| | 30-40 | | ● | | | |
| SFA | All sizes | ● | | | | |
| STP | All sizes | | ● | | | |
| SBL | 15 | ● | | | | |
| | 20-50 | | ● | | | |
| SBLP | 30 | | ● | | | |
| | 40-50 * | | | | | |
| SF | 15 | ● | | | | |
| | 20-75 | | ● | | | |
| | 110-200 | | | ● | | ● |
| | 300* | | | | | |
| SU | 2-8 | ● | | | | |
| | 20-80 | | ● | | | |
| SUF | All sizes | ● | | | | |
| SFG | All sizes | | | ● | | ● |
| SFU | All sizes | | | ● | | ● |
| STC | All sizes | | ● | | | |
| SFF | All sizes | | ● | | | |
| SFM | All sizes | | ● | | | |
| SDM | All sizes | | ● | | | |
| SHT | All sizes | | ● | | | |
| SOB | All sizes | | ● | | | |
| SOF | All sizes | | ● | | | |
| SOG | 15x40 | ● | | | | |
| | 35x100 | | ● | | | |
| SFP | All sizes | | ● | | | |

| Series | Size range | Recommend level compensator (AIRBEST standard) | | | |
|--------|------------|--|------|------|------|
| | | PSPE | PSPT | PSPH | PSPF |
| SBP | 10-15 | ● | | | |
| | 20-70 | | ● | | |
| SXP | All sizes | | ● | | |
| SGP | All sizes | | ● | | |
| SDL | All sizes | | ● | | |
| SZD | 10-25 | ● | | | |
| | 40 | ● | ● | | |
| SH | All sizes | | ● | | |
| SHB | All sizes | | ● | | |
| SZC | 10-32 | ● | | | |
| | 40-50 | ● | ● | | |
| SZU | 2-32 | ● | | | |
| | 40-50 | ● | ● | | |
| SZB | 6-32 | ● | | | |
| | 40-50 | ● | ● | | |
| SAN | All sizes | ● | | | |
| SAO | All sizes | ● | | | |
| SPA | All sizes | | | | ● |
| SPC | 5-60 | | | | ● |
| | 90 | | ● | | |
| SPF | 2-95 | | | | ● |
| | 120-200* | | | | |
| SPJ | 4-50 | | | | ● |
| | 60-80 | | ● | | ● |
| SPU | 10-50 | | | | ● |
| | 60-100 | | ● | | |
| SNP | 50-75 | | ● | | |
| | 68 | | ● | ● | |
| | 140 | | | ● | |
| SOP | 40-64 | | ● | | |
| | 92 | | ● | ● | |
| | 127-220 | | | ● | |

Note:1. "●" means that selected suction cup directly matches the recommended level compensator
 2. "*" means that there is no level compensator directly for this item

Working Environment

Warning

1. Protection measures must be provided to ensure safety, if there is risk of falling
2. Because the connector of the vacuum device is not explosion-proof, the pressure in vacuum pipe which is 0.1MPa or more for a long time is not safe, please note
3. When there are two pieces or more suction cups connected to one vacuum generator, the workpiece may fall off if one of the suction cups failure
4. Do not use the products in the environment with corrosive gas, flammable gas, explosive gas, chemicals, seawater or steam, which are not allowed enter into the vacuum system
5. Don't block the ports of vacuum generators or increase the exhaust resistance, will otherwise it cause flow loss or vacuum reduction
6. Protective cover should be added when the equipment is exposed in sunlight directly
7. Avoid using the equipment in environment of excessive vibration, which may cause failure

Design/Setting

Note

1. Please pay attention to the vacuum level drop, it may be caused by the unstable air supply or power supply failure, and the workpiece may fall. Protective measures must be made
2. Check the mark of each port on vacuum generator, wrong connection to the vacuum system will damage the equipments
3. The supplied air to vacuum generator should be clean, and lubricant should not be used in the supplied air. Impurities or oil in compressed air will cause failure and reduce the performance
4. If there is leakage from workpiece or pipes, the vacuum flow will not be enough to hold the workpiece. If the connection pipe is too long or thick, the action time will be longer as the volume of pipe is increased
5. The effective sectional area of pipe for vacuum port should be selected according to the maximum vacuum flow of the vacuum generator. The effective sectional area of pipe for air supply port should be selected according to the maximum air consumption of the vacuum generator
6. The max. vacuum level, max. vacuum flow and air consumption are the values at the rated air supply pressure and under the test conditions. The values may differ to the weather, altitude as well as the test methods
7. Noise level is the value under the test conditions, but not a guaranteed value
8. Evacuation time is the time for evacuating 1L measuring vessel

Maintenance

Warning

1. Elements of silencer and filter elements should be maintained and examined regularly. Block in elements will reduce the performance or cause products damage
2. Need to study the components of vacuum generator before replacement.
3. Do not wash or spray equipment with water or solvents
4. In vacuum system, do not use lubricator in the front pipe of vacuum generator, dirties will be blocked in the nozzle and affect the performance of vacuum generator
5. Do not use PTFE tape for connection use (especially the fittings), this tape would fall off easily and block the pipe, affecting the performance of vacuum generator

Installation

Warning

1. Don't block the ports of vacuum generators or increase the exhaust resistance, otherwise it will cause flow loss or vacuum reduction
2. Do not remove the shell, the shell will be damaged or leaking if it's forced to shake or rotate
3. Do not use the equipment in the flammable or explosive environment, which may cause fire or explosion

How to use sponge suction cups

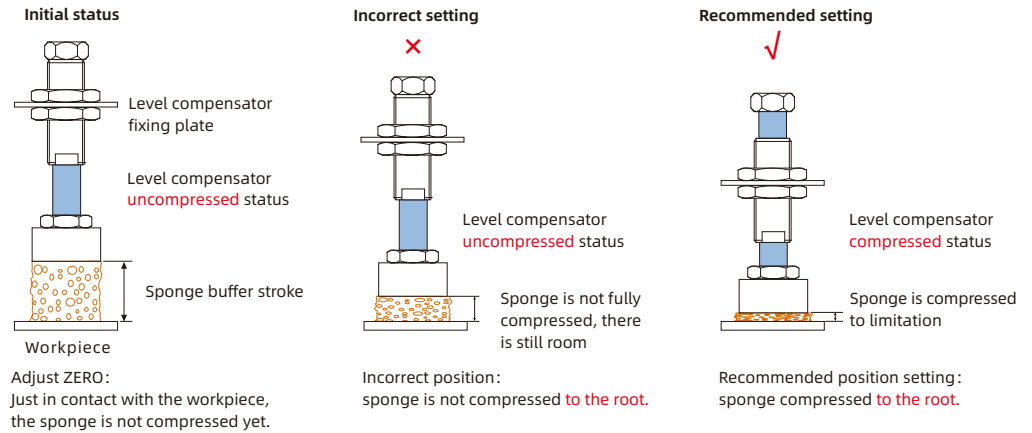
Sponge suction cup is a foamed rubber suction cup with fluffy structure and low porous density. Compared to other material, the tension of foam material itself is insufficient and it cannot be used as a buffer zone by its own deformation.

Therefore, when setting the compression stroke of the sponge suction cup, it needs to be closer to the suction cup itself and try to avoid pulling the sponge outward (internal compression does not affect the performance of the sponge). If there is a pulling trend, it will affect the service life of the sponge suction cup, and attention should be paid when using it. When using a sponge suction cup, ensure that the sponge is compressed to the root, generate a vacuum and ensure that the workpiece can be lifted after the vacuum is achieved.

Otherwise, relying on the sponge's own tension to extract the workpiece will cause the sponge to tear and the product to fail.

Recommended setting of workpiece distance for sponge suction cups, case description.

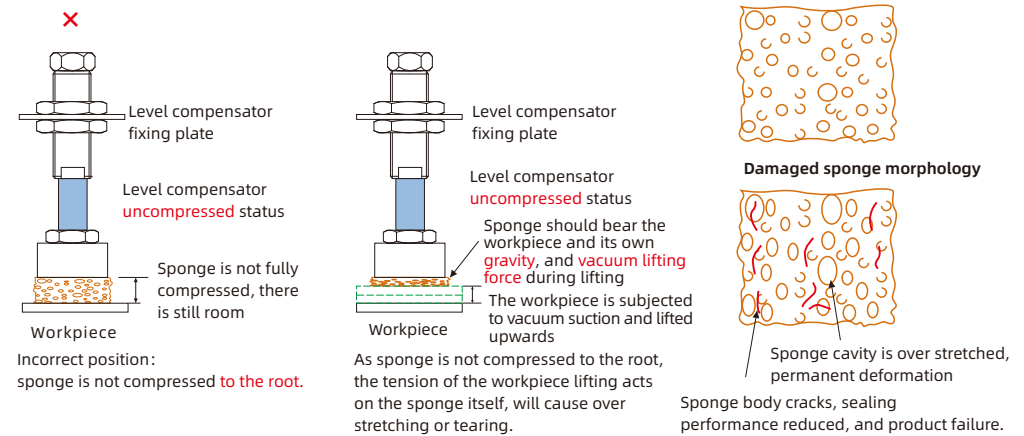
Sponge suction cups should be pressed to the root.



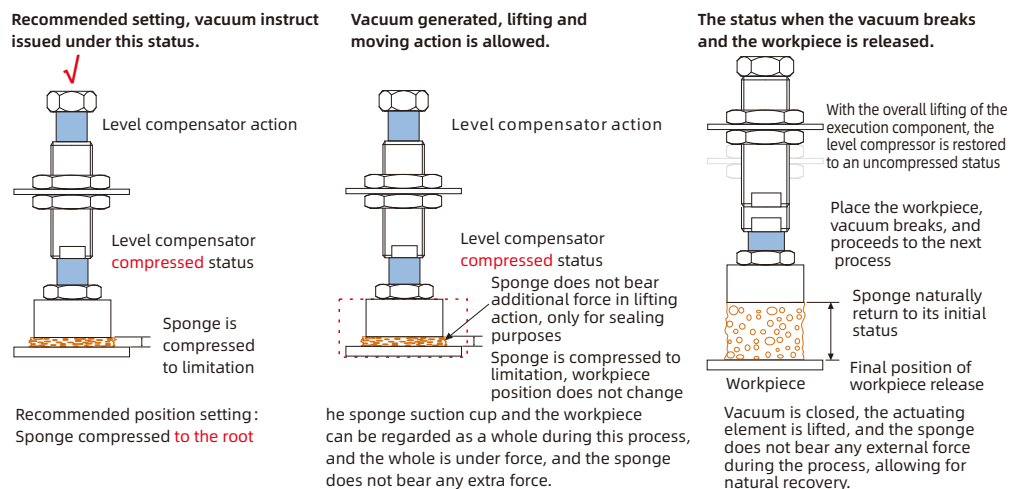
Incorrect settings can damage the sponge

Incorrect setting may cause tearing and failure of sponge suction cups, reducing product life.

Incorrect setting, vacuum instruct issued under this status



Recommended usage of sponge suction cups





B Vacuum Generators

Vacuum Generators Series

Products overview



Vacuum Generators

25 AZK Series

Integrated Vacuum Generator

- ◇ Max.vacuum level: -91kPa
- ◇ Max.vacuum flow: 68NL/min



ELECTRONICS PACKAGING PLASTIC



54 AGB Series

Multistage Vacuum Generator

- ◇ Max.vacuum level: -90kPa
- ◇ Max.vacuum flow: 19.5NL/min



ELECTRONICS PACKAGING METAL SHEET



32 AZQ Series

Mini Integrated Vacuum Generator

- ◇ Max.vacuum level: -91kPa
- ◇ Max.vacuum flow: 35NL/min



ELECTRONICS PACKAGING PLASTIC



56 AGP Series

Multistage Vacuum Generator

- ◇ Max.vacuum level: -93kPa
- ◇ Max.vacuum flow: 68NL/min



ELECTRONICS PACKAGING METAL SHEET



36 AZX Series

Large flow Integrated Vacuum Generator

- ◇ Max.vacuum level: -85kPa
- ◇ Max.vacuum flow: 220NL/min



ELECTRONICS PACKAGING PLASTIC



58 AGX Series

Multistage Vacuum Generator

- ◇ Max.vacuum level: -95kPa
- ◇ Max.vacuum flow: 390NL/min



ELECTRONICS PACKAGING METAL SHEET



41 AZD Series

Energy-saving Vacuum Generator

- ◇ Max.vacuum level: -83kPa
- ◇ Max.vacuum flow: 90NL/min



UNIVERSAL



60 AGE Series

Mechanical Energy-saving Vacuum Generator

- ◇ Max.vacuum level: -92kPa
- ◇ Max.vacuum flow: 41NL/min



GLASS METAL SHEET



44 AGS Series

Multistage Vacuum Generator

- ◇ Max.vacuum level: -95kPa
- ◇ Max.vacuum flow: 372NL/min



ELECTRONICS PACKAGING METAL SHEET



63 ABM/ABX Series

Mini Vacuum Generator

- ◇ Max.vacuum level: -92kPa
- ◇ Max.vacuum flow: 220NL/min



METAL SHEET PACKAGING PLASTIC



Vacuum Generators Series

Products overview



Vacuum Generators

69 ABM/ABX Series

Mini Combined Type Vacuum Generator

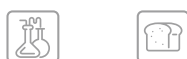
- ◇ Max.vacuum level: -92kPa
- ◇ Max.vacuum flow: 32NL/min



98 AZW Series

Large Flow Integrated Vacuum Generator

- ◇ Max.vacuum level: -95kPa
- ◇ Max.vacuum flow: 140NL/min



BIO-PHARMACEUTICAL FOOD INDUSTRY



74 AMC Series

Multistage Vacuum Generator

- ◇ Max.vacuum level: -95kPa
- ◇ Max.vacuum flow: 1,650NL/min



RoHS

101 AZR Series

Mini Vacuum Generator With Fast Blow-off

- ◇ Max.vacuum level: -88kPa
- ◇ Max.vacuum flow: 12.5NL/min



ELECTRONICS PLASTIC



RoHS

80 AM/AL/AH Series

Multistage Vacuum Generator

- ◇ Max.vacuum level: -100.8kPa
- ◇ Max.vacuum flow: 1,230NL/min



RoHS

106 ABT Series

Mini Vacuum Generator

- ◇ Max.vacuum level: -92kPa
- ◇ Max.vacuum flow: 46NL/min



UNIVERSAL



88 AM/AL Series

Combined Type Multistage Vacuum Generator

- ◇ Max.vacuum level: -92kPa
- ◇ Max.vacuum flow: 3,970NL/min



RoHS

109 ABP Series

Vacuum Generator with Fast Blow-off

- ◇ Max.vacuum level: -81kPa
- ◇ Max.vacuum flow: 38NL/min



UNIVERSAL



94 AMD Series

Large Flow Vacuum Generator

- ◇ Max.vacuum level: -95kPa
- ◇ Max.vacuum flow: 1,410NL/min



UNIVERSAL



111 ABQ Series

Vacuum Generator with Fast Blow-off

- ◇ Max.vacuum level: -81kPa
- ◇ Max.vacuum flow: 38NL/min



UNIVERSAL



Vacuum Generators Series

Products overview



Vacuum Generators

113 AEV Series

Vacuum Generator with Fast Blow-off

- ◇ Max.vacuum level: -85kPa
- ◇ Max.vacuum flow: 35NL/min



129 AZU Series

Basic Vacuum Generator

- ◇ Max.vacuum level: -85kPa
- ◇ Max.vacuum flow: 21NL/min



116 AZL Series

Multistage Vacuum Generator

- ◇ Max.vacuum level: -84kPa
- ◇ Max.vacuum flow: 200NL/min



132 ACV Series

Basic Vacuum Generator

- ◇ Max.vacuum level: -90kPa
- ◇ Max.vacuum flow: 350NL/min



120 ALH Series

Basic Vacuum Generator

- ◇ Max.vacuum level: -90kPa
- ◇ Max.vacuum flow: 9.5NL/min



137 ASBP Series

Basic Vacuum Generator

- ◇ Max.vacuum level: -85kPa
- ◇ Max.vacuum flow: 72NL/min



123 AZH Series

Basic Vacuum Generator

- ◇ Max.vacuum level: -88kPa
- ◇ Max.vacuum flow: 85NL/min



140 ALS Series

Linear Single Stage Vacuum Generator

- ◇ Max.vacuum level: -85kPa
- ◇ Max.vacuum flow: 14.4NL/min



Vacuum Generators Series

Products overview



Vacuum Generators

143 ACP Series

Conveying Vacuum Generator

- ◇ Max.vacuum level: -84kPa
- ◇ Max.vacuum flow: 3,390NL/min



149 ACPS Series

Conveying Vacuum Generator

- ◇ Max.vacuum level: -12kPa
- ◇ Max.vacuum flow: 8,640NL/min



146 ACPF Series

Conveying Vacuum Generator

- ◇ Max.vacuum level: -35kPa
- ◇ Max.vacuum flow: 5,610NL/min



151 APB Series

High Pressure Vacuum Blower

- ◇ Max.vacuum level: -48kPa
- ◇ Max.vacuum flow: 1,110m³/h



AZK Series

Integrated Vacuum Generator

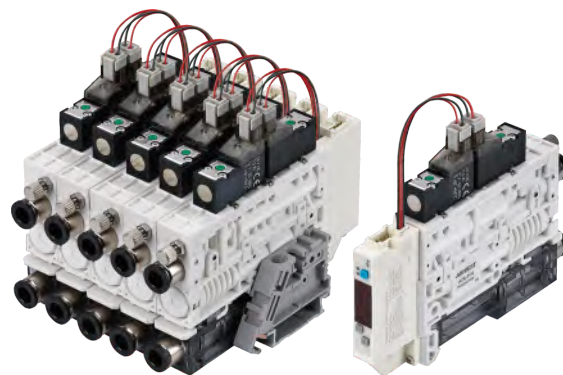


Features

- ◇ Energy-efficient nozzle design
- ◇ With energy-saving control device
- ◇ With normally open vacuum supply valve
- ◇ Small size and light weight. The volume is 85cm³
- ◇ Transparent filter housing
- ◇ Single body with L bracket, DIN guide rail installation for integrated body, centralized air supply

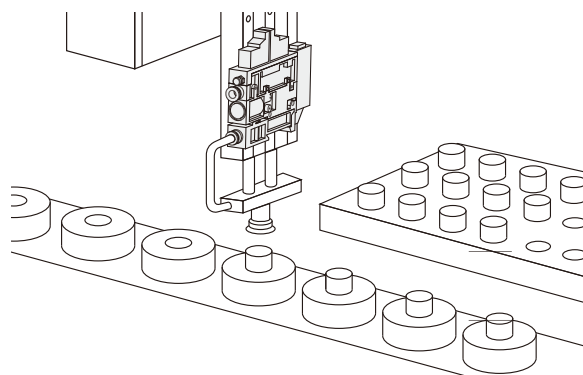
Advantages

- ◇ Vacuum flow increased by 50% and air consumption decreased by 30%
- ◇ Air consumption reduced by 90%(compared with non-energy saving type)
- ◇ Power outage or power off does not affect vacuum producing and prevent the workpiece from falling
- ◇ The device is compact and can be installed directly in the handling system
- ◇ The cleanliness is visible and easy to replace
- ◇ Simple installation, can be installed directly on the distribution box



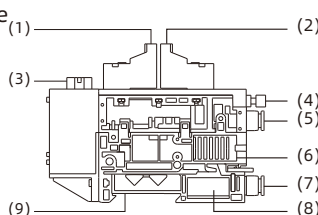
Applications

- ◇ Integrated vacuum generator for handling airtight and slightly porous workpieces
- ◇ Vacuum producing and monitoring in automation systems
- ◇ For robot handling applications and linear axes
- ◇ Pick and place applications with very short time
- ◇ Used for systems that require high dynamic handling of workpieces and with limited space
- ◇ Usually used for handling small parts in fully automated systems



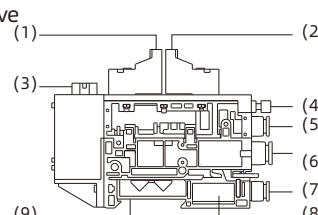
Structure - With vacuum source type (Vacuum generator type)

- ◇ (1) Vacuum supply valve
- ◇ (2) Vacuum release valve
- ◇ (3) Vacuum pressure switch
- ◇ (4) Vacuum release adjusting valve
- ◇ (5) Air supply port
- ◇ (6) Silencer
- ◇ (7) Vacuum port
- ◇ (8) Vacuum filter
- ◇ (9) DIN guide rail installation



Structure - Without vacuum source type (Vacuum pump type)

- ◇ (1) Vacuum supply valve
- ◇ (2) Vacuum release valve
- ◇ (3) Vacuum pressure switch
- ◇ (4) Vacuum release adjusting valve
- ◇ (5) Air supply port
- ◇ (6) Vacuum pump connector
- ◇ (7) Vacuum port
- ◇ (8) Vacuum filter
- ◇ (9) DIN guide rail installation



AZK Series

Integrated Vacuum Generator

How to order

AZK - S × 8 - NO - N - D
 ① ② ③ ④ ⑤ ⑥

| ① Series | ② Specification | ③ Stack | ④ Control valve specification |
|----------|--|-------------------|---|
| AZK | S - Low vacuum level type | Nil - Single body | Nil - Supply valve NC + release valve NC |
| | X - High vacuum level type | 2 | NO - Supply valve NO + release valve NC |
| | P - Low air supply pressure and high vacuum level type | 3 | (lead wire length 300mm, power supply DC24V) |
| | L - Large flow type | | STD - Supply valve (Self - holding type) + release valve NC |
| | B - Vacuum pump type | 8 | |

| ⑤ Vacuum switch | ⑥ Bracket |
|--|--|
| Nil - Without vacuum switch | Nil - Single air supply, without bracket |
| N - NPN, without energy saving function | F - Single air supply, with bracket(single body) |
| P - PNP, without energy saving function | D - Single air supply, guide rail installation(integrated) |
| NE - NPN, with energy saving function | DP - Centralized air supply, guide rail installation(integrated) |
| PE - PNP, with energy saving function | |
| NK - NPN, with centralized wiring function | |
| PK - PNP, with centralized wiring function | |

- ◇ Note: 1. Only NE/PE are with check valve for energy saving, others are without check valve
- 2. Energy saving function is not optional for L-large flow type and B-Vacuum pump type
- 3. Centralized air supply is not optional for B-Vacuum pump type
- 4. Energy saving function (NE , PE) and centralized wiring function (NK , PK) is not available in STD type
- 5. Energy saving function (NE , PE) is not available in centralized wiring function

Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Max. break flow rate NL/min | Air consumption NL/min | Noise level dB(A) | Weight g | | Recommended hose dia.(mm) | | |
|-------|-------------------------------|-------------------------------|------------------------|-------------------------|-----------------------------|------------------------|-------------------|-------------------------|----------------------|---------------------------|-----------------------|---------------|
| | | | | | | | | Without pressure switch | With pressure switch | Air supply port P | Vacuum pump connector | Vacuum port V |
| AZK-S | 3.0~6.0 | 6.0 | 74 | 44 | 60 | 26 | 64~68 | 88.5 | 102.5 | φ6 | - | φ6 |
| AZK-X | 3.0~6.0 | 5.0 | 91 | 41 | 54 | 29 | 64~68 | 88.5 | 102.5 | φ6 | - | φ6 |
| AZK-P | 3.0~6.0 | 3.7 | 88 | 40 | 46 | 32 | 64~68 | 88.5 | 102.5 | φ6 | - | φ6 |
| AZK-L | 3.0~6.0 | 5.0 | 90 | 68 | 48 | 85 | 74~80 | 102 | 114 | φ6 | - | φ8 |
| AZK-B | 3.0~6.0 | - | - | 40(Note) | 100 | - | - | 101.5 | 113.5 | φ4 | φ6 | φ6 |

- ◇ Note: 1. For model AZK-B, the max. vacuum flow per piece is 40NL/min
- 2. AZK-L is with external silencer

AZK Series

Integrated Vacuum Generator

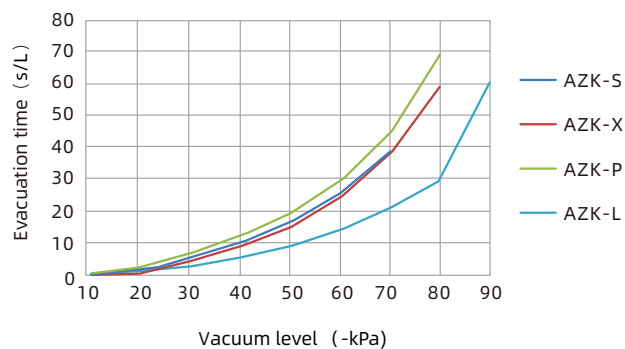
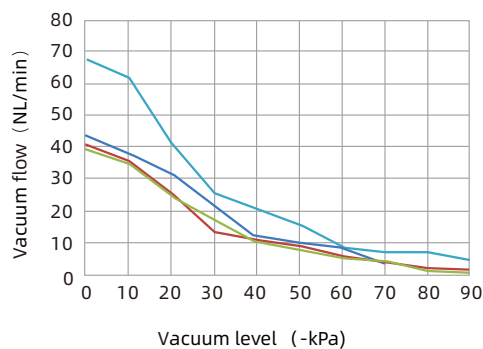


Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|-----|-----|-----|-----|------------------------|
| AZK-S | 6.0 | 26 | 44.0 | 38.0 | 32.0 | 22.0 | 12.0 | 10.0 | 8.5 | 4.0 | - | - | 74 |
| AZK-X | 5.0 | 29 | 41.0 | 36.0 | 26.0 | 13.7 | 11.0 | 9.3 | 6.6 | 4.6 | 2.7 | 2.0 | 91 |
| AZK-P | 3.7 | 32 | 40.0 | 35.0 | 25.2 | 17.7 | 10.9 | 8.0 | 5.6 | 4.2 | 1.5 | 1.0 | 88 |
| AZK-L | 5.0 | 85 | 68.0 | 62.0 | 42.0 | 26.0 | 20.6 | 16.2 | 9.0 | 7.2 | 7.2 | 5.0 | 90 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------|------------------------|
| AZK-S | 6.0 | 26 | 0.01 | 0.19 | 0.50 | 1.02 | 1.72 | 2.60 | 3.88 | - | - | 74 |
| AZK-X | 5.0 | 29 | 0.02 | 0.14 | 0.47 | 0.96 | 1.56 | 2.50 | 3.87 | 6.00 | - | 91 |
| AZK-P | 3.7 | 32 | 0.05 | 0.30 | 0.71 | 1.26 | 1.95 | 2.97 | 4.49 | 6.95 | - | 88 |
| AZK-L | 5.0 | 85 | 0.06 | 0.16 | 0.33 | 0.60 | 0.95 | 1.43 | 2.14 | 3.03 | 6.16 | 90 |



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

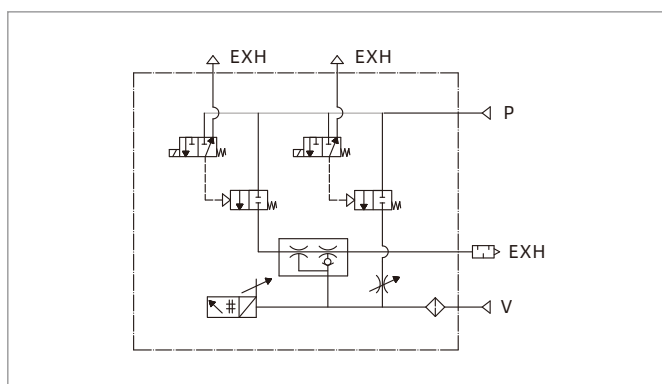
AZK Series

Integrated Vacuum Generator

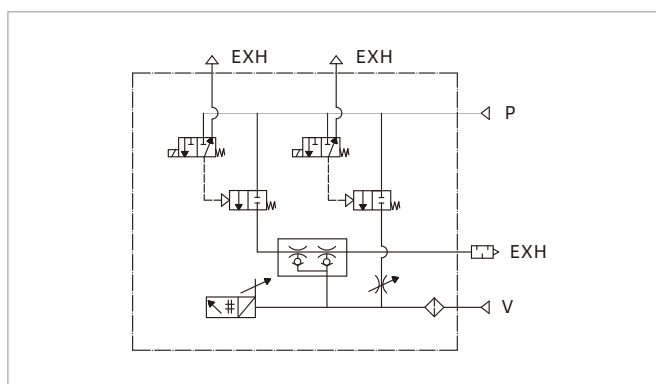
Technical parameters - Pressure switch

| Model | ZPDC-□ | ZPDC-□-E |
|-----------------------------------|--|--|
| Pressure range | -100~100kPa | -100~100kPa |
| Setting pressure range | -105~105kPa | -105~105kPa |
| Proof pressure | 500kPa | 500kPa |
| General gas | Air, Non-corrosive, non flammable gas | Air, Non-corrosive, non flammable gas |
| Power supply voltage | 24V DC±10%, RIPPLE (P-P) 10% or less | 24V Dc±10%, RIPPLE(P-P)10%or less |
| Current consumption | ≤40mA(Without load) | ≤40mA (Without load) |
| Switch output Output mode | 2NPN or 2PNP open collector output+1~5V linear analog output | 1NPN or 1PNP open collector output |
| Max. load current | 125mA | 125mA |
| Max. supply voltage | 30V DC (NPN) 24V DC (PNP) | 24V DC |
| Residual voltage | ≤1.5V | ≤1.5V |
| Response time | ≤2.5ms (chattering-proof function: 25ms, 100ms, 250ms, 500ms, 1000ms, 1500ms selectable) | ≤2.5ms (chattering-proof function: 2.5ms, 20ms, 100ms, 500ms, 1000ms, 1999ms selectable) |
| Output short circuit protection | Yes | OUT switch:Yes;V-Sol/D-Sol:No |
| Repeatability | ±0.2%F.S.±1 digit | |
| Display | 3½LED 7 segment display (Red) display (Sampling rate: 5 times/sec) | |
| Indicator accuracy | ±2% F.S. ±1 digit | |
| Switch ON indicator | OUT1:Green/OUT2:Red | |
| Environmental resistance IP Grade | IP40 | |
| Ambient temp.range | Operation: 0~50°C | |
| Withstand voltage | 1000VAC in 1minute (between case and lead wire) | |
| Insulation resistance | 50MΩ min. (at 500V DC, between case and lead wire) | |
| Temperature characteristic | ±2%F.S. (at temperature range of 0~50°C) | |
| Lead wire | Oil proof PVC cable (0.15mm ²) | |

Air circuit schematic diagram



AZK-S(X, P, L)-N AZK-S(X, P, L)-P

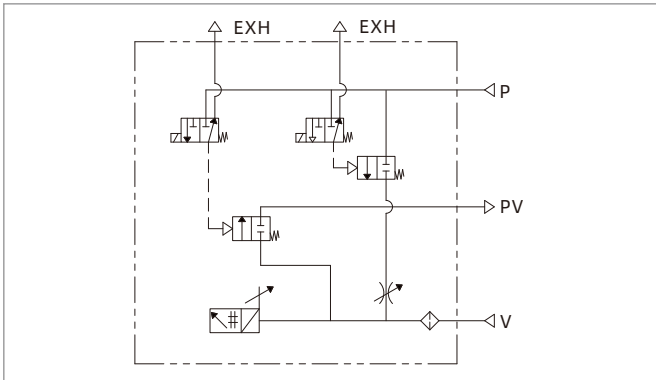


AZK-S(X, P)-NE AZK-S(X, P)-PE

AZK Series

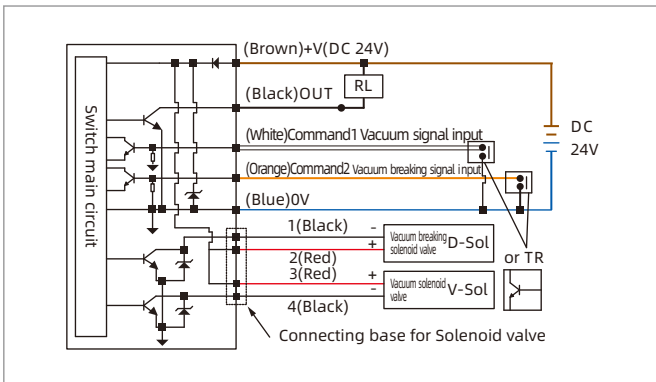
Integrated Vacuum Generator

Air circuit schematic diagram

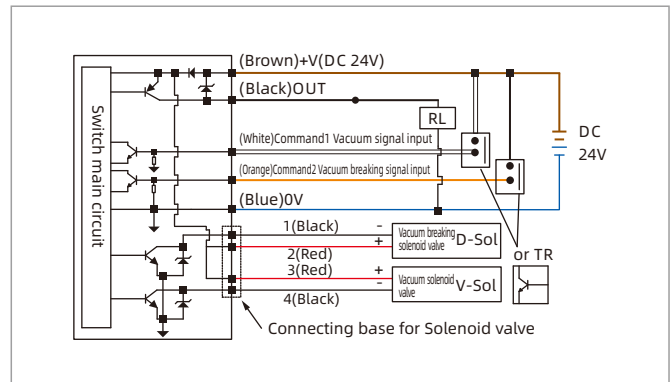


AZK-B-N AZK-B-P

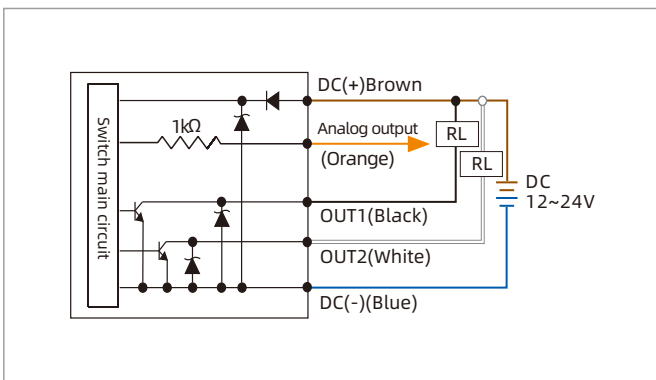
Output circuit wiring diagrams



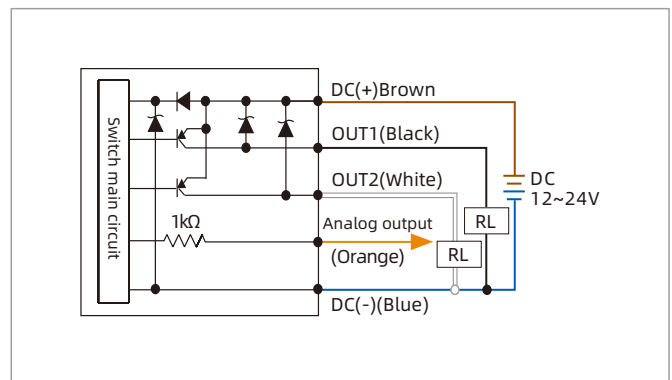
ZPDC-N-E(K) NPN output



ZPDC-P-E(K) PNP output



ZPDC-N 2NPN+1Analog voltage output(1~5V)



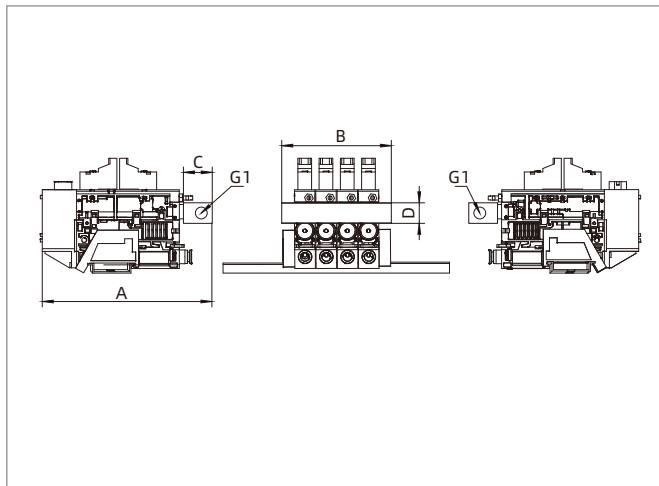
ZPDC-P 2PNP+1Analog voltage output(1~5V)

AZK Series

Integrated Vacuum Generator



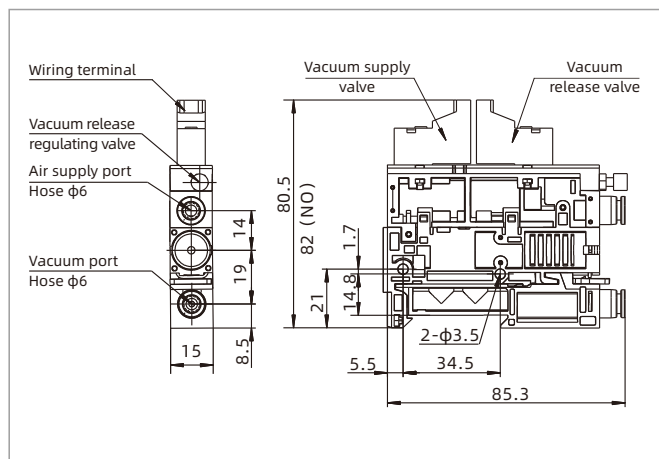
Centralized air supply dimensions(mm)



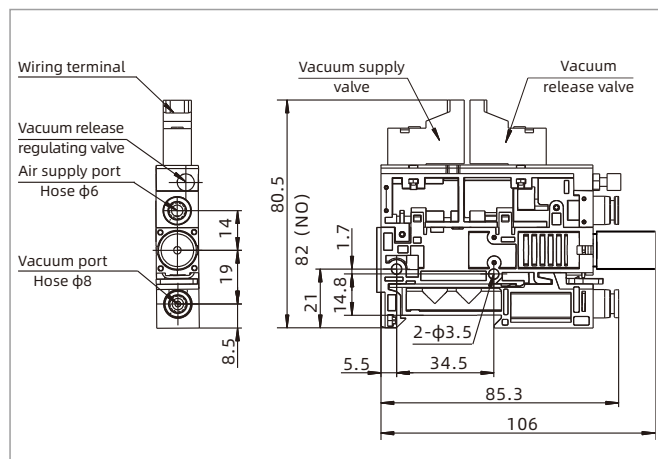
| Stack | A | B | C | D | G1 |
|-------|-----|-------|----|----|------|
| 2 | 124 | 49 | 21 | 15 | G1/8 |
| 3 | 124 | 64.5 | 21 | 15 | G1/8 |
| 4 | 124 | 80 | 21 | 15 | G1/8 |
| 5 | 124 | 95.5 | 21 | 15 | G1/8 |
| 6 | 124 | 111 | 21 | 15 | G1/8 |
| 7 | 124 | 126.5 | 21 | 15 | G1/8 |
| 8 | 124 | 142 | 21 | 15 | G1/8 |

| Max.number of manifold stations that can operate simultaneously | AZK-X | AZK-P | AZK-S | AZK-L |
|---|-------|-------|-------|-------|
| Air supply from one side | 6 | 6 | 6 | 4 |
| Air supply from both sides | 8 | 8 | 8 | 8 |

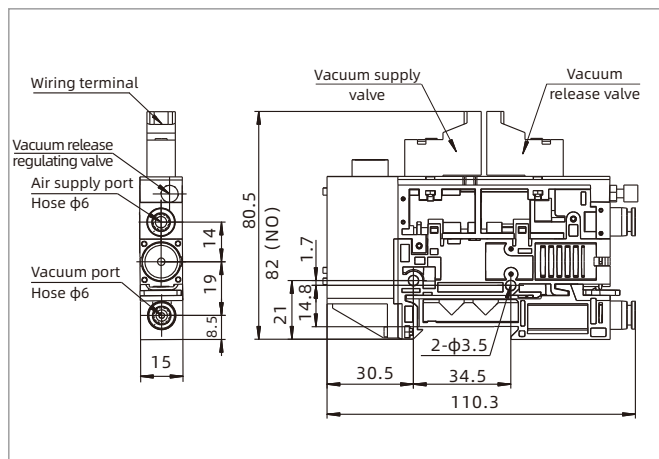
Dimensions(mm)



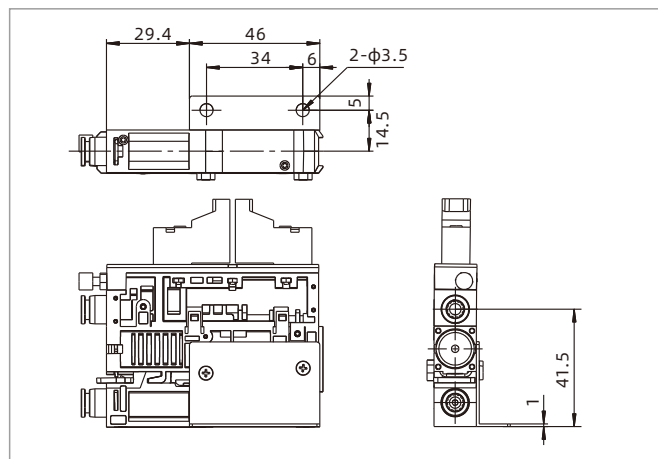
AZK-□ Single body



AZK-L Single body



AZK-□-□ Single body with pressure switch



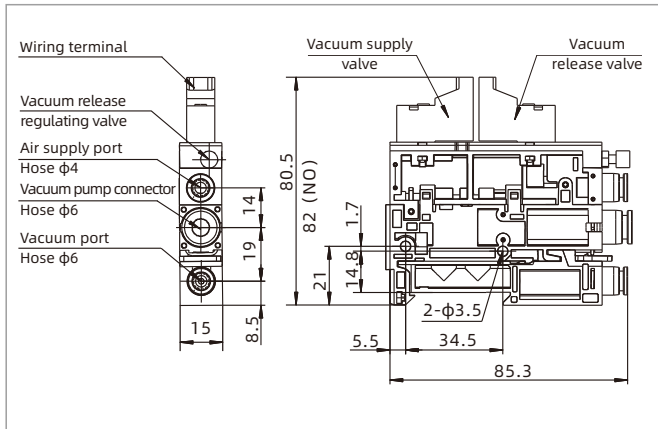
AZK-□-F Single body with mounting bracket

AZK Series

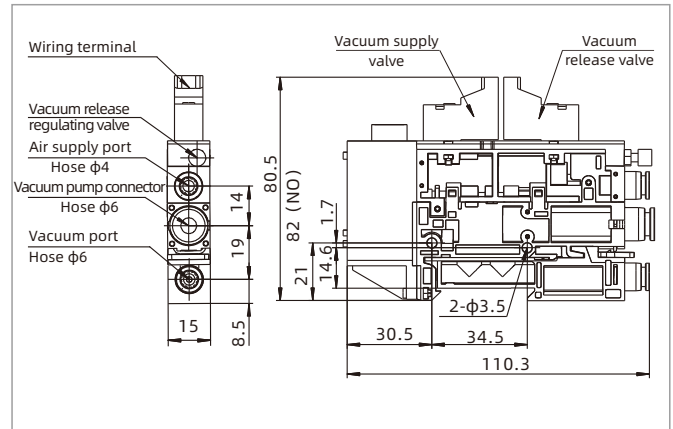
Integrated Vacuum Generator



Dimensions(mm)

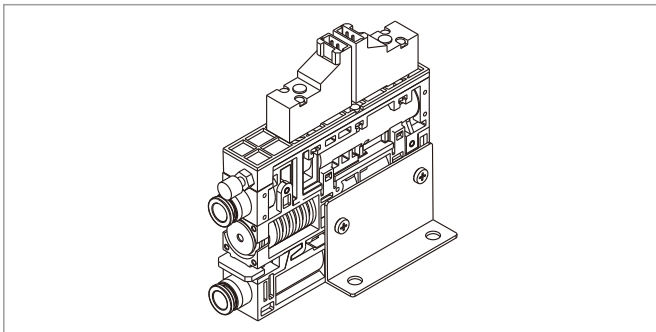


AZK-B Single body

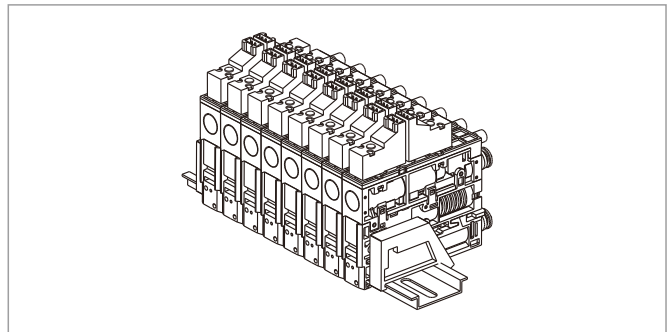


AZK-B-□ Single body with pressure switch

Installation diagram

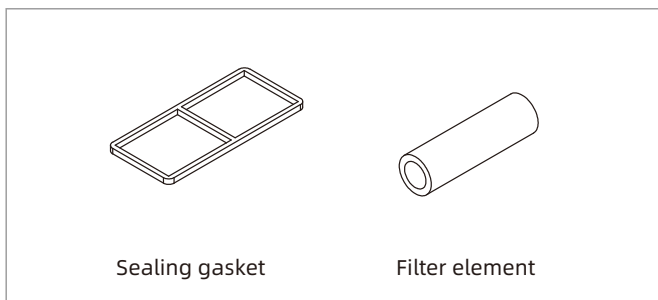


Mounting with bracket for single body



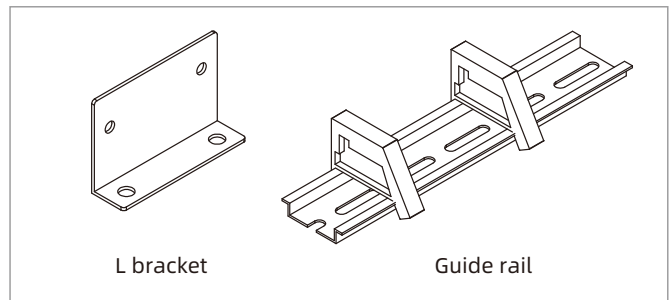
Mounting with DIN guide rail for combined type

Repair kits



Sealing gasket

Filter element



L bracket

Guide rail

| Item | Model | Remark |
|--|---------|--|
| Filter parts | AZK-FE | Filter element + sealing gasket |
| Solenoid valve leadwire | AZK-N | Plug lead wire length 300mm |
| Energy-saving leadwire | AZK-NE | Ends lead wire |
| Bracket mounting parts | AZK-F | L bracket+M3.5x20screw/nut(2 pcs each) |
| Guide rail mounting parts(2-3 layers) | AZK-2-D | Length 130mm |
| Guide rail mounting parts(4-5 layers) | AZK-4-D | Length 165mm |
| Guide rail mounting parts(6-7 layers) | AZK-6-D | Length 200mm |
| Guide rail mounting parts(8 layers) | AZK-8-D | Length 235mm |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AZQ Series

Mini Integrated Vacuum Generator



ELECTRONICS PACKAGING PLASTIC

Features

- ◇ Multi-nozzle design
- ◇ Small size and light weight. The volume is 43.5cm³
- ◇ Centralized air supply
- ◇ No noise (vacuum pump type)
- ◇ With digital vacuum pressure switch

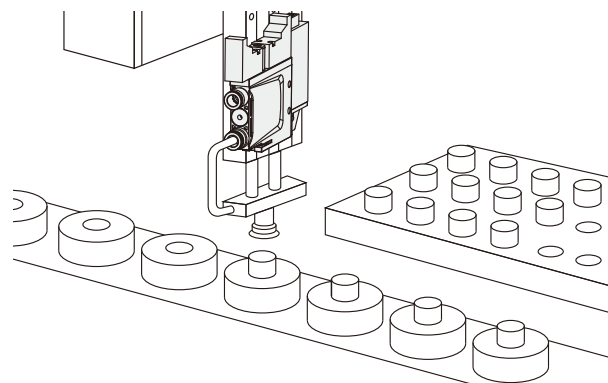
Advantages

- ◇ The device is compact and can be installed directly in the handling system
- ◇ Simple installation, can be installed directly on the distribution box
- ◇ Vacuum pump type is suitable for centralized vacuum station system



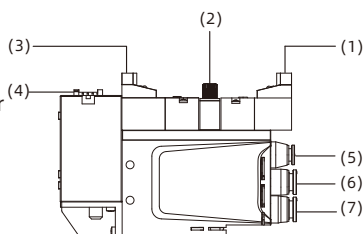
Applications

- ◇ Vacuum producing and monitoring in automation systems
- ◇ For robot handling applications and linear axes
- ◇ Pick and place applications with very short time
- ◇ Used for systems that require high dynamic handling of workpieces and with limited space
- ◇ Usually used for handling small parts in fully automated systems



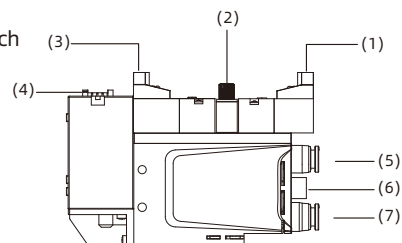
Structure - Without vacuum source type (Vacuum pump type)

- ◇ (1) Vacuum release valve
- ◇ (2) Vacuum release adjusting valve
- ◇ (3) Vacuum supply valve
- ◇ (4) Vacuum pressure switch
- ◇ (5) Air supply port
- ◇ (6) Vacuum pump connector
- ◇ (7) Vacuum port



With vacuum source type (Vacuum generator type)

- ◇ (1) Vacuum release valve
- ◇ (2) Vacuum release adjusting valve
- ◇ (3) Vacuum supply valve
- ◇ (4) Vacuum pressure switch
- ◇ (5) Air supply port
- ◇ (6) Exhaust port
- ◇ (7) Vacuum port



AZQ Series

Mini Integrated Vacuum Generator

How to order

AZQ - T × 8 - 04 - N - DP
 ① ② ③ ④ ⑤ ⑥

| ① Series | ② Specifications | ③ Stack | ④ Vacuum port specification | ⑤ Vacuum switch | ⑥ Air supply |
|----------|---|---|---|--|--|
| AZQ | X - High vacuum level type T - Large flow type B - Vacuum pump type | Nil - Single body 2 3 10 | Nil - φ6One-touch fitting 04 - φ4One-touch fitting | N - 2NPN output + 1 analog output (1~5V) P - 2PNP output + 1 analog output (1~5V) NK - NPN, with centralized wiring function PK - PNP, with centralized wiring function | Nil - Individual air supply DP - Centralized air supply |

◇ Note: 1. It is recommended to install an air filter with a filtration accuracy of 5um or less for positive pressure air supply of the vacuum generator (without the need for an oil mist filter)
2. Only concentrated air supply for non-single type

Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise dB(A) | Weight g | Recommended hose dia.(mm) | Air supply port P | Vacuum port V | Vacuum pump connector |
|-------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------|----------|---------------------------|-------------------|---------------|-----------------------|
| AZQ-X | 3.0~6.0 | 5.0 | 91 | 12 | 8.2 | 64~70 | 75.4 | φ6 | φ4/φ6 | - | - |
| AZQ-T | 3.0~6.0 | 4.5 | 84 | 16 | 15.5 | 64~70 | 75.4 | φ6 | φ4/φ6 | - | - |
| AZQ-B | 3.0~6.0 | - | - | 40(Note) | - | - | 78.2 | φ4 | φ4/φ6 | φ6 | φ6 |

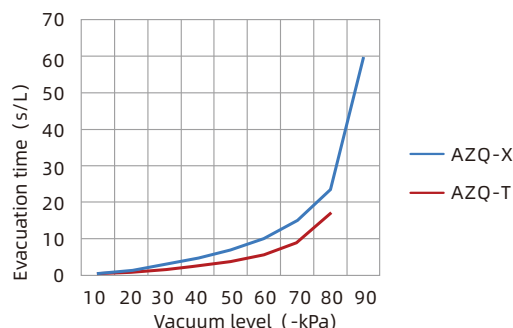
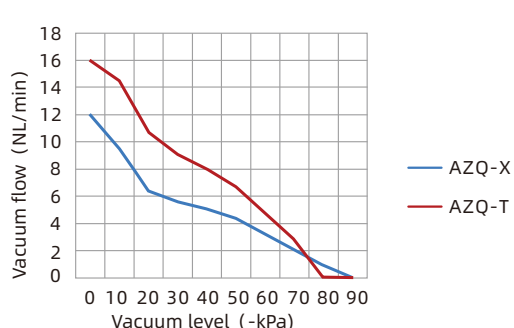
◇ Note: For model AZQ-B-□-□-□-DP, the max. vacuum flow per piece is 15NL/min

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|----|------|------|-----|-----|-----|-----|-----|-----|----|------------------------|
| AZQ-X | 5.0 | 8.2 | 12 | 9.5 | 6.4 | 5.6 | 5.1 | 4.4 | 3.2 | 2.1 | 0.9 | - | 90 |
| AZQ-T | 4.5 | 15.5 | 16 | 14.5 | 10.7 | 9.1 | 8.0 | 6.7 | 4.8 | 2.8 | - | - | 84 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|-------|-------|-------|-------|------------------------|
| AZQ-X | 5.0 | 8.2 | 0.49 | 1.37 | 2.90 | 4.70 | 6.98 | 10.03 | 14.90 | 23.20 | 59.52 | 90 |
| AZQ-T | 4.5 | 15.5 | 0.34 | 0.76 | 1.51 | 2.40 | 3.76 | 5.61 | 8.94 | 16.86 | - | 84 |



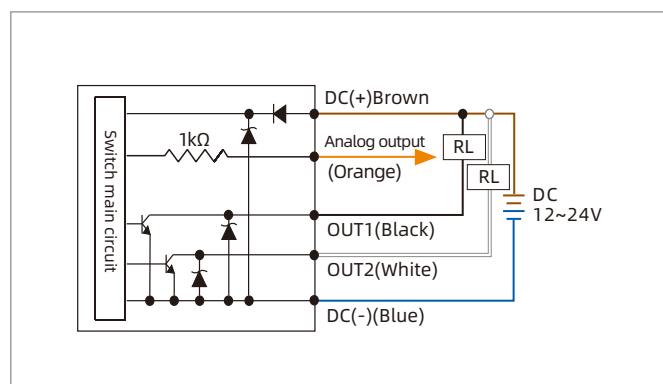
AZQ Series

Mini Integrated Vacuum Generator

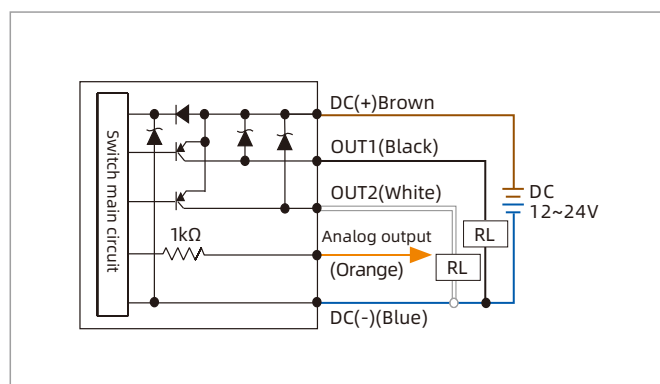
Technical parameters - Pressure switch

| Model | ZPDC-□ |
|-----------------------------------|--|
| Pressure range | -100~100kPa |
| Setting pressure range | -105~105kPa |
| Proof pressure | 500kPa |
| General gas | Air, Non-corrosive, non flammable gas |
| Power supply voltage | 12-24V DC±10%, RIPPLE (P-P) 10% or less |
| Current consumption | ≤40mA(Without load) |
| Switch output Output mode | 2NPN or 2PNP open collector output+1~5V linear analog output |
| Max. load current | 125mA |
| Max. supply voltage | 30V DC (NPN) 24V DC (PNP) |
| Residual voltage | ≤1.5V |
| Response time | ≤2.5ms (chattering-proof function: 25ms, 100ms, 250ms, 500ms, 1000ms, 1500ms selectable) |
| Output short circuit protection | Yes |
| Repeatability | ±0.2%F.S.±1 digit |
| Display | 3½LED 7 segment display (Red) display (Sampling rate: 5 times/sec) |
| Indicator accuracy | ±2% F.S. ±1 digit At ambient temperature: 25±3°C |
| Switch ON indicator | OUT1:Green/OUT2:Red |
| Environmental resistance IP Grade | IP40 |
| Ambient temp.range | Operation: 0~50°C |
| Withstand voltage | 1000VAC in 1minute (between case and lead wire) |
| Insulation resistance | 50MΩ min. (at 500V DC, between case and lead wire) |
| Temperature characteristic | ±2%F.S. (at temperature range of 0~50°C) |
| Lead wire | Oil proof PVC cable (0.15mm ²) |

Output circuit wiring diagrams



ZPDC-N 2NPN+1 Analog voltage output (1-5V)

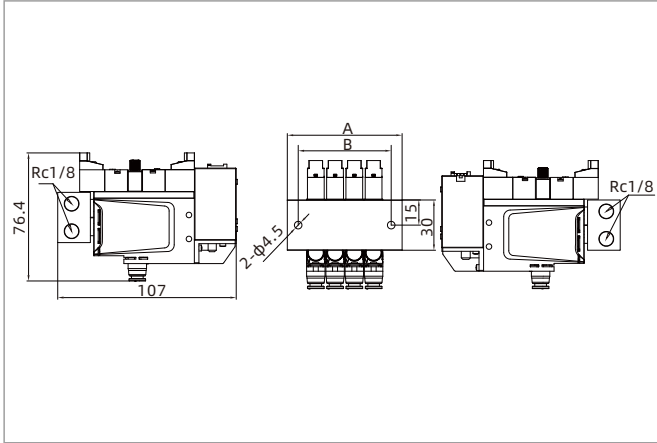


ZPDC-P 2PNP+1 Analog voltage output (1-5V)

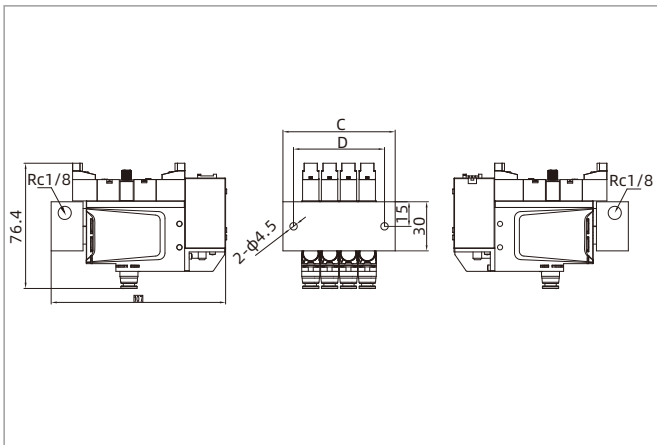
AZQ Series

Mini Integrated Vacuum Generator

Centralized air supply dimensions(mm)



Vacuum pump type

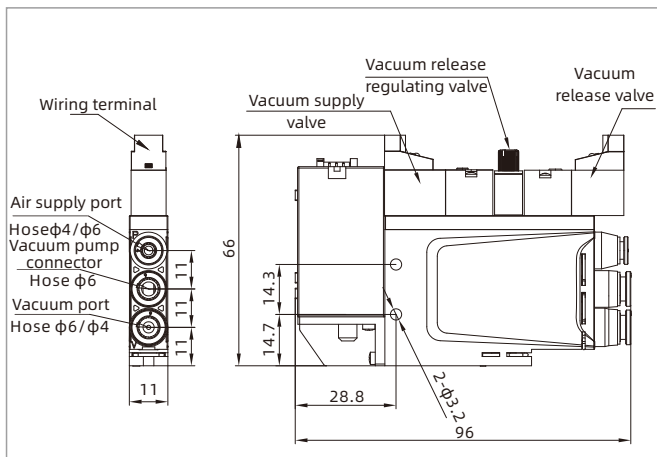


Vacuum generator type

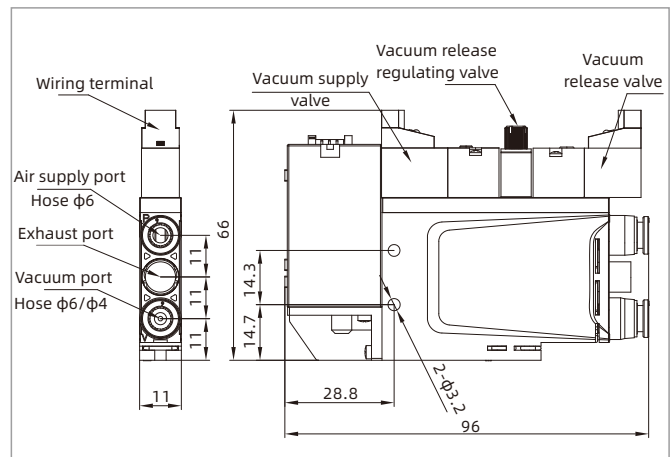
| Stack | A | B | C | D |
|-------|-------|-------|-------|-------|
| 2 | 45.5 | 32.5 | 45.5 | 32.5 |
| 4 | 68.5 | 55.5 | 68.5 | 55.5 |
| 6 | 91.5 | 78.5 | 91.5 | 78.5 |
| 8 | 114.5 | 101.5 | 114.5 | 101.5 |
| 10 | - | - | 137.5 | 124.5 |

- ◇ Note: 1. AZQ-X/T/B dual integrated vacuum generator is a standard product, while using single piece with dual centralized gas supply, vacant port should be blocked
 2. While using 5 pieces or more AZQ-B for integrating, recommend air supply on both sides

Dimensions(mm)



AZQ-B-□ Single body of vacuum pump type



AZQ-□-□ Single body of vacuum generator type

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AZX Series

Large Flow Integrated Vacuum Generator



ELECTRONICS



PACKAGING



PLASTIC

Features

- ◇ Energy-efficient nozzle design
- ◇ Integrated with control valve, vacuum gauge and regulating valve
- ◇ Modular design

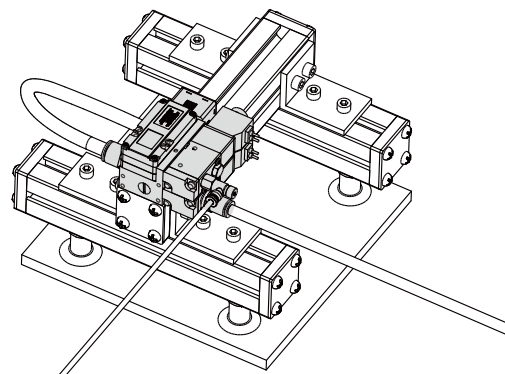
Advantages

- ◇ Large vacuum flow can be produced under the condition of low air consumption
- ◇ Integrated design, saving piping and wiring, controlling setting time, etc.
- ◇ High reliability and stability



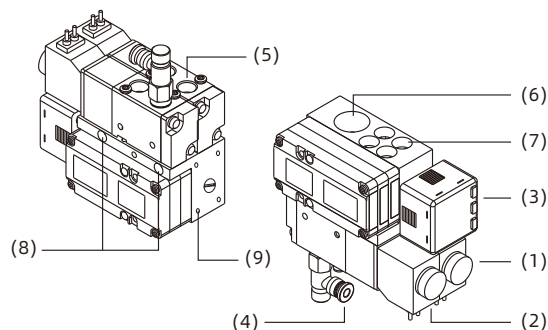
Applications

- ◇ Integrated vacuum generator for handling porous workpieces
- ◇ Vacuum producing and monitoring in automation systems
- ◇ For robot handling applications and linear axes
- ◇ Pick and place applications with very short time
- ◇ Used for systems that require high dynamic handling of workpieces and with limited space



Structure

- ◇ (1) Vacuum supply valve
- ◇ (2) Vacuum release valve
- ◇ (3) Vacuum pressure switch
- ◇ (4) Release port
- ◇ (5) Air supply port
- ◇ (6) Vacuum port
- ◇ (7) Exhaust port
- ◇ (8) Mounting hole
- ◇ (9) Threaded mounting hole



AZX Series

Large Flow Integrated Vacuum Generator

How to order

AZX 20 - N

① ② ③

| ① Series | ② Specification | ③ Vacuum switch |
|----------|-----------------|--|
| AZX | 20 30 | N - 1NPN output+1 analog voltage output (1-5V) P - 1PNP output+1 analog voltage output (1-5V) |

Selection

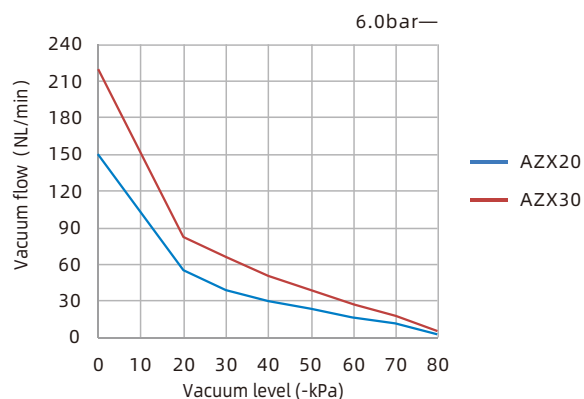
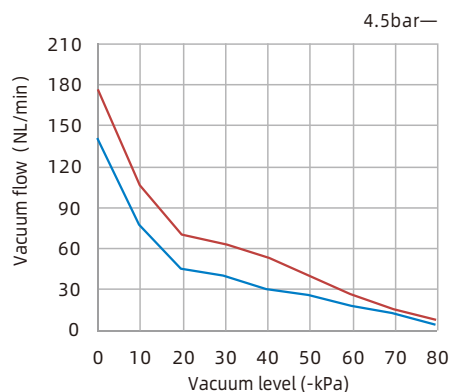
| Model/ Vacuum switch N | P |
|---------------------------|---------|
| AZX20-N | AZX20-P |
| AZX30-N | AZX30-P |

Technical parameters

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g | Recommended hose dia. mm | |
|-------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|----------|--------------------------|---------------|
| | | | | | | | Air supply port P | Vacuum port V |
| AZX20 | 4.5~6.0 | 85 | 141~150 | 55~85 | 60~70 | 411 | φ8 | φ12 |
| AZX30 | 4.5~6.0 | 85 | 175~220 | 87~125 | 60~70 | 424 | φ10 | φ12 |

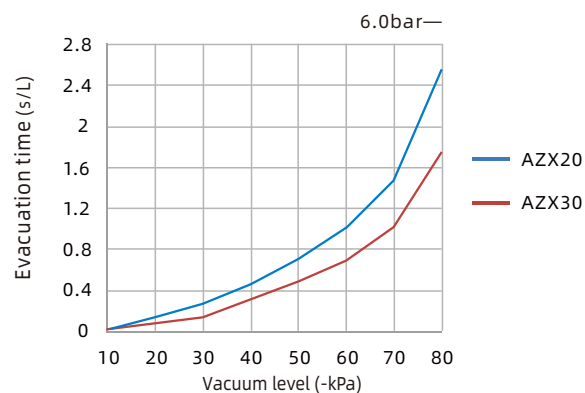
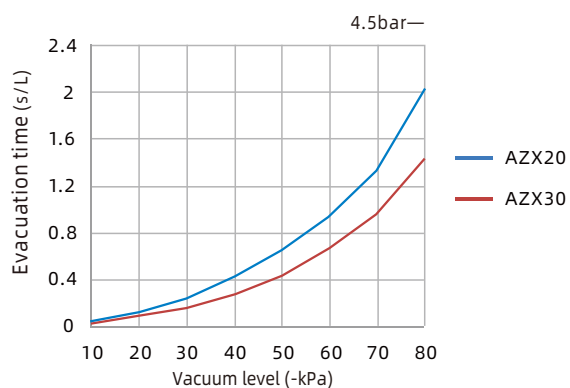
Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|---------------------|-----|----|------|------|----|------|----|-----|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | | |
| AZX20 | 4.5 | 55 | 141 | 77 | 45 | 39.5 | 29.5 | 25 | 17.5 | 12 | 3 | 85 | |
| AZX30 | 4.5 | 87 | 175 | 105 | 70 | 63 | 53 | 40 | 26 | 14 | 6.5 | 85 | |
| AZX20 | 6.0 | 85 | 150 | 100 | 55 | 38 | 30 | 24 | 16 | 11 | 3.2 | 85 | |
| AZX30 | 6.0 | 125 | 220 | 150 | 81 | 65 | 50 | 38 | 27 | 18 | 5 | 85 | |

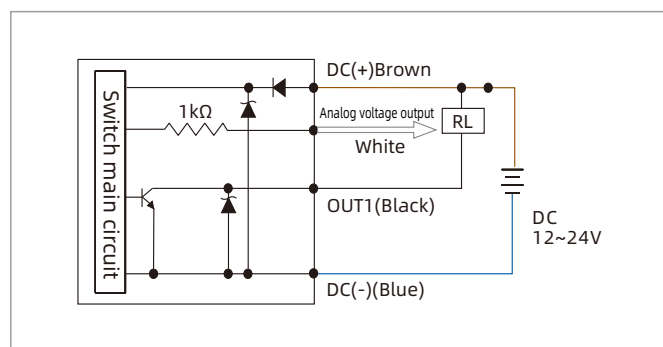


Evacuation time(s/L) to reach different vacuum levels(-kPa)

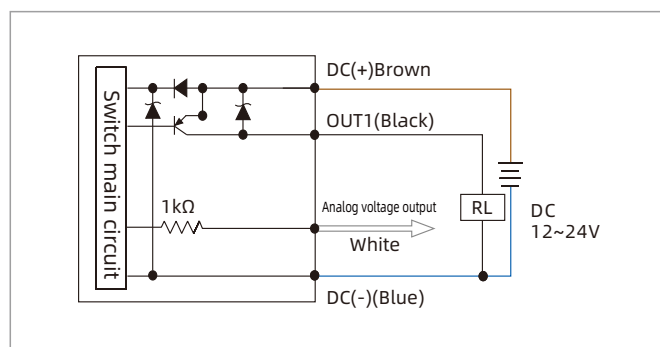
| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------------------------|
| AZX20 | 4.5 | 55 | 0.04 | 0.12 | 0.23 | 0.41 | 0.65 | 0.93 | 1.33 | 2.03 | 85 |
| AZX30 | 4.5 | 87 | 0.03 | 0.09 | 0.16 | 0.27 | 0.43 | 0.66 | 0.95 | 1.43 | 85 |
| AZX20 | 6.0 | 85 | 0.02 | 0.15 | 0.28 | 0.46 | 0.71 | 1.02 | 1.48 | 2.55 | 85 |
| AZX30 | 6.0 | 125 | 0.02 | 0.08 | 0.14 | 0.31 | 0.49 | 0.69 | 1.02 | 1.75 | 85 |



Output circuit wiring diagrams



ZPDT-CNV-R1M 1NPN+Analog voltage output(1-5V)



ZPDT-CPV-R1M 1PNP+Analog voltage output(1-5V)

Technical parameters

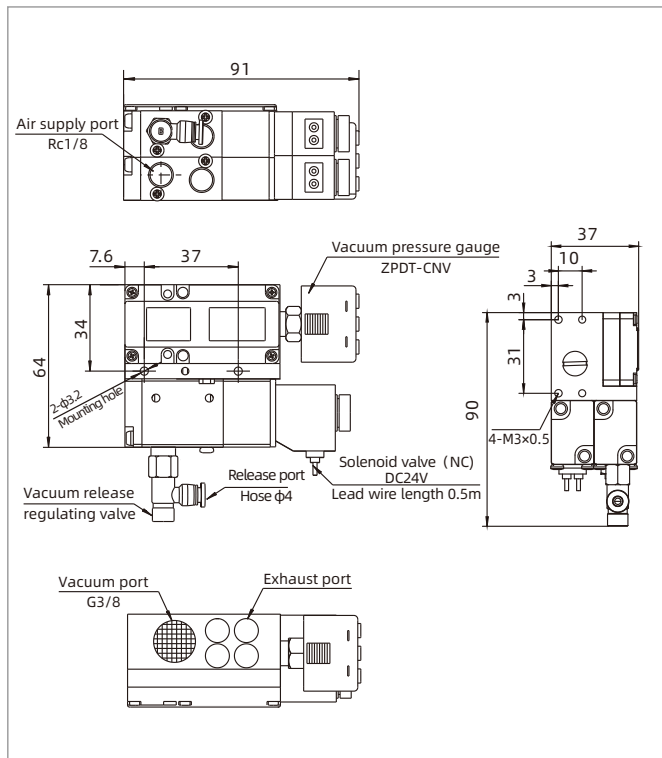
| Model | ZPDT-C (Compound) | |
|--------------------------|---|--|
| Rated pressure range | -100.0~100.0kPa | |
| Setting pressure range | -103.0~103.0kPa | |
| Withstand pressure | 500kPa | |
| Fluid | Air, Non-corrosive gas/Non-flammable gas | |
| Pressure unit | kPa | 0.1 |
| Set pressure resolution | MPa | - |
| | kgf/cm ² | 0.001 |
| | bar | 0.001 |
| | psi | 0.01 |
| | inHg | 0.1 |
| | mmHg | 1 |
| Power supply voltage | 12 to 24V Dc±10%, ripple(P-P)10% or less | |
| Current consumption | ≤40mA (Without load) | |
| Switch output | Output type | Open collector output (NPN or PNP) |
| | load current | Max.125mA |
| | Residual voltage | ≤1.0V |
| | Response time | ≤2.5ms (Chattering-proof function: 25ms,100ms,250ms, 500ms, 1000ms, 1500ms selectable) |
| Analog output | Output Voltage | 1-5V ±2.5%F.S (within rated pressure range) |
| | Output impedance | 1kΩ |
| | Linearity | ±1% F.S. |
| Display | Display | Three colors (Red/ Green/ Orange)Sampling rate:5 times/sec,2 times/sec,1 time/sec for choice.) |
| | Indicator accuracy | ±1%F.S.±1 digit (ambient temperature: 25±3°C) |
| | Repeatability | ±0.3%F.S.±1 digit |
| | Switch ON Indicator | Orange (1 indicator)OUT1 |
| Environmental resistance | IP Grade | IP40 |
| | Ambient temperature | 0~50°C |
| | Temperature characteristic | ±3% F.S. Comparative parameter temperature 25°C (at temp. range of 0~50°C) |
| | Storage temperature | Storage: -10-60°C (No condensation or freezing) |
| | Ambient temperature | Operation/ storage: 35-85%HR (No condensation) |
| | Withstand voltage | 1000VAC1 minute (between case and lead wire) |
| | Insulation resistance | More than 50MΩ (500V DC) (between case and lead wire) |
| | Vibration resistance | Complex amplitude 1.5mm Or 10G, 10Hz~150Hz~10Hz for 1 minute, two hours each direction of X, Y and Z |
| | Impact resistance | 100m/s ² (10G) 3 times each direction of X, Y and Z |
| Lead wire | Oil-resistance cable (0.15mm ²) | |
| Weight | 67g (with 2 meters lead wire) | |

AZX Series

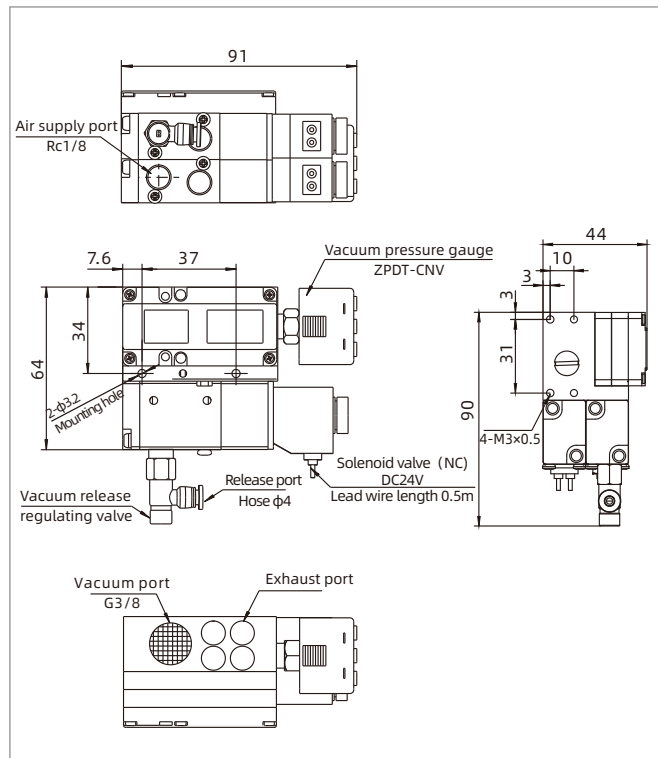
Large Flow Integrated Vacuum Generator



Dimensions(mm)



AZX20-N AZX20-P



AZX30-N AZX30-P

AZD Series

Energy-saving Vacuum Generator



UNIVERSAL

Features

- ◇ Multistage vacuum generator with energy-efficient nozzle design
- ◇ Energy-saving function, it is integrated with vacuum unit, silencer, digital pressure gauge and vacuum energy saving control
- ◇ It has the function of debugging

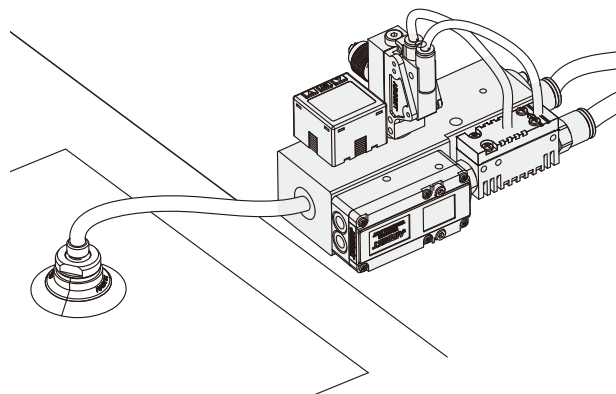
Advantages

- ◇ Large vacuum flow can be produced under the condition of low air consumption
- ◇ Easy to install, space saving, it can help customers to reduce cost most
- ◇ Customers can adjust and control the interval according to the actual application



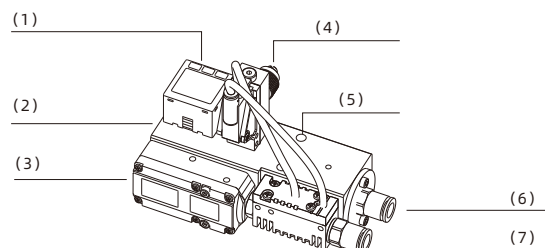
Applications

- ◇ Used in vacuum systems, where there are higher requirements for compressed air energy consumption occasions
- ◇ The vacuum generator is highly integrated with energy saving devices
- ◇ The energy-saving vacuum generator is suitable for the occasions where there is air leakage in the process of adsorption



Structure

- ◇ (1) Digital pressure gauge
- ◇ (2) Vacuum port
- ◇ (3) Vacuum generator
- ◇ (4) Adjusting screw
- ◇ (5) Mounting hole
- ◇ (6) Vacuum release port
- ◇ (7) Air supply port



AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

How to order

AZD 20 - ES

① ② ③

| ① Series | ② Specification | ③ Energy saving(ES) mode | ④ Vacuum switch |
|----------|-----------------|------------------------------|--|
| AZD | 20 | ES - Pneumatic energy saving | N - 1NPN output+1 analog voltage output (1-5V) P - 1PNP output+1 analog voltage output (1-5V) |

Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Max. break flow rate NL/min |
|-------|-------------------------------|-------------------------------|------------------------|-------------------------|-----------------------------|
| AZD20 | 4.0~7.0 | 5.0 | 83 | 90 | 52 |

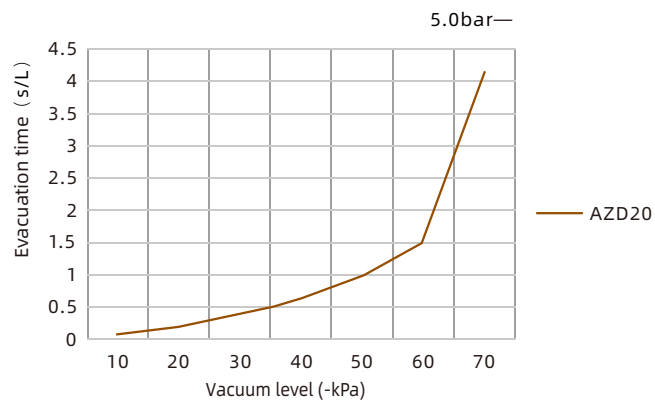
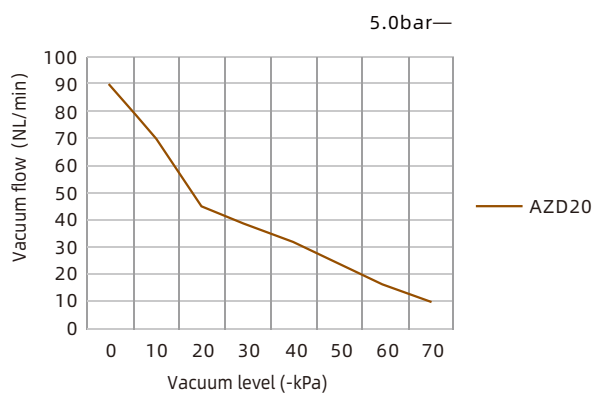
| Model | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) Air supply port P Vacuum port V |
|-------|------------------------|-------------------|------------------------|----------|---|
| AZD20 | 70 | 69 | 0~60 | 620 | φ8 φ10 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|----|----|----|----|----|----|----|----|------------------------|
| AZD20 | 5.0 | 70 | 90 | 72 | 43 | 35 | 22 | 19 | 14 | 11 | 83 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|-----|------|------|------|-----|------|------------------------|
| AZD20 | 5.0 | 70 | 0.08 | 0.2 | 0.39 | 0.63 | 0.99 | 1.5 | 4.15 | 83 |

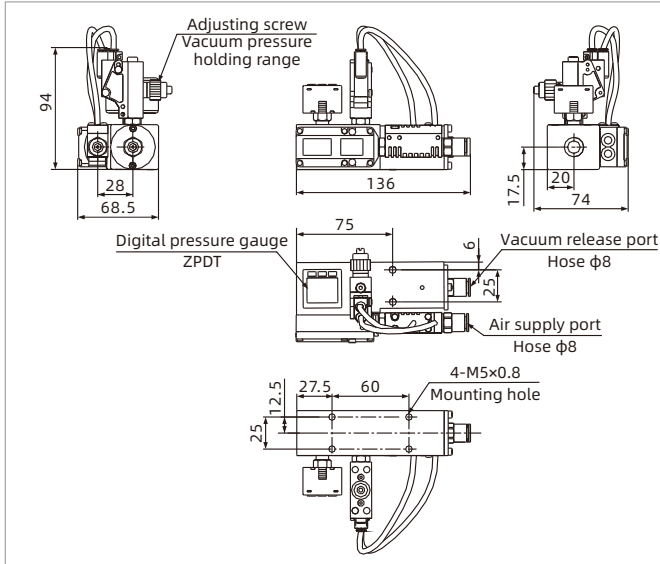


AZD Series

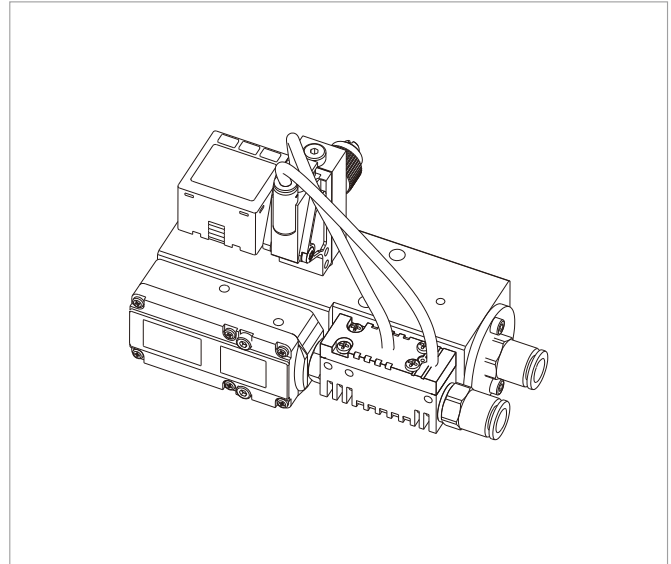
Energy-saving Vacuum Generator



Dimensions(mm)



AZD20-ES



AZD20-ES Schematic diagram

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AGS Series

Vacuum Generator



ELECTRONICS



METAL SHEET



PACKAGING

Features

- ◇ Fast suction, high vacuum degree, low air consumption
- ◇ The workpiece can be of airtight or porous material
- ◇ Dirt and dust resistance
- ◇ Small size, light weight, simple structure
- ◇ External silencer is optional

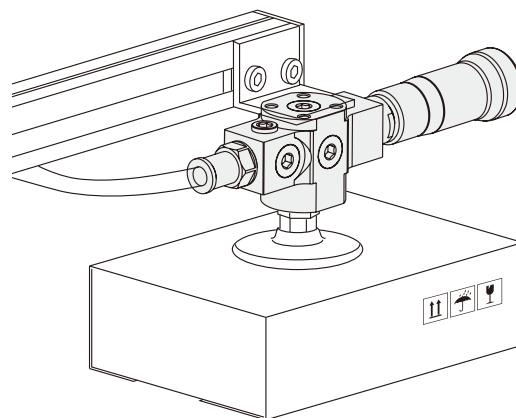
Advantages

- ◇ High efficient and energy-saving vacuum generator, it can reach the max. vacuum level quickly, effectively compensate air leakage
- ◇ Suitable vacuum generators can be selected according to different working conditions
- ◇ Long maintenance time, simple cleaning, no need tools
- ◇ Can be used in occasions with limited space and weight, easy to install
- ◇ Reduce product noise most



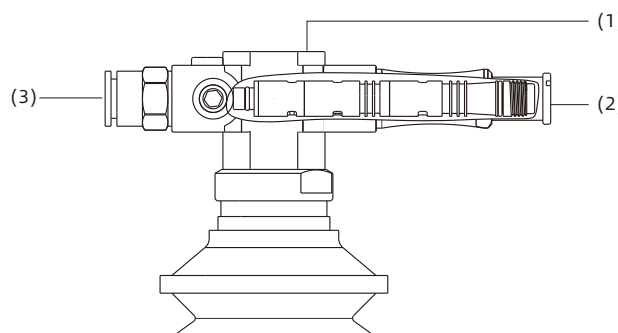
Applications

- ◇ The multistage vacuum generator is suitable for handling cartons, packaging materials and porous materials
- ◇ Applicable to the working conditions that require high vacuum flow, fast evacuation and low air consumption



Structure

- ◇ (1) Housing
- ◇ (2) Vacuum cartridge
- ◇ (3) Air supply port



AGS Series

Vacuum Generator

How to order

AGS - N - S08-2 - V - S
 ① ② ③ ④ ⑤

| Series | Housing type | Specification | ④ Non-return valve | ⑤ Silencer |
|--------|--------------|--------------------|--------------------------------|-------------------------|
| AGS | C (MICRO) | S02 - 2 | Nil - Without non-return valve | Nil - Without silencer |
| | | X2.5 - 2 | | |
| | | T05 - 2 | | |
| AGS | N (MINI) | S08 - 2 S08 - 3 | Nil - Without non-return valve | Nil - Without silencer |
| | | X10 - 2 X10 - 3 | V - With non-return valve | S - With silencer ZSC8 |
| | | P12 - 2 P12 - 3 | | |
| | | D16 - 2 | | |
| AGS | D (MIDI) | S32 - 2 S32 - 3 | Nil - Without non-return valve | Nil - Without silencer |
| | | X40 - 2 X40 - 3 | V - With non-return valve | S - With silencer ZSC16 |

Selection

| Model/Non-return valve selection Nil - Without non-return valve | | V - With non-return valve | |
|--|---------------|---------------------------|-----------------|
| AGS-C-S02-2 | | - | |
| AGS-C-X2.5-2 | | - | |
| AGS-C-T05-2 | | - | |
| AGS-N-S08-2 | AGS-N-S08-2-S | AGS-N-S08-2-V | AGS-N-S08-2-V-S |
| AGS-N-S08-3 | AGS-N-S08-3-S | AGS-N-S08-3-V | AGS-N-S08-3-V-S |
| AGS-N-X10-2 | AGS-N-X10-2-S | AGS-N-X10-2-V | AGS-N-X10-2-V-S |
| AGS-N-X10-3 | AGS-N-X10-3-S | AGS-N-X10-3-V | AGS-N-X10-3-V-S |
| AGS-N-P12-2 | AGS-N-P12-2-S | AGS-N-P12-2-V | AGS-N-P12-2-V-S |
| AGS-N-P12-3 | AGS-N-P12-3-S | AGS-N-P12-3-V | AGS-N-P12-3-V-S |
| AGS-N-D16-2 | AGS-N-D16-2-S | - | - |
| AGS-D-S32-2 | AGS-D-S32-2-S | AGS-D-S32-2-V | AGS-D-S32-2-V-S |
| AGS-D-S32-3 | AGS-D-S32-3-S | AGS-D-S32-3-V | AGS-D-S32-3-V-S |
| AGS-D-X40-2 | AGS-D-X40-2-S | AGS-D-X40-2-V | AGS-D-X40-2-V-S |
| AGS-D-X40-3 | AGS-D-X40-3-S | AGS-D-X40-3-V | AGS-D-X40-3-V-S |

◇ Note: The mounting accessories are ordered separately except the default specification

AGS-C Series

Vacuum Generator

Features

- ◇ Small size, simple structure, easy to install
- ◇ Vacuum port G1/8 female thread can be directly connected to the suction cup
- ◇ A variety of vacuum cartridges can be freely selected, suitable for different applications
- ◇ Multi-angle installation position and installation accessories are available for convenient installation



Technical parameters

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g | Recommended hose dia.(mm) | |
|--------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|----------|---------------------------|-------------|
| | | | | | | | Air supply port | Vacuum port |
| AGS-C-S02-2 | 4.0~6.0 | 75 | 16.2 | 8.0 | 70 | 34 | φ4 | G1/8 |
| AGS-C-X2.5-2 | 4.5~6.0 | 90 | 17.2 | 10.5 | 72 | 34 | φ4 | G1/8 |
| AGS-C-T05-2 | 4.0~6.0 | 84 | 19.5 | 21.5 | 78 | 34 | φ4 | G1/8 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | Max. vacuum level -kPa |
|--------------|-------------------------|------------------------|---------------------|------|------|------|-----|-----|-----|-----|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | | |
| AGS-C-S02-2 | 4.0 | 6.0 | 14.2 | 8.1 | 5.2 | 3.8 | 2.2 | - | - | - | 55 | |
| | 5.0 | 7.0 | 15.7 | 10.0 | 5.5 | 4.5 | 3.4 | 2.2 | - | - | 70 | |
| | 6.0 | 8.0 | 16.2 | 12.2 | 6.3 | 4.6 | 3.9 | 3.0 | 2.0 | - | 75 | |
| AGS-C-X2.5-2 | 4.5 | 9.0 | 14.9 | 9.9 | 4.8 | 4.1 | 3.3 | 2.6 | 1.7 | - | 85 | |
| | 5.0 | 9.5 | 15.6 | 11.6 | 6.6 | 4.0 | 3.3 | 2.6 | 1.7 | - | 90 | |
| | 6.0 | 10.0 | 17.2 | 14.2 | 9.3 | 4.5 | 3.3 | 2.3 | 1.4 | - | 89 | |
| AGS-C-T05-2 | 4.0 | 16.0 | 19.5 | 17.7 | 13.5 | 9.0 | 6.1 | 5.0 | 3.3 | 1.8 | 84 | |
| | 6.0 | 21.5 | 18.7 | 17.4 | 15.1 | 13.1 | 9.7 | 6.0 | 2.7 | 1.8 | 75 | |

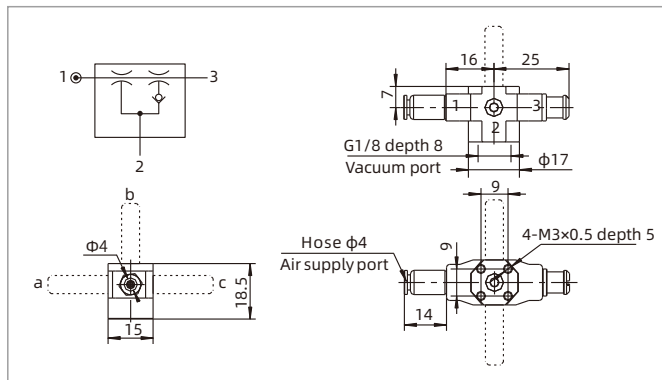
Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Evacuation time (s/L) | | | | | | | | Max. vacuum level -kPa |
|--------------|-------------------------|------------------------|-----------------------|-----|-----|-----|-----|------|------|-------|------------------------|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | |
| AGS-C-S02-2 | 4.0 | 6.0 | 0.4 | 1.4 | 2.8 | 5.1 | - | - | - | - | 55 |
| | 5.0 | 7.0 | 0.3 | 1.2 | 2.5 | 4.1 | 6.6 | 11.1 | - | - | 70 |
| | 6.0 | 8.0 | 0.3 | 1.1 | 2.4 | 4.1 | 6.2 | 9.0 | 14.3 | - | 75 |
| AGS-C-X2.5-2 | 4.5 | 9.0 | 0.4 | 1.3 | 3.2 | 4.6 | 6.5 | 9.8 | 15.3 | 25.70 | 85 |
| | 5.0 | 9.5 | 0.3 | 0.9 | 2.4 | 4.3 | 6.7 | 9.5 | 14.1 | 22.03 | 90 |
| | 6.0 | 10.0 | 0.2 | 0.7 | 1.7 | 3.7 | 5.9 | 9.5 | 14.5 | 22.41 | 89 |
| AGS-C-T05-2 | 4.0 | 16.0 | 0.2 | 0.5 | 1.1 | 2.2 | 3.4 | 5.2 | 9.0 | 17.36 | 84 |
| | 6.0 | 21.5 | 0.2 | 0.5 | 0.9 | 1.5 | 2.6 | 4.7 | 7.7 | 16.09 | 75 |

AGS-C Series

Vacuum Generator

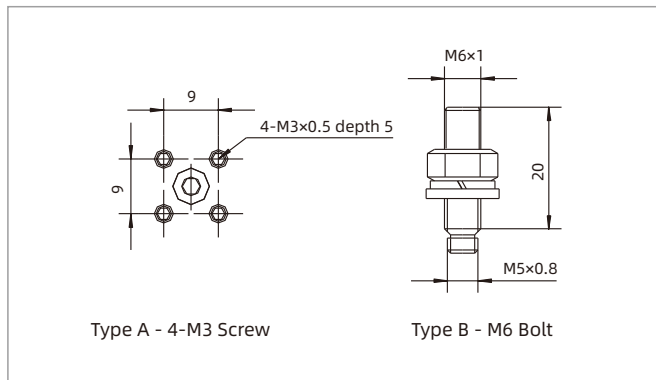
Dimensions(mm)



AGS-C

◇ Note: Type B is optional for above drawing a/b/c. Default mounting accessory is type A for AGS-C series

Mounting accessory(mm)



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AGS-N Series

Vacuum Generator

Features

- ◇ Small size, simple structure, easy to install
- ◇ Vacuum port G3/8 female thread can be directly connected to the suction cup
- ◇ A variety of vacuum cartridges can be freely selected, suitable for different applications
- ◇ Multi-angle installation position and installation accessories are available for convenient installation
- ◇ Exhaust port can be connected with external silencer



Technical parameters

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g | Recommended hose dia.(mm) | |
|-------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|----------|---------------------------|-------------|
| | | | | | | | Air supply port | Vacuum port |
| AGS-N-S08-2 | 4.0~6.0 | 75 | 46 | 27 | 62 | 61 | φ6 | G3/8 |
| AGS-N-S08-3 | 4.0~6.0 | 75 | 68 | 27 | 68 | 65 | φ6 | G3/8 |
| AGS-N-X10-2 | 4.5~6.0 | 93 | 44 | 34 | 78 | 61 | φ6 | G3/8 |
| AGS-N-X10-3 | 4.5~6.0 | 93 | 68 | 34 | 74 | 65 | φ6 | G3/8 |
| AGS-N-P12-2 | 1.7~4.0 | 90 | 42 | 33 | 68 | 61 | φ6 | G3/8 |
| AGS-N-P12-3 | 1.7~4.0 | 90 | 68 | 33 | 71 | 65 | φ6 | G3/8 |
| AGS-N-D16-2 | 6.0 | 72 | 40 | 46 | 77 | 61 | φ6 | G3/8 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | Max. vacuum level -kPa |
|-------------|-------------------------|------------------------|---------------------|------|------|------|------|------|------|-----|-----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | |
| AGS-N-S08-2 | 4.0 | 19.0 | 44.0 | 34.0 | 22.6 | 14.4 | 10.8 | 6.4 | - | - | - | 60 |
| | 5.0 | 23.0 | 46.0 | 40.0 | 28.5 | 17.3 | 12.8 | 9.5 | 6.1 | - | - | 70 |
| | 6.0 | 27.0 | 46.0 | 42.0 | 32.6 | 22.6 | 12.0 | 9.8 | 8.3 | 5.9 | - | 75 |
| AGS-N-S08-3 | 4.0 | 19.0 | 60.0 | 38.0 | 24.0 | 14.9 | 11.5 | 6.8 | - | - | - | 60 |
| | 5.0 | 23.0 | 66.0 | 40.0 | 32.0 | 19.1 | 13.3 | 9.9 | 6.5 | - | - | 70 |
| | 6.0 | 27.0 | 68.0 | 42.0 | 36.0 | 24.0 | 13.0 | 10.2 | 8.4 | 6.3 | - | 75 |
| AGS-N-X10-2 | 4.5 | 27.5 | 44.0 | 40.0 | 28.4 | 18.8 | 10.7 | 9.4 | 6.9 | 4.6 | 2.3 | 90 |
| | 5.0 | 30.0 | 44.0 | 40.0 | 30.6 | 22.2 | 13.5 | 8.9 | 6.6 | 4.5 | 2.0 | 93 |
| | 6.0 | 34.5 | 42.0 | 40.0 | 33.0 | 26.9 | 18.7 | 9.4 | 6.2 | 4.6 | 1.4 | 91 |
| AGS-N-X10-3 | 4.5 | 27.5 | 64.0 | 40.0 | 32.0 | 18.0 | 11.3 | 9.7 | 7.3 | 4.9 | 2.7 | 90 |
| | 5.0 | 30.0 | 66.0 | 40.0 | 34.0 | 24.0 | 14.3 | 9.3 | 6.9 | 4.8 | 2.4 | 93 |
| | 6.0 | 34.5 | 68.0 | 44.0 | 34.0 | 30.0 | 20.0 | 10.5 | 6.5 | 4.9 | 1.7 | 91 |
| AGS-N-P12-2 | 1.7 | 19.0 | 36.0 | 19.0 | 10.5 | 6.6 | 2.8 | - | - | - | - | 43 |
| | 2.2 | 22.5 | 38.0 | 28.0 | 15.5 | 11.0 | 7.7 | 3.8 | - | - | - | 58 |
| | 3.14 | 29.0 | 42.0 | 36.0 | 25.6 | 14.9 | 10.4 | 8.9 | 6.6 | 4.2 | 1.9 | 90 |
| | 4.0 | 35.0 | 42.0 | 38.0 | 30.0 | 23.0 | 15.0 | 8.0 | 5.9 | 4.3 | 1.1 | 88 |
| AGS-N-P12-3 | 1.7 | 19.0 | 46.0 | 19.8 | 10.5 | 7.0 | 3.0 | - | - | - | - | 43 |
| | 2.2 | 22.5 | 52.0 | 30.0 | 12.0 | 8.2 | 5.8 | 2.7 | - | - | - | 58 |
| | 3.14 | 29.0 | 62.0 | 38.0 | 28.0 | 10.0 | 7.7 | 6.7 | 4.8 | 2.9 | 1.4 | 90 |
| | 4.0 | 35.0 | 68.0 | 40.0 | 34.0 | 24.0 | 11.4 | 5.7 | 4.2 | 3.0 | 1.2 | 88 |
| AGS-N-D16-2 | 6.0 | 46.0 | 40.0 | 38.0 | 30.5 | 26.7 | 22.0 | 17.0 | 12.0 | 3.5 | - | 72 |

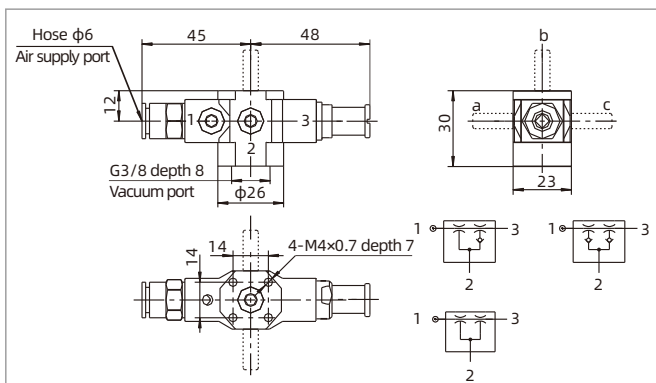
AGS-N Series

Vacuum Generator

Evacuation time(s/L) to reach different vacuum levels(-kPa)

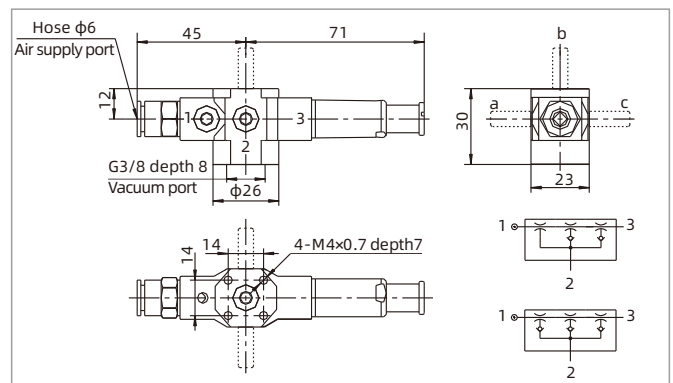
| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-------------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------------------------|
| AGS-N-S08-2 | 4.0 | 19.0 | 0.07 | 0.25 | 0.56 | 1.02 | 1.89 | 5.24 | - | - | 60 |
| | 5.0 | 23.0 | 0.07 | 0.22 | 0.47 | 0.85 | 1.53 | 2.40 | 6.43 | - | 70 |
| | 6.0 | 27.0 | 0.07 | 0.20 | 0.39 | 0.74 | 1.35 | 2.14 | 3.35 | - | 75 |
| AGS-N-S08-3 | 4.0 | 19.0 | 0.06 | 0.22 | 0.53 | 0.93 | 1.72 | 4.61 | - | - | 60 |
| | 5.0 | 23.0 | 0.06 | 0.19 | 0.44 | 0.83 | 1.35 | 2.23 | 6.33 | - | 70 |
| | 6.0 | 27.0 | 0.05 | 0.19 | 0.38 | 0.68 | 1.26 | 2.08 | 3.05 | - | 75 |
| AGS-N-X10-2 | 4.5 | 27.5 | 0.11 | 0.27 | 0.52 | 0.98 | 1.65 | 2.41 | 3.87 | 6.20 | 90 |
| | 5.0 | 30.0 | 0.12 | 0.27 | 0.48 | 0.83 | 1.49 | 2.49 | 3.77 | 6.19 | 93 |
| | 6.0 | 34.5 | 0.12 | 0.26 | 0.45 | 0.72 | 1.21 | 2.33 | 3.68 | 6.35 | 91 |
| AGS-N-X10-3 | 4.5 | 27.5 | 0.06 | 0.19 | 0.40 | 0.76 | 1.45 | 2.21 | 3.49 | 5.55 | 90 |
| | 5.0 | 30.0 | 0.05 | 0.19 | 0.37 | 0.66 | 1.26 | 2.14 | 3.45 | 5.60 | 93 |
| | 6.0 | 34.5 | 0.05 | 0.18 | 0.35 | 0.59 | 1.02 | 2.10 | 3.31 | 5.72 | 91 |
| AGS-N-P12-2 | 1.7 | 19.0 | 0.15 | 0.55 | 1.26 | 2.90 | - | - | - | - | 43 |
| | 2.2 | 22.5 | 0.14 | 0.37 | 0.88 | 1.58 | 2.78 | - | - | - | 58 |
| | 3.14 | 29.0 | 0.12 | 0.29 | 0.59 | 1.07 | 1.86 | 2.66 | 4.33 | 6.72 | 90 |
| | 4.0 | 35.0 | 0.12 | 0.26 | 0.49 | 0.77 | 1.50 | 2.48 | 3.98 | 7.05 | 88 |
| AGS-N-P12-3 | 1.7 | 19.0 | 0.13 | 0.52 | 1.22 | 2.75 | - | - | - | - | 43 |
| | 2.2 | 22.5 | 0.08 | 0.31 | 0.70 | 1.33 | 2.54 | - | - | - | 58 |
| | 3.14 | 29.0 | 0.06 | 0.21 | 0.45 | 0.94 | 1.58 | 2.40 | 3.83 | 6.07 | 90 |
| | 4.0 | 35.0 | 0.06 | 0.20 | 0.38 | 0.67 | 1.26 | 2.36 | 3.75 | 6.57 | 88 |
| AGS-N-D16-2 | 6.0 | 46.0 | 0.04 | 0.18 | 0.39 | 0.62 | 0.95 | 1.47 | 3.10 | - | 72 |

Dimensions(mm)



AGS-N (MINI type 2 stages)

◇ Note: Type D/E are optional for above drawing a/b/c. Default mounting accessory is type C for AGS-N series



AGS-N (MINI type 3 stages)

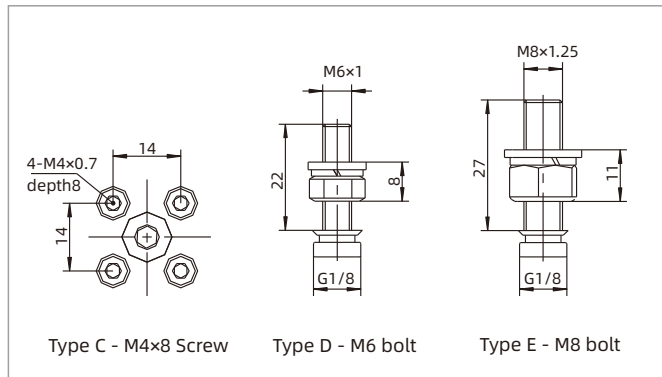
Model selection

| Housing | Vacuum cartridge |
|--------------------|----------------------------|
| MINI type 2 stages | S08-2, X10-2, P12-2, D16-2 |
| MINI type 3 stages | S08-3, X10-3, P12-3 |

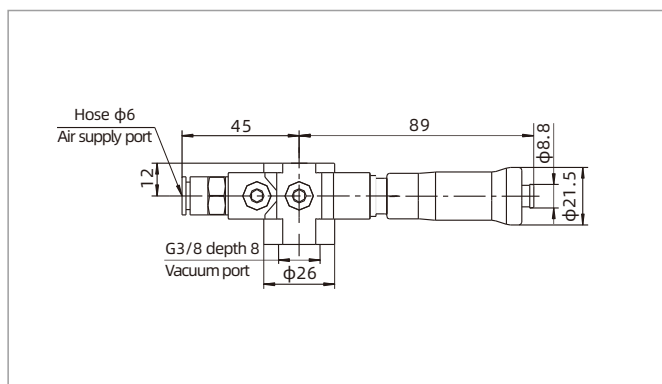
AGS-N Series

Vacuum Generator

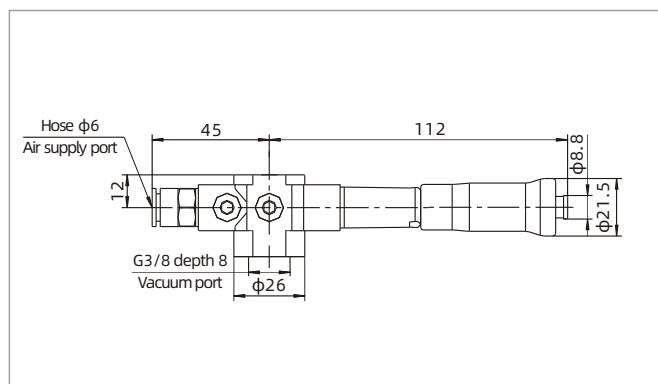
Mounting accessory(mm)



Silencer(mm)



MINI type 2 stages



MINI type 3 stages

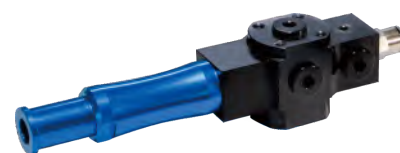
| Housing | Silencer |
|--------------------|----------|
| MINI type 2 stages | ZSC8 |
| MINI type 3 stages | ZSC8 |

AGS-D Series

Vacuum Generator

Features

- ◇ Small size, simple structure, easy to install
- ◇ Vacuum port G1/2 female thread can be directly connected to the suction cup
- ◇ A variety of vacuum cartridges can be freely selected, suitable for different applications
- ◇ Multi-angle installation position and installation accessories are available for convenient installation
- ◇ Suitable for occasions requiring large vacuum flow
- ◇ Exhaust port can be connected with external silencer



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

Technical parameters

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g | Recommended hose dia.(mm) | |
|-------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|----------|---------------------------|-------------|
| | | | | | | | Air supply port | Vacuum port |
| AGS-D-S32-2 | 4.0~6.0 | 75 | 178.0 | 130.0 | 82 | 259 | φ8 | G1/2 |
| AGS-D-S32-3 | 4.0~6.0 | 75 | 360.0 | 130.0 | 82 | 272 | φ8 | G1/2 |
| AGS-D-X40-2 | 4.5~6.0 | 95 | 170.0 | 135.0 | 89 | 259 | φ8 | G1/2 |
| AGS-D-X40-3 | 4.5~6.0 | 95 | 372.0 | 135.0 | 89 | 272 | φ8 | G1/2 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|-------------|-------------------------|------------------------|---------------------|-----|-----|-----|----|------|------|------|------|-----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | |
| AGS-D-S32-2 | 4.0 | 120 | 172 | 136 | 92 | 60 | 44 | 26.2 | 10.5 | - | - | - | 60 |
| | 5.0 | 125 | 180 | 156 | 116 | 72 | 48 | 36.0 | 26.9 | 12.8 | - | - | 70 |
| | 6.0 | 130 | 178 | 164 | 134 | 94 | 50 | 38.0 | 32.0 | 18.3 | - | - | 75 |
| AGS-D-S32-3 | 4.0 | 120 | 350 | 152 | 110 | 64 | 50 | 26.7 | 11.5 | - | - | - | 60 |
| | 5.0 | 125 | 370 | 185 | 125 | 90 | 50 | 36.2 | 27.3 | 13.9 | - | - | 70 |
| | 6.0 | 130 | 390 | 210 | 135 | 100 | 65 | 35.1 | 30.3 | 18.3 | - | - | 75 |
| AGS-D-X40-2 | 4.5 | 120 | 170 | 136 | 100 | 58 | 40 | 36.0 | 25.0 | 17.8 | 11.7 | 3.1 | 91 |
| | 5.0 | 125 | 170 | 140 | 106 | 74 | 46 | 34.0 | 24.0 | 17.6 | 10.8 | 2.9 | 95 |
| | 6.0 | 135 | 162 | 142 | 116 | 92 | 68 | 40.0 | 22.5 | 17.8 | 9.4 | 2.3 | 94 |
| AGS-D-X40-3 | 4.5 | 120 | 350 | 175 | 120 | 80 | 44 | 32.7 | 24.5 | 17.8 | 11.6 | 3.2 | 91 |
| | 5.0 | 125 | 360 | 190 | 125 | 95 | 65 | 36.0 | 26.0 | 17.6 | 10.8 | 2.8 | 95 |
| | 6.0 | 135 | 380 | 220 | 130 | 105 | 90 | 54.0 | 26.0 | 17.8 | 9.3 | 2.2 | 94 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | Max. vacuum level -kPa |
|-------------|-------------------------|------------------------|---------------------|------|------|------|------|------|------|------------------------|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | |
| AGS-D-S32-2 | 4.0 | 120 | 0.04 | 0.08 | 0.16 | 0.27 | 0.47 | 0.98 | - | 60 |
| | 5.0 | 125 | 0.04 | 0.08 | 0.14 | 0.25 | 0.39 | 0.63 | 1.17 | 70 |
| | 6.0 | 130 | 0.04 | 0.08 | 0.13 | 0.21 | 0.36 | 0.55 | 0.86 | 75 |
| AGS-D-S32-3 | 4.0 | 120 | 0.03 | 0.08 | 0.15 | 0.26 | 0.44 | 0.94 | - | 60 |
| | 5.0 | 125 | 0.03 | 0.07 | 0.13 | 0.23 | 0.38 | 0.61 | 1.07 | 70 |
| | 6.0 | 130 | 0.03 | 0.05 | 0.10 | 0.18 | 0.36 | 0.56 | 0.87 | 75 |

AGS-D Series

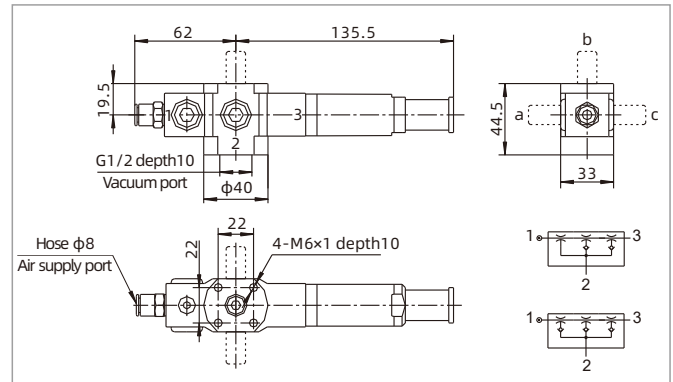
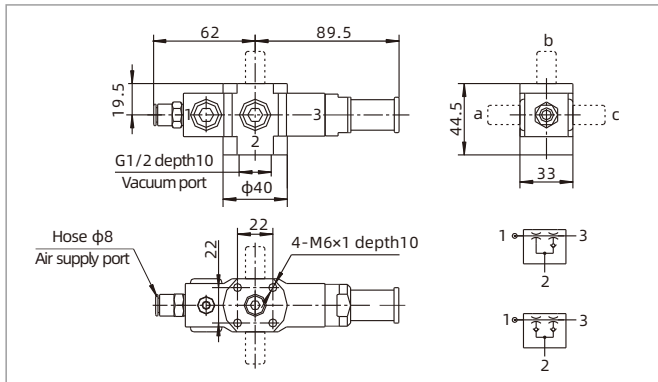
Vacuum Generator



Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------|------------------------|
| AGS-D-X40-2 | 4.5 | 120 | 0.04 | 0.08 | 0.15 | 0.28 | 0.46 | 0.66 | 0.99 | 1.15 | - | 91 |
| | 5.0 | 125 | 0.04 | 0.08 | 0.14 | 0.24 | 0.41 | 0.66 | 1.02 | 1.52 | 3.27 | 95 |
| | 6.0 | 135 | 0.04 | 0.08 | 0.14 | 0.20 | 0.30 | 0.57 | 0.95 | 1.55 | 3.70 | 94 |
| AGS-D-X40-3 | 4.5 | 120 | 0.03 | 0.07 | 0.13 | 0.23 | 0.38 | 0.63 | 0.97 | 1.50 | 3.25 | 91 |
| | 5.0 | 125 | 0.03 | 0.07 | 0.14 | 0.21 | 0.37 | 0.62 | 0.99 | 1.46 | 3.23 | 95 |
| | 6.0 | 135 | 0.03 | 0.05 | 0.10 | 0.16 | 0.27 | 0.47 | 0.86 | 1.45 | 3.92 | 94 |

Dimensions(mm)



AGS-D (MIDI type 2 stages)

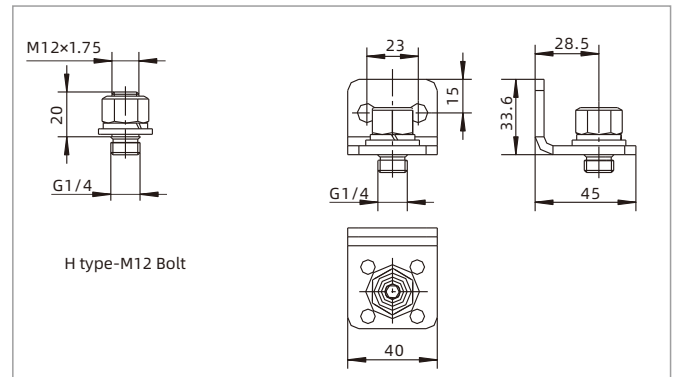
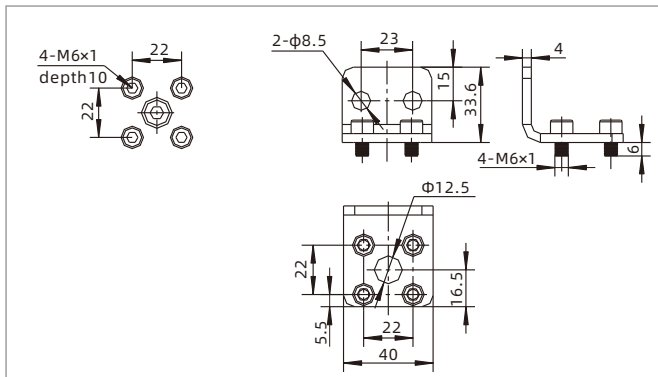
AGS-D (MIDI type 3 stages)

◇ Note: Type G/H/K are optional for above drawing a/b/c. Default mounting accessory is type F for AGS-D series

Model selection

| Housing | Vacuum cartridge |
|--------------------|------------------|
| MIDI type 2 stages | S32-2, X40-2 |
| MIDI type 3 stages | S32-3, X40-3 |

Mounting accessory(mm)



Type F - M6 Screw

Type G - M6 Screw + L type bracket

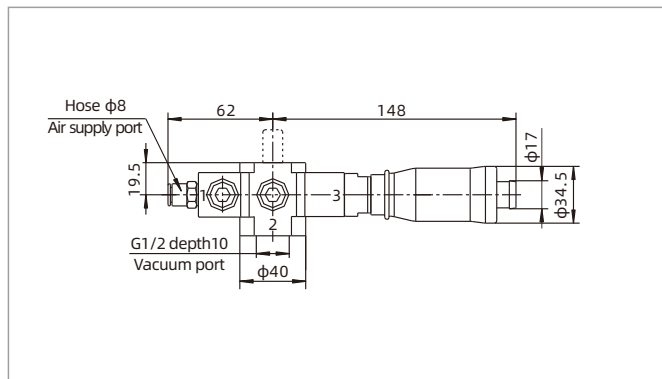
Type H - M12 Bolt

Type K - M12 Bolt + L type bracket

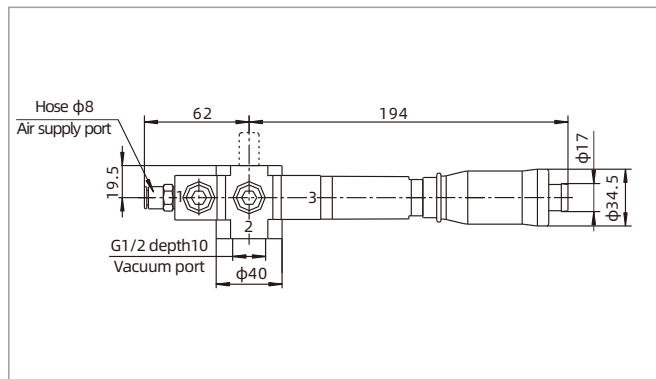
AGS-D Series

Vacuum Generator

Silencer(mm)



MIDI type 2 stages



MIDI type 3 stages

| Housing | Silencer |
|--------------------|----------|
| MIDI type 2 stages | ZSC16 |
| MIDI type 3 stages | ZSC16 |

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AGB Series

Vacuum Generator



Features

- ◇ Fast evacuation, high vacuum level, low air consumption
- ◇ Small size, simple structure, easy to install
- ◇ There are 3 vacuum ports with G1/8 female thread

Advantages

- ◇ High efficient and energy-saving vacuum generator, can quickly reach the max. vacuum level
- ◇ Can be used in the occasions with limited space and weight, esay to install
- ◇ Can be directly connected to suction cups to save space

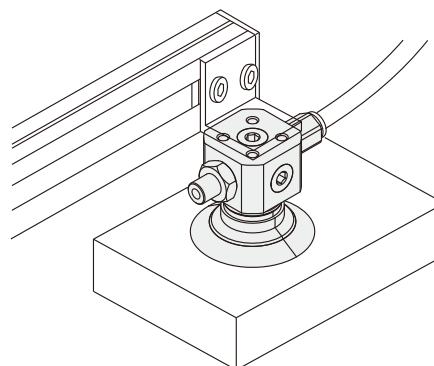


Applications

- ◇ The occasions with limited installation space
- ◇ Applicable to the working conditions that require fast evacuation and low air consumption

Structure

- ◇ Housing can be freely matched with vacuum cartridges with different performace parameters
- ◇ The air supply port is directly inserted into the $\phi 4$ hose, the vacuum port is G1/8 female thread



How to order

AGB - S02-2
① ②

| Series | ② Specification |
|--------|---|
| AGB | S02 - 2 (-75kPa) X2.5 - 2 (-90kPa) T05 - 2 (-84kPa) |

◇ Note: The standard mounting accessory is type C, other types should be ordered separately if needed

Technical parameters

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g | Recommended hose dia.(mm) | |
|------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|----------|---------------------------|-------------|
| | | | | | | | Air supply port | Vacuum port |
| AGB-S02-2 | 4.0~6.0 | 75 | 16.2 | 8.0 | 70 | 20 | $\phi 4$ | G1/8 |
| AGB-X2.5-2 | 4.5~6.0 | 90 | 17.2 | 10.5 | 72 | 20 | $\phi 4$ | G1/8 |
| AGB-T05-2 | 4.0~6.0 | 84 | 19.5 | 21.5 | 78 | 20 | $\phi 4$ | G1/8 |

AGB Series

Vacuum Generator

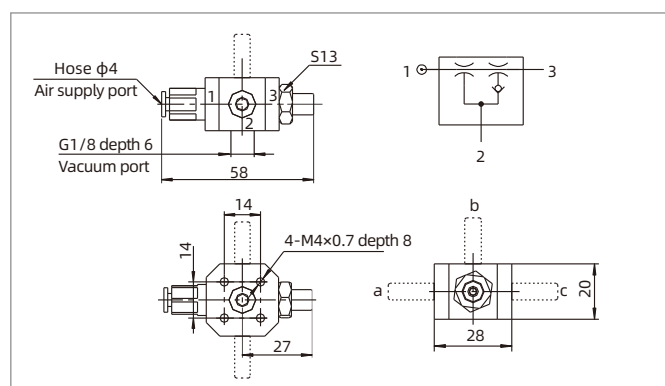
Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|------------|-------------------------|------------------------|------|------|------|------|-----|-----|-----|-----|------------------------|
| AGB-S02-2 | 4.0 | 6.0 | 14.2 | 8.1 | 5.2 | 3.8 | 2.2 | - | - | - | 55 |
| | 5.0 | 7.0 | 15.7 | 10.0 | 5.5 | 4.5 | 3.4 | 2.2 | - | - | 70 |
| | 6.0 | 8.0 | 16.2 | 12.2 | 6.3 | 4.6 | 3.9 | 3.0 | 2.0 | - | 75 |
| AGB-X2.5-2 | 4.5 | 9.0 | 14.9 | 9.9 | 4.8 | 4.1 | 3.3 | 2.6 | 1.7 | - | 85 |
| | 5.0 | 9.5 | 15.6 | 11.6 | 6.6 | 4.0 | 3.3 | 2.6 | 1.7 | - | 90 |
| | 6.0 | 10.0 | 17.2 | 14.2 | 9.3 | 4.5 | 3.3 | 2.3 | 1.4 | - | 89 |
| AGB-T05-2 | 4.0 | 16.0 | 19.5 | 17.7 | 13.5 | 9.0 | 6.1 | 5.0 | 3.3 | 1.8 | 84 |
| | 6.0 | 21.5 | 18.7 | 17.4 | 15.1 | 13.1 | 9.7 | 6.0 | 2.7 | 1.8 | 75 |

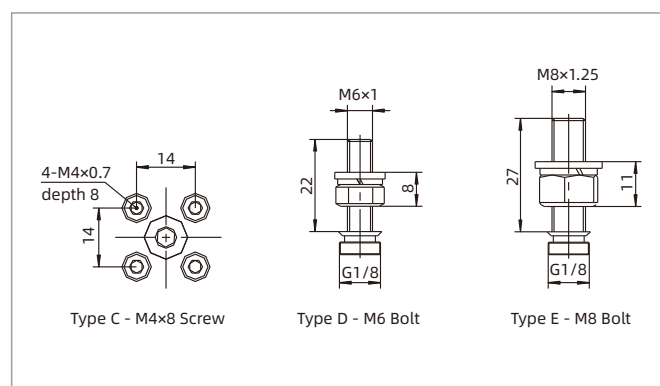
Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|------------|-------------------------|------------------------|-----|-----|-----|-----|-----|------|------|-------|------------------------|
| AGB-S02-2 | 4.0 | 6.0 | 0.4 | 1.4 | 2.8 | 5.1 | - | - | - | - | 55 |
| | 5.0 | 7.0 | 0.3 | 1.2 | 2.5 | 4.1 | 6.6 | 11.1 | - | - | 70 |
| | 6.0 | 8.0 | 0.3 | 1.1 | 2.4 | 4.1 | 6.2 | 9.0 | 14.3 | - | 75 |
| AGB-X2.5-2 | 4.5 | 9.0 | 0.4 | 1.3 | 3.2 | 4.6 | 6.5 | 9.8 | 15.3 | 25.70 | 85 |
| | 5.0 | 9.5 | 0.3 | 0.9 | 2.4 | 4.3 | 6.7 | 9.5 | 14.1 | 22.03 | 90 |
| | 6.0 | 10.0 | 0.2 | 0.7 | 1.7 | 3.7 | 5.9 | 9.5 | 14.5 | 22.41 | 89 |
| AGB-T05-2 | 4.0 | 16.0 | 0.2 | 0.5 | 1.1 | 2.2 | 3.4 | 5.2 | 9.0 | 17.36 | 84 |
| | 6.0 | 21.5 | 0.2 | 0.5 | 0.9 | 1.5 | 2.6 | 4.7 | 7.7 | 16.09 | 75 |

Dimensions(mm)



Mounting accessories(mm)



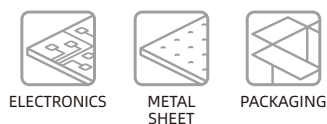
AGB
 ◇ Note: Type D/E are optional for above drawing a/b/c. Default mounting accessory is type C for AGB series

Mounting accessory selection

| Item | Model | Model |
|------------------------|-----------------------|------------------|
| AGB mounting accessory | Type C - 4-M4x8 Screw | Type D - M6 Bolt |
| | Type E - M8 Bolt | - |

AGP Series

Vacuum Generator



Features

- ◇ Fast evacuation, high vacuum level, low air consumption
- ◇ Built-in vacuum cartridge
- ◇ Small size, simple structure, groove type installation structure
- ◇ There are 6 vacuum ports with G1/8 female thread

Advantages

- ◇ High efficient and energy-saving vacuum generator, can quickly reach the max. vacuum level
- ◇ The suitable vacuum generators can be selected according to different working conditions
- ◇ Simple installation structure, can be installed quickly
- ◇ Multiple suction cups can be connected at the same time
- ◇ Reduce product noise



Applications

- ◇ The working conditions where multiple suction cups are directly installed at the same time
- ◇ Applicable to the working conditions that require fast evacuation and low air consumption

Structure

- ◇ Housing can be freely matched with vacuum cartridges with different performance parameters
- ◇ The air supply port is directly inserted into the $\phi 6$ hose, the vacuum port is G1/8 female thread

How to order

AGP - S08-3
① ②

| Series | ② Specification |
|--------|--|
| AGP | S08-3 (-75kPa) X10-3 (-93kPa) P12-3 (-90kPa) |

AGP Series

Vacuum Generator



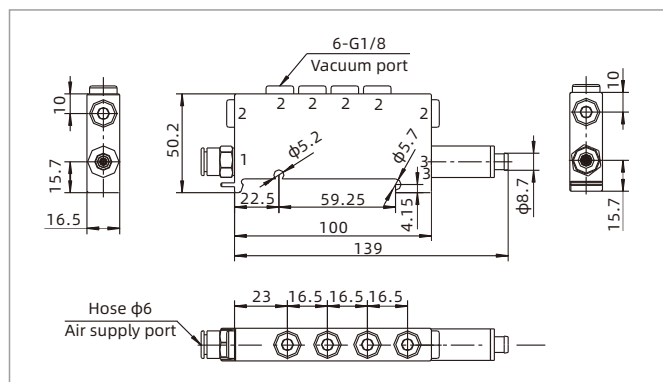
Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-----------|-------------------------|------------------------|------|------|------|------|------|------|-----|-----|-----|------------------------|
| AGP-S08-3 | 4.0 | 19.0 | 60.0 | 38.0 | 24.0 | 14.9 | 11.5 | 6.8 | - | - | - | 60 |
| | 5.0 | 23.0 | 66.0 | 40.0 | 32.0 | 19.1 | 13.3 | 9.9 | 6.5 | - | - | 70 |
| | 6.0 | 27.0 | 68.0 | 42.0 | 36.0 | 24.0 | 13.0 | 10.2 | 8.4 | 6.3 | - | 75 |
| AGP-X10-3 | 4.5 | 27.5 | 64.0 | 40.0 | 32.0 | 18.0 | 11.3 | 9.7 | 7.3 | 4.9 | 2.7 | 90 |
| | 5.0 | 30.0 | 66.0 | 40.0 | 34.0 | 24.0 | 14.3 | 9.3 | 6.9 | 4.8 | 2.4 | 93 |
| | 6.0 | 34.5 | 68.0 | 44.0 | 34.0 | 30.0 | 20.0 | 10.5 | 6.5 | 4.9 | 1.7 | 91 |
| AGP-P12-3 | 1.7 | 19.0 | 46.0 | 19.8 | 10.5 | 7.0 | 3.0 | - | - | - | - | 43 |
| | 2.2 | 22.5 | 52.0 | 30.0 | 12.0 | 8.2 | 5.8 | 2.7 | - | - | - | 58 |
| | 3.14 | 29.0 | 62.0 | 38.0 | 28.0 | 10.0 | 7.7 | 6.7 | 4.8 | 2.9 | 1.4 | 90 |
| | 4.0 | 35.0 | 68.0 | 40.0 | 34.0 | 24.0 | 11.4 | 5.7 | 4.2 | 3.0 | 1.2 | 88 |

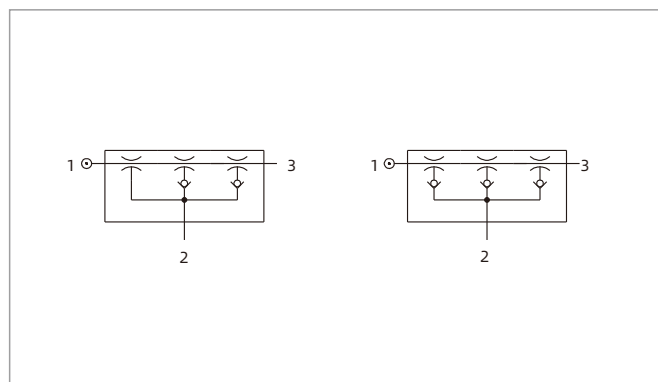
Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-----------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------------------------|
| AGP-S08-3 | 4.0 | 19.0 | 0.06 | 0.22 | 0.53 | 0.93 | 1.72 | 4.61 | - | - | 60 |
| | 5.0 | 23.0 | 0.06 | 0.19 | 0.44 | 0.83 | 1.35 | 2.23 | 6.33 | - | 70 |
| | 6.0 | 27.0 | 0.05 | 0.19 | 0.38 | 0.68 | 1.26 | 2.08 | 3.05 | - | 75 |
| AGP-X10-3 | 4.5 | 27.5 | 0.06 | 0.19 | 0.40 | 0.76 | 1.45 | 2.21 | 3.49 | 5.55 | 90 |
| | 5.0 | 30.0 | 0.05 | 0.19 | 0.37 | 0.66 | 1.26 | 2.14 | 3.45 | 5.60 | 93 |
| | 6.0 | 34.5 | 0.05 | 0.18 | 0.35 | 0.59 | 1.02 | 2.10 | 3.31 | 5.72 | 91 |
| AGP-P12-3 | 1.7 | 19.0 | 0.13 | 0.52 | 1.22 | 2.75 | - | - | - | - | 43 |
| | 2.2 | 22.5 | 0.08 | 0.31 | 0.70 | 1.33 | 2.54 | - | - | - | 58 |
| | 3.14 | 29.0 | 0.06 | 0.21 | 0.45 | 0.94 | 1.58 | 2.40 | 3.83 | 6.07 | 90 |
| | 4.0 | 35.0 | 0.06 | 0.20 | 0.38 | 0.67 | 1.26 | 2.36 | 3.75 | 6.57 | 88 |

Dimensions(mm)



AGP Air circuit schematic diagram



AGP

◇ Note: 1. Air supply port, 2. Vacuum port, 3. Exhaust port

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AGX Series

Vacuum Generator



ELECTRONICS



METAL SHEET



PACKAGING

Features

- ◇ Fast evacuation, high vacuum level, low air consumption
- ◇ Built-in vacuum cartridge
- ◇ Small size, simple structure, groove type installation structure
- ◇ There are 6 vacuum ports with G1/4 female thread

Advantages

- ◇ High efficient and energy-saving vacuum generator, can quickly reach the max. vacuum level
- ◇ The suitable vacuum generators can be selected according to different working conditions
- ◇ Simple installation structure, can be installed quickly
- ◇ Multiple suction cups can be connected at the same time
- ◇ Reduce product noise



Applications

- ◇ The working conditions where multiple suction cups are directly installed at the same time
- ◇ Applicable to the working conditions that require fast evacuation and low air consumption

Structure

- ◇ Housing can be freely matched with vacuum cartridges with different performance parameters
- ◇ The air supply port is directly inserted into the $\phi 8$ hose, the vacuum port is G1/4 female thread

How to order

AGX - S32-3

①

②

| Series | ② Specification |
|--------|----------------------------------|
| AGX | S32-3 (-75kPa) X40-3 (-95kPa) |

AGX Series

Vacuum Generator

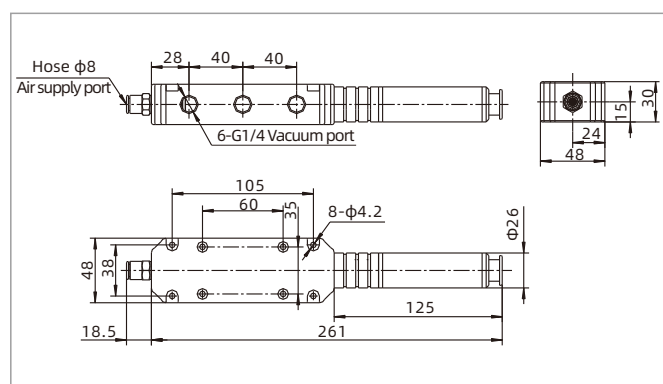
Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-----------|-------------------------|------------------------|-----|-----|-----|-----|----|------|------|------|------|-----|------------------------|
| AGX-S32-3 | 4.0 | 120 | 350 | 152 | 110 | 64 | 50 | 26.7 | 11.5 | - | - | - | 60 |
| | 5.0 | 125 | 370 | 185 | 125 | 90 | 50 | 36.2 | 27.3 | 13.9 | - | - | 70 |
| | 6.0 | 130 | 390 | 210 | 135 | 100 | 65 | 35.1 | 30.3 | 18.3 | - | - | 75 |
| AGX-X40-3 | 4.5 | 120 | 350 | 175 | 120 | 80 | 44 | 32.7 | 24.5 | 17.8 | 11.6 | 3.2 | 91 |
| | 5.0 | 125 | 360 | 190 | 125 | 95 | 65 | 36.0 | 26.0 | 17.6 | 10.8 | 2.8 | 95 |
| | 6.0 | 135 | 380 | 220 | 130 | 105 | 90 | 54.0 | 26.0 | 17.8 | 9.3 | 2.2 | 94 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

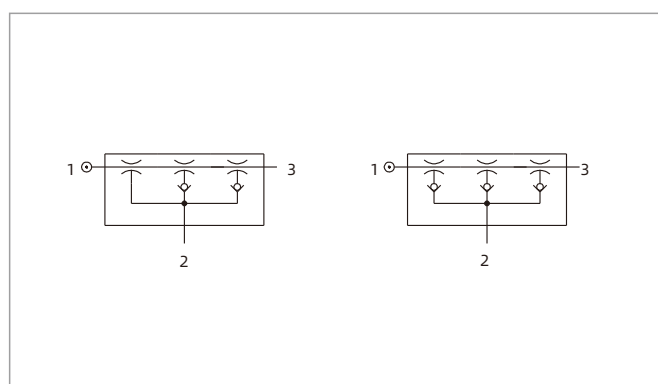
| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-----------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------|------------------------|
| AGX-S32-3 | 4.0 | 120 | 0.03 | 0.08 | 0.15 | 0.26 | 0.44 | 11.5 | - | - | - | 60 |
| | 5.0 | 125 | 0.03 | 0.07 | 0.13 | 0.23 | 0.38 | 27.3 | 1.07 | - | - | 70 |
| | 6.0 | 130 | 0.03 | 0.05 | 0.10 | 0.18 | 0.36 | 30.3 | 0.87 | - | - | 75 |
| AGX-X40-3 | 4.5 | 120 | 0.03 | 0.07 | 0.13 | 0.23 | 0.38 | 24.5 | 0.97 | 1.50 | 3.25 | 91 |
| | 5.0 | 125 | 0.03 | 0.07 | 0.14 | 0.21 | 0.37 | 26.0 | 0.99 | 1.46 | 3.23 | 95 |
| | 6.0 | 135 | 0.03 | 0.05 | 0.10 | 0.16 | 0.27 | 26.0 | 0.86 | 1.45 | 3.92 | 94 |

Dimensions(mm)



AGX

AGX Air circuit schematic diagram



◇ Note: 1. Air supply port, 2. Vacuum port, 3. Exhaust port

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AGE Series



Mechanical Energy-saving Vacuum Generator



GLASS



METAL SHEET

Features

- ◇ Mechanical energy saving mode, the generator itself automatically saves energy after the vacuum level reaches the set value, and then the air supply stops
- ◇ Optional energy saving function can save up to 99% of the air consumption
- ◇ Can adapt to a variety of working conditions, can work in dust and water environment
- ◇ Internal blow valve allows rapid release of workpiece and maintain vacuum in sealed applications in the event of system or power failure
- ◇ Internal filter is equipped to protect the device from dust and particles

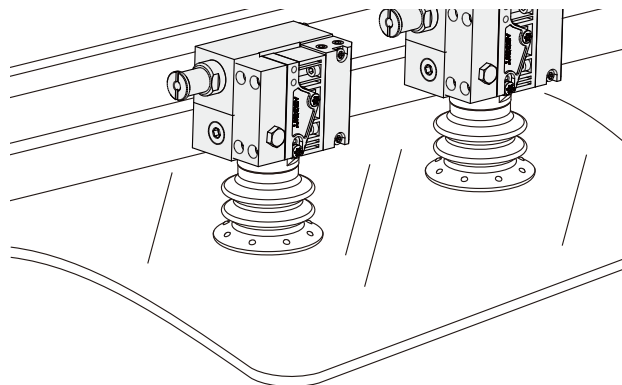
Advantages

- ◇ Energy-saving function is realized by the generator itself, electric control is not required
- ◇ Strong anti-pollution ability
- ◇ Energy-saving function, it can help customers to minimize the cost
- ◇ Two-stage generator, vacuum level can reach to -92kPa quickly



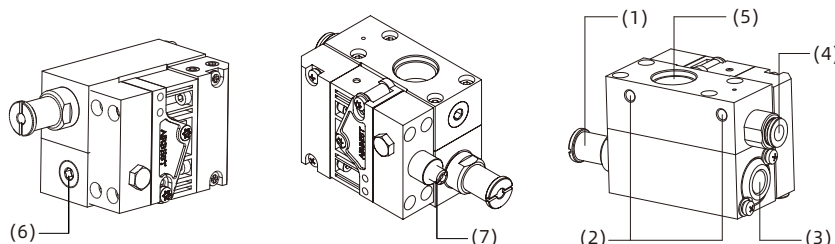
Applications

- ◇ Applicable to glass, metal sheet and other workpieces with good sealed surface
- ◇ Applicable to the occasions with water, dust and other places where the electric precision instrument can not work properly
- ◇ Suitable for glass grinding



Structure

- ◇ (1) Exhaust port
- ◇ (2) Mounting hole
- ◇ (3) Air supply port
- ◇ (4) Vacuum release port
- ◇ (5) Vacuum port
- ◇ (6) Vacuum detecting port
- ◇ (7) Energy-saving system adjustment rod



Note: The energy saving adjustable rod is only available in AGE-AS

AGE Series

Mechanical Energy-saving Vacuum Generator

How to order

AGE - ES

① ②

| ① Series | ② Control device |
|----------|--|
| AGE | Nil - Default, without control device ES - Energy-saving system AS - Energy-saving system adjustment rod |

◇ Note: In AGE-ES, the adjustable range is from -50kPa to -70kPa

Selection

| Model/Control device | ES | AS |
|----------------------|--------|--------|
| Nil | | |
| AGE | AGE-ES | AGE-AS |

Technical parameters

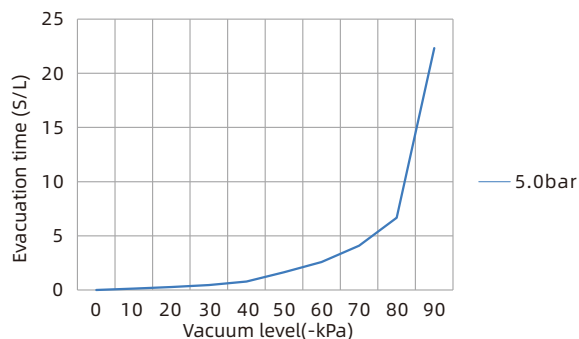
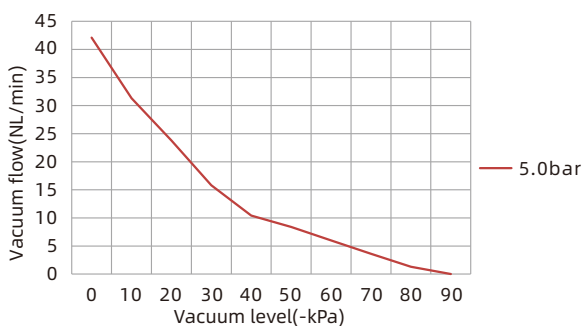
| Model | Rated air supply pressure bar | Max.vacuum level -kPa | Max.vacuum flow NL/min | Noise level dB(A) | Weight g |
|--------|-------------------------------|-----------------------|------------------------|-------------------|----------|
| AGE | 5.0 | 92 | 41 | 68.5 | 177 |
| AGE-ES | 5.0 | 92 | 41 | 68.5 | 258 |
| AGE-AS | 5.0 | 92 | 41 | 68.5 | 263 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|-----|-----|-----|-----|----|------------------------|
| AGE | 5.0 | 29 | 42.1 | 31.3 | 23.8 | 15.8 | 10.4 | 8.4 | 6.0 | 3.6 | 1.3 | 0 | 92 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|------|------|-------|------------------------|
| AGE | 5.0 | 29 | 0.14 | 0.28 | 0.47 | 0.79 | 1.64 | 2.59 | 4.09 | 6.68 | 22.32 | 92 |

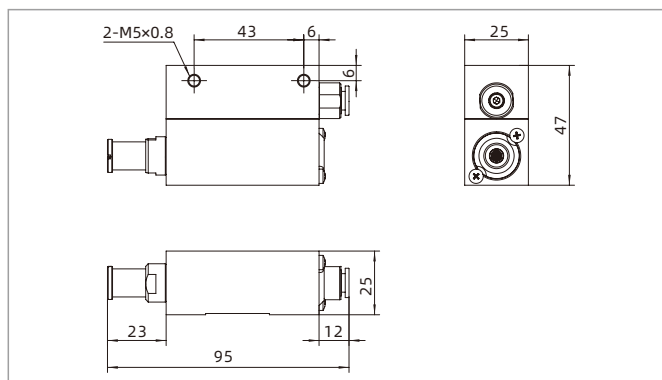


AGE Series

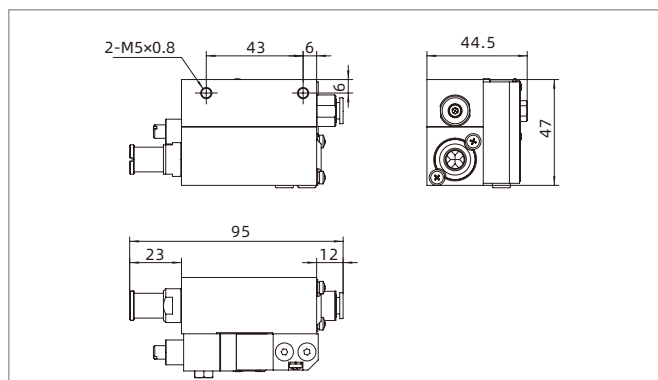


Mechanical Energy-saving Vacuum Generator

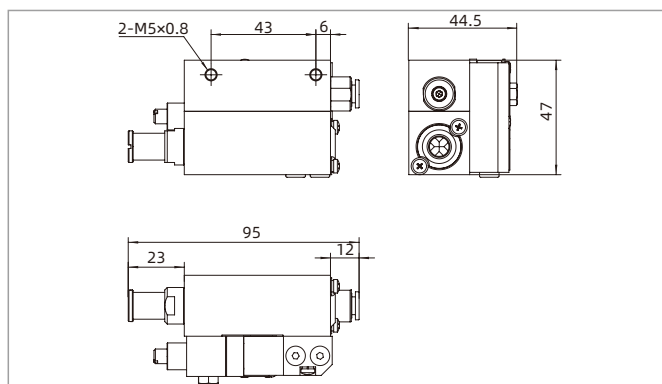
Dimensions(mm)



AGE

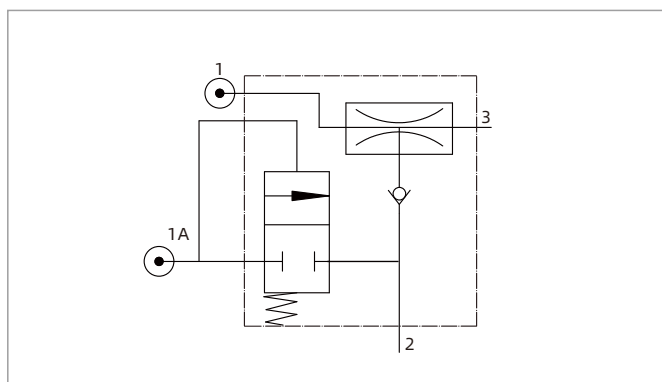


AGE-ES

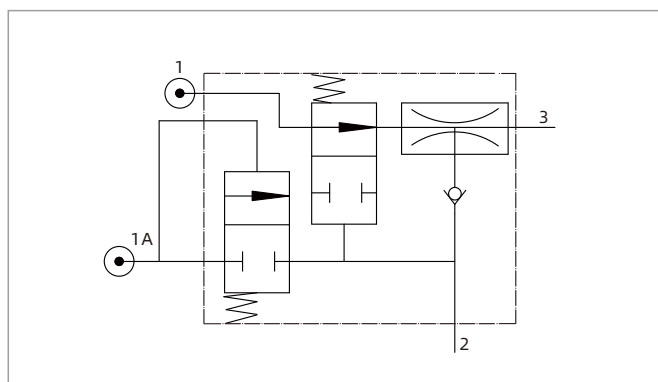


AGE-AS

Air circuit schematic diagram



AGE



AGE-ES

ABM/ABX Series

Mini Vacuum Generator



Features

- ◇ Energy-efficient nozzle design
- ◇ Small size, light weight, can be connected with suction cup directly
- ◇ There are a variety of air port specifications (A,NA ,B,NB,C,NC)
- ◇ Built-in silencer and external silencer are optional

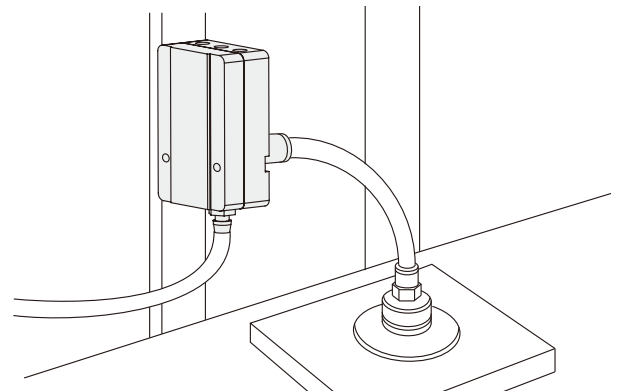
Advantages

- ◇ It can produce more vacuum flow in the condition of less air consumption
- ◇ For the occasions with limited installation space and weight
- ◇ Suitable port connection specifications can be selected according to the on-site requirements
- ◇ It can meet different requirements of vacuum flow in different working conditions
- ◇ Reduce product noise greatly



Applications

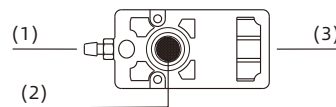
- ◇ Universal vacuum generator, widely used in all kinds of vacuum systems
- ◇ Suitable for metal plate handling, packaging machinery, injection molding and industrial robot technology field



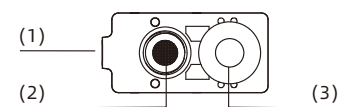
Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Exhaust port
- ◇ (4) Vacuum filter
- ◇ (5) Silencer

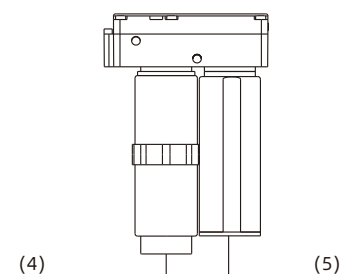
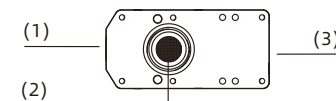
A NA type



C NC type



B NB type



AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ABM/ABX Series

Mini Vacuum Generator



How to order

ABM 10 - B - F
 ① ② ③ ④

| ① Series | ② Specification | ③ Port connection | ④ Sealing |
|---------------------------------------|-----------------|-------------------|---------------------|
| ABM - Universal type (-85kPa) | 5 | A NA | Nil - Default,NBR |
| ABX - High vacuum level type (-92kPa) | 10 | B NB | F - Fluorine rubber |
| | 20 | C NC | E - EPDM |
| | 30 | (Refer to table1) | |

Port connection table1

| Port connection | Air supply port | Vacuum port | Exhaust port | Applicable vacuum generator |
|-----------------|-----------------|-------------|-------------------|----------------------------------|
| A | M5-φ6 | G1/8 | Internal silencer | ABM5、10 ABX5、10 |
| NA | M5-φ6 | NPSF1/8 | Internal silencer | ABM5、10 ABX5、10 |
| B | G1/8 | G3/8 | Internal silencer | ABM5、10、20、30 ABX5、10、20、30 |
| NB | NPSF1/8 | NPSF3/8 | Internal silencer | ABM5、10、20、30 ABX5、10、20、30 |
| C | G1/8 | G3/8 | External silencer | ABM5、10、20、30 ABX5、10、20、30 |
| NC | NPSF1/8 | NPSF3/8 | External silencer | ABM5、10、20、30 ABX5、10、20、30 |

Selection - ABM

| Model/ Specification | A | NA | B | NB | C | NC |
|----------------------|---------|----------|---------|----------|---------|----------|
| ABM5-□ | ABM5-A | ABM5-NA | ABM5-B | ABM5-NB | ABM5-C | ABM5-NC |
| ABM10-□ | ABM10-A | ABM10-NA | ABM10-B | ABM10-NB | ABM10-C | ABM10-NC |
| ABM20-□ | - | - | ABM20-B | ABM20-NB | ABM20-C | ABM20-NC |
| ABM30-□ | - | - | ABM30-B | ABM30-NB | ABM30-C | ABM30-NC |

Selection - ABX

| Model/ Specification | A | NA | B | NB | C | NC |
|----------------------|---------|----------|---------|----------|---------|----------|
| ABX5-□ | ABX5-A | ABX5-NA | ABX5-B | ABX5-NB | ABX5-C | ABX5-NC |
| ABX10-□ | ABX10-A | ABX10-NA | ABX10-B | ABX10-NB | ABX10-C | ABX10-NC |
| ABX20-□ | - | - | ABX20-B | ABX20-NB | ABX20-C | ABX20-NC |
| ABX30-□ | - | - | ABX30-B | ABX30-NB | ABX30-C | ABX30-NC |

ABM/ABX Series

Mini Vacuum Generator



Technical parameters - ABM

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Recommended hose dia. mm | |
|-------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|--------------------------|---------------|
| | | | | | | | Air supply port P | Vacuum port V |
| ABM5 | 4.5~6.0 | 85 | 35~37 | 12~20 | 50~65 | -20~80 | φ6 | φ8 |
| ABM10 | 4.5~6.0 | 85 | 70~75 | 28~42 | 55~68 | -20~80 | φ6 | φ10 |
| ABM20 | 4.5~6.0 | 85 | 141~150 | 55~85 | 60~68 | -20~80 | φ8 | φ12 |
| ABM30 | 4.5~6.0 | 85 | 175~220 | 87~125 | 60~68 | -20~80 | φ10 | φ12 |

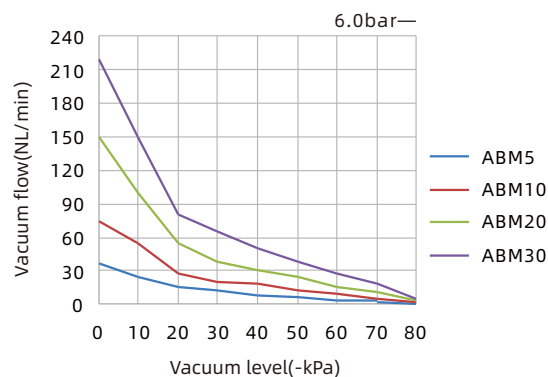
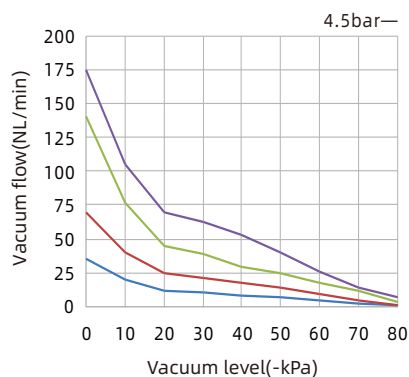
Technical parameters - ABX

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Recommended hose dia. mm | |
|-------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|--------------------------|---------------|
| | | | | | | | Air supply port P | Vacuum port V |
| ABX5 | 4.5~6.0 | 92 | 30~32 | 18~22 | 50~65 | -20~80 | φ6 | φ8 |
| ABX10 | 4.5~6.0 | 92 | 52~63 | 31~40 | 55~68 | -20~80 | φ6 | φ10 |
| ABX20 | 4.5~6.0 | 92 | 110~125 | 79~89 | 60~69 | -20~80 | φ8 | φ12 |
| ABX30 | 4.5~6.0 | 92 | 180~185 | 128~137 | 60~69 | -20~80 | φ10 | φ12 |

◇ Note: Max. air supply pressure is 7.0 bar

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level(-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|--------------------|-------|------|------|------|------|------|------|-----|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | | |
| ABM5 | 4.5 | 12 | 35.0 | 20.5 | 12.0 | 10.5 | 8.5 | 6.5 | 4.5 | 2.5 | 0.8 | 85 | |
| ABM10 | 4.5 | 28 | 70.0 | 40.5 | 25.0 | 21.0 | 18.0 | 14.0 | 9.5 | 5.0 | 1.3 | 85 | |
| ABM20 | 4.5 | 55 | 141.0 | 77.0 | 45.0 | 39.5 | 29.5 | 25.0 | 17.5 | 12.0 | 3.0 | 85 | |
| ABM30 | 4.5 | 87 | 175.0 | 105.0 | 70.0 | 63.0 | 53.0 | 40.0 | 26.0 | 14.0 | 6.5 | 85 | |
| ABM5 | 6.0 | 20 | 37.0 | 25.0 | 15.5 | 12.0 | 8.0 | 6.0 | 4.0 | 2.7 | 0.6 | 85 | |
| ABM10 | 6.0 | 42 | 75.0 | 55.0 | 27.0 | 20.0 | 18.0 | 12.0 | 9.0 | 5.0 | 2.0 | 85 | |
| ABM20 | 6.0 | 85 | 150.0 | 100.0 | 55.0 | 38.0 | 30.0 | 24.0 | 16.0 | 11.0 | 3.2 | 85 | |
| ABM30 | 6.0 | 125 | 220.0 | 150.0 | 81.0 | 65.0 | 50.0 | 38.0 | 27.0 | 18.0 | 5.0 | 85 | |



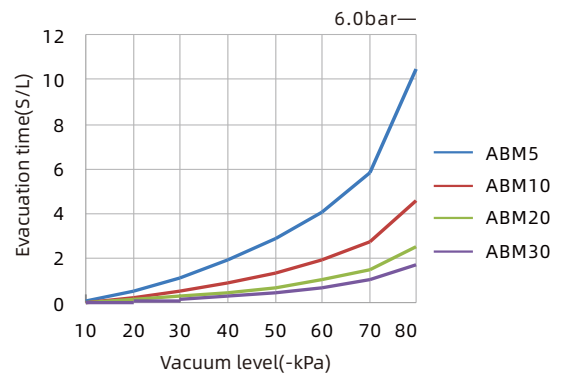
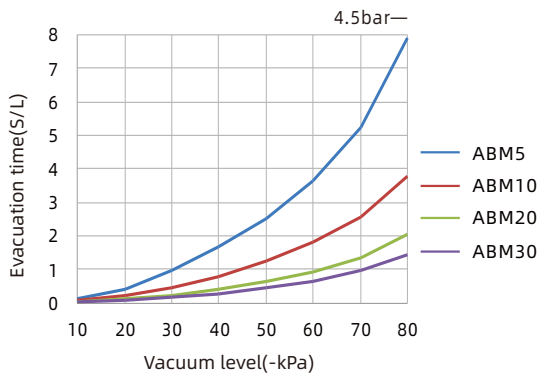
ABM/ABX Series

Mini Vacuum Generator



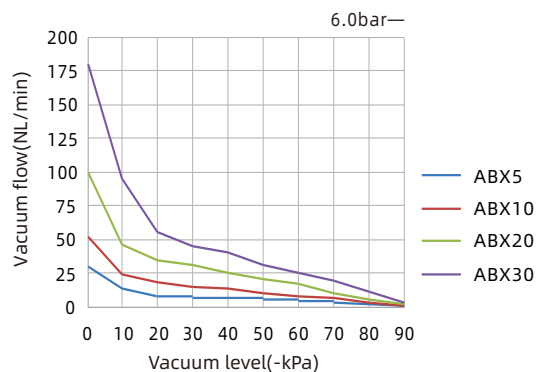
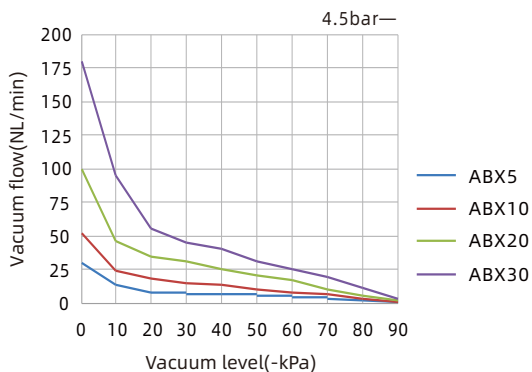
Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|------|-------|------------------------|
| ABM5 | 4.5 | 12 | 0.11 | 0.42 | 0.95 | 1.66 | 2.50 | 3.65 | 5.25 | 7.89 | 85 |
| ABM10 | 4.5 | 28 | 0.08 | 0.20 | 0.44 | 0.80 | 1.24 | 1.80 | 2.55 | 3.80 | 85 |
| ABM20 | 4.5 | 55 | 0.04 | 0.12 | 0.23 | 0.41 | 0.65 | 0.93 | 1.33 | 2.03 | 85 |
| ABM30 | 4.5 | 87 | 0.03 | 0.09 | 0.16 | 0.27 | 0.43 | 0.66 | 0.95 | 1.43 | 85 |
| ABM5 | 6.0 | 20 | 0.13 | 0.51 | 1.15 | 1.93 | 2.87 | 4.09 | 5.84 | 10.46 | 85 |
| ABM10 | 6.0 | 42 | 0.03 | 0.23 | 0.53 | 0.92 | 1.37 | 1.95 | 2.77 | 4.62 | 85 |
| ABM20 | 6.0 | 85 | 0.02 | 0.15 | 0.28 | 0.46 | 0.71 | 1.02 | 1.48 | 2.55 | 85 |
| ABM30 | 6.0 | 125 | 0.02 | 0.08 | 0.14 | 0.31 | 0.49 | 0.69 | 1.02 | 1.75 | 85 |



Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|-------|-------|------|------|------|------|------|------|------|------|------------------------|
| ABX5 | 4.5 | 18 | 30.0 | 13.0 | 7.5 | 7.0 | 6.0 | 5.0 | 4.0 | 3.2 | 1.8 | 0.4 | 92 |
| ABX10 | 4.5 | 31 | 52.0 | 24.0 | 18.0 | 15.0 | 13.0 | 10.5 | 8.0 | 6.0 | 2.5 | 0.8 | 92 |
| ABX20 | 4.5 | 79 | 100.0 | 46.0 | 34.0 | 30.5 | 25.0 | 21.0 | 17.0 | 10.5 | 5.0 | 1.6 | 92 |
| ABX30 | 5.0 | 128 | 180.0 | 95.0 | 55.0 | 45.5 | 40.5 | 30.5 | 25.0 | 19.0 | 11.5 | 3.0 | 92 |
| ABX5 | 6.0 | 22 | 32.0 | 20.0 | 8.5 | 7.5 | 6.0 | 5.0 | 4.0 | 3.0 | 1.5 | 0.15 | 92 |
| ABX10 | 6.0 | 40 | 63.0 | 36.0 | 18.0 | 16.0 | 12.5 | 10.5 | 8.5 | 6.0 | 3.5 | 0.5 | 92 |
| ABX20 | 6.0 | 89 | 125.0 | 73.0 | 35.0 | 30.0 | 25.0 | 22.0 | 18.0 | 12.0 | 7.0 | 0.9 | 92 |
| ABX30 | 6.0 | 137 | 185.0 | 103.0 | 51.0 | 46.0 | 38.0 | 31.0 | 25.0 | 19.0 | 12.0 | 1.8 | 92 |



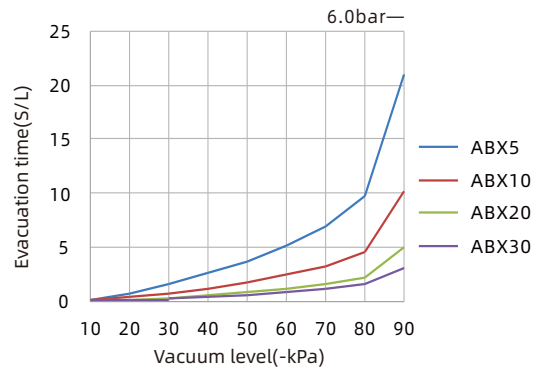
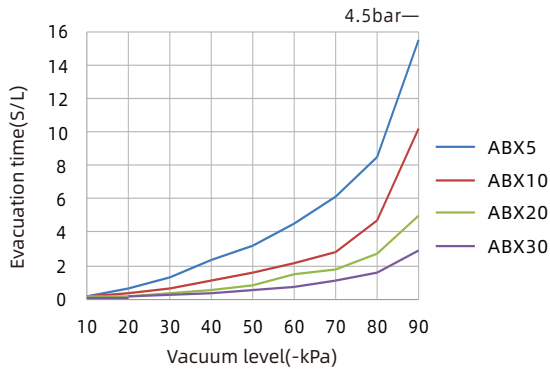
ABM/ABX Series

Mini Vacuum Generator

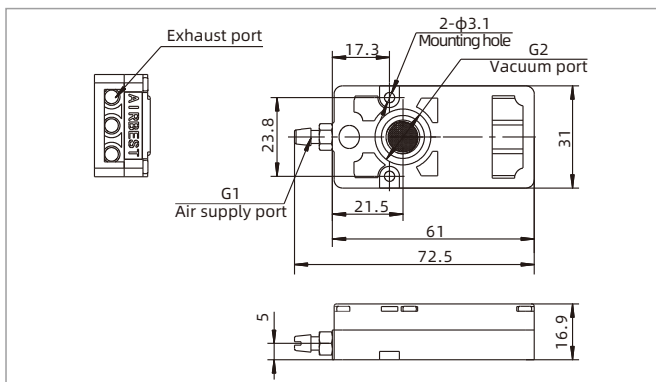


Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|------|------|-------|------------------------|
| ABX5 | 4.5 | 18 | 0.13 | 0.60 | 1.26 | 2.30 | 3.20 | 4.50 | 6.15 | 8.50 | 15.50 | 92 |
| ABX10 | 4.5 | 31 | 0.11 | 0.30 | 0.65 | 1.10 | 1.55 | 2.15 | 2.85 | 4.70 | 10.20 | 92 |
| ABX20 | 4.5 | 79 | 0.09 | 0.16 | 0.32 | 0.55 | 0.80 | 1.50 | 1.80 | 2.70 | 5.00 | 92 |
| ABX30 | 5.0 | 128 | 0.06 | 0.12 | 0.23 | 0.36 | 0.53 | 0.76 | 1.10 | 1.60 | 2.90 | 92 |
| ABX5 | 6.0 | 22 | 0.15 | 0.71 | 1.52 | 2.54 | 3.72 | 5.12 | 6.95 | 9.70 | 21.00 | 92 |
| ABX10 | 6.0 | 40 | 0.09 | 0.32 | 0.71 | 1.18 | 1.74 | 2.40 | 3.26 | 4.55 | 10.20 | 92 |
| ABX20 | 6.0 | 89 | 0.05 | 0.15 | 0.31 | 0.52 | 0.77 | 1.08 | 1.54 | 2.15 | 4.92 | 92 |
| ABX30 | 6.0 | 137 | 0.03 | 0.13 | 0.23 | 0.38 | 0.58 | 0.82 | 1.11 | 1.54 | 3.00 | 92 |



Dimensions(mm)



ABM5-A/NA ABM10-A/NA
 ABX5-A/NA ABX10-A/NA

| Model/size | G1 | G2 | Weight g |
|--------------|----|---------|----------|
| ABM/ABX5-A | φ6 | G1/8 | 58 |
| ABM/ABX5-NA | φ6 | NPSF1/8 | 58 |
| ABM/ABX10-A | φ6 | G1/8 | 59 |
| ABM/ABX10-NA | φ6 | NPSF1/8 | 59 |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

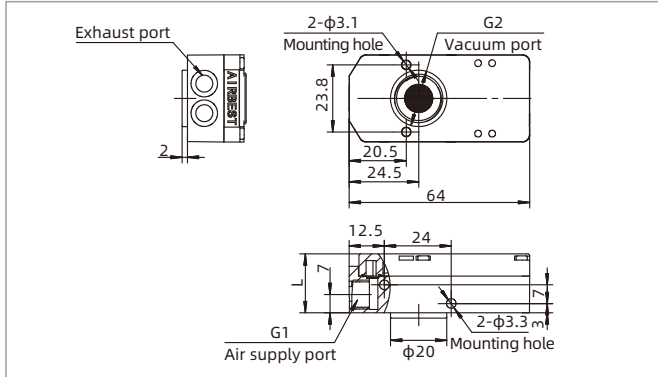
ACPS

APB

ABM/ABX Series

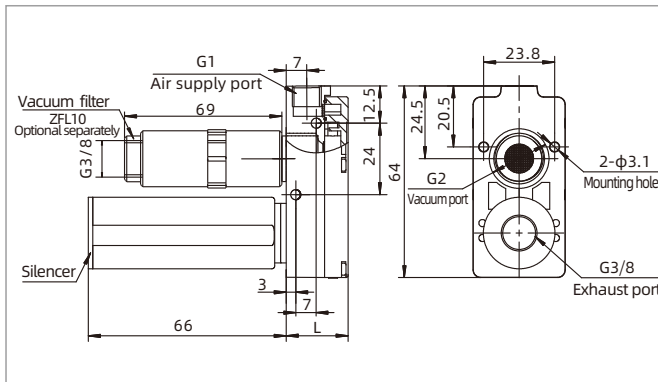
Mini Vacuum Generator

Dimensions(mm)



ABM(5-30)-B/NB ABX(5-30)-B/NB

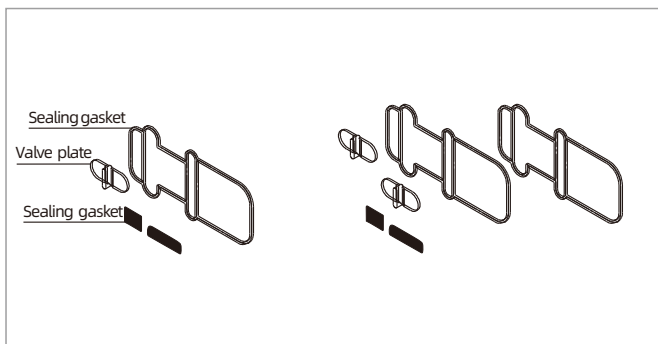
| Model/size | G1 | G2 | L | Weight g |
|--------------|---------|---------|------|----------|
| ABM/ABX5-B | G1/8 | G3/8 | 20.7 | 64 |
| ABM/ABX5-NB | NPSF1/8 | NPSF3/8 | 20.7 | 64 |
| ABM/ABX10-B | G1/8 | G3/8 | 20.7 | 64 |
| ABM/ABX10-NB | NPSF1/8 | NPSF3/8 | 20.7 | 64 |
| ABM/ABX20-B | G1/8 | G3/8 | 28 | 77 |
| ABM/ABX20-NB | NPSF1/8 | NPSF3/8 | 28 | 77 |
| ABM/ABX30-B | G1/8 | G3/8 | 35 | 89 |
| ABM/ABX30-NB | NPSF1/8 | NPSF3/8 | 35 | 89 |



ABM(5-30)-C/NC ABX(5-30)-C/NC

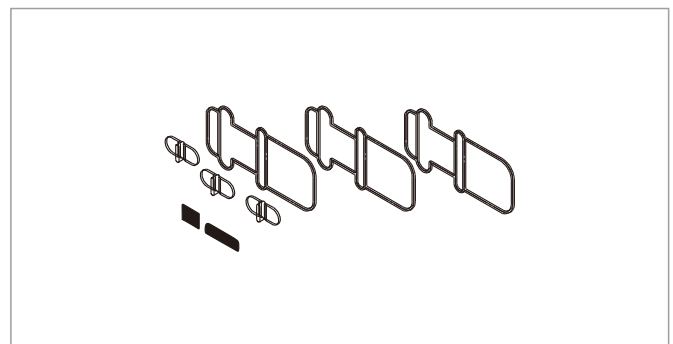
| Model/size | G1 | G2 | L | Weight g |
|--------------|---------|---------|------|----------|
| ABM/ABX5-C | G1/8 | G3/8 | 20.7 | 84 |
| ABM/ABX5-NC | NPSF1/8 | NPSF3/8 | 20.7 | 84 |
| ABM/ABX10-C | G1/8 | G3/8 | 20.7 | 87 |
| ABM/ABX10-NC | NPSF1/8 | NPSF3/8 | 20.7 | 87 |
| ABM/ABX20-C | G1/8 | G3/8 | 28 | 100 |
| ABM/ABX20-NC | NPSF1/8 | NPSF3/8 | 28 | 100 |
| ABM/ABX30-C | G1/8 | G3/8 | 35 | 112 |
| ABM/ABX30-NC | NPSF1/8 | NPSF3/8 | 35 | 112 |

Repair kits



ABM10-PK

ABM20-PK



ABM30-PK

| Item | Sealing kits model | | | Model | Applicable vacuum generator |
|---------------|--------------------|------------|------------|---------|-----------------------------|
| | NBR | F | E | | |
| Sealing kits | ABM10-PK | ABM10-F-PK | ABM10-E-PK | - | ABM/ABX(5-10) |
| Sealing kits | ABM20-PK | ABM20-F-PK | ABM20-E-PK | - | ABM/ABX20 |
| Sealing kits | ABM30-PK | ABM30-F-PK | ABM30-E-PK | - | ABM/ABX30 |
| Vacuum filter | - | - | - | ZFL10 | ABM/ABX(5-30)-B,NB,C,NC |
| Silencer | - | - | - | ZSA-G3M | ABM/ABX(5-30)-C,NC |

ABM/ABX Series

Mini Combined Type Vacuum Generator



Features

- ◇ Energy-efficient nozzle design
- ◇ Small size, light weight, compact structure, easy installation
- ◇ Can be operated with a single pneumatic control valve, each vacuum circuit can be controlled by each ABM/ABX and does not affect the running of other circuits

Advantages

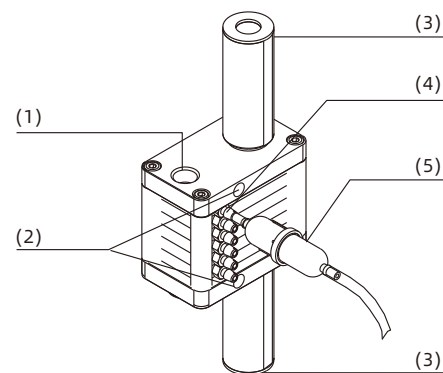
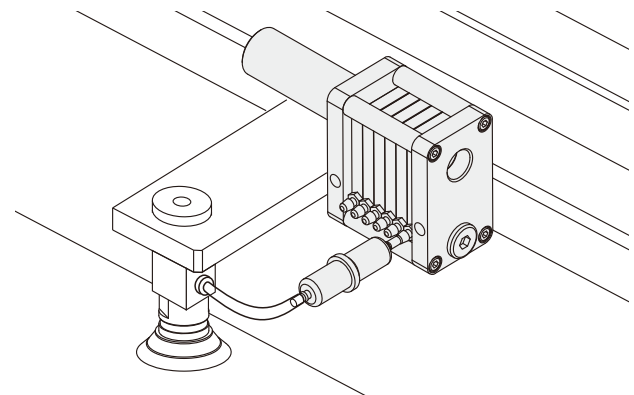
- ◇ It can produce more vacuum flow in the condition of less air consumption
- ◇ For the occasions with limited installation space and weight
- ◇ It is convenient to control, it can control each circuit separately in the working condition of multiple units are used seperately
- ◇ It can meet different requirements of vacuum flow in different working conditions

Applications

- ◇ Universal vacuum generator, widely used in all kinds of vacuum systems
- ◇ Suitable for metal plate handling, packaging machinery, injection molding and industrial robot technology field

Structure

- ◇ (1) Air supply port
- ◇ (2) Mounting hole
- ◇ (3) Silencer
- ◇ (4) Vacuum port
- ◇ (5) Vacuum filter



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ABM/ABX Series



Mini Combined Type Vacuum Generator

How to order

ABM 5 × 5 - 4 - F
 ① ② ③ ④ ⑤

| ① Series | ② Specification | ③ Vacuum stack | ④ Hose inner dia.at vacuum port | ⑤ Sealing |
|--------------------------------------|-----------------|----------------|---------------------------------|---------------------|
| ABM - Universal type(-85kPa) | 5 | 2 | 4 - φ4mm | Nil - Default, NBR |
| ABX - High vacuum level type(-92kPa) | 10 | 3 | | F - Fluorine rubber |
| | | | | E - EPDM |
| | | 16 | | |

Selection

| Model/ Specification | 5 | 10 | Model/ Specification | 5 | 10 |
|-------------------------|-----------|------------|-------------------------|-----------|-----------|
| ABM□×2-4 | ABM5×2-4 | ABM10×2-4 | ABX□×2-4 | ABX5×2-4 | ABX10×2-4 |
| ABM□×3-4 | ABM5×3-4 | ABM10×3-4 | ABX□×3-4 | ABX5×3-4 | ABX10×3-4 |
| ABM□×4-4 | ABM5×4-4 | ABM10×4-4 | ABX□×4-4 | ABX5×4-4 | ABX10×4-4 |
| ABM□×5-4 | ABM5×5-4 | ABM10×5-4 | ABX□×5-4 | ABX5×5-4 | ABX10×5-4 |
| ABM□×6-4 | ABM5×6-4 | ABM10×6-4 | ABX□×6-4 | ABX5×6-4 | ABX10×6-4 |
| ABM□×7-4 | ABM5×7-4 | ABM10×7-4 | ABX□×7-4 | ABX5×7-4 | ABX10×7-4 |
| ABM□×8-4 | ABM5×8-4 | ABM10×8-4 | ABX□×8-4 | ABX5×8-4 | ABX10×8-4 |
| ABM□×9-4 | ABM5×9-4 | ABM10×9-4 | ABX□×9-4 | ABX5×9-4 | ABX5×9-4 |
| ABM□×10-4 | ABM5×10-4 | ABM10×10-4 | ABX□×10-4 | ABX5×10-4 | ABX5×10-4 |
| ABM□×11-4 | ABM5×11-4 | ABM10×11-4 | ABX□×11-4 | ABX5×11-4 | ABX5×11-4 |
| ABM□×12-4 | ABM5×12-4 | ABM10×12-4 | ABX□×12-4 | ABX5×12-4 | ABX5×12-4 |
| ABM□×13-4 | ABM5×13-4 | ABM10×13-4 | ABX□×13-4 | ABX5×13-4 | - |
| ABM□×14-4 | ABM5×14-4 | ABM10×14-4 | ABX□×14-4 | ABX5×14-4 | - |
| ABM□×15-4 | ABM5×15-4 | ABM10×15-4 | ABX□×15-4 | ABX5×15-4 | - |
| ABM□×16-4 | ABM5×16-4 | ABM10×16-4 | ABX□×16-4 | ABX5×16-4 | - |

ABM/ABX Series

Mini Combined Type Vacuum Generator



Technical parameters

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia. (mm) | | |
|------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|----------------------------|---------------|----------------|
| | | | | | | | | Air supply port P | Vacuum port V | Exhaust port E |
| ABM5×2-4 | 4.5~6.0 | 85 | 25×2 | 29~41 | 50~60 | -20~80 | 67 | φ6 | φ6 | G3/8×1 |
| ABM5×3-4 | 4.5~6.0 | 85 | 25×3 | 44~64 | 50~60 | -20~80 | 80 | φ6 | φ6 | G3/8×1 |
| ABM5×4-4 | 4.5~6.0 | 85 | 25×4 | 61~85 | 50~60 | -20~80 | 247 | φ8 | φ6 | G3/8×1 |
| ABM5×5-4 | 4.5~6.0 | 85 | 25×5 | 71~104 | 60~65 | -20~80 | 255 | φ8 | φ6 | G3/8×1 |
| ABM5×6-4 | 4.5~6.0 | 85 | 25×6 | 89~125 | 60~65 | -20~80 | 281 | φ8 | φ6 | G3/8×1 |
| ABM5×7-4 | 4.5~6.0 | 85 | 25×7 | 104~145 | 60~65 | -20~80 | 299 | φ8 | φ6 | G3/8×1 |
| ABM5×8-4 | 4.5~6.0 | 85 | 25×8 | 120~168 | 60~65 | -20~80 | 317 | φ10 | φ6 | G3/8×1 |
| ABM5×9-4 | 4.5~6.0 | 85 | 25×9 | 132~190 | 60~65 | -20~80 | 335 | φ10 | φ6 | G3/8×1 |
| ABM5×10-4 | 4.5~6.0 | 85 | 25×10 | 148~211 | 60~65 | -20~80 | 353 | φ10 | φ6 | G3/8×1 |
| ABM5×11-4 | 4.5~6.0 | 85 | 25×11 | 165~232 | 60~65 | -20~80 | 371 | φ10 | φ6 | G3/8×1 |
| ABM5×12-4 | 4.5~6.0 | 85 | 25×12 | 180~252 | 60~65 | -20~80 | 389 | φ10 | φ6 | G3/8×2 |
| ABM5×13-4 | 4.5~6.0 | 85 | 25×13 | 195~275 | 60~65 | -20~80 | 417 | φ10 | φ6 | G3/8×2 |
| ABM5×14-4 | 4.5~6.0 | 85 | 25×14 | 208~293 | 60~65 | -20~80 | 435 | φ10 | φ6 | G3/8×2 |
| ABM5×15-4 | 4.5~6.0 | 85 | 25×15 | 225~316 | 60~65 | -20~80 | 453 | φ12 | φ6 | G3/8×2 |
| ABM5×16-4 | 4.5~6.0 | 85 | 25×16 | 241~335 | 60~65 | -20~80 | 471 | φ12 | φ6 | G3/8×2 |
| ABM10×2-4 | 4.5~6.0 | 85 | 32×2 | 61~85 | 55~60 | -20~80 | 67 | φ8 | φ6 | G3/8×1 |
| ABM10×3-4 | 4.5~6.0 | 85 | 32×3 | 91~125 | 60~65 | -20~80 | 80 | φ8 | φ6 | G3/8×1 |
| ABM10×4-4 | 4.5~6.0 | 85 | 32×4 | 121~167 | 60~65 | -20~80 | 247 | φ10 | φ6 | G3/8×1 |
| ABM10×5-4 | 4.5~6.0 | 85 | 32×5 | 151~212 | 60~65 | -20~80 | 255 | φ10 | φ6 | G3/8×1 |
| ABM10×6-4 | 4.5~6.0 | 85 | 32×6 | 185~255 | 60~65 | -20~80 | 281 | φ10 | φ6 | G3/8×2 |
| ABM10×7-4 | 4.5~6.0 | 85 | 32×7 | 211~295 | 60~65 | -20~80 | 299 | φ10 | φ6 | G3/8×2 |
| ABM10×8-4 | 4.5~6.0 | 85 | 32×8 | 241~335 | 60~65 | -20~80 | 327 | φ10 | φ6 | G3/8×2 |
| ABM10×9-4 | 4.5~6.0 | 85 | 32×9 | 271~376 | 60~65 | -20~80 | 345 | φ12 | φ6 | G3/8×2 |
| ABM10×10-4 | 4.5~6.0 | 85 | 32×10 | 301~421 | 60~65 | -20~80 | 363 | φ12 | φ6 | G3/8×2 |
| ABM10×11-4 | 4.5~6.0 | 85 | 32×11 | 332~463 | 60~65 | -20~80 | 381 | φ12 | φ6 | G3/8×2 |
| ABM10×12-4 | 4.5~6.0 | 85 | 32×12 | 361~505 | 60~65 | -20~80 | 399 | φ12 | φ6 | G3/8×2 |

◇ Note: Max. air supply pressure is 7.0 bar

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | | Max. vacuum level -kPa |
|---------|-------------------------|------------------------|---------------------|------|------|------|------|------|------|-----|-----|----|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | | |
| ABM5×1 | 6.0 | 20 | 25.0 | 15.0 | 12.5 | 11.0 | 10.0 | 7.5 | 5.5 | 2.0 | 0.6 | - | 85 | |
| ABM10×1 | 6.0 | 42 | 32.0 | 28.0 | 24.0 | 22.0 | 18.0 | 15.0 | 11.0 | 5.0 | 1.4 | - | 85 | |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | | Max. vacuum level -kPa |
|---------|-------------------------|------------------------|---------------------|------|------|------|------|------|------|-------|----|----|--|------------------------|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | | | |
| ABM5×1 | 6.0 | 20 | 0.20 | 0.59 | 1.10 | 1.58 | 2.40 | 3.52 | 5.30 | 10.30 | - | 85 | | |
| ABM10×1 | 6.0 | 42 | 0.12 | 0.28 | 0.60 | 0.81 | 1.18 | 1.82 | 2.65 | 5.21 | - | 85 | | |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ABM/ABX Series

Mini Combined Type Vacuum Generator



Technical parameters

| Model | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia. mm | | |
|------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|--------------------------|---------------|----------------|
| | | | | | | | | Air supply port P | Vacuum port V | Exhaust port E |
| ABX5×2-4 | 4.5~6.0 | 92 | 23×2 | 43~49 | 55~60 | -20~80 | 67 | φ6 | φ6 | G3/8×1 |
| ABX5×3-4 | 4.5~6.0 | 92 | 23×3 | 65~73 | 55~60 | -20~80 | 80 | φ6 | φ6 | G3/8×1 |
| ABX5×4-4 | 4.5~6.0 | 92 | 23×4 | 85~96 | 60~63 | -20~80 | 247 | φ8 | φ6 | G3/8×1 |
| ABX5×5-4 | 4.5~6.0 | 92 | 23×5 | 106~121 | 60~63 | -20~80 | 255 | φ8 | φ6 | G3/8×1 |
| ABX5×6-4 | 4.5~6.0 | 92 | 23×6 | 130~144 | 60~63 | -20~80 | 281 | φ8 | φ6 | G3/8×1 |
| ABX5×7-4 | 4.5~6.0 | 92 | 23×7 | 151~167 | 60~63 | -20~80 | 299 | φ8 | φ6 | G3/8×1 |
| ABX5×8-4 | 4.5~6.0 | 92 | 23×8 | 173~193 | 60~63 | -20~80 | 317 | φ10 | φ6 | G3/8×1 |
| ABX5×9-4 | 4.5~6.0 | 92 | 23×9 | 195~217 | 60~63 | -20~80 | 335 | φ10 | φ6 | G3/8×1 |
| ABX5×10-4 | 4.5~6.0 | 92 | 23×10 | 215~241 | 60~63 | -20~80 | 353 | φ10 | φ6 | G3/8×1 |
| ABX5×11-4 | 4.5~6.0 | 92 | 23×11 | 238~265 | 60~63 | -20~80 | 371 | φ10 | φ6 | G3/8×1 |
| ABX5×12-4 | 4.5~6.0 | 92 | 23×12 | 260~289 | 60~63 | -20~80 | 389 | φ10 | φ6 | G3/8×2 |
| ABX5×13-4 | 4.5~6.0 | 92 | 23×13 | 281~313 | 60~63 | -20~80 | 417 | φ10 | φ6 | G3/8×2 |
| ABX5×14-4 | 4.5~6.0 | 92 | 23×14 | 335~346 | 60~63 | -20~80 | 435 | φ10 | φ6 | G3/8×2 |
| ABX5×15-4 | 4.5~6.0 | 92 | 23×15 | 361~389 | 63~65 | -20~80 | 453 | φ10 | φ6 | G3/8×2 |
| ABX5×16-4 | 4.5~6.0 | 92 | 23×16 | 346~385 | 63~65 | -20~80 | 471 | φ10 | φ6 | G3/8×2 |
| ABX10×2-4 | 4.5~6.0 | 92 | 32×2 | 87~96 | 63~65 | -20~80 | 67 | φ8 | φ6 | G3/8×1 |
| ABX10×3-4 | 4.5~6.0 | 92 | 32×3 | 130~145 | 63~65 | -20~80 | 80 | φ8 | φ6 | G3/8×1 |
| ABX10×4-4 | 4.5~6.0 | 92 | 32×4 | 173~193 | 63~65 | -20~80 | 247 | φ10 | φ6 | G3/8×1 |
| ABX10×5-4 | 4.5~6.0 | 92 | 32×5 | 215~241 | 63~65 | -20~80 | 255 | φ10 | φ6 | G3/8×1 |
| ABX10×6-4 | 4.5~6.0 | 92 | 32×6 | 260~288 | 63~65 | -20~80 | 281 | φ10 | φ6 | G3/8×2 |
| ABX10×7-4 | 4.5~6.0 | 92 | 32×7 | 303~337 | 63~65 | -20~80 | 299 | φ10 | φ6 | G3/8×2 |
| ABX10×8-4 | 4.5~6.0 | 92 | 32×8 | 346~385 | 63~65 | -20~80 | 327 | φ10 | φ6 | G3/8×2 |
| ABX10×9-4 | 4.5~6.0 | 92 | 32×9 | 389~433 | 63~65 | -20~80 | 345 | φ12 | φ6 | G3/8×2 |
| ABX10×10-4 | 4.5~6.0 | 92 | 32×10 | 433~481 | 63~65 | -20~80 | 363 | φ12 | φ6 | G3/8×2 |
| ABX10×11-4 | 4.5~6.0 | 92 | 32×11 | 476~529 | 63~65 | -20~80 | 381 | φ12 | φ6 | G3/8×2 |
| ABX10×12-4 | 4.5~6.0 | 92 | 32×12 | 519~578 | 63~65 | -20~80 | 399 | φ12 | φ6 | G3/8×2 |

◇ Note: Max. air supply pressure is 7.0 bar.

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level -kPa | | | | | | | | | | | Max. vacuum level -kPa |
|---------|-------------------------|------------------------|-------------------|------|------|------|------|------|-----|-----|-----|------|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | | |
| ABX5×1 | 6.0 | 22 | 23.0 | 14.0 | 10.0 | 9.0 | 7.5 | 6.0 | 4.0 | 2.8 | 1.5 | 0.44 | 92 | |
| ABX10×1 | 6.0 | 40 | 32.0 | 21.0 | 18.0 | 16.0 | 14.0 | 11.0 | 9.5 | 5.5 | 2.5 | 1.10 | 92 | |

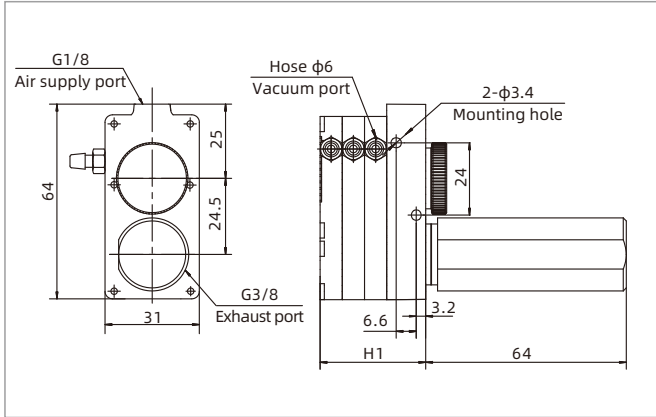
Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level -kPa | | | | | | | | | | | Max. vacuum level -kPa |
|---------|-------------------------|------------------------|-------------------|------|------|------|------|------|------|-------|-------|----|--|------------------------|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | | | |
| ABX5×1 | 6.0 | 22 | 0.21 | 0.81 | 1.52 | 2.35 | 3.48 | 4.85 | 6.57 | 10.50 | 19.30 | 92 | | |
| ABX10×1 | 6.0 | 40 | 0.14 | 0.40 | 0.78 | 1.22 | 1.77 | 2.40 | 3.30 | 4.95 | 9.62 | 92 | | |

ABM/ABX Series

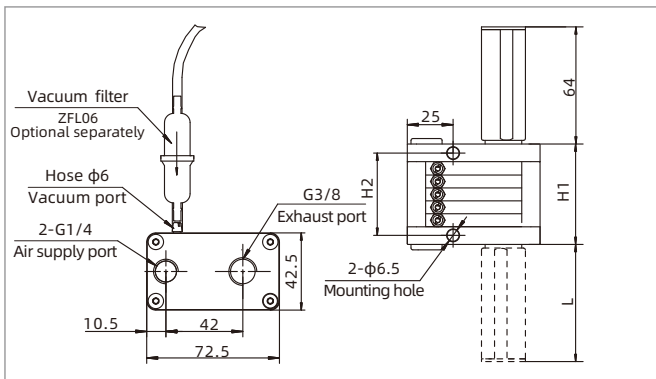
Mini Combined Type Vacuum Generator

Dimensions(mm)



ABM/ABX□×2-4 ABM/ABX□×3-4

| Model/size | H1 | H2 | L |
|---------------|-------|-------|----|
| ABM/ABX5×2-4 | 28 | - | - |
| ABM/ABX5×3-4 | 36 | - | - |
| ABM/ABX5×4-4 | 50.4 | 40.5 | - |
| ABM/ABX5×5-4 | 58 | 48 | - |
| ABM/ABX5×6-4 | 65.16 | 55.5 | - |
| ABM/ABX5×7-4 | 73.2 | 63 | - |
| ABM/ABX5×8-4 | 80.8 | 70 | - |
| ABM/ABX5×9-4 | 88.4 | 77.5 | - |
| ABM/ABX5×10-4 | 96 | 85 | - |
| ABM/ABX5×11-4 | 103.6 | 92.5 | - |
| ABM/ABX5×12-4 | 111.2 | 100 | 64 |
| ABM/ABX5×13-4 | 118.8 | 107.5 | 64 |
| ABM/ABX5×14-4 | 126.4 | 115 | 64 |
| ABM/ABX5×15-4 | 134 | 122.5 | 64 |
| ABM/ABX5×16-4 | 141.6 | 130 | 64 |



ABM/ABX□× (4-8)-4

| Model/size | H1 | H2 | L |
|----------------|-------|-------|----|
| ABM/ABX10×2-4 | 28 | - | - |
| ABM/ABX10×3-4 | 36 | - | - |
| ABM/ABX10×4-4 | 50.4 | 40.4 | - |
| ABM/ABX10×5-4 | 58 | 48 | - |
| ABM/ABX10×6-4 | 65.6 | 55.6 | - |
| ABM/ABX10×7-4 | 73.2 | 63.2 | - |
| ABM/ABX10×8-4 | 80.8 | 70.8 | - |
| ABM/ABX10×9-4 | 88.4 | 78.4 | - |
| ABM/ABX10×10-4 | 96 | 86 | - |
| ABM/ABX10×11-4 | 103.6 | 93.6 | - |
| ABM/ABX10×12-4 | 111.2 | 101.2 | 64 |

Repair kits

| Item | Model |
|---------------|---------|
| Vacuum filter | ZFL06 |
| Silencer | ZSA-G3M |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

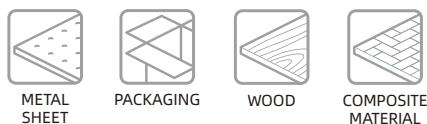
ACPF

ACPS

APB

AMC Series

Multistage Vacuum Generator



Features

- ◇ High efficient and energy-saving multistage nozzle design
- ◇ Large vacuum flow
- ◇ Internal vacuum cartridges can be stacked assembly
- ◇ Various specifications of air supply port and vacuum port
- ◇ Energy-saving control device is optional

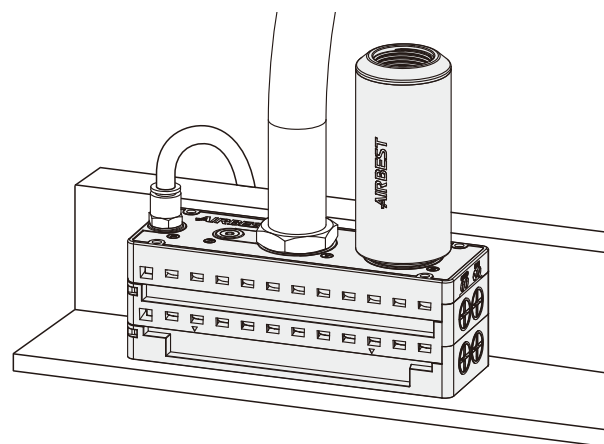
Advantages

- ◇ Quick evacuation in low vacuum level range, reduce cost and shorten working cycle
- ◇ Producing large vacuum flow to handle porous workpieces fast and safely
- ◇ It can meet different requirements of vacuum flow in different working conditions
- ◇ It can be connected with different threads
- ◇ It is energy-saving when handling airtight workpieces



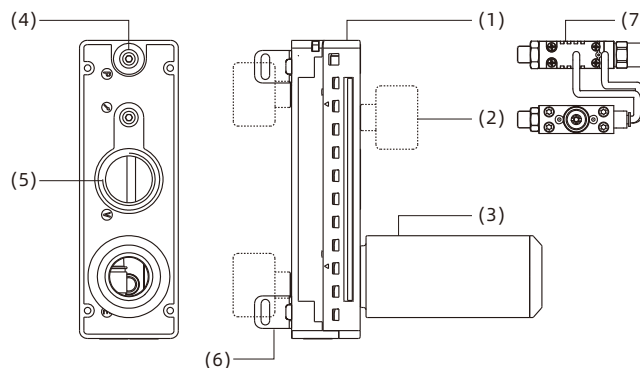
Applications

- ◇ The multistage vacuum generator is suitable for handling cartons, packaging materials and porous materials
- ◇ It is used in the working condition requiring large vacuum flow, fast evacuation speed and less air consumption



Structure

- ◇ (1) Main body
- ◇ (2) Vacuum gauge
- ◇ (3) Silencer
- ◇ (4) Air supply port
- ◇ (5) Vacuum port
- ◇ (6) L-type mounting bracket
- ◇ (7) ES energy saving system



AMC Series

Multistage Vacuum Generator

How to order

AMC 25 L - AA - V - ES
 ① ② ③ ④ ⑤ ⑥

| Series | Specification | Performance | ④ Connection plate | ⑤ Non-return valve | ⑥ Control device |
|--------|---------------|-----------------------|--------------------|---------------------------|---------------------------------------|
| AMC | 25 | H - High vacuum level | AA | Nil - Default, without | Nil - Default, Without control device |
| | 50 | (-95kPa) | BA | non-return valve | ES - Energy saving system |
| | 75 | L - Large vacuum flow | CA | V - With non-return valve | |
| | 100 | (-75kPa) | DB | | |
| | 125 | | CC | | |
| | 150 | | | | |

Connection plate specifications

| Connection plate | Air supply port ⁽¹⁾ | Vacuum port ⁽²⁾ | Exhaust port ⁽³⁾ | Applicable vacuum generator |
|------------------|--------------------------------|----------------------------|-----------------------------|------------------------------|
| AA | G1/8 | G3/4 | G1" | AMC25, 50 |
| BA | NPSF1/8 | G3/4 | G1" | AMC25, 50 |
| CA | G1/4 | G3/4 | G1" | AMC25, 50, 75, 100 |
| DB | NPT1/4 | NPT3/4 | G1" | AMC25, 50, 75, 100 |
| CC | G1/4 | G1" | G1" | AMC25, 50, 75, 100, 125, 150 |

Selection - L (Large Vacuum flow type)

| Model/ Specification | 25 | 50 | 75 | 100 | 125 | 150 |
|-------------------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| AMC□L-AA | AMC25L-AA | AMC50L-AA | - | - | - | - |
| AMC□L-AA-V | AMC25L-AA-V | AMC50L-AA-V | - | - | - | - |
| AMC□L-AA-V-ES | AMC25L-AA-V-ES | AMC50L-AA-V-ES | - | - | - | - |
| AMC□L-BA | AMC25L-BA | AMC50L-BA | - | - | - | - |
| AMC□L-BA-V | AMC25L-BA-V | AMC50L-BA-V | - | - | - | - |
| AMC□L-CA | AMC25L-CA | AMC50L-CA | AMC75L-CA | AMC100L-CA | - | - |
| AMC□L-CA-V | AMC25L-CA-V | AMC50L-CA-V | AMC75L-CA-V | AMC100L-CA-V | - | - |
| AMC□L-CA-V-ES | - | - | AMC75L-CA-V-ES | AMC100L-CA-V-ES | - | - |
| AMC□L-DB | AMC25L-DB | AMC50L-DB | AMC75L-DB | AMC100L-DB | - | - |
| AMC□L-DB-V | AMC25L-DB-V | AMC50L-DB-V | AMC75L-DB-V | AMC100L-DB-V | - | - |
| AMC□L-CC | AMC25L-CC | AMC50L-CC | AMC75L-CC | AMC100L-CC | AMC125L-CC | AMC150L-CC |
| AMC□L-CC-V | AMC25L-CC-V | AMC50L-CC-V | AMC75L-CC-V | AMC100L-CC-V | AMC125L-CC-V | AMC150L-CC-V |
| AMC□L-CC-V-ES | AMC25L-CC-V-ES | AMC50L-CC-V-ES | AMC75L-CC-V-ES | AMC100L-CC-V-ES | AMC125L-CC-V-ES | AMC150L-CC-V-ES |

AMC Series

Multistage Vacuum Generator



Selection - H (High vacuum level type)

| Model/ Specification | 25 | 50 | 75 | 100 | 125 | 150 |
|-------------------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| AMC□H-AA | AMC25H-AA | AMC50H-AA | - | - | - | - |
| AMC□H-AA-V | AMC25H-AA-V | AMC50H-AA-V | - | - | - | - |
| AMC□H-AA-V-ES | AMC25H-AA-V-ES | AMC50H-AA-V-ES | - | - | - | - |
| AMC□H-BA | AMC25H-BA | AMC50H-BA | - | - | - | - |
| AMC□H-BA-V | AMC25H-BA-V | AMC50H-BA-V | - | - | - | - |
| AMC□H-CA | AMC25H-CA | AMC50H-CA | AMC75H-CA | AMC100H-CA | - | - |
| AMC□H-CA-V | AMC25H-CA-V | AMC50H-CA-V | AMC75H-CA-V | AMC100H-CA-V | - | - |
| AMC□H-CA-V-ES | - | - | AMC75H-CA-V-ES | AMC100H-CA-V-ES | - | - |
| AMC□H-DB | AMC25H-DB | AMC50H-DB | AMC75H-DB | AMC100H-DB | - | - |
| AMC□H-DB-V | AMC25H-DB-V | AMC50H-DB-V | AMC75H-DB-V | AMC100H-DB-V | - | - |
| AMC□H-CC | AMC25H-CC | AMC50H-CC | AMC75H-CC | AMC100H-CC | AMC125H-CC | AMC150H-CC |
| AMC□H-CC-V | AMC25H-CC-V | AMC50H-CC-V | AMC75H-CC-V | AMC100H-CC-V | AMC125H-CC-V | AMC150H-CC-V |
| AMC□H-CC-V-ES | AMC25H-CC-V-ES | AMC50H-CC-V-ES | AMC75H-CC-V-ES | AMC100H-CC-V-ES | AMC125H-CC-V-ES | AMC150H-CC-V-ES |

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Vacuum chamber volume cm ³ | Recommended hose dia. mm | |
|---------|-------------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------|------------------------------|-------------|--|-----------------------------|---------------|
| | | | | | | | | | Air supply port P | Vacuum port V |
| AMC25L | 6.0 | 75 | 360 | 130 | 63~68 | -10~80 | 430 | 140 | φ8 | φ25 |
| AMC50L | 6.0 | 75 | 710 | 260 | 63~68 | -10~80 | 435 | 140 | φ8 | φ25 |
| AMC75L | 6.0 | 75 | 1,050 | 390 | 63~68 | -10~80 | 625 | 245 | φ10 | φ32 |
| AMC100L | 6.0 | 75 | 1,410 | 520 | 63~68 | -10~80 | 630 | 245 | φ10 | φ32 |
| AMC125L | 6.0 | 75 | 1,500 | 650 | 63~68 | -10~80 | 825 | 352 | φ12 | φ32 |
| AMC150L | 6.0 | 75 | 1,690 | 780 | 63~68 | -10~80 | 830 | 352 | φ12 | φ32 |
| AMC25H | 5.0 | 95 | 354 | 135 | 63~68 | -10~80 | 430 | 140 | φ8 | φ25 |
| AMC50H | 5.0 | 95 | 700 | 270 | 63~68 | -10~80 | 435 | 140 | φ8 | φ25 |
| AMC75H | 5.0 | 95 | 980 | 405 | 63~68 | -10~80 | 625 | 245 | φ10 | φ32 |
| AMC100H | 5.0 | 95 | 1,380 | 540 | 63~68 | -10~80 | 630 | 245 | φ10 | φ32 |
| AMC125H | 5.0 | 95 | 1,480 | 675 | 63~68 | -10~80 | 825 | 352 | φ12 | φ32 |
| AMC150H | 5.0 | 95 | 1,650 | 810 | 63~68 | -10~80 | 830 | 352 | φ12 | φ32 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

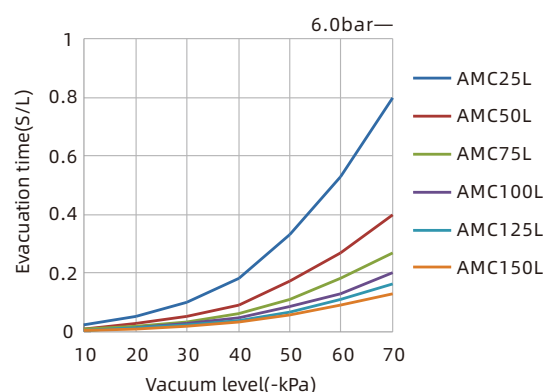
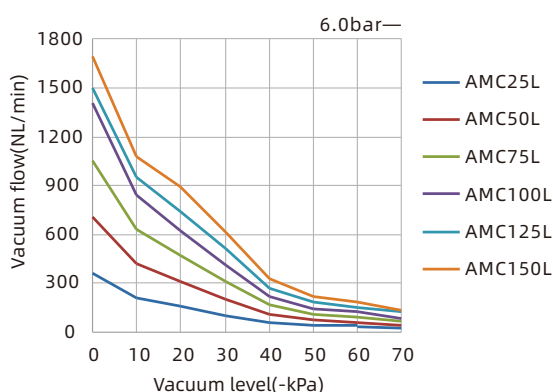
| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|---------|-------------------------------|------------------------------|-------|-------|-----|-----|-----|-----|-----|-----|------------------------------|
| | | | | | | | | | | | |
| AMC25L | 6.0 | 130 | 360 | 210 | 156 | 102 | 54 | 36 | 30 | 21 | 75 |
| AMC50L | 6.0 | 260 | 710 | 420 | 312 | 204 | 108 | 72 | 60 | 42 | 75 |
| AMC75L | 6.0 | 390 | 1,050 | 630 | 468 | 306 | 162 | 108 | 90 | 66 | 75 |
| AMC100L | 6.0 | 520 | 1,410 | 840 | 624 | 408 | 216 | 144 | 120 | 84 | 75 |
| AMC125L | 6.0 | 650 | 1,500 | 948 | 744 | 510 | 270 | 180 | 150 | 126 | 75 |
| AMC150L | 6.0 | 780 | 1,690 | 1,074 | 888 | 612 | 324 | 216 | 180 | 132 | 75 |

AMC Series

Multistage Vacuum Generator

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|---------|-------------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------|
| AMC25L | 6.0 | 130 | 0.020 | 0.050 | 0.100 | 0.180 | 0.330 | 0.530 | 0.800 | 75 |
| AMC50L | 6.0 | 260 | 0.010 | 0.025 | 0.050 | 0.090 | 0.170 | 0.270 | 0.400 | 75 |
| AMC75L | 6.0 | 390 | 0.007 | 0.017 | 0.033 | 0.060 | 0.110 | 0.180 | 0.270 | 75 |
| AMC100L | 6.0 | 520 | 0.005 | 0.013 | 0.025 | 0.045 | 0.083 | 0.130 | 0.200 | 75 |
| AMC125L | 6.0 | 650 | 0.005 | 0.012 | 0.022 | 0.036 | 0.066 | 0.110 | 0.160 | 75 |
| AMC150L | 6.0 | 780 | 0.004 | 0.010 | 0.018 | 0.030 | 0.055 | 0.090 | 0.130 | 75 |



Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|---------|-------------------------|------------------------|-------|-----|-----|-----|-------|-------|-------|-------|------|------|------------------------|
| AMC25H | 5.0 | 135 | 354 | 180 | 120 | 78 | 43.8 | 34.8 | 25.8 | 19.2 | 10.8 | 1.8 | 95 |
| AMC50H | 5.0 | 270 | 700 | 360 | 240 | 156 | 87.6 | 69.6 | 51.6 | 38.4 | 21.6 | 3.6 | 95 |
| AMC75H | 5.0 | 405 | 980 | 540 | 360 | 234 | 131.4 | 104.4 | 77.4 | 57.6 | 32.4 | 5.4 | 95 |
| AMC100H | 5.0 | 540 | 1,380 | 720 | 480 | 312 | 175.2 | 139.2 | 103.2 | 76.8 | 43.2 | 7.2 | 95 |
| AMC125H | 5.0 | 675 | 1,480 | 810 | 570 | 390 | 219.0 | 174.0 | 129.0 | 96.0 | 54.0 | 9.0 | 95 |
| AMC150H | 5.0 | 810 | 1,650 | 918 | 684 | 468 | 262.8 | 206.4 | 154.8 | 115.2 | 64.8 | 10.8 | 95 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|---------|-------------------------|------------------------|-------|-------|-------|-------|------|------|------|------|------|------------------------|
| AMC25H | 5.0 | 135 | 0.022 | 0.062 | 0.120 | 0.220 | 0.37 | 0.57 | 0.84 | 1.20 | 2.20 | 95 |
| AMC50H | 5.0 | 270 | 0.011 | 0.031 | 0.060 | 0.110 | 0.19 | 0.29 | 0.42 | 0.60 | 1.10 | 95 |
| AMC75H | 5.0 | 405 | 0.007 | 0.021 | 0.040 | 0.070 | 0.12 | 0.19 | 0.28 | 0.40 | 0.73 | 95 |
| AMC100H | 5.0 | 540 | 0.006 | 0.016 | 0.030 | 0.055 | 0.09 | 0.14 | 0.21 | 0.30 | 0.55 | 95 |
| AMC125H | 5.0 | 675 | 0.005 | 0.014 | 0.026 | 0.044 | 0.07 | 0.11 | 0.17 | 0.24 | 0.44 | 95 |
| AMC150H | 5.0 | 810 | 0.005 | 0.012 | 0.022 | 0.040 | 0.06 | 0.10 | 0.14 | 0.20 | 0.37 | 95 |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

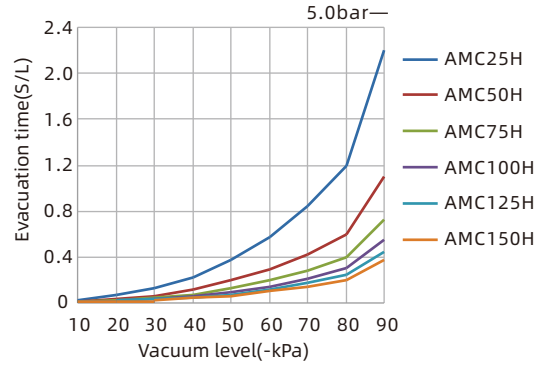
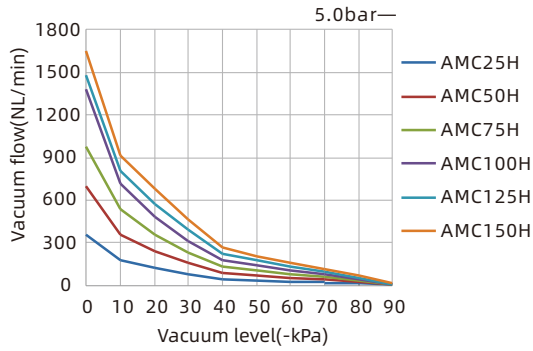
ACPF

ACPS

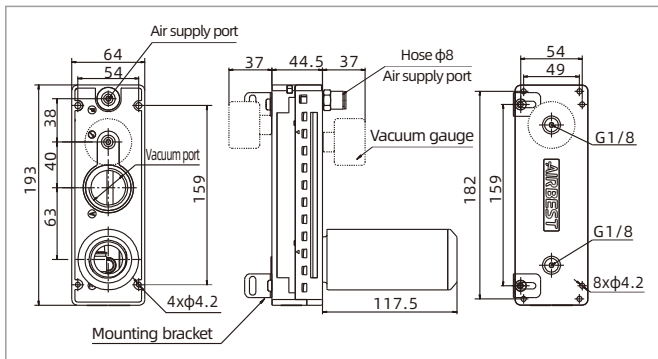
APB

AMC Series

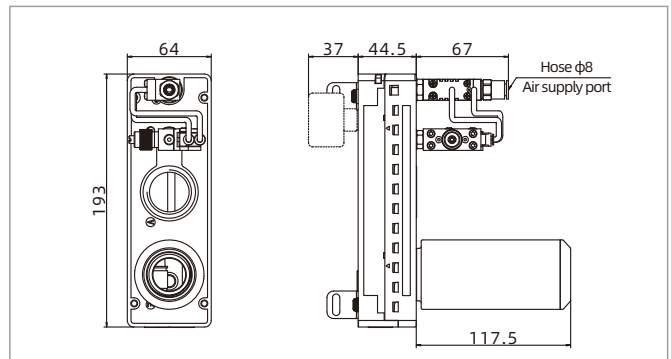
Multistage Vacuum Generator



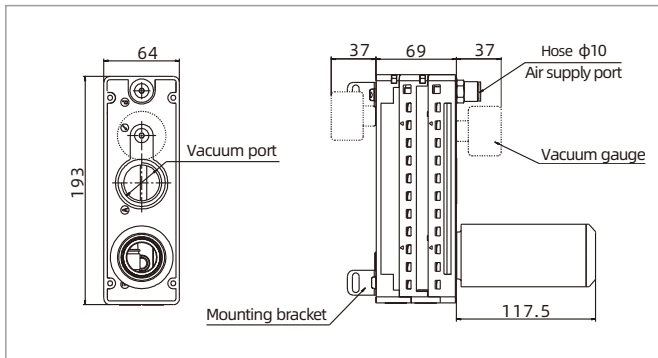
Dimensions(mm)



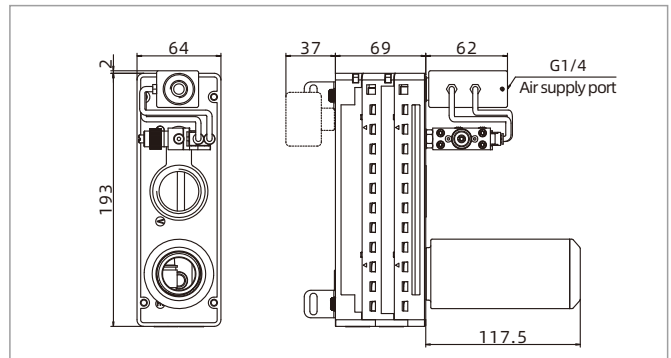
AMC25-50



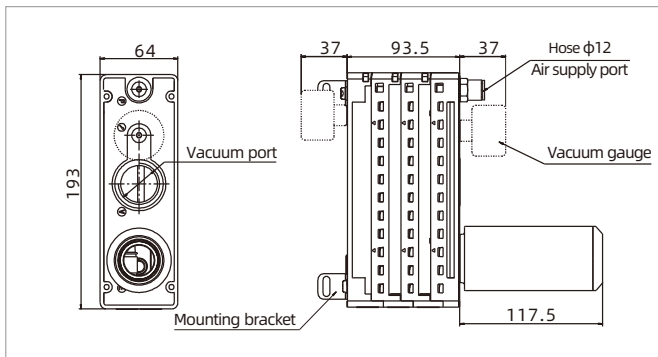
AMC25□-□-V-ES AMC50□-□-V-ES



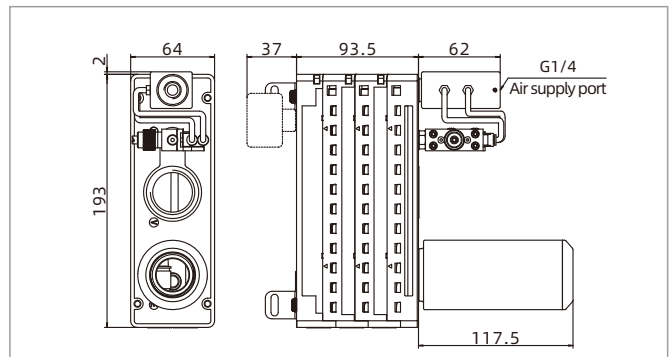
AMC75-100



AMC75□-□-V-ES AMC100□-□-V-ES



AMC125-150

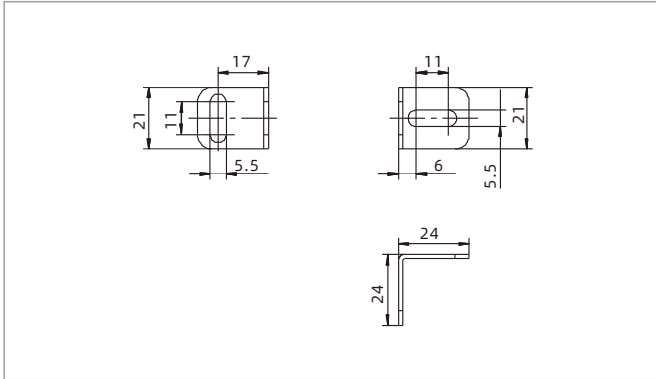


AMC125□-□-V-ES AMC150□-□-V-ES

AMC Series

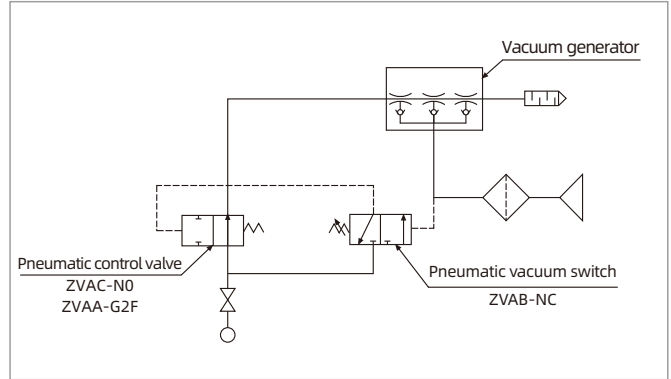
Multistage Vacuum Generator

Dimensions(mm)



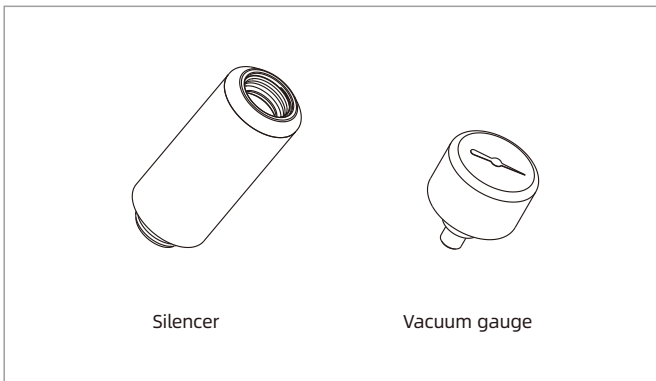
L type mounting bracket

Air circuit schematic diagram



ES Energy saving system

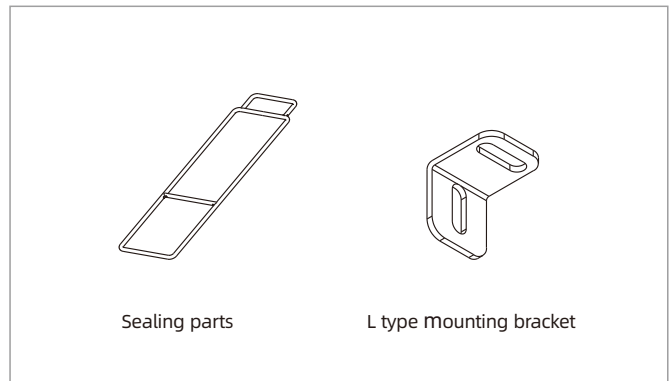
Accessory selection



Silencer

Vacuum gauge

Mounting accessories



Sealing parts

L type mounting bracket

Mounting accessories

| Item | Model | Remark |
|------------------------|---|---|
| Silencer | ZSA-G8M | - |
| Vacuum gauge | ZPMR-V | - |
| Sealing ring | AMC50-R6 | AMC25, 50/1 AMC75, 100/2 AMC125, 150/3 |
| Mounting accessory kit | AMC50-R(2 brackets+ 4 Screws + 1 φ8 one-touch fitting) | AMC25, 50-AA |
| Mounting accessory kit | AMC100-R(2 brackets+ 4 Screws + 1 φ10 one-touch fitting) | AMC25, 50, 75, 100-CA / AMC25, 50, 75, 100-CC |
| Mounting accessory kit | AMC150-R(2 brackets + 4 Screws + 1 φ12 one-touch fitting) | AMC125, 150-CC |

◇ Note: The mounting accessory kit includes 2 L-type brackets and 4 screws for the connection plate BA and DB

AM/AL/AH Series

Multistage Vacuum Generator

AIRBEST



METAL SHEET



PACKAGING



WOOD



COMPOSITE MATERIAL

Features

- ◇ Energy-efficient multistage nozzle design
- ◇ It has a very strong suction capacity
- ◇ A variety of specifications of air supply port and vacuum port
- ◇ Energy-saving system(ES) is optional

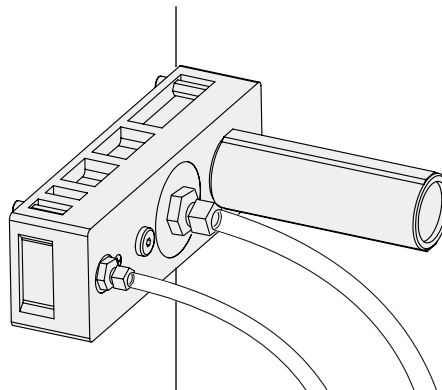
Advantages

- ◇ Quick evacuation in low vacuum level range, reduce cost and shorten working cycle
- ◇ It can produce large vacuum flow, handle all porous workpieces fast and safely
- ◇ Different thread specifications can be used
- ◇ Save compressed air consumption when handling airtight workpieces



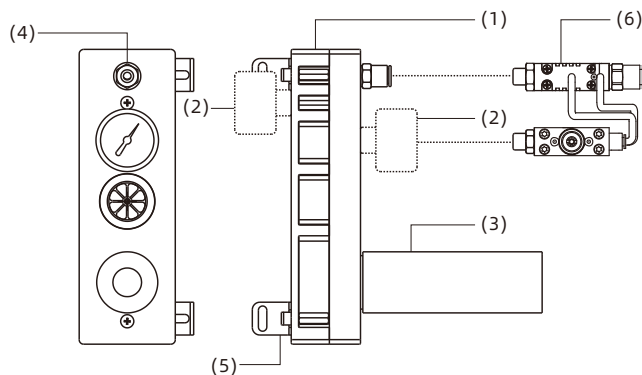
Applications

- ◇ The multistage vacuum generator is suitable for handling cartons, packaging materials and porous materials
- ◇ Used for working conditions requiring large vacuum flow, fast evacuation and less air consumption



Structure

- ◇ (1) The main body
- ◇ (2) Vacuum detecting port
- ◇ (3) Silencer
- ◇ (4) Air supply port
- ◇ (5) Mounting bracket
- ◇ (6) ES Energy-saving system



AM/AL/AH Series

Multistage Vacuum Generator

How to order

AM 25L - AD - N - A - ES
 ① ② ③ ④ ⑤ ⑥

| ① Series | ② Specification | ③ Connection plate | ④ Sealing | ⑤ Non-return valve | ⑥ Control device |
|--|-------------------------------|--------------------|---------------------|--|--|
| AM - Universal type (-92kPa) | 25L 50L 75L 100L 125L 150L | D B | N - NBR E - EPDM | Nil - Default, without non-return valve A - With non-return valve | Nil - Default, without control device |
| AL - Large vacuum flow type (-81kPa) | 25 50 75 100 125 150 | AD E | F - Fluorine rubber | | PVD - Supply valve + Break valve |
| AH - High vacuum level type (-100.8kPa) | 40 120 | (Refer to table1) | | | ES - Energy-saving system only for AM-25L/50L AL-25/50 AH-40 |

Connection plate table 1

| Connection plate | Air supply port ⁽¹⁾ | Vacuum port ⁽²⁾ | Exhaust port ⁽³⁾ | Connection plate material | Applicable vacuum generator |
|------------------|--------------------------------|----------------------------|-----------------------------|---------------------------|-----------------------------|
| D | NPSF1/8 | G3/4 | G3/4 | PPS | AM25-100、AL25-100、AH40-120 |
| B | NPSF1/8 | NPT3/4 | NPT3/4 | PPS | |
| AD | G1/4 | G3/4 | G3/4 | Aluminum alloy | |
| E | NPT1/4 | NPT3/4 | NPT3/4 | Aluminum alloy | |
| D | G1/4 | G1" | G1" | PPS | AM125-150、AL125-150 |
| B | NPT1/4 | NPT1" | NPT1" | PPS | |
| AD | G1/4 | G1" | G1" | Aluminum alloy | |
| E | NPT1/4 | NPT1" | NPT1" | Aluminum alloy | |

Selection - AM series

| Model/ Specification | 25L | 50L | 75L | 100L | 125L | 150L |
|----------------------|-----------------|-----------------|---------------|----------------|----------------|----------------|
| AM□-D-N | AM25L-D-N | AM50L-D-N | AM75L-D-N | AM100L-D-N | AM125L-D-N | AM150L-D-N |
| AM□-D-N-A | AM25L-D-N-A | AM50L-D-N-A | AM75L-D-N-A | AM100L-D-N-A | AM125L-D-N-A | AM150L-D-N-A |
| AM□-D-N-A-ES | AM25L-D-N-A-ES | AM50L-D-N-A-ES | - | - | - | - |
| AM□-B-N | AM25L-B-N | AM50L-B-N | AM75L-B-N | AM100L-B-N | AM125L-B-N | AM150L-B-N |
| AM□-B-N-A | AM25L-B-N-A | AM50L-B-N-A | AM75L-B-N-A | AM100L-B-N-A | AM125L-B-N-A | AM150L-B-N-A |
| AM□-AD-N | AM25L-AD-N | AM50L-AD-N | AM75L-AD-N | AM100L-AD-N | AM125L-AD-N | AM150L-AD-N |
| AM□-AD-N-A | AM25L-AD-N-A | AM50L-AD-N-A | AM75L-AD-N-A | AM100L-AD-N-A | AM125L-AD-N-A | AM150L-AD-N-A |
| AM□-AD-N-A-ES | AM25L-AD-N-A-ES | AM50L-AD-N-A-ES | - | - | - | - |
| AM□-E-N | AM25L-E-N | AM50L-E-N | AM75L-E-N | AM100L-E-N | AM125L-E-N | AM150L-E-N |
| AM□-E-N-A | AM25L-E-N-A | AM50L-E-N-A | AM75L-E-N-A | AM100L-E-N-A | AM125L-E-N-A | AM150L-E-N-A |
| AM□-E-N-PVD | AM25L-E-N-PVD | AM50L-E-N-PVD | AM75L-E-N-PVD | AM100L-E-N-PVD | AM125L-E-N-PVD | AM150L-E-N-PVD |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AM/AL/AH Series

Multistage Vacuum Generator



Selection - AL series

| Model/ Specification | 25 | 50 | 75 | 100 | 125 | 150 |
|-------------------------|----------------|----------------|--------------|---------------|---------------|---------------|
| AL□-D-N | AL25-D-N | AL50-D-N | AL75-D-N | AL100-D-N | AL125-D-N | AL150-D-N |
| AL□-D-N-A | AL25-D-N-A | AL50-D-N-A | AL75-D-N-A | AL100-D-N-A | AL125-D-N-A | AL150-D-N-A |
| AL□-D-N-A-ES | AL25-D-N-A-ES | AL50-D-N-A-ES | - | - | - | - |
| AL□-B-N | AL25-B-N | AL50-B-N | AL75-B-N | AL100-B-N | AL125-B-N | AL150-B-N |
| AL□-B-N-A | AL25-B-N-A | AL50-B-N-A | AL75-B-N-A | AL100-B-N-A | AL125-B-N-A | AL150-B-N-A |
| AL□-AD-N | AL25-AD-N | AL50-AD-N | AL75-AD-N | AL100-AD-N | AL125-AD-N | AL150-AD-N |
| AL□-AD-N-A | AL25-AD-N-A | AL50-AD-N-A | AL75-AD-N-A | AL100-AD-N-A | AL125-AD-N-A | AL150-AD-N-A |
| AL□-AD-N-A-ES | AL25-AD-N-A-ES | AL50-AD-N-A-ES | - | - | - | - |
| AL□-E-N | AL25-E-N | AL50-E-N | AL75-E-N | AL100-E-N | AL125-E-N | AL150-E-N |
| AL□-E-N-A | AL25-E-N-A | AL50-E-N-A | AL75-E-N-A | AL100-E-N-A | AL125-E-N-A | AL150-E-N-A |
| AL□-E-N-PVD | AL25-E-N-PVD | AL50-E-N-PVD | AL75-E-N-PVD | AL100-E-N-PVD | AL125-E-N-PVD | AL150-E-N-PVD |

Selection - AH series

| Model/ Specification | 40 | 120 |
|-------------------------|----------------|---------------|
| AH□-D-N | AH40-D-N | AH120-D-N |
| AH□-D-N-A | AH40-D-N-A | AH120-D-N-A |
| AH□-D-N-A-ES | AH40-D-N-A-ES | - |
| AH□-B-N | AH40-B-N | AH120-B-N |
| AH□-B-N-A | AH40-B-N-A | AH120-B-N-A |
| AH□-AD-N | AH40-AD-N | AH120-AD-N |
| AH□-AD-N-A | AH40-AD-N-A | AH120-AD-N-A |
| AH□-AD-N-A-ES | AH40-AD-N-A-ES | - |
| AH□-E-N | AH40-E-N | AH120-E-N |
| AH□-E-N-A | AH40-E-N-A | AH120-E-N-A |
| AH□-E-N-PVD | AH40-E-N-PVD | AH120-E-N-PVD |

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia. mm | |
|-------|-------------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------|------------------------------|-------------|--------------------------------------|--|
| | | | | | | | | (Hose outer dia.) Air supply port | (Wired hose inner dia.) Vacuum port |
| AL25 | 6.0 | 81 | 360 | 105 | 81 | -10~80 | 675 | φ8 | φ19 |
| AL50 | 6.0 | 81 | 640 | 215 | 81 | -10~80 | 675 | φ10 | φ19 |
| AL75 | 6.0 | 81 | 850 | 320 | 81 | -10~80 | 837 | φ10 | φ25 |
| AL100 | 6.0 | 81 | 990 | 390 | 82 | -10~80 | 837 | φ10 | φ25 |
| AL125 | 6.0 | 81 | 1,170 | 480 | 82 | -10~80 | 1,075 | φ12 | φ32 |
| AL150 | 6.0 | 81 | 1,230 | 620 | 81 | -10~80 | 1,075 | φ12 | φ32 |
| AH40 | 6.0 | 99.8 | 150 | 155 | 81 | -10~80 | 675 | φ10 | φ19 |
| AH120 | 6.0 | 100.8 | 530 | 440 | 81 | -10~80 | 837 | φ12 | φ19 |

AM/AL/AH Series

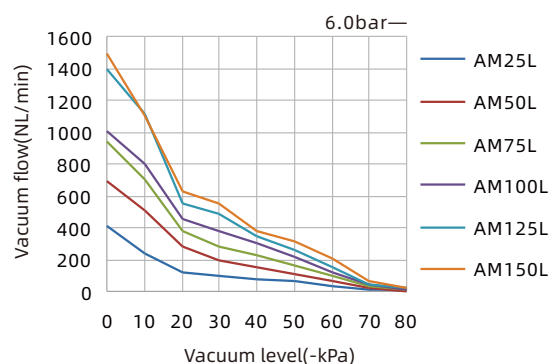
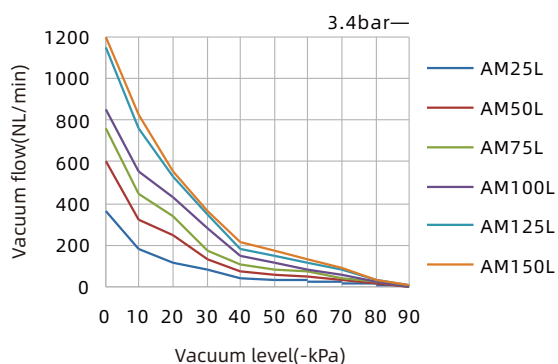
Multistage Vacuum Generator

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia. mm (Hose outer dia.) | Recommended hose dia. mm (Wired hose inner dia.) |
|--------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|--|--|
| AM25L | 3.4 | 92 | 360 | 116 | 80 | -10~80 | 675 | φ8 | φ19 |
| AM50L | 3.4 | 92 | 600 | 230 | 81 | -10~80 | 675 | φ8 | φ19 |
| AM75L | 3.4 | 92 | 760 | 365 | 81 | -10~80 | 837 | φ10 | φ25 |
| AM100L | 3.4 | 92 | 850 | 445 | 81 | -10~80 | 837 | φ10 | φ25 |
| AM125L | 3.4 | 92 | 1,150 | 545 | 82 | -10~80 | 1,075 | φ12 | φ32 |
| AM150L | 3.4 | 92 | 1,200 | 655 | 82 | -10~80 | 1,075 | φ12 | φ32 |
| AM25L | 6.0 | 89 | 420 | 185 | 80 | -10~80 | 675 | φ8 | φ19 |
| AM50L | 6.0 | 89 | 700 | 370 | 81 | -10~80 | 675 | φ8 | φ19 |
| AM75L | 6.0 | 89 | 950 | 610 | 81 | -10~80 | 837 | φ10 | φ25 |
| AM100L | 6.0 | 89 | 1,010 | 720 | 81 | -10~80 | 837 | φ10 | φ25 |
| AM125L | 6.0 | 89 | 1,400 | 780 | 82 | -10~80 | 1,075 | φ12 | φ32 |
| AM150L | 6.0 | 89 | 1,500 | 810 | 82 | -10~80 | 1,075 | φ12 | φ32 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-----|-----|-----|-----|------|------|------|------|------------------------|
| AM25L | 3.4 | 116 | 360 | 180 | 115 | 80 | 43 | 30 | 22.5 | 15.5 | 7.5 | 21.2 | 92 |
| AM50L | 3.4 | 230 | 600 | 320 | 250 | 135 | 75 | 60 | 46 | 30 | 13 | 1.5 | 92 |
| AM75L | 3.4 | 365 | 760 | 445 | 340 | 175 | 110 | 85 | 70 | 43 | 20 | 1.8 | 92 |
| AM100L | 3.4 | 445 | 850 | 550 | 430 | 280 | 145 | 115 | 85 | 60 | 28 | 2.2 | 92 |
| AM125L | 3.4 | 545 | 1,150 | 760 | 530 | 350 | 180 | 148 | 115 | 78 | 34.5 | 3.5 | 92 |
| AM150L | 3.4 | 655 | 1,200 | 830 | 550 | 360 | 215 | 170 | 130 | 90 | 36 | 5 | 92 |
| AM25L | 6.0 | 185 | 420 | 240 | 125 | 100 | 82 | 65 | 38 | 12.5 | 3.5 | - | 89 |
| AM50L | 6.0 | 370 | 700 | 510 | 290 | 195 | 160 | 115 | 70 | 22 | 8 | - | 89 |
| AM75L | 6.0 | 610 | 950 | 710 | 380 | 285 | 230 | 170 | 100 | 32 | 11 | - | 89 |
| AM100L | 6.0 | 720 | 1,010 | 800 | 460 | 385 | 310 | 215 | 125 | 42 | 15.5 | - | 89 |
| AM125L | 6.0 | 780 | 1,400 | 1,120 | 560 | 490 | 355 | 260 | 150 | 50 | 25 | - | 89 |
| AM150L | 6.0 | 810 | 1,500 | 1,110 | 630 | 560 | 385 | 315 | 210 | 65 | 26 | - | 89 |



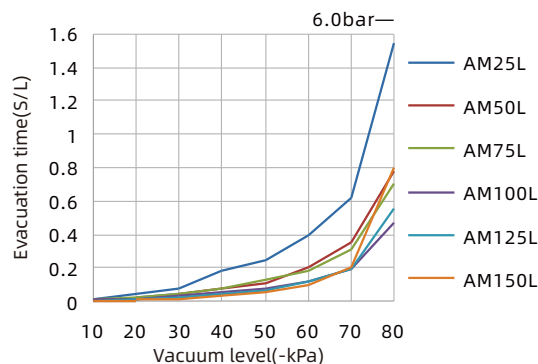
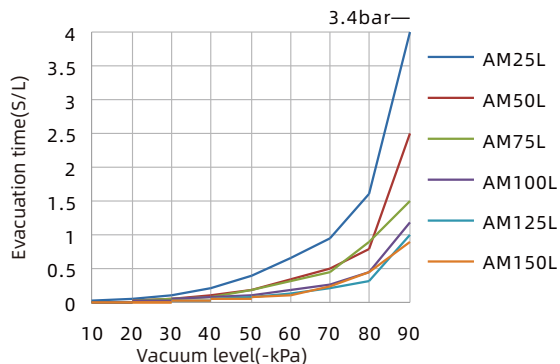
AM/AL/AH Series

Multistage Vacuum Generator



Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------|
| AM25L | 3.4 | 116 | 0.022 | 0.060 | 0.110 | 0.210 | 0.400 | 0.650 | 0.950 | 1.600 | 4.000 | 92 |
| AM50L | 3.4 | 230 | 0.014 | 0.031 | 0.060 | 0.100 | 0.200 | 0.340 | 0.500 | 0.800 | 2.500 | 92 |
| AM75L | 3.4 | 365 | 0.012 | 0.029 | 0.058 | 0.095 | 0.180 | 0.310 | 0.460 | 0.890 | 1.500 | 92 |
| AM100L | 3.4 | 445 | 0.010 | 0.025 | 0.043 | 0.075 | 0.110 | 0.190 | 0.270 | 0.450 | 1.200 | 92 |
| AM125L | 3.4 | 545 | 0.006 | 0.015 | 0.029 | 0.052 | 0.085 | 0.145 | 0.202 | 0.330 | 1.00 | 92 |
| AM150L | 3.4 | 655 | 0.005 | 0.013 | 0.027 | 0.045 | 0.070 | 0.105 | 0.230 | 0.460 | 0.900 | 92 |
| AM25L | 6.0 | 185 | 0.018 | 0.050 | 0.080 | 0.018 | 0.250 | 0.400 | 0.620 | 1.550 | - | 89 |
| AM50L | 6.0 | 370 | 0.010 | 0.022 | 0.048 | 0.080 | 0.110 | 0.200 | 0.350 | 0.780 | - | 89 |
| AM75L | 6.0 | 610 | 0.009 | 0.019 | 0.045 | 0.075 | 0.130 | 0.180 | 0.310 | 0.700 | - | 89 |
| AM100L | 6.0 | 720 | 0.007 | 0.018 | 0.038 | 0.055 | 0.080 | 0.120 | 0.190 | 0.470 | - | 89 |
| AM125L | 6.0 | 780 | 0.005 | 0.013 | 0.026 | 0.045 | 0.062 | 0.115 | 0.194 | 0.560 | - | 89 |
| AM150L | 6.0 | 810 | 0.003 | 0.009 | 0.014 | 0.03 | 0.060 | 0.095 | 0.200 | 0.800 | - | 89 |



Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|-------|-----|-----|-----|-----|-----|-----|----|------------------------|
| AL25 | 6.0 | 105 | 360 | 196 | 135 | 85 | 45 | 36 | 27 | 17 | 81 |
| AL50 | 6.0 | 215 | 640 | 320 | 205 | 145 | 95 | 65 | 45 | 25 | 81 |
| AL75 | 6.0 | 320 | 850 | 430 | 320 | 190 | 130 | 105 | 65 | 40 | 81 |
| AL100 | 6.0 | 390 | 990 | 580 | 460 | 300 | 185 | 130 | 95 | 52 | 81 |
| AL125 | 6.0 | 480 | 1,170 | 720 | 541 | 350 | 200 | 150 | 125 | 65 | 81 |
| AL150 | 6.0 | 620 | 1,230 | 760 | 560 | 410 | 210 | 160 | 148 | 85 | 81 |

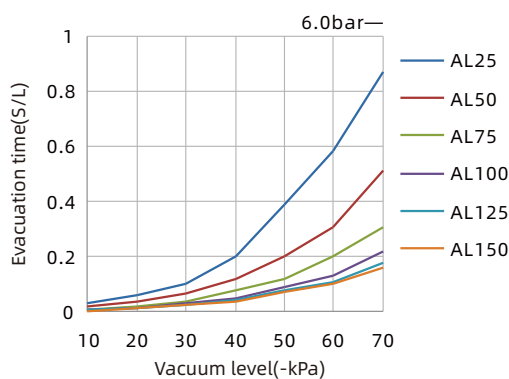
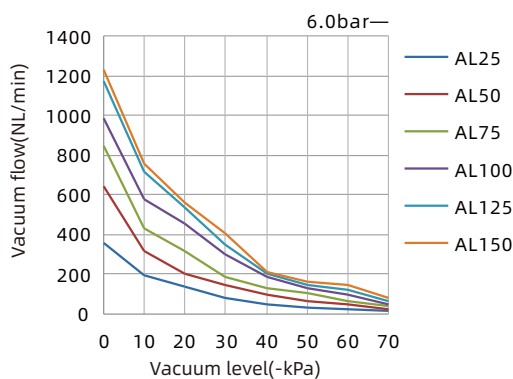
AM/AL/AH Series

Multistage Vacuum Generator



Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------|
| AL25 | 6.0 | 105 | 0.030 | 0.060 | 0.100 | 0.200 | 0.390 | 0.580 | 0.870 | 81 |
| AL50 | 6.0 | 215 | 0.018 | 0.039 | 0.066 | 0.120 | 0.200 | 0.310 | 0.510 | 81 |
| AL75 | 6.0 | 320 | 0.010 | 0.020 | 0.040 | 0.080 | 0.120 | 0.200 | 0.310 | 81 |
| AL100 | 6.0 | 390 | 0.008 | 0.017 | 0.032 | 0.050 | 0.090 | 0.130 | 0.220 | 81 |
| AL125 | 6.0 | 480 | 0.006 | 0.016 | 0.026 | 0.045 | 0.078 | 0.110 | 0.180 | 81 |
| AL150 | 6.0 | 620 | 0.005 | 0.014 | 0.024 | 0.040 | 0.071 | 0.100 | 0.160 | 81 |

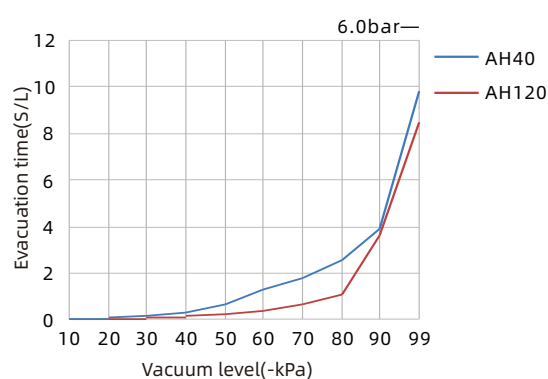
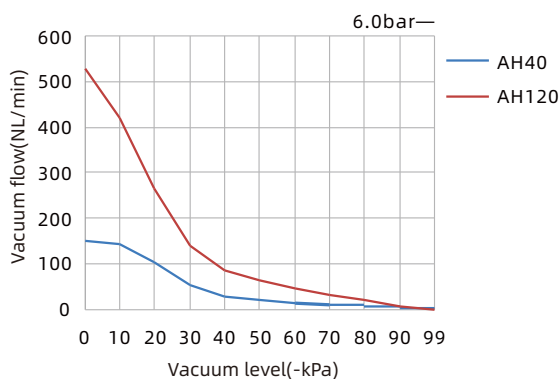


Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 99 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|-----|-----|-----|-------|------|------|------|------|------|-----|-----|------------------------|
| AH40 | 6.0 | 155 | 150 | 145 | 105 | 52.5 | 27.5 | 20.5 | 15.0 | 8.5 | 5.5 | 3.0 | 0.2 | 99.8 |
| AH120 | 6.0 | 440 | 530 | 420 | 265 | 141.0 | 85.0 | 65.0 | 45.0 | 33.0 | 21.5 | 6.0 | 0.5 | 100.8 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 99 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------|-----|------------------------|
| AH40 | 6.0 | 155 | 0.04 | 0.08 | 0.18 | 0.32 | 0.64 | 1.30 | 1.80 | 2.60 | 3.90 | 9.8 | 99.8 |
| AH120 | 6.0 | 440 | 0.02 | 0.04 | 0.08 | 0.14 | 0.25 | 0.38 | 0.66 | 1.08 | 3.60 | 8.5 | 100.8 |



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

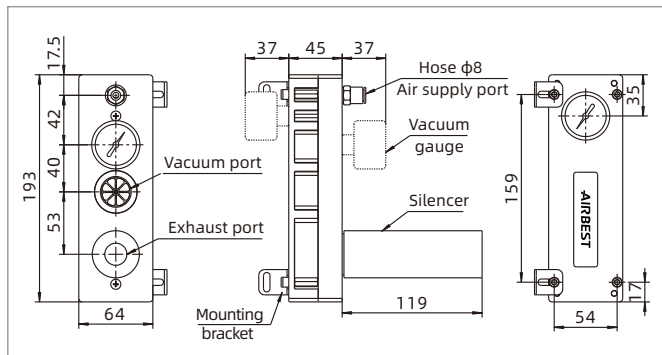
APB

AM/AL/AH Series

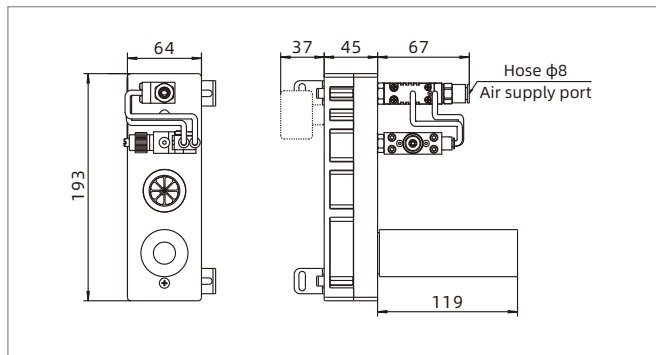
Multistage Vacuum Generator



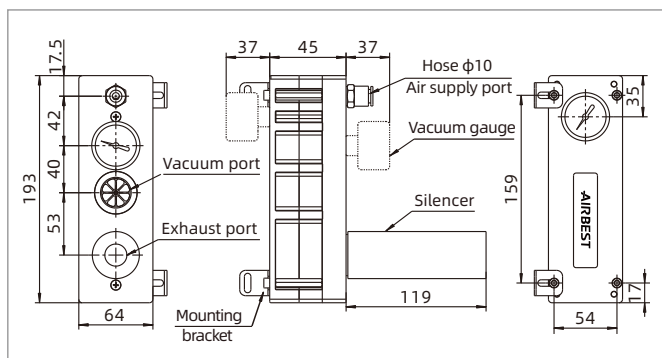
Dimensions(mm)



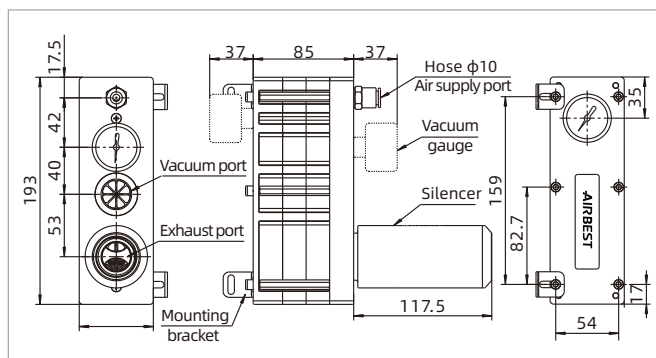
AM/AL25-50 AH40



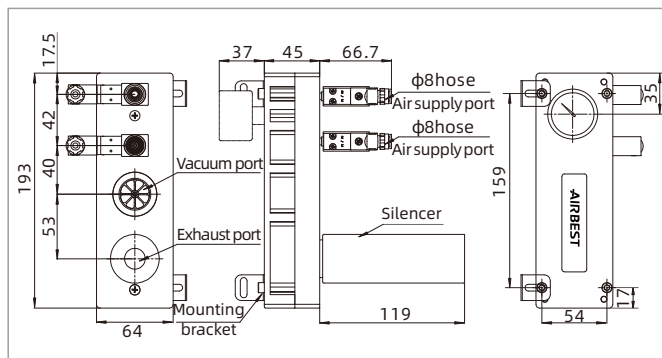
AM/AL25-50-□-N-A-ES



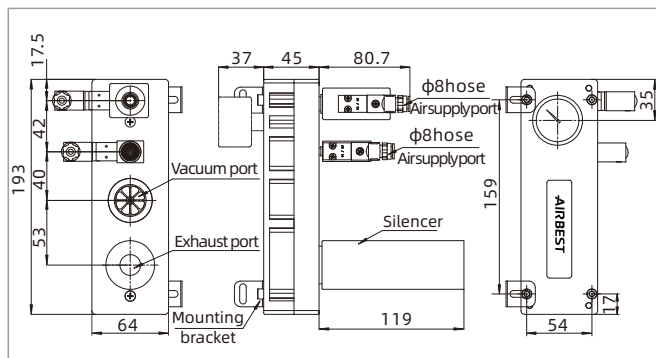
AM/AL75-100



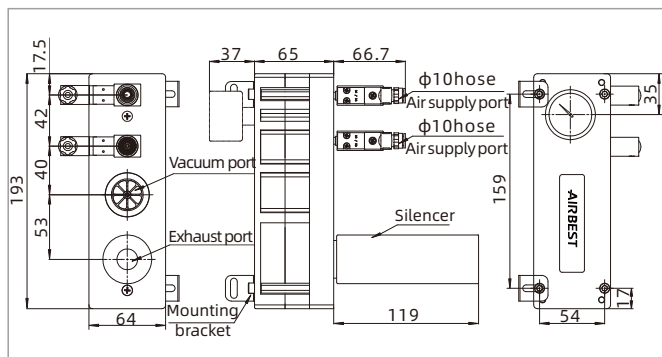
AM/AL125-150



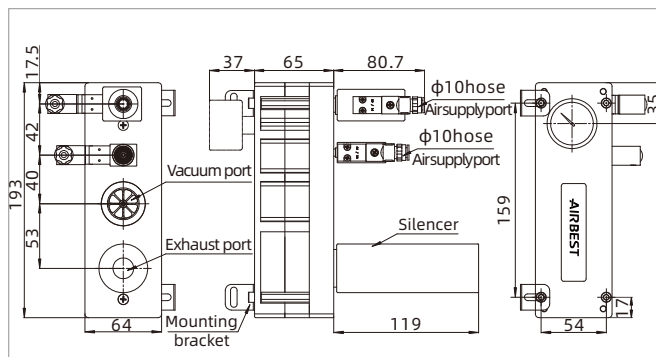
AM/AL25-50-D/B-□-PVD



AM/AL25-50-AD/E-□-PVD



AM/AL75-100-D/B-□-PVD



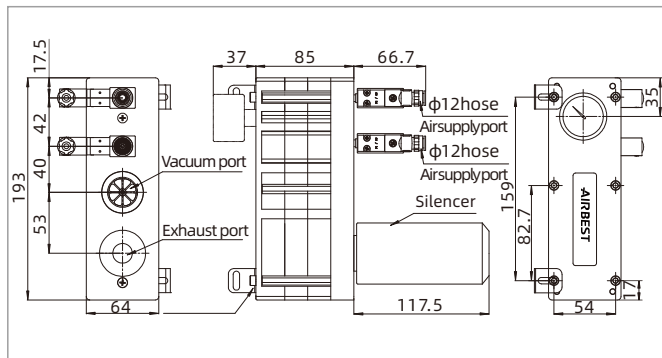
AM/AL75-100-AD/E-□-PVD

AM/AL/AH Series

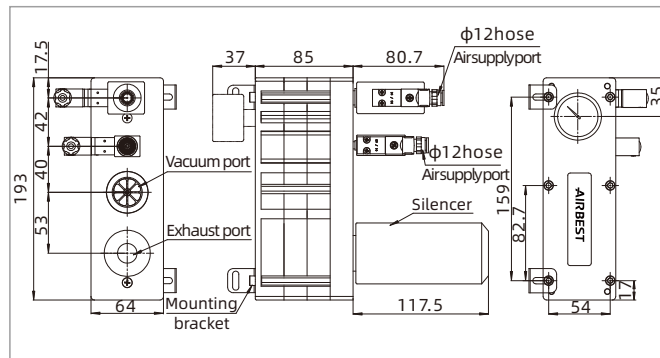
Multistage Vacuum Generator



尺寸规格 (mm)



AM/AL125-150-D/B-□-PVD



AM/AL125-150-AD/E-□-PVD

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

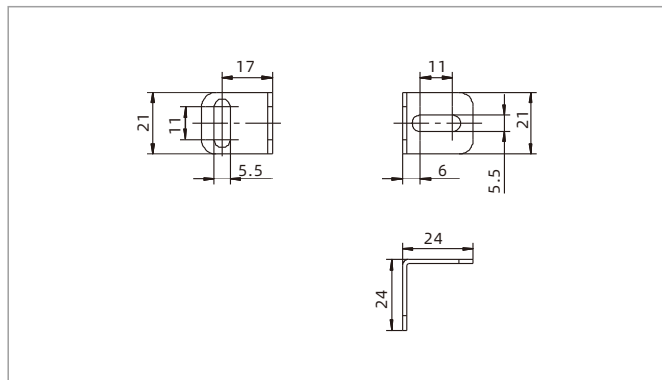
ACPS

APB

AM/AL/AH Series

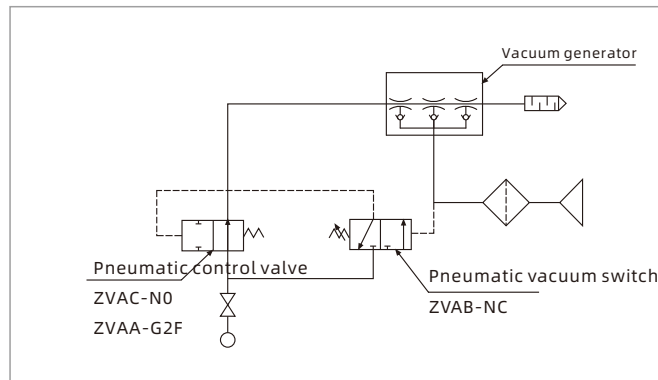
Multistage Vacuum Generator

Dimensions(mm)



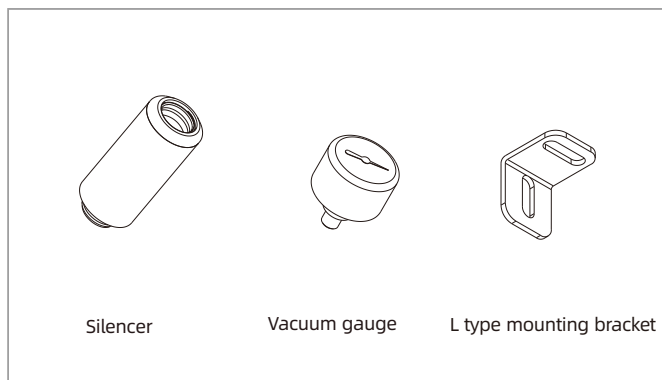
L type mounting bracket

Air circuit schematic diagram

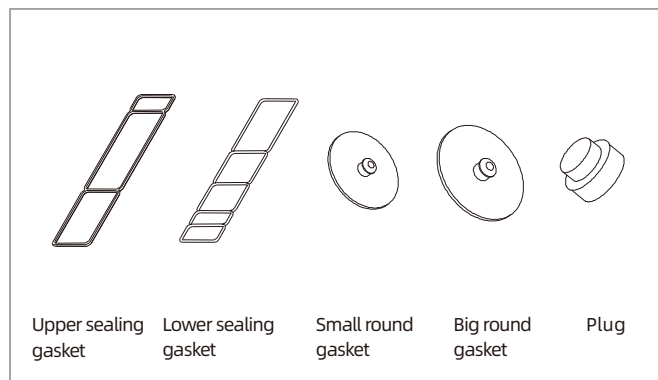


ES Energy-saving system

Accessories



Mounting accessories



Repair kits-Sealing kits

| Item | Model | Applicable vacuum generator |
|------------------------|--|-----------------------------|
| Silencer | ZSA-G6M | AM25-50, AL25-50, AH40 |
| Vacuum gauge | ZPMR-V | AM25-50, AL25-50, AH40 |
| Sealing kits | AM50L-PK (1 Upper sealing gasket+1 Lower sealing gasket+2 Small round gaskets+2 Plugs) | AM25-50, AL25-50, AH40 |
| Mounting accessory kit | AM50L-D-R (2 brackets+4 screws+1 G1/8 φ8 one-touch fitting) | AM25-50, AL25-50, AH40 |
| Mounting accessory kit | AM50L-E-R (2 brackets+4 screws+1 G1/4 φ8 one-touch fitting) | AM25-50, AL25-50, AH40 |
| Silencer | ZSA-G6M | AM75-100, AL75-100, AH120 |
| Vacuum gauge | ZPMR-V | AM75-100, AL75-100, AH120 |
| Sealing kits | AM100L-PK (1 Upper sealing gasket+2 Lower sealing gaskets+2 Small round gaskets+4 Plugs) | AM75-100, AH120 |
| Sealing kits | AL100-PK (1 Upper sealing gasket+2 Lower sealing gaskets+1 Small round gasket+1 Big round gasket+ 4 Plugs) | AL75-100 |
| Mounting accessory kit | AM100L-D-R (2 brackets+4 screws+1 G1/8 φ10 one-touch fitting) | AM75-100, AL75-100, AH120 |
| Mounting accessory kit | AM100L-E-R (2 brackets+4 screws+1 G1/4 φ10 one-touch fitting) | AM75-100, AL75-100, AH120 |
| Silencer | ZSA-G8M | AM125-150, AL125-150 |
| Vacuum gauge | ZPMR-V | AM125-150, AL125-150 |
| Sealing kits | AM150L-PK (1 Upper sealing gasket+3 Lower sealing gaskets+1 Small round gasket+1 Big round gasket+6 Plugs) | AM125-150, AL125-150 |
| Mounting accessory kit | AM150L-R (2 brackets+4 screws+1 G1/4 φ12 one-touch fitting) | AM125-150, AL125-150 |

◇ Note: The mounting accessory kit includes 2 L-type brackets and 4 screws for the connection plate B and E

AM/AL Series



Combined Type Multistage Vacuum Generator



METAL SHEET



PACKAGING



WOOD



COMPOSITE MATERIAL



Features

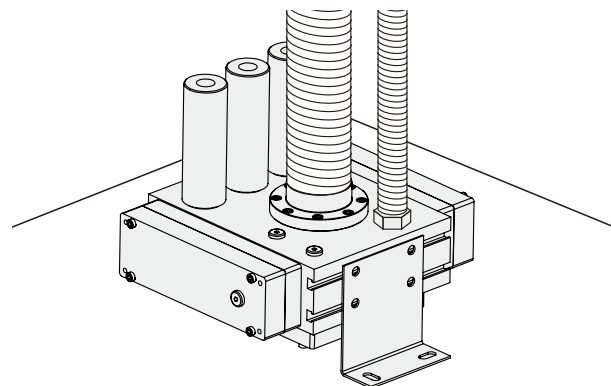
- ◇ Energy-efficient multistage nozzle design
- ◇ It has a very strong suction capacity
- ◇ With mounting bracket
- ◇ External silencer

Advantages

- ◇ Quick evacuation in low vacuum level range, reduce cost and shorten working cycle
- ◇ It can produce large vacuum flow, handle all porous workpieces fast and safely
- ◇ Easy installation and easy operation
- ◇ Reduce product noise greatly

Applications

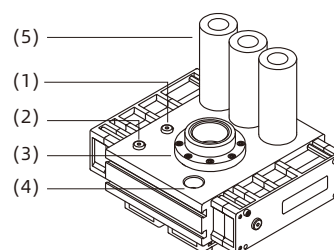
- ◇ The multistage large flow vacuum generator is suitable for handling cartons, packaging materials and porous materials
- ◇ Used in conveying systems, such as particulate matter, powder, etc
- ◇ Used for working conditions requiring large vacuum flow, fast evacuation and less air consumption



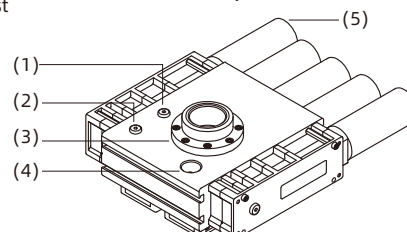
Structure

- ◇ (1) Mounting hole for vacuum gauge
- ◇ (2) Mounting hole for positive pressure gauge
- ◇ (3) Vacuum port
- ◇ (4) Air supply port
- ◇ (5) Silencer

Standard



Lateral exhaust



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

How to order

AM 200M P - N

① ② ③ ④

| ① Series | ② Specification | ③ Exhaust type | ④ Sealing |
|-------------------------------------|-----------------|---------------------|---------------------|
| AM - Universal type(-89kPa) | 150M | Nil - Standard | N - NBR |
| AL - Large vacuum flow type(-81kPa) | 200M | P - Lateral exhaust | E - EPDM |
| | 300M | | F - Fluorine rubber |
| | 400M | | |
| | 500M | | |

Selection - AM series

| Model/ Specification | 150 | 200 | 300 | 400 | 500 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| AM□M-N | AM150M-N | AM200M-N | AM300M-N | AM400M-N | AM500M-N |
| AM□MP-N | AM150MP-N | AM200MP-N | AM300MP-N | AM400MP-N | AM500MP-N |

Selection - AL series

| Model/ Specification | 150 | 200 | 300 | 400 | 500 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| AL□M-N | AL150M-N | AL200M-N | AL300M-N | AL400M-N | AL500M-N |
| AL□MP-N | AL150MP-N | AL200MP-N | AL300MP-N | AL400MP-N | AL500MP-N |

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia. mm (Hose outer dia.) Air supply port | Recommended hose dia. mm (Wired hose inner dia.) Vacuum port |
|--------|-------------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------|------------------------------|-------------|--|--|
| AM150M | 6.0 | 89 | 1,880 | 1,120 | 80 | -10~80 | 3,724 | φ16 | φ32 |
| AM200M | 6.0 | 89 | 2,200 | 1,460 | 81 | -10~80 | 3,892 | φ16 | φ32 |
| AM300M | 6.0 | 89 | 3,150 | 2,200 | 81 | -10~80 | 5,525 | φ16 | φ45 |
| AM400M | 6.0 | 89 | 3,710 | 2,790 | 81 | -10~80 | 6,447 | φ16 | φ45 |
| AM500M | 6.0 | 89 | 4,570 | 3,520 | 82 | -10~80 | 7,929 | φ16 | φ60 |

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia. mm (Hose outer dia.) Air supply port | Recommended hose dia. mm (Wired hose inner dia.) Vacuum port |
|--------|-------------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------|------------------------------|-------------|--|--|
| AL150M | 6.0 | 81 | 1,660 | 650 | 80 | -10~80 | 3,724 | φ16 | φ32 |
| AL200M | 6.0 | 81 | 1,950 | 830 | 81 | -10~80 | 3,892 | φ16 | φ32 |
| AL300M | 6.0 | 81 | 2,840 | 1,240 | 81 | -10~80 | 5,525 | φ21 | φ45 |
| AL400M | 6.0 | 81 | 3,340 | 1,650 | 81 | -10~80 | 6,447 | φ21 | φ45 |
| AL500M | 6.0 | 81 | 3,970 | 2,100 | 82 | -10~80 | 7,929 | φ16 | φ60 |

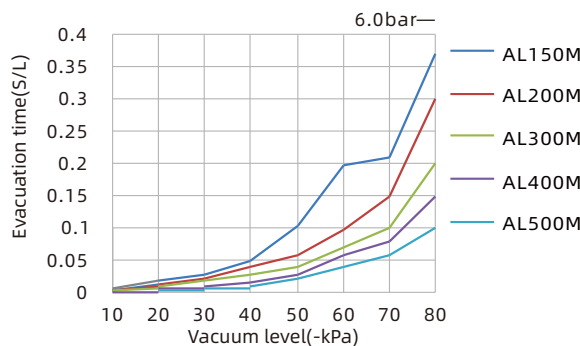
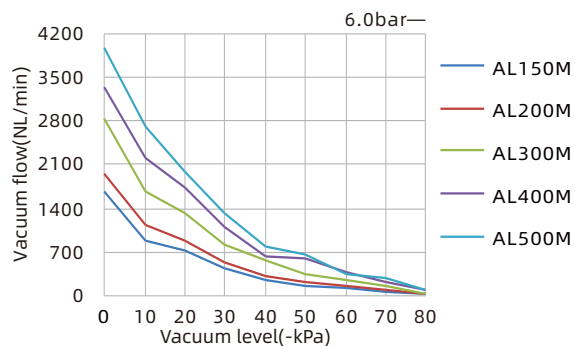
Combined Type Multistage Vacuum Generator

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|-----|-----|-----|-----|----|------------------------|
| AL150M | 6.0 | 650 | 1,660 | 870 | 720 | 450 | 240 | 160 | 115 | 70 | 32 | 81 |
| AL200M | 6.0 | 830 | 1,950 | 1,140 | 870 | 520 | 305 | 230 | 160 | 105 | 38 | 81 |
| AL300M | 6.0 | 1,240 | 2,840 | 1,660 | 1,330 | 810 | 580 | 360 | 265 | 155 | 45 | 81 |
| AL400M | 6.0 | 1,650 | 3,340 | 2,200 | 1,730 | 1,110 | 630 | 590 | 370 | 225 | 80 | 81 |
| AL500M | 6.0 | 2,100 | 3,970 | 2,710 | 1,990 | 1,320 | 790 | 660 | 360 | 270 | 92 | 81 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------|
| AL150M | 6.0 | 650 | 0.007 | 0.019 | 0.028 | 0.051 | 0.105 | 0.198 | 0.210 | 0.370 | 81 |
| AL200M | 6.0 | 830 | 0.005 | 0.013 | 0.023 | 0.040 | 0.060 | 0.098 | 0.150 | 0.300 | 81 |
| AL300M | 6.0 | 1,240 | 0.004 | 0.011 | 0.018 | 0.030 | 0.040 | 0.070 | 0.100 | 0.200 | 81 |
| AL400M | 6.0 | 1,650 | 0.003 | 0.008 | 0.010 | 0.150 | 0.030 | 0.060 | 0.080 | 0.150 | 81 |
| AL500M | 6.0 | 2,100 | 0.002 | 0.005 | 0.008 | 0.010 | 0.022 | 0.040 | 0.060 | 0.100 | 81 |



Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|-------|-------|-----|-----|-----|------------------------|
| AM150M | 6.0 | 1,120 | 1,880 | 1,210 | 730 | 640 | 490 | 340 | 200 | 75 | 25 | 89 |
| AM200M | 6.0 | 1,460 | 2,200 | 1,490 | 930 | 800 | 650 | 490 | 245 | 85 | 11 | 89 |
| AM300M | 6.0 | 2,290 | 3,150 | 2,100 | 1,410 | 1,180 | 930 | 660 | 365 | 105 | 75 | 89 |
| AM400M | 6.0 | 2,790 | 3,710 | 2,480 | 1,800 | 1,450 | 1,100 | 870 | 370 | 195 | 80 | 89 |
| AM500M | 6.0 | 3,250 | 4,570 | 3,240 | 2,330 | 1,800 | 1,470 | 1,140 | 700 | 205 | 115 | 89 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------|
| AM150M | 6.0 | 1,120 | 0.007 | 0.017 | 0.026 | 0.040 | 0.060 | 0.080 | 0.120 | 0.600 | 89 |
| AM200M | 6.0 | 1,460 | 0.005 | 0.012 | 0.022 | 0.030 | 0.040 | 0.060 | 0.110 | 0.330 | 89 |
| AM300M | 6.0 | 2,290 | 0.004 | 0.010 | 0.013 | 0.023 | 0.030 | 0.040 | 0.080 | 0.190 | 89 |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

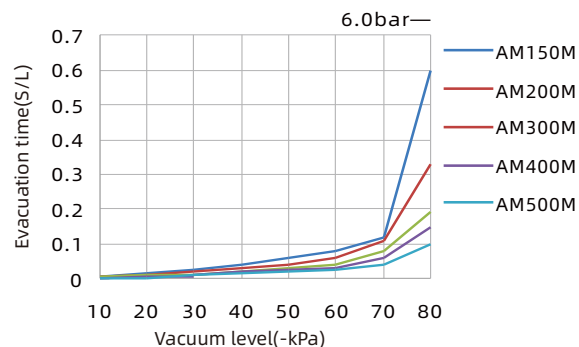
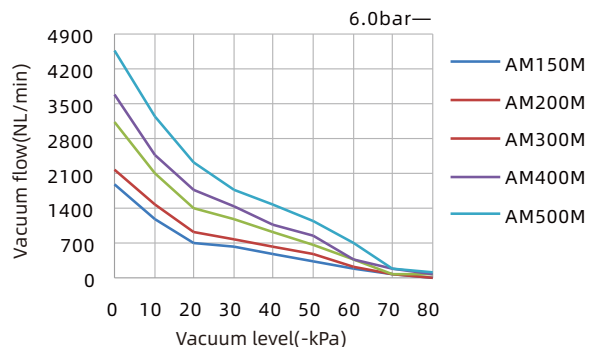
AM/AL Series

Combined Type Multistage Vacuum Generator

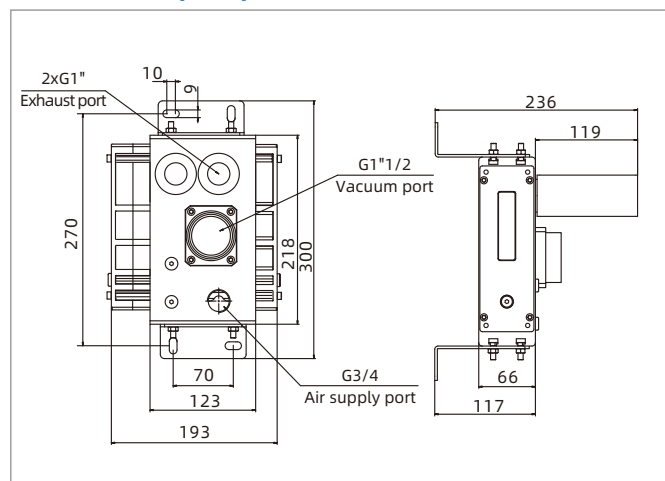


Evacuation time(s/L) to reach different vacuum levels(-kPa)

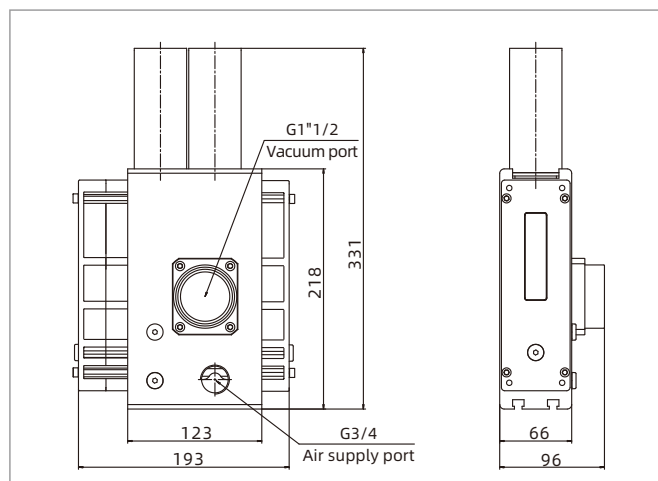
| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------|
| AM400M | 6.0 | 2,790 | 0.003 | 0.008 | 0.012 | 0.020 | 0.025 | 0.030 | 0.060 | 0.150 | 89 |
| AM500M | 6.0 | 3,250 | 0.002 | 0.005 | 0.008 | 0.015 | 0.020 | 0.027 | 0.050 | 0.120 | 89 |



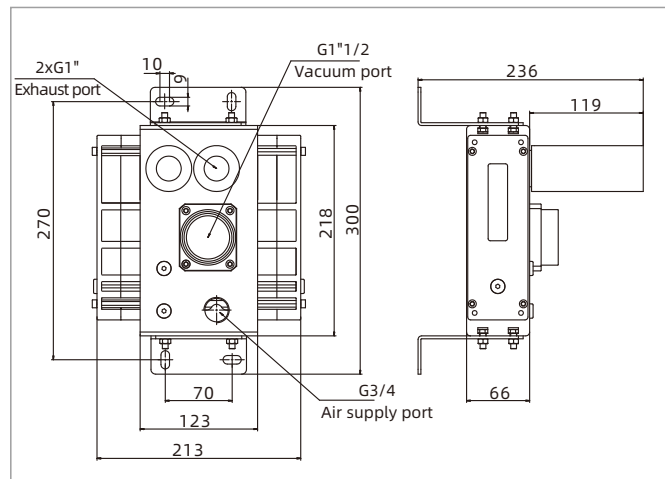
Dimensions(mm)



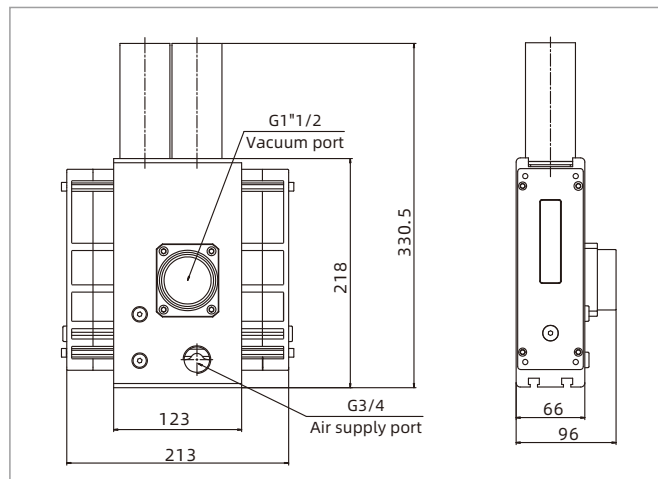
AM150M AL150M



AM150M-P AL150M-P



AM200M AL200M



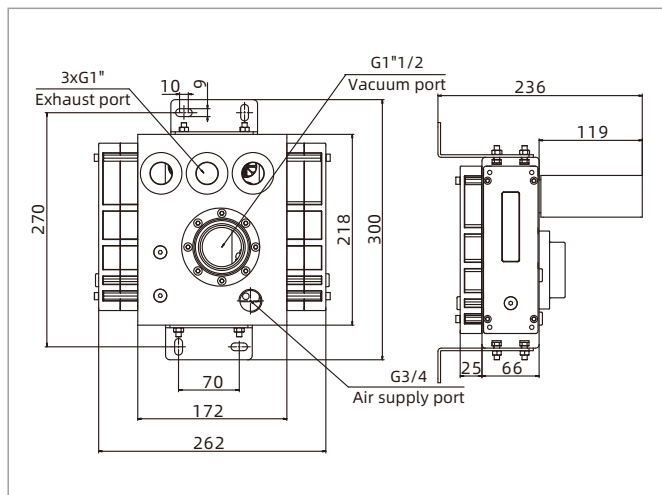
AM200M-P AL200M-P

AM/AL Series

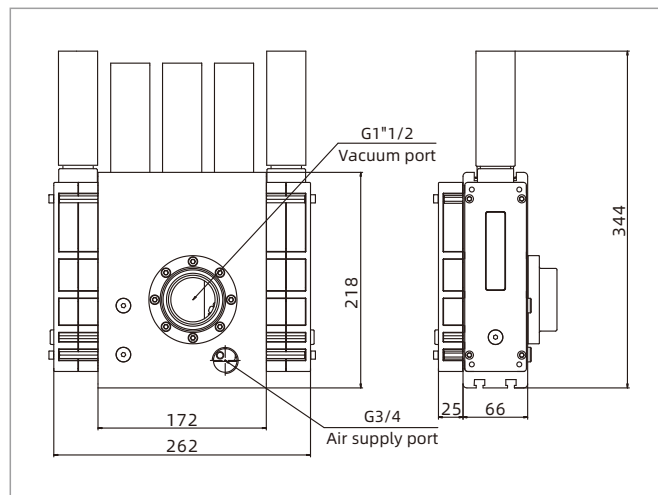
Combined Type Multistage Vacuum Generator



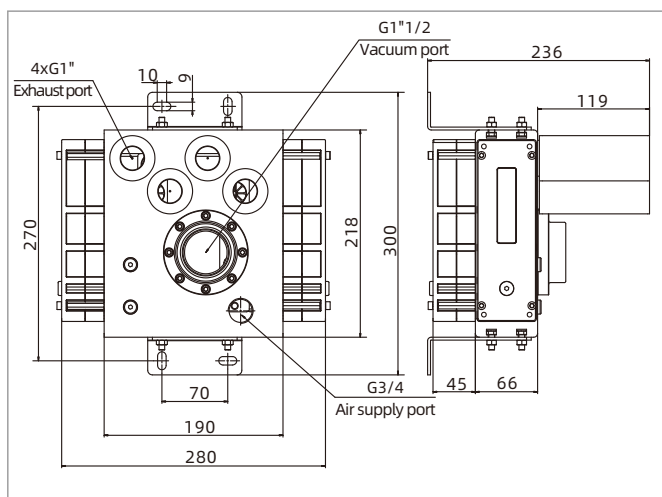
Dimensions(mm)



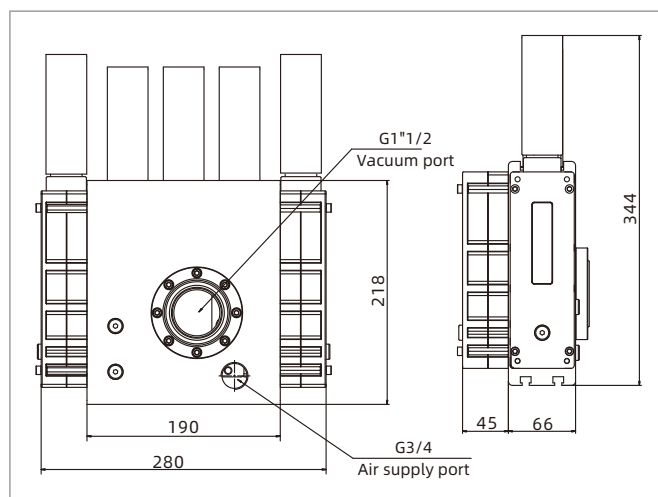
AM300M AL300M



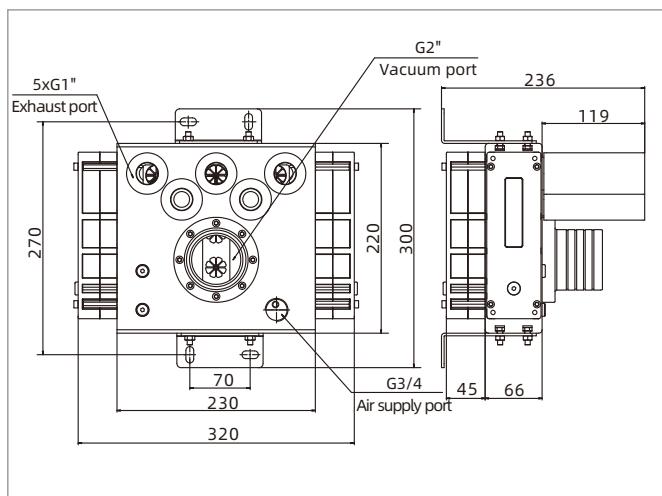
AM300M-P AL300M-P



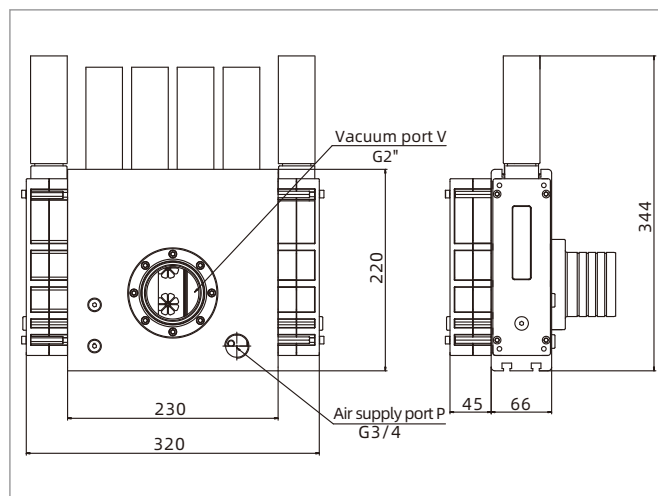
AM400M AL400M



AM400M-P AL400M-P



AM500M AL500M



AM500M-P AL500M-P

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AMD Series

Large Flow Vacuum Generator



UNIVERSAL

Features

- ◇ Built-in vacuum cartridge, greatly improve the energy consumption ratio
- ◇ Suitable connection specifications can be configured according to different vacuum flow requirements
- ◇ Various connection specifications can meet different requirements

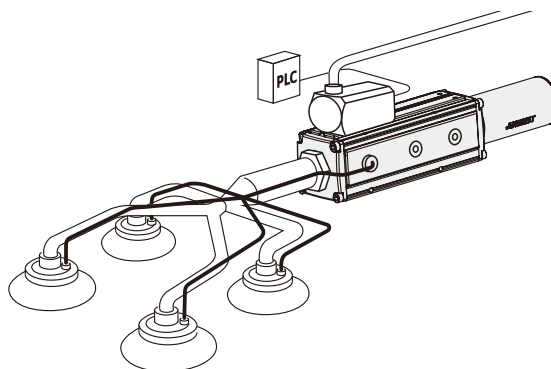
Advantages

- ◇ Easy installation, easy maintenance, it can be replaced by users themselves
- ◇ Various connection specifications can meet different customized requirements
- ◇ Multistage vacuum generator, the housing is made of aluminum alloy



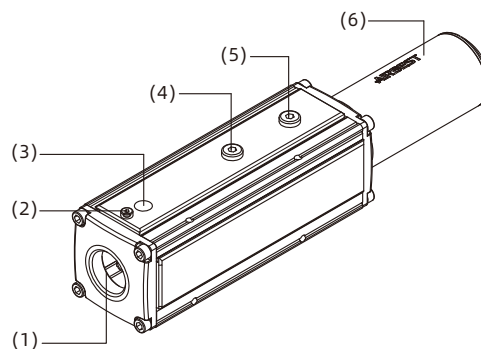
Applications

- ◇ Suitable for multi-station vacuum grasping applications
- ◇ Suitable for vacuum evacuation occasions in pharmaceutical and food industry



Structure

- ◇ (1) Vacuum port
- ◇ (2) Release port
- ◇ (3) Air supply port
- ◇ (4) Vacuum port
- ◇ (5) Exhaust port
- ◇ (6) Silencer



AMD Series

Large Flow Vacuum Generator

How to order

AMD - S 3 - LG8 - G8
 ① ② ③ ④ ⑤

| ① Series | ② Performance | ③ Specification | ④ Connection plate specification | ⑤ Vacuum port specification |
|----------|-----------------------|-----------------|--|-----------------------------|
| AMD | X - High vacuum level | 1 | LG8 - Straight exhaust, Air supply port: G1/4 | G8 - Vacuum port G1 |
| | S - Large vacuum flow | 2 | Vacuum detecting port: G1/8, | G6 - Vacuum port G3/4 |
| | | 3 | Exhaust detecting port: G1 | |
| | | 4 | LG6 - Side exhaust, Air supply port: G1/4 | |
| | | | Vacuum detecting port: G1/8, Exhaust port: G3/4 | |

Technical parameters

| Model | Air supply pressure range bar | Working temperature °C | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Recommended hose dia. mm | |
|--------|-------------------------------|------------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|-----------------------------------|-------------------------------------|
| | | | | | | | | (Hose outer dia.) Air supply port | (Wired hose inner dia.) Vacuum port |
| AMD-X1 | 4.0~7.0 | -10~80 | 5.0 | 95 | 354 | 130 | 63~72 | ≥φ8 | ≥φ25 |
| AMD-X2 | 4.0~7.0 | -10~80 | 5.0 | 95 | 700 | 260 | 63~72 | ≥φ8 | ≥φ25 |
| AMD-X3 | 4.0~7.0 | -10~80 | 5.0 | 95 | 980 | 390 | 63~72 | ≥φ10 | ≥φ45 |
| AMD-X4 | 4.0~7.0 | -10~80 | 5.0 | 95 | 1,380 | 520 | 63~72 | ≥φ10 | ≥φ45 |
| AMD-S1 | 4.0~7.0 | -10~80 | 6.0 | 75 | 360 | 135 | 63~72 | ≥φ8 | ≥φ32 |
| AMD-S2 | 4.0~7.0 | -10~80 | 6.0 | 75 | 710 | 270 | 63~72 | ≥φ8 | ≥φ32 |
| AMD-S3 | 4.0~7.0 | -10~80 | 6.0 | 75 | 1,050 | 405 | 63~72 | ≥φ10 | ≥φ45 |
| AMD-S4 | 4.0~7.0 | -10~80 | 6.0 | 75 | 1,410 | 540 | 63~72 | ≥φ10 | ≥φ45 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|---------------------|-----|-----|-----|-------|-------|-------|------|------|-----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | |
| AMD-X1 | 5.0 | 135 | 354 | 180 | 120 | 78 | 43.8 | 34.8 | 25.8 | 19.2 | 10.8 | 1.8 | 95 |
| AMD-X2 | 5.0 | 270 | 700 | 360 | 240 | 156 | 87.6 | 69.6 | 51.6 | 38.4 | 21.6 | 3.6 | 95 |
| AMD-X3 | 5.0 | 405 | 980 | 540 | 360 | 234 | 131.4 | 104.4 | 77.4 | 57.6 | 32.4 | 5.4 | 95 |
| AMD-X4 | 5.0 | 540 | 1,380 | 720 | 480 | 312 | 175.2 | 139.2 | 103.2 | 76.8 | 43.2 | 7.2 | 95 |
| AMD-S1 | 6.0 | 130 | 360 | 210 | 156 | 102 | 54 | 36 | 30 | 21 | - | - | 75 |
| AMD-S2 | 6.0 | 260 | 710 | 420 | 312 | 204 | 108 | 72 | 60 | 42 | - | - | 75 |
| AMD-S3 | 6.0 | 390 | 1,050 | 630 | 468 | 306 | 162 | 108 | 90 | 66 | - | - | 75 |
| AMD-S4 | 6.0 | 520 | 1,410 | 840 | 624 | 408 | 216 | 144 | 120 | 84 | - | - | 75 |

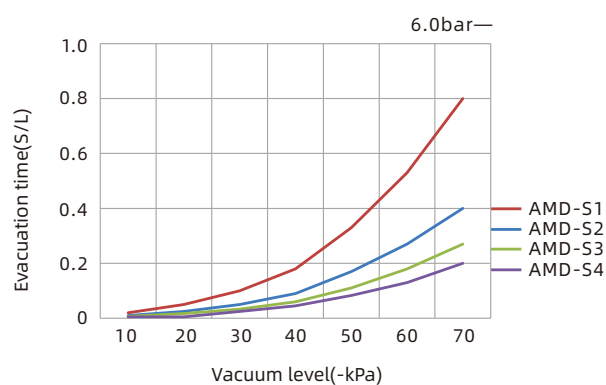
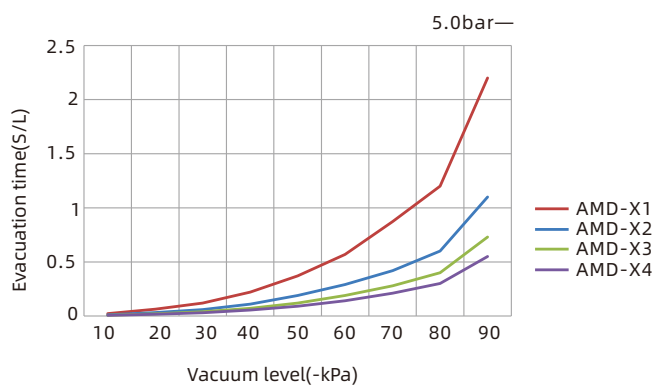
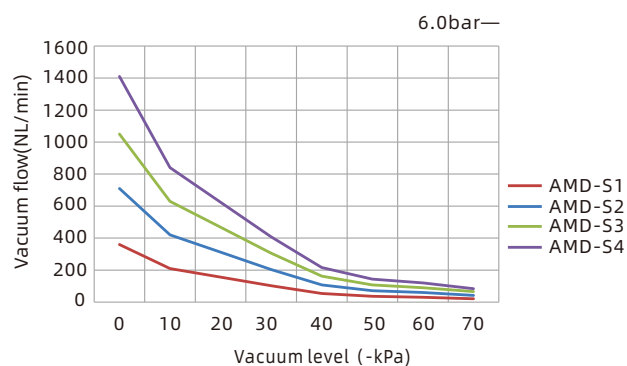
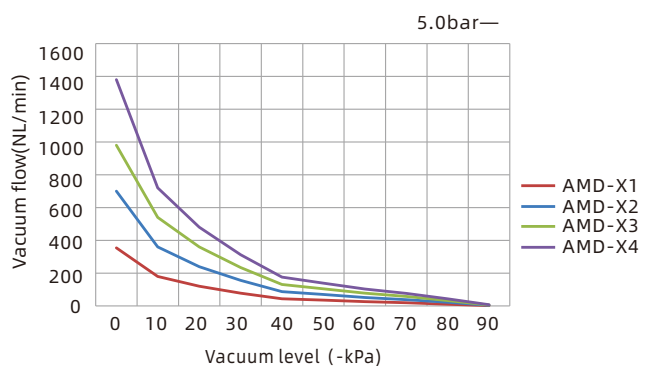
AMD Series

Large Flow Vacuum Generator



Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | Max. Vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|-------|------|-------|-----|------|------------------------|
| AMD-X1 | 5.0 | 135 | 0.022 | 0.063 | 0.12 | 0.22 | 0.37 | 0.57 | 0.874 | 1.2 | 2.2 | 95 |
| AMD-X2 | 5.0 | 270 | 0.011 | 0.031 | 0.06 | 0.11 | 0.19 | 0.29 | 0.42 | 0.6 | 1.1 | 95 |
| AMD-X3 | 5.0 | 405 | 0.007 | 0.021 | 0.04 | 0.07 | 0.12 | 0.19 | 0.28 | 0.4 | 0.73 | 95 |
| AMD-X4 | 5.0 | 540 | 0.006 | 0.016 | 0.03 | 0.055 | 0.09 | 0.14 | 0.21 | 0.3 | 0.55 | 95 |
| AMD-S1 | 6.0 | 130 | 0.02 | 0.05 | 0.1 | 0.18 | 0.33 | 0.53 | 0.8 | - | - | 75 |
| AMD-S2 | 6.0 | 260 | 0.01 | 0.025 | 0.05 | 0.09 | 0.17 | 0.27 | 0.4 | - | - | 75 |
| AMD-S3 | 6.0 | 390 | 0.007 | 0.017 | 0.033 | 0.06 | 0.11 | 0.18 | 0.27 | - | - | 75 |
| AMD-S4 | 6.0 | 520 | 0.005 | 0.005 | 0.025 | 0.045 | 0.083 | 0.13 | 0.2 | - | - | 75 |

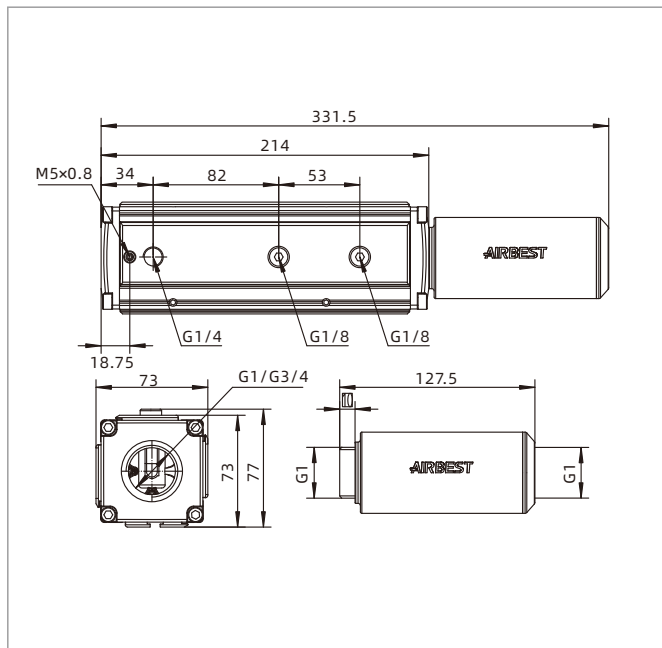


AMD Series

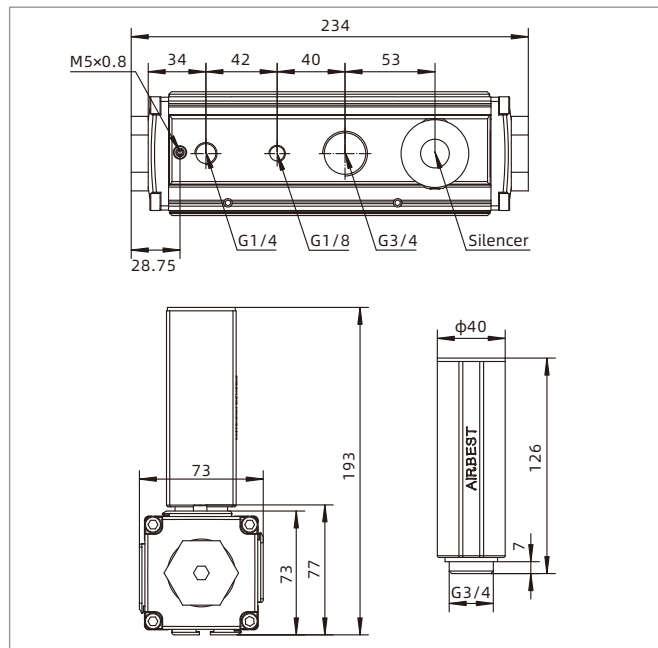
Large Flow Vacuum Generator



Dimensions(mm)

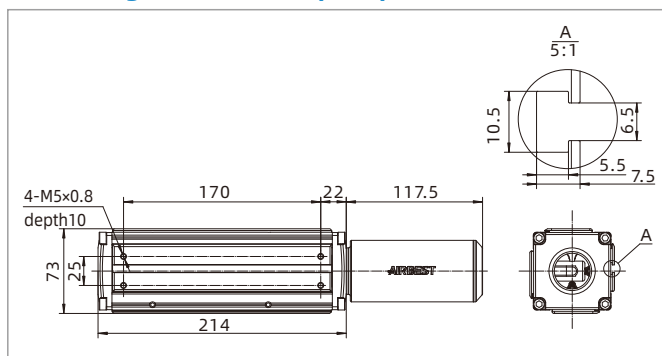


AMD-□-LG8-□ type (Straight exhaust)



AMD-□-LG6-□ type (Side exhaust)

Mounting dimensions(mm)



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AZW Series



Large Flow Integrated Vacuum Generator



BIO-PHARMACEUTICAL FOOD INDUSTRY

Features

- ◇ Built-in high performance vacuum cartridge
- ◇ External silencer
- ◇ Centralized air supply, solenoid valves of each station controll separately
- ◇ Multi-station, large flow, integrated design

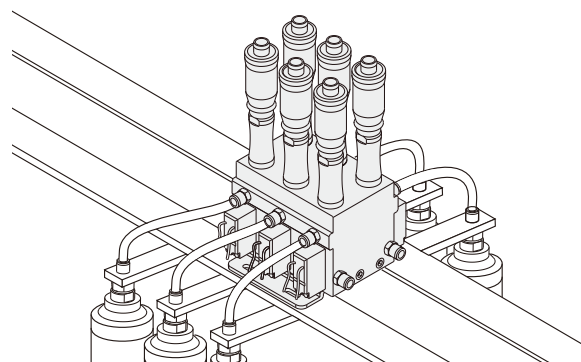
Advantages

- ◇ Easy installation, easy maintenance, it can be replaced by users themselves
- ◇ Reduce product noise most
- ◇ Customers can open or close according to the actual application conditions to save air source
- ◇ High vacuum level, large flow, it can reach high vacuum level in a short time



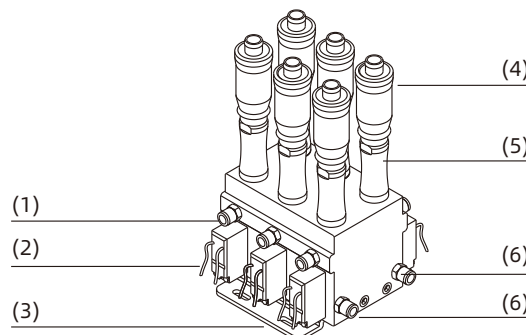
Applications

- ◇ Suitable for multi-station vacuum grasping applications
- ◇ Suitable for the occasions with high demand on the evacuation time
- ◇ Suitable for fast evacuation occasions in medical and food industry



Structure

- ◇ (1) Vacuum port
- ◇ (2) Air supply valve
- ◇ (3) Mounting bracket
- ◇ (4) Silencer
- ◇ (5) Vacuum cartridge
- ◇ (6) Air supply port



AZW Series

Large Flow Integrated Vacuum Generator

How to order

AZW - 06V

① ②

| ① Series | ② Vacuum stack quantity |
|----------|--|
| AZW | 03V - 3 stacks 04V - 3 stacks 06V - 6 stacks |

Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max.vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) |
|-------|-------------------------------|-------------------------------|-----------------------|-------------------------|------------------------|-------------------|
| AZW | 4.0~7.0 | 6.0 | 95 | 140 | 135 | 74 |

| Model | Solenoid valve rated working voltage V | Solenoid valve status | Solenoid valve rated power W | Working temperature °C | Weight kg | | Recommended hose dia.mm | |
|-------|--|-----------------------|------------------------------|------------------------|-----------|-----|-------------------------|---------------|
| | | | | | 03V | 06V | Air supply port P | Vacuum port V |
| AZW | DC24 | Normally closed(NC) | 5.4 | 0~60 | 1.2 | 2.3 | φ10 | φ10 |

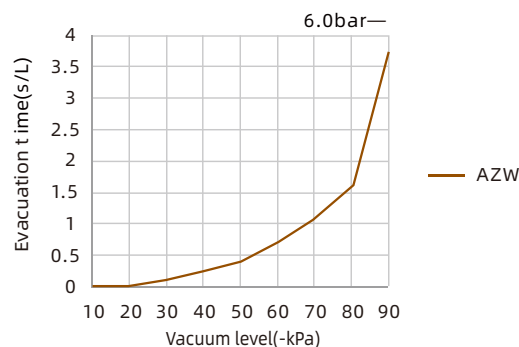
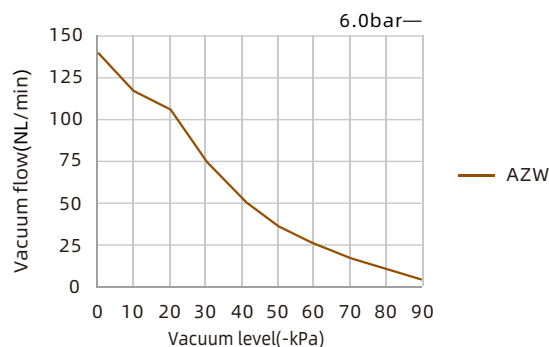
Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|---------------------|-----|-----|----|----|----|----|----|------|-----|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | | |
| AZW | 6.0 | 135 | 140 | 117 | 106 | 76 | 54 | 36 | 26 | 18 | 11.5 | 5.2 | 95 | |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|---------------------|------|------|------|------|------|------|------|------|----|------------------------|
| | | | 1 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | | |
| AZW | 6.0 | 135 | 0.01 | 0.02 | 0.08 | 0.23 | 0.43 | 0.71 | 1.04 | 1.61 | 3.72 | 95 | |

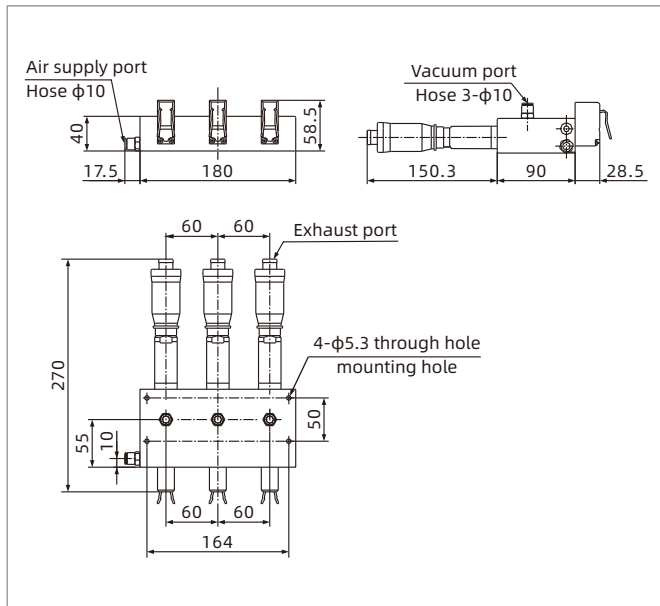
◇ Note: The above data is the data of one stack, the actual air consumption and max. vacuum flow need to be multiplied by the number of stack of the vacuum generator



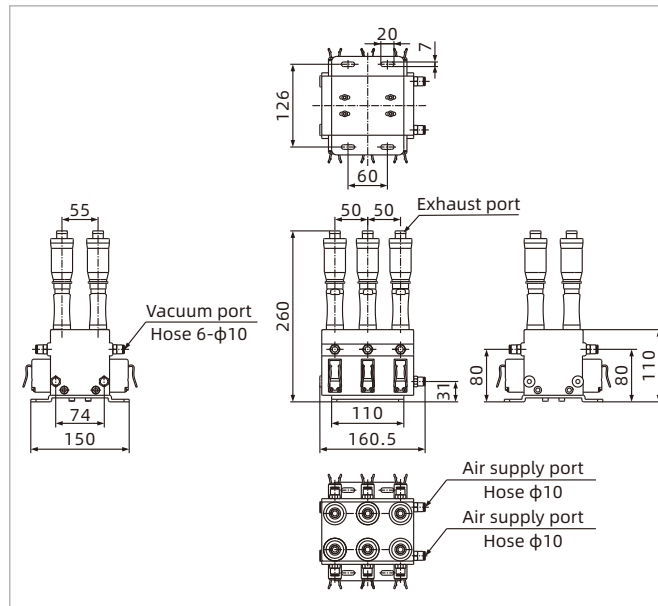
AZW Series

Large Flow Integrated Vacuum Generator

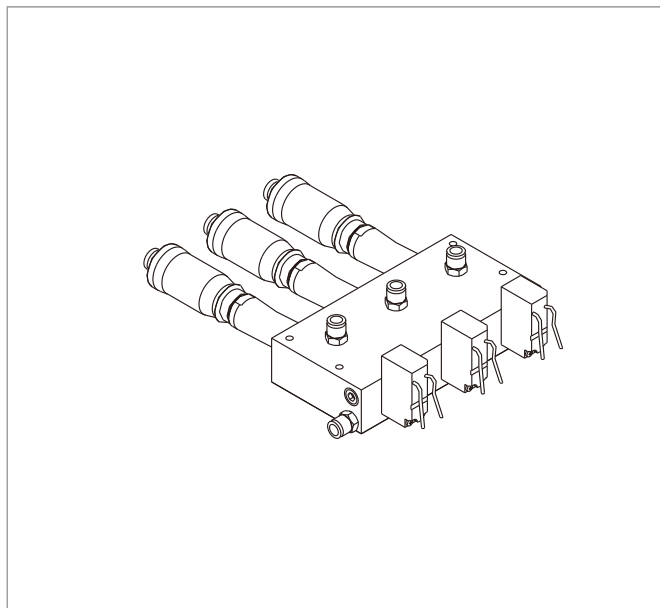
Dimensions(mm)



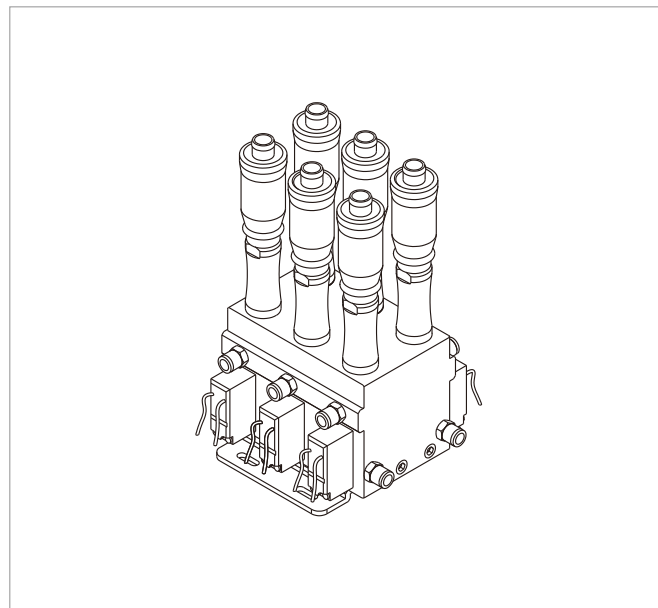
AZW-03V



AZW-06V



AZW-03V Schematic diagram



AZW-06V Schematic diagram

AZR Series

Mini Vacuum Generator

AIRBEST



ELECTRONICS



PLASTIC



Features

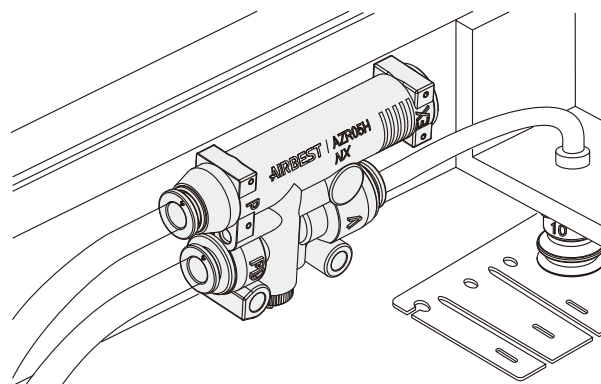
- ◇ Small size, light weight
- ◇ High vacuum level type and large vacuum flow type are optional
- ◇ The generator has vacuum breaking function itself
- ◇ Separate vacuum filter and mounting bracket are optional

Advantages

- ◇ For the occasions with limited installation space and weight
- ◇ It can meet different requirements of vacuum flow in different working conditions
- ◇ There is no need for external control device, can quickly release the product
- ◇ Customers can choose freely according to the actual working conditions

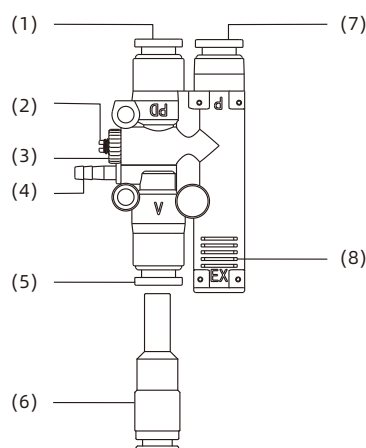
Applications

- ◇ Suitable for handling electronic components and other small workpieces
- ◇ Suitable for working occasions where quick picking and quick release are required



Structure

- ◇ (1) Release port
- ◇ (2) Vacuum release regulating valve
- ◇ (3) Lock nut
- ◇ (4) Vacuum detecting port
- ◇ (5) Vacuum port
- ◇ (6) Vacuum filter
- ◇ (7) Air supply port
- ◇ (8) Exhaust port



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AZR Series

Mini Vacuum Generator

How to order

AZR 07 H - J - V - F
 ① ② ③ ④ ⑤ ⑥

| ① Series | ② Nozzle Diameter | ③ Specification | ④ Exhaust way | ⑤ Special specification | ⑥ Vacuum filter |
|----------|--|--|---|--|---|
| AZR | 05 - ϕ 0.5mm 07 - ϕ 0.7mm | H - High vacuum level type L - Large vacuum flow type | Nil - Direct exhaust J - Centralized exhaust | Nil - Standard type V - Vacuum detecting port | Nil - Standard type F - With vacuum filter |

Selection

| Model/ Nozzle Diameter | 05 | | 07 | |
|---------------------------|--------------|--------------|--------------|--------------|
| AZR□□ | AZR05H | AZR05L | AZR07H | AZR07L |
| AZR□□-J | AZR05H-J | AZR05L-J | AZR07H-J | AZR07L-J |
| AZR□□-J-F | AZR05H-J-F | AZR05L-J-F | AZR07H-J-F | AZR07L-J-F |
| AZR□□-J-V | AZR05H-J-V | AZR05L-J-V | AZR07H-J-V | AZR07L-J-V |
| AZR□□-J-V-F | AZR05H-J-V-F | AZR05L-J-V-F | AZR07H-J-V-F | AZR07L-J-V-F |
| AZR□□-V | AZR05H-V | AZR05L-V | AZR07H-V | AZR07L-V |
| AZR□□-V-F | AZR05H-V-F | AZR05L-V-F | AZR07H-V-F | AZR07L-V-F |
| AZR□□-F | AZR05H-F | AZR05L-F | AZR07H-F | AZR07L-F |

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Max. break flow rate NL/min | Air consumption NL/min | Noise level dB(A) | Weight g | Air supply port P | Recommended hose dia. mm Vacuum port V |
|--------|-------------------------------|------------------------|-------------------------|-----------------------------|------------------------|-------------------|----------|-------------------|--|
| AZR05H | 5.0 | 88 | 7.0 | 40 | 11 | 75 | 19 | ϕ 4 | ϕ 4 |
| AZR07H | 5.0 | 88 | 12.5 | 40 | 22 | 75 | 20 | ϕ 6 | ϕ 6 |
| AZR05L | 5.0 | 58 | 12.0 | 40 | 11 | 70 | 19 | ϕ 4 | ϕ 4 |
| AZR07L | 5.0 | 58 | 20.0 | 40 | 22 | 70 | 20 | ϕ 6 | ϕ 6 |

◇ Note: Max. air supply pressure is 6.0 bar.

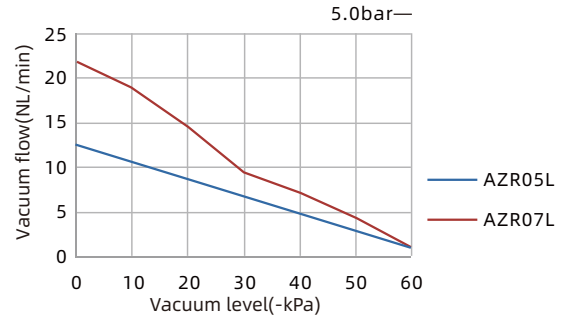
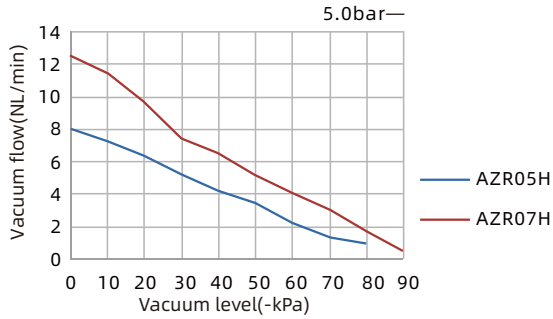
Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|-----|-----|-----|-----|-----|-----|------------------------|
| AZR05H | 5.0 | 11 | 8.0 | 7.3 | 6.3 | 5.2 | 4.2 | 3.4 | 2.2 | 1.4 | 1.0 | 88 |
| AZR07H | 5.0 | 22 | 12.5 | 11.5 | 9.7 | 7.4 | 6.5 | 5.2 | 4.1 | 3.0 | 1.7 | 88 |
| AZR05L | 5.0 | 11 | 12.5 | 10.5 | 8.7 | 6.9 | 5.0 | 2.9 | 1.0 | - | - | 58 |
| AZR07L | 5.0 | 22 | 22.0 | 19.1 | 14.5 | 9.4 | 7.2 | 4.3 | 1.0 | - | - | 58 |

AZR Series

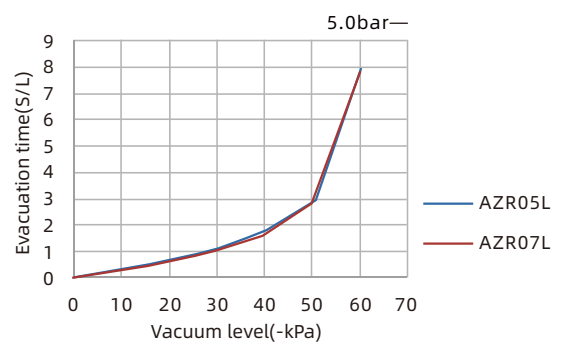
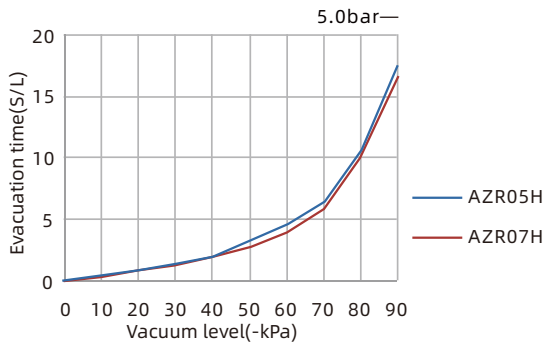
Mini Vacuum Generator

Vacuum flow(NL/min) at different vacuum levels(-kPa)

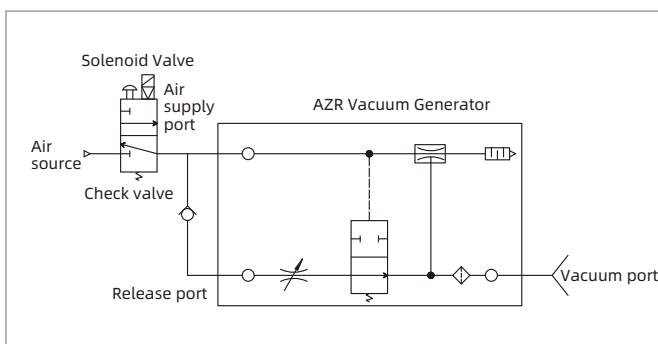


Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|-----|-----|-----|------|------------------------|
| AZR05H | 5.0 | 11 | 0.42 | 0.83 | 1.30 | 1.92 | 3.2 | 4.5 | 6.3 | 10.5 | 88 |
| AZR07H | 5.0 | 22 | 0.34 | 0.75 | 1.22 | 1.87 | 2.7 | 3.8 | 5.7 | 9.9 | 88 |
| AZR05L | 5.0 | 11 | 0.32 | 0.64 | 1.06 | 1.73 | 2.9 | 8.2 | - | - | 58 |
| AZR07L | 5.0 | 22 | 0.23 | 0.53 | 0.93 | 1.53 | 2.8 | 7.8 | - | - | 58 |



Air circuit schematic diagram



Vacuum release principle and attentions:

- ◇ 1. Close solenoid valve and stop air supply, open the release valve. The residual positive pressure air in the air circuit between check valve and release port flows into the vacuum circuit to release vacuum
- ◇ 2. Change the tube length between the check valve and release port to adjust the residual positive pressure air volume. In this way, the vacuum releasing time can be adjusted
- ◇ 3. The vacuum releasing flow of this way is small

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

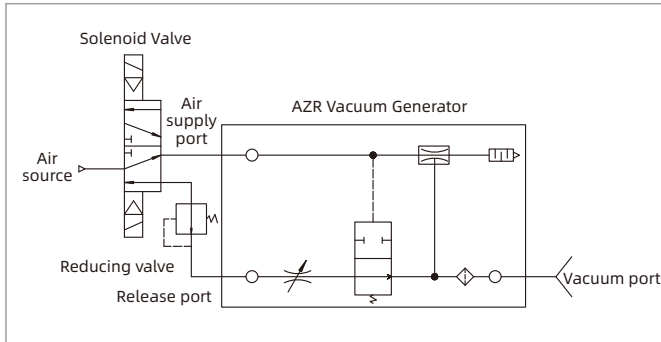
ACPS

APB

AZR Series

Mini Vacuum Generator

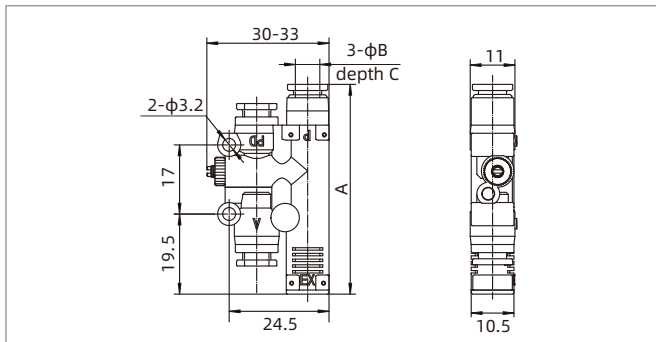
Air circuit schematic diagram



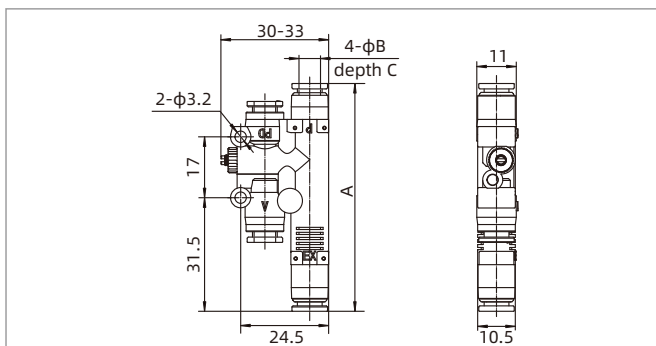
Vacuum release principle and attentions:

- ◇ 1. Close solenoid valve and stop air supply, open the release valve, and the positive pressure air flows directly into the vacuum circuit to release the vacuum
- ◇ 2. Can adjust the vacuum releasing time through controlling the air supply time of solenoid valve
- ◇ 3. Adjust the air releasing pressure through the reducing valve to avoid excessive pressure blowing away the workpiece
- ◇ 4. The air releasing pressure must be lower than air supply pressure of vacuum generator
- ◇ 5. The releasing flow and pressure can be adjusted freely as required

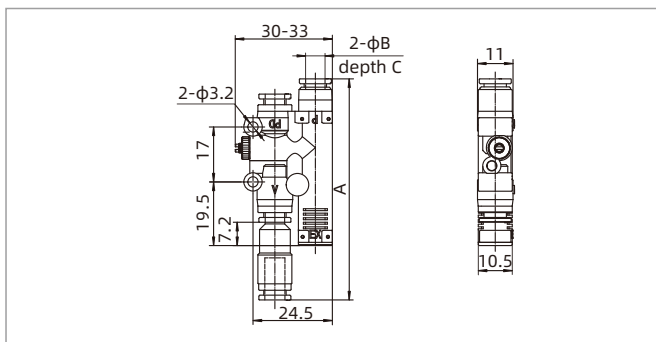
Dimensions(mm)



AZR□□



AZR□□-J



AZR□□-F

| Model/Size | A | B | C |
|------------|------|---|------|
| AZR05H | 49.5 | 4 | 10 |
| AZR05L | 49.5 | 4 | 10 |
| AZR07H | 51.5 | 6 | 12.5 |
| AZR07L | 51.5 | 6 | 12.5 |

◇ Note:"C" is insert depth

| Model/Size | A | B | C |
|------------|------|---|------|
| AZR05H-J | 61.5 | 4 | 10 |
| AZR05L-J | 61.5 | 4 | 10 |
| AZR07H-J | 63.5 | 6 | 12.5 |
| AZR07L-J | 63.5 | 6 | 12.5 |

◇ Note:"C" is insert depth

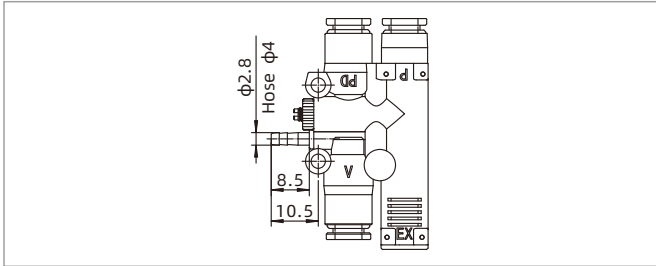
| Model/Size | A | B | C |
|------------|------|---|------|
| AZR05H-F | 65.5 | 4 | 10 |
| AZR05L-F | 65.5 | 4 | 10 |
| AZR07H-F | 68.8 | 6 | 12.5 |
| AZR07L-F | 68.8 | 6 | 12.5 |

◇ Note:"C" is insert depth

AZR Series

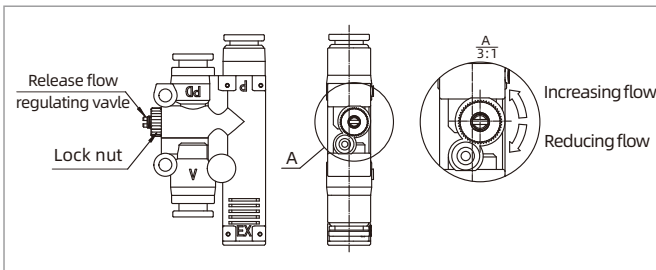
Mini Vacuum Generator

Dimensions(mm)



AZR□□-V

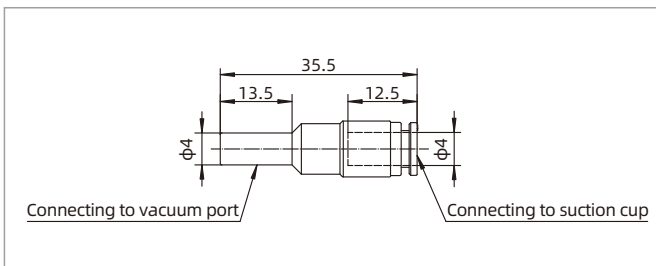
Vacuum release function



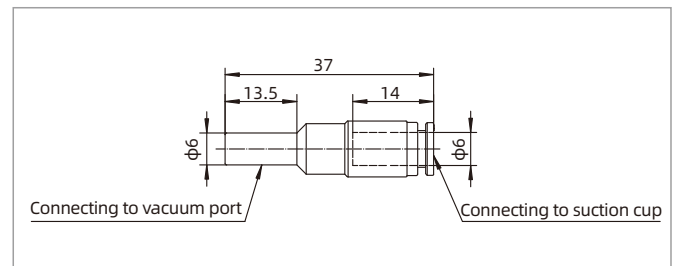
Vacuum releasing flow regulation:

- ◇ 1. Rotating clockwise the releasing flow regulating valve to reduce the releasing flow. Rotating counterclockwise the releasing flow regulating valve to increase the releasing flow
- ◇ 2. When regulation is finished, tighten the lock nut clockwise to fix the position of the regulating valve
- ◇ 3. The regulating valve has limited positions. When it can not be turned clockwise or counterclockwise, it means that the limit position has been reached

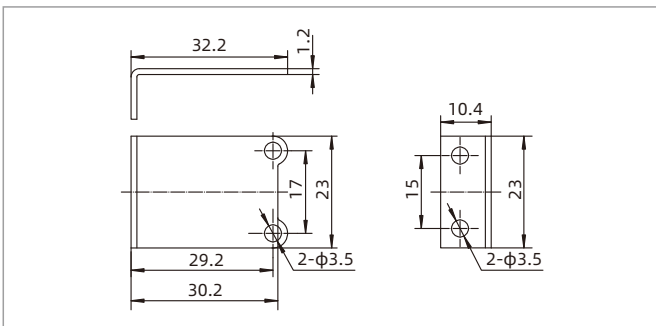
Repair kits dimensions(mm)



ZFD04 Vacuum filter



ZFD06 Vacuum filter



AZR-B Mounting bracket

| Item | Model | Applicable vacuum generator |
|------------------|-------|-----------------------------|
| Vacuum filter | ZFD04 | AZR05H、AZR05L |
| Vacuum filter | ZFD06 | AZR07H、AZR07L |
| Mounting bracket | AZR-B | AZR05H、AZR05L、AZR07H、AZR07L |

ABT Series

Mini Vacuum Generator



UNIVERSAL

Features

- ◇ Linear installation
- ◇ Long and thin plastic housing, compact size
- ◇ Quick plug connector for direct connection
- ◇ Optimal lateral direct exhaust design

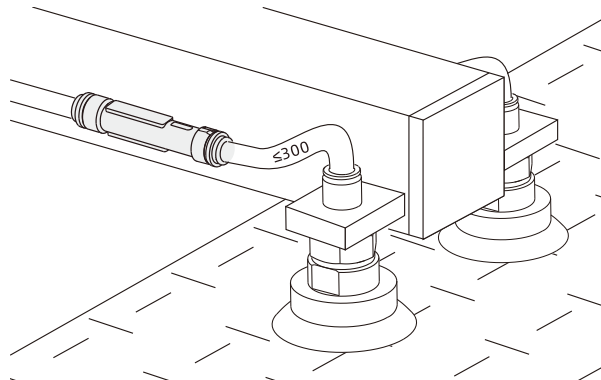
Advantages

- ◇ Can be connected to the hose directly
- ◇ Suitable for installation in narrow spaces
- ◇ Convenient connection, no additional installation accessories are required
- ◇ Minimize product noise



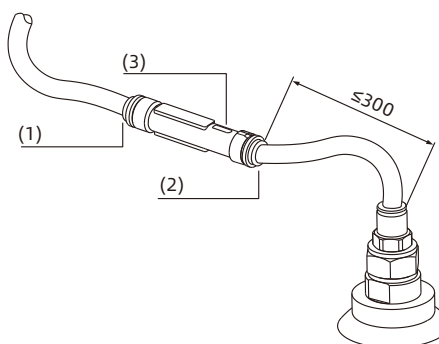
Applications

- ◇ The linear vacuum generator can be connected to the PU hose directly
- ◇ Suitable for the handling systems with limited space



Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Exhaust port



ABT Series

Mini Vacuum Generator

How to order

ABT - T05

① ②

| ① Series | ② Specification |
|----------|---------------------------------------|
| ABT | S02 X10 T05 P12 X2.5 D16 S08 |

Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) | |
|----------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|---------------------------|-------------|
| | | | | | | | | | Air supply port | Vacuum port |
| ABT-S02 | 4.0~7.0 | 6.0 | 75 | 16.8 | 8 | 70 | 0~60 | 15 | φ6 | φ6 |
| ABT-T05 | 4.0~7.0 | 5.0 | 81 | 18 | 18.5 | 70 | 0~60 | 15 | φ6 | φ6 |
| ABT-X2.5 | 4.0~7.0 | 5.0 | 90 | 15.6 | 9.5 | 70 | 0~60 | 15 | φ6 | φ6 |
| ABT-S08 | 4.0~7.0 | 6.0 | 75 | 46 | 27 | 73 | 0~60 | 29 | φ8 | φ8 |
| ABT-X10 | 4.0~7.0 | 5.0 | 92 | 42 | 30 | 73 | 0~60 | 29 | φ8 | φ8 |
| ABT-P12 | 2.0~7.0 | 3.14 | 90 | 42 | 29 | 73 | 0~60 | 29 | φ8 | φ8 |
| ABT-D16 | 4.0~7.0 | 6.0 | 72 | 40 | 46 | 77 | 0~60 | 29 | φ8 | φ8 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|----------|-------------------------|------------------------|---------------------|------|------|------|------|-----|-----|-----|-----|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | | |
| ABT-S02 | 6.0 | 8 | 16.8 | 12.2 | 6.3 | 4.6 | 3.9 | 3.0 | 2.0 | - | - | 75 | |
| ABT-T05 | 5.0 | 18.5 | 18 | 16.2 | 13.3 | 9.9 | 8.2 | 5.6 | 4.2 | 3.1 | 1.3 | 81 | |
| ABT-X2.5 | 5.0 | 9.5 | 15.6 | 11.6 | 6.6 | 4 | 3.3 | 2.6 | 1.7 | - | - | 90 | |
| ABT-S08 | 6.0 | 27 | 46 | 42 | 32.6 | 22.6 | 12 | 9.8 | 8.3 | 5.9 | - | 75 | |
| ABT-X10 | 5.0 | 30 | 42 | 40 | 30.6 | 22.2 | 13.5 | 8.9 | 6.6 | 4.5 | 2 | 92 | |
| ABT-P12 | 3.14 | 29 | 42 | 36 | 25.6 | 14.9 | 10.4 | 8.9 | 6.6 | 4.2 | 1.9 | 90 | |
| ABT-D16 | 6.0 | 46 | 40 | 38 | 30.5 | 26.7 | 22 | 17 | 12 | 3.5 | - | 72 | |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

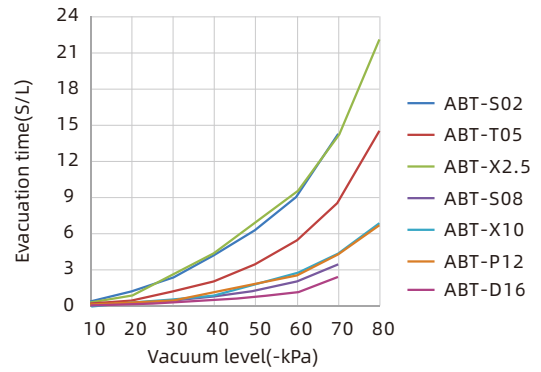
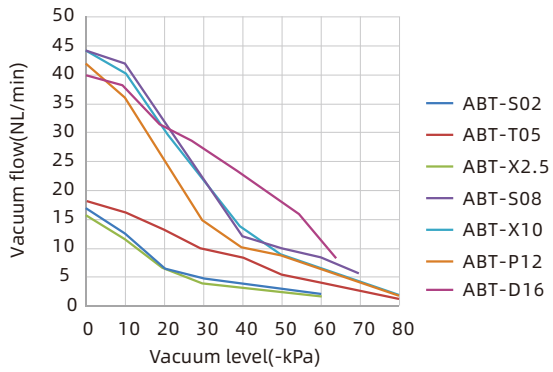
| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|----------|-------------------------|------------------------|---------------------|------|------|------|------|------|------|-------|----|--|------------------------|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | | | |
| ABT-S02 | 6.0 | 8 | 0.3 | 1.1 | 2.4 | 4.1 | 6.2 | 9 | 14.3 | - | 75 | | |
| ABT-T05 | 5.0 | 18.5 | 0.18 | 0.52 | 1.11 | 1.98 | 3.35 | 5.45 | 8.5 | 14.6 | 81 | | |
| ABT-X2.5 | 5.0 | 9.5 | 0.3 | 0.9 | 2.4 | 4.3 | 6.7 | 9.5 | 14.1 | 22.03 | 90 | | |
| ABT-S08 | 6.0 | 27 | 0.07 | 0.2 | 0.39 | 0.74 | 1.35 | 2.14 | 3.35 | - | 75 | | |
| ABT-X10 | 5.0 | 30 | 0.05 | 0.23 | 0.48 | 0.95 | 1.68 | 2.71 | 4.18 | 6.86 | 92 | | |
| ABT-P12 | 3.14 | 29 | 0.12 | 0.29 | 0.59 | 1.07 | 1.86 | 2.66 | 4.33 | 6.72 | 90 | | |
| ABT-D16 | 6.0 | 46 | 0.04 | 0.18 | 0.39 | 0.63 | 0.95 | 1.47 | 3.1 | - | 72 | | |

ABT Series

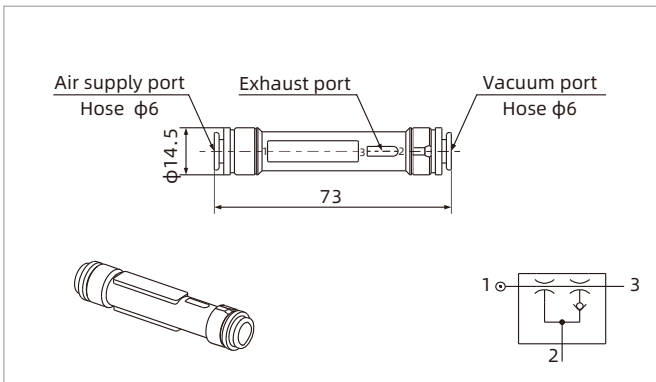
Mini Vacuum Generator



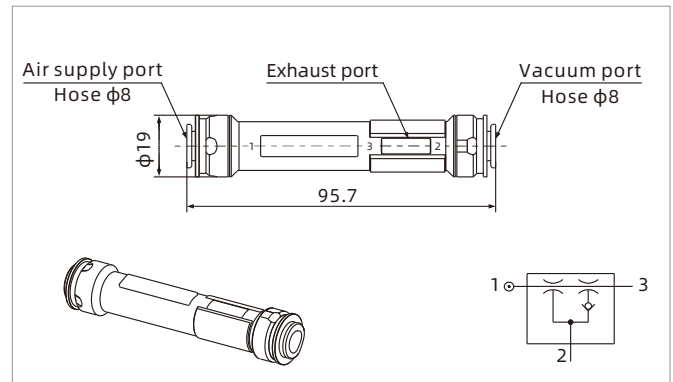
Technical parameters



Dimensions(mm)



ABT-S02/T05/X2.5



ABT-S08/X10/P12/D16

ABP Series

Vacuum Generator with Fast Blow-off



UNIVERSAL

Features

- ◇ Axial connection
- ◇ Plastic housing, compact size, light weight
- ◇ Connect plug-in fitting directly
- ◇ Optimal direct lateral exhaust design
- ◇ Built-in fast breaking device, no need of external drive

Advantages

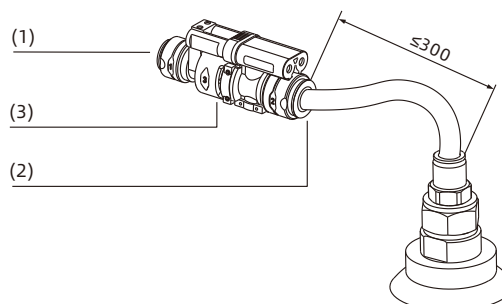
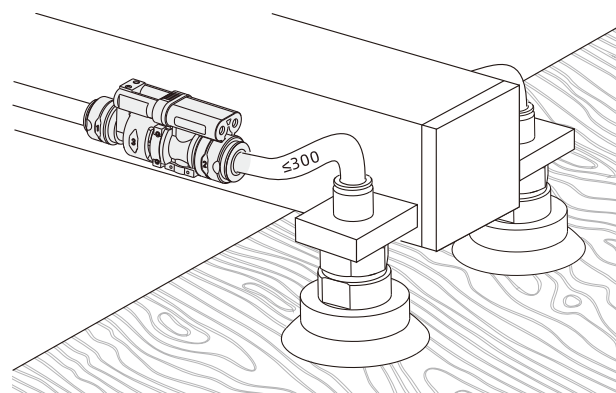
- ◇ Connect hose directly
- ◇ Suitable for installing in narrow space
- ◇ Easy to mount, there is no need to add extra mounting accessories
- ◇ Reduce product noise most
- ◇ Release product fast

Applications

- ◇ The linear vacuum generator can be connected with the PU hose directly
- ◇ Suitable for the handling systems with limited space
- ◇ Suitable for occasions where there is no need of external drive and can automatically release workpiece fast
- ◇ Suitable for occasions where need to grip and release workpieces fastly, and there is requirement for light weight of whole equipment, etc.

Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Exhaust port



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ABP Series



Vacuum Generator with Fast Blow-off

How to order

ABP - 10

① ②

| Series | Specification |
|--------|---------------|
| ABP | 10 |

Technical parameters

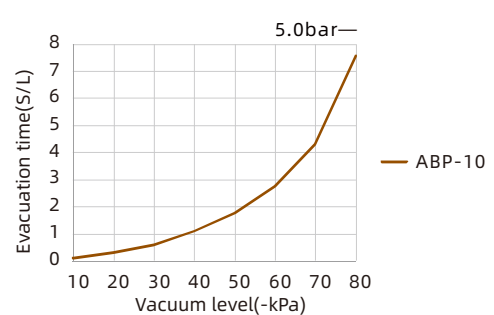
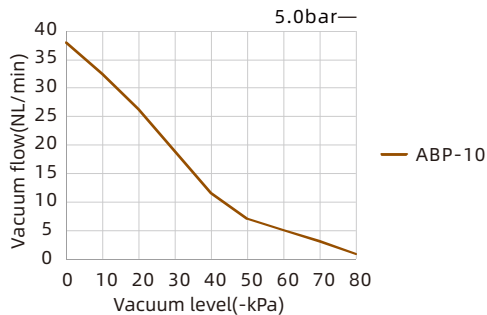
| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) Air supply port P | Vacuum port V |
|--------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|--|---------------|
| ABP-10 | 4.0~7.0 | 5.0 | 81 | 38 | 38 | 70 | 0~60 | 34 | φ8 | φ10 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

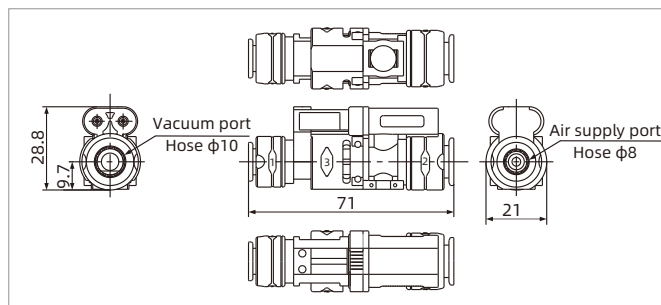
| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|------|-----|-----|-----|-----|------------------------|
| ABP-10 | 5.0 | 38 | 38.0 | 32.4 | 26.3 | 18.9 | 11.5 | 7.1 | 5.0 | 3.2 | 0.8 | 81 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------------------------|
| ABP-10 | 5.0 | 38 | 0.12 | 0.32 | 0.61 | 1.08 | 1.76 | 2.73 | 4.29 | 7.58 | 81 |

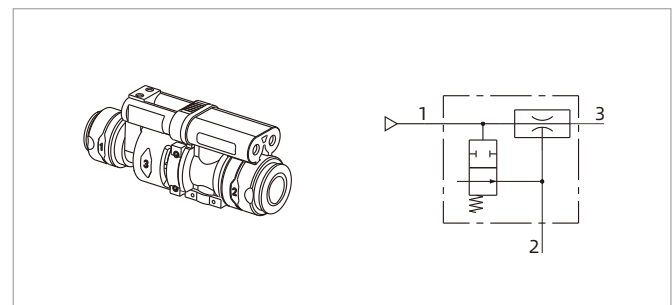


Dimensions(mm)



ABP-10

ABP-10 Air circuit schematic diagram



ABP-10

Note: 1. Air supply port, 2. Vacuum port, 3. Exhaust port

ABQ Series

Vacuum Generator with Fast Blow-off

AIRBEST



UNIVERSAL

Features

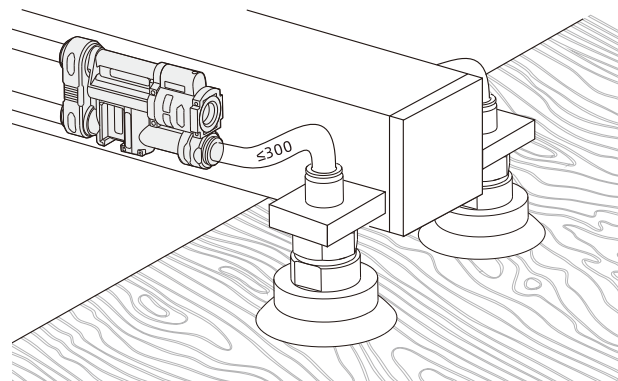
- ◇ Plastic housing, compact size and light weight
- ◇ Connect plug-in fitting directly
- ◇ Optimal direct lateral exhaust design
- ◇ Built-in fast blow-off device

Advantages

- ◇ Suitable for installing in narrow space
- ◇ Easy installation, no need extra mounting accessory
- ◇ Minimize product noise
- ◇ Safe and reliable with fast blow-off system

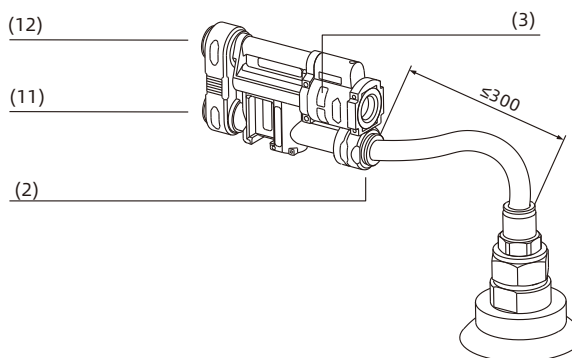
Applications

- ◇ Suitable for handling system with limited space
- ◇ Suitable for occasions where require safe and quick release of the workpieces
- ◇ Suitable for occasions where need to grip and release workpieces fastly, and there is requirement for light weight of whole equipment, etc.



Structure

- ◇ (11) Air supply port
- ◇ (12) Vacuum release port
- ◇ (2) Vacuum port
- ◇ (3) Exhaust port



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ABQ Series



Vacuum Generator with Fast Blow-off

How to order

ABQ - 08

① ②

| Series | Specification |
|--------|---------------|
| ABQ | 08 |

Technical parameters

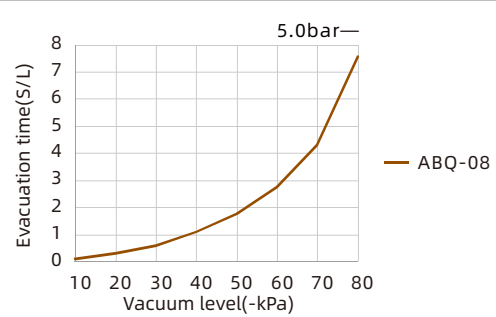
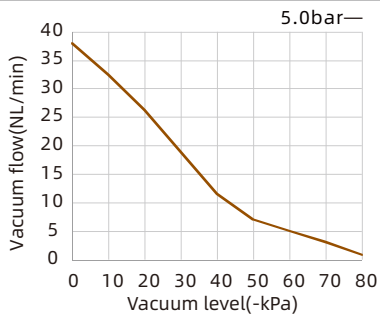
| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) | |
|--------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|---------------------------|-------------|
| | | | | | | | | | Air supply port | Vacuum port |
| ABQ-08 | 4.0~7.0 | 5.0 | 81 | 38 | 38 | 70 | 0~60 | 55 | φ8 | φ8 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

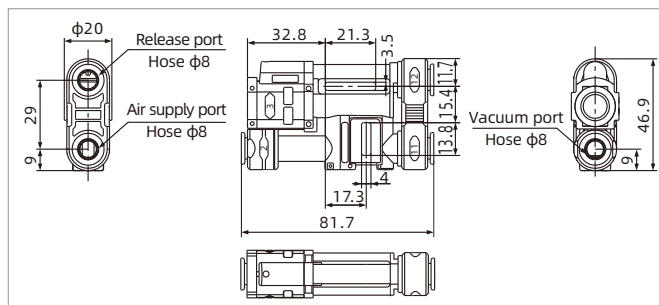
| Model | Air supply pressure range bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-------|-------------------------------|------------------------|--------|-----|----|------|------|------|------|------|-----|------------------------|
| | | | ABQ-08 | 5.0 | 38 | 38.0 | 32.4 | 26.3 | 18.9 | 11.5 | 7.1 | |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure range bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-------|-------------------------------|------------------------|--------|-----|----|------|------|------|------|------|------------------------|
| | | | ABQ-08 | 5.0 | 38 | 0.12 | 0.32 | 0.61 | 1.08 | 1.76 | |

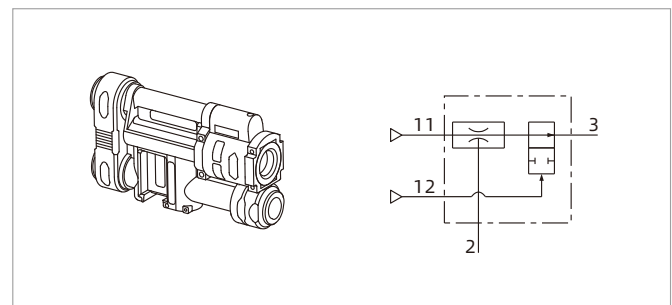


Dimensions(mm)



ABQ-08

ABQ-08 Air circuit schematic diagram



ABQ-08 Note: 11. Air supply port, 12. Release port, 3. Exhaust port, 2: Vacuum port

AEVC Series

Vacuum Generator with Fast Blow-off



METAL SHEET



PACKAGING



AUTOMOTIVE

Features

- ◇ Fast suction and blow-off
- ◇ Main body is made of plastic
- ◇ Suitable mounting bracket
- ◇ With built-in silencer

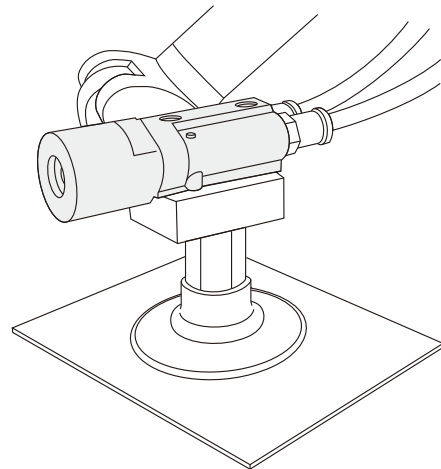
Advantages

- ◇ Short action cycle
- ◇ Small size, light weight, especially suitable for high speed working
- ◇ Could be fixed with suction cup and connector directly
- ◇ Reduce noise greatly



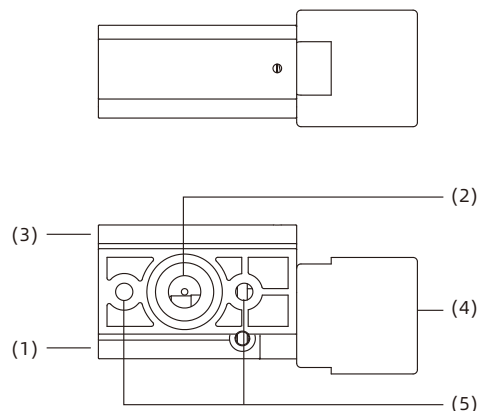
Applications

- ◇ Suitable for occasions where need blow-off function and short working cycle, such as metal sheet processing, automotive industry, packaging machine and industrial robot



Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Release port
- ◇ (4) Silencer
- ◇ (5) Mounting hole



AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

How to order

AEVC 10 - S - G2F
 ① ② ③ ④

| Series | Nozzle diameter | Mounting type | Mounting thread |
|--------|-------------------|---|--|
| AEVC | 10 - ϕ 1.0mm | Nil - Without mounting block S - Vertical mounting block L - Lateral mounting block B - Oval vertical mounting block | Nil - Without thread G1F - G1/8 female thread G2F - G1/4 female thread |

Selection

| Model/Mounting type | S - Vertical mounting block | L - Lateral mounting block | B - Oval vertical mounting block |
|---------------------|-----------------------------|----------------------------|----------------------------------|
| AEVC10 | AEVC10-S-G2F | AEVC10-L-G2F | AEVC10-B-G1F AEVC10-B-G2F |

Technical parameters

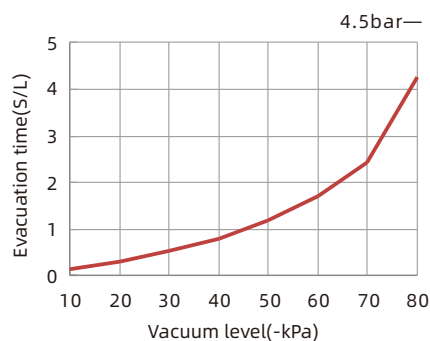
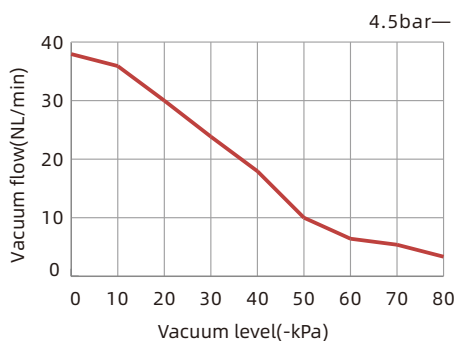
| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max.vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g |
|--------|-------------------------------|------------------------|------------------------|------------------------|-------------------|----------|
| AEVC10 | 4.5 | 85 | 35 | 48.5 | 73.5 | 64 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|------|------|-----|-----|-----|------------------------|
| AEVC10 | 4.5 | 48.5 | 35.0 | 32.0 | 30.0 | 24.0 | 18.0 | 10.0 | 6.5 | 5.5 | 3.3 | 85 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------------------------|
| AEVC10 | 4.5 | 48.5 | 0.14 | 0.30 | 0.54 | 0.81 | 1.19 | 1.70 | 2.42 | 4.27 | 85 |

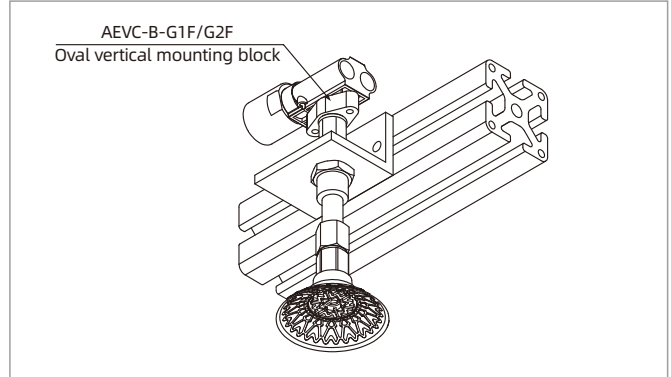
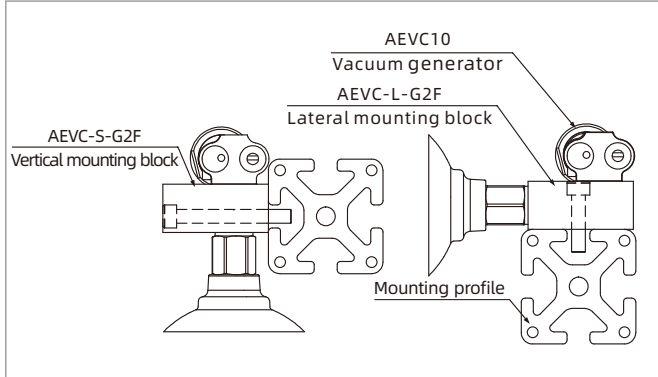


AEVC Series

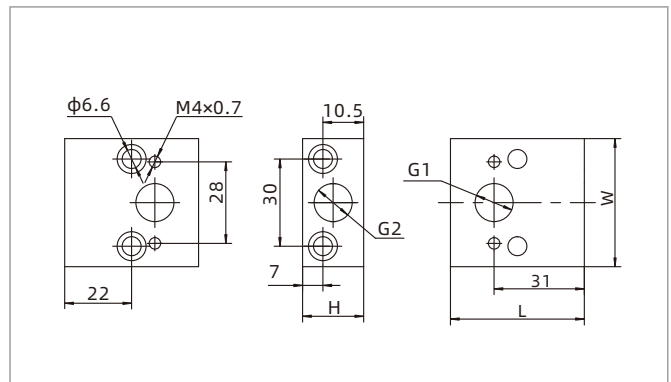
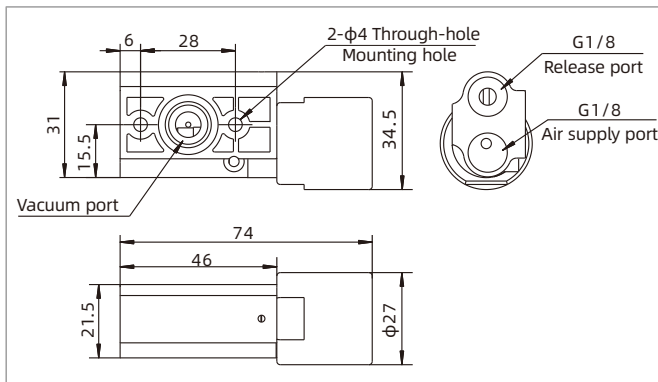
Vacuum Generator with Fast Blow-off



Installation instruction

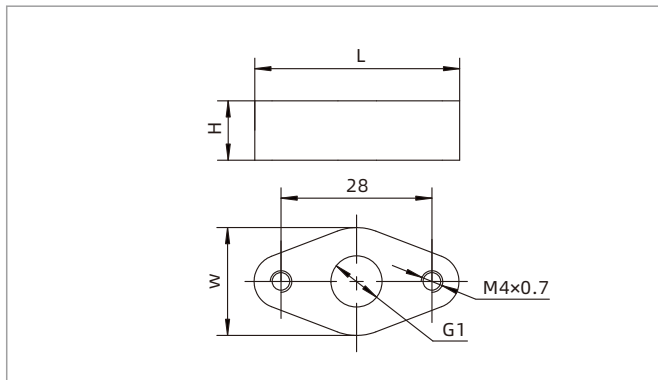


Dimensions(mm)



AEVC10

AEVC-S-G2F AEVC-L-G2F



AEVC-B-G1F AEVC-B-G2F

| Model/Size | L | W | H | G1 | G2 |
|------------|----|----|----|------|------|
| AEVC-L-G2F | 46 | 44 | 21 | G1/4 | - |
| AEVC-S-G2F | 46 | 44 | 21 | - | G1/4 |
| AEVC-B-G1F | 38 | 20 | 11 | G1/8 | - |
| AEVC-B-G2F | 38 | 20 | 11 | G1/4 | - |

Accessory Selection

| Item | Model |
|-------------------------------------|------------|
| S type Vertical mounting block-G1/4 | AEVC-S-G2F |
| L type Vertical mounting block-G1/4 | AEVC-L-G2F |

| Item | Model |
|--|------------|
| B type Oval vertical mounting block-G1/8 | AEVC-B-G1F |
| B type Oval vertical mounting block-G1/4 | AEVC-B-G2F |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AZL Series

Multistage Vacuum Generator

AIRBEST



Features

- ◇ Multi-level and energy-efficient design
- ◇ Optional solenoid valve and pressure switch
- ◇ Built-in vacuum filter and silencer
- ◇ Vertical and lateral mounting holes for option

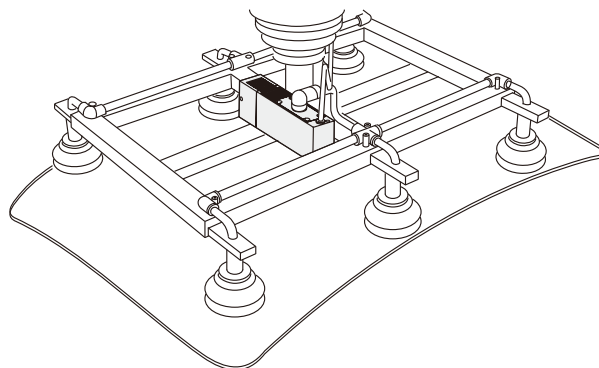
Advantages

- ◇ Vacuum flow can be increased, save air consumption and shorten working cycle
- ◇ Control function is optional, no need of separate external connection to save space and reduce cost
- ◇ Minimize noise, the filter element is replaceable
- ◇ A variety of installation ways are available



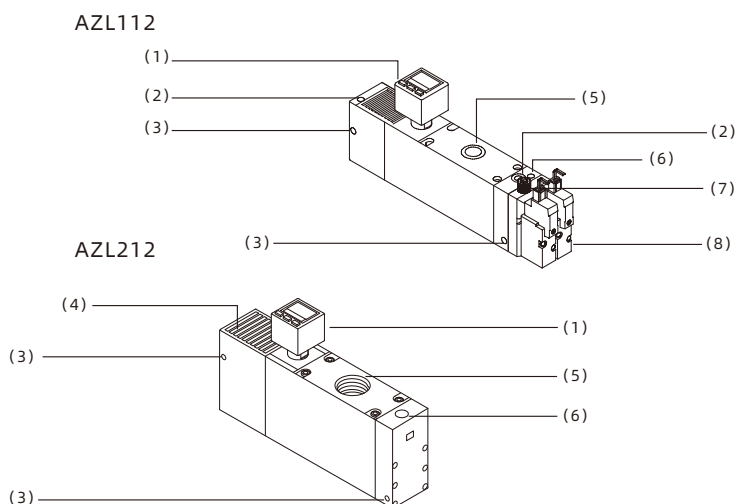
Applications

- ◇ Suitable for handling of cartons, metal sheet and plastics
- ◇ Suitable for occasions which require large vacuum flow, fast evacuation and low air consumption



Structure

- ◇ (1) Pressure switch
- ◇ (2) Vertical mounting hole
- ◇ (3) Lateral mounting hole
- ◇ (4) Exhaust port
- ◇ (5) Vacuum port
- ◇ (6) Air supply port
- ◇ (7) Vacuum release valve
- ◇ (8) Vacuum supply valve



AZL Series

Multistage Vacuum Generator

How to order

AZL 112 - A - DCN

① ② ③ ④

| ① Series | ② Nozzle diameter | ③ Control valve | ④ Digital vacuum pressure switch |
|----------|----------------------------------|---|---|
| AZL | 112 - 1×φ1.2mm 212 - 2×φ1.2mm | Nil - Without vacuum supply valve and vacuum release valve A - With vacuum supply valve and vacuum release valve | Nil - Default, without external vacuum port NP - With vacuum port Rc1/8, without pressure switch DCN - Compound pressure switch (-100.0~100.0kPa), 2NPN+V(1-5V) DCP - Compound pressure switch (-100.0~100.0kPa), 2PNP+V(1-5V) |

Selection-AZL112 Series

| Model/Control valve Nil- Without control valve | A - With vacuum supply valve +vacuum release valve |
|---|---|
| AZL112 | AZL112-A |
| AZL112-NP | AZL112-A-NP |
| AZL112-DCN | AZL112-A-DCN |
| AZL112-DCP | AZL112-A-DCP |

Selection-AZL212 Series

| Model/Control valve Nil- Without control valve | A - With vacuum supply valve +vacuum release valve |
|---|---|
| AZL212 | - |
| AZL212-NP | - |
| AZL212-DCN | - |
| AZL212-DCP | - |

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Recommended hose dia.(mm) | |
|--------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|---------------------------|-----------------|
| | | | | | | | Air supply port (P) | Vacuum port (V) |
| AZL112 | 4.0 | 84 | 100 | 63 | 70 | 5~50 | φ6 | φ12 |
| AZL212 | 4.0 | 84 | 200 | 126 | 77 | 5~50 | φ8 | φ12 |

◇ Note: Max.operating pressure 7bar, recommended air supply pressure range 2-5bar. Noise level is measured by the vacuum generator with built-in silencer. The Max. vacuum flow value is measured at a supply pressure of 6.0 bar.

Vacuum flow(NL/min) at different vacuum levels(-kPa)

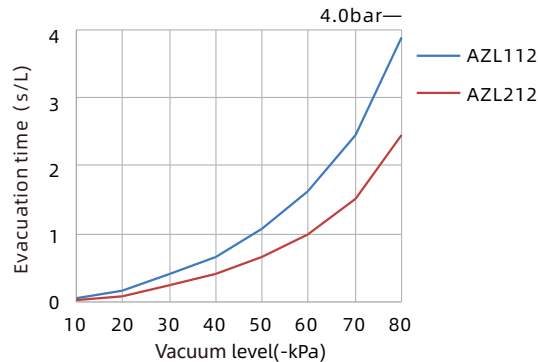
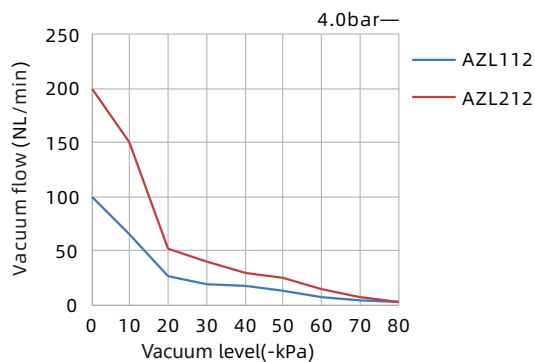
| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|------|------|------|------|------|-----|-----|------------------------|
| | | | | | | | | | | | | |
| AZL112 | 4.0 | 63 | 100.0 | 65.0 | 26.0 | 20.0 | 18.5 | 13.0 | 8.0 | 5.0 | 2.8 | 84 |
| AZL212 | 4.0 | 126 | 200.0 | 150.0 | 52.0 | 40.0 | 30.0 | 25.0 | 15.0 | 8.0 | 3.0 | 84 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|------|------|------|------|------------------------|
| | | | | | | | | | | | |
| AZL112 | 4.0 | 63 | 0.05 | 0.17 | 0.40 | 0.67 | 1.07 | 1.63 | 2.46 | 3.9 | 84 |
| AZL212 | 4.0 | 126 | 0.02 | 0.08 | 0.25 | 0.42 | 0.65 | 0.98 | 1.52 | 2.46 | 84 |

AZL Series

Multistage Vacuum Generator

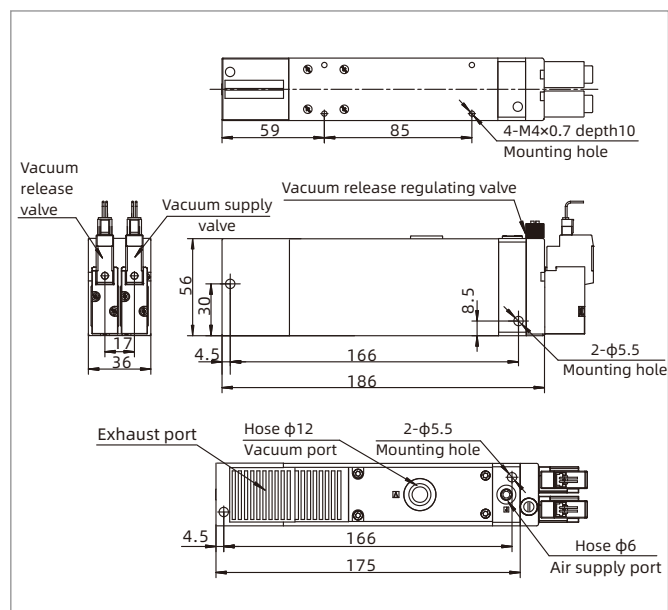


Technical parameters- Control valve

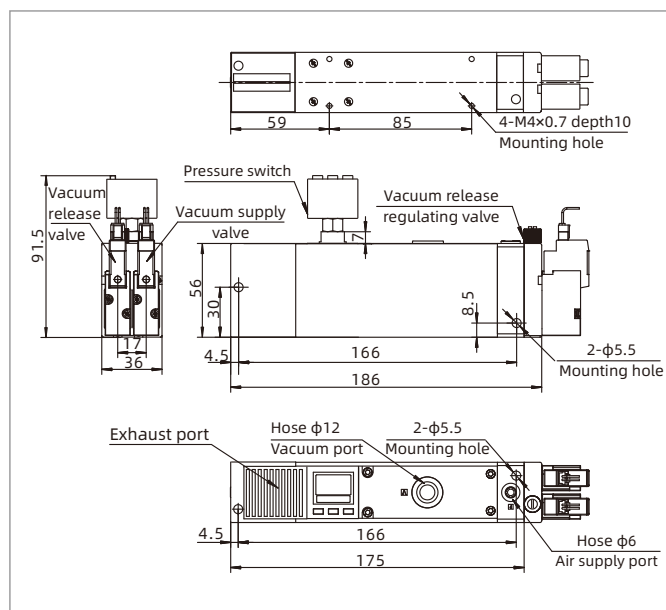
| | |
|-------------------------------|--|
| Type of valve actuation | Internal pilot type NC (normally closed) |
| Operating pressure range | 2.0~5.0bar |
| Rated voltage | 24V |
| Ambient and fluid temperature | 5~50°C |
| Response time(at 0.5Mpa) | 25ms below |
| Max. operating frequency | 5Hz |
| Manual operation | Slotted locking type |

| | |
|-----------------------------|---|
| Pilot exhaust type | Individual exhaust,concentrated exhaust |
| Lubrication | Not required |
| Mounting position | Unrestricted |
| Impact/Vibration resistance | 150/30m/s ² |
| Enclosure | Dust-proof |
| Lead wire type | Direct lead out type, lead wire length 0.3m |

Dimensions(mm)



AZL112-A



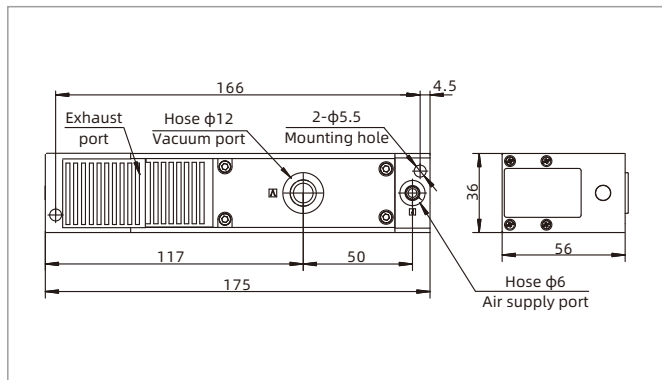
AZL112-A-DCN AZL112-A-DCP

AZL Series

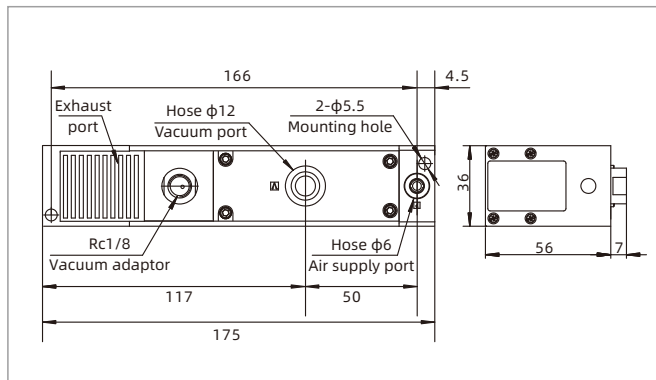
Multistage Vacuum Generator



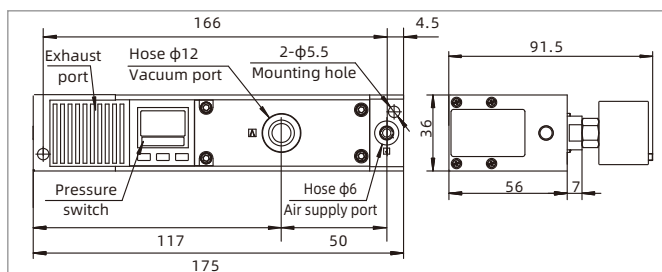
Dimensions(mm)



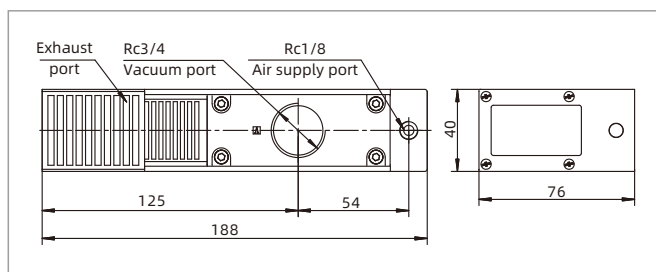
AZL112



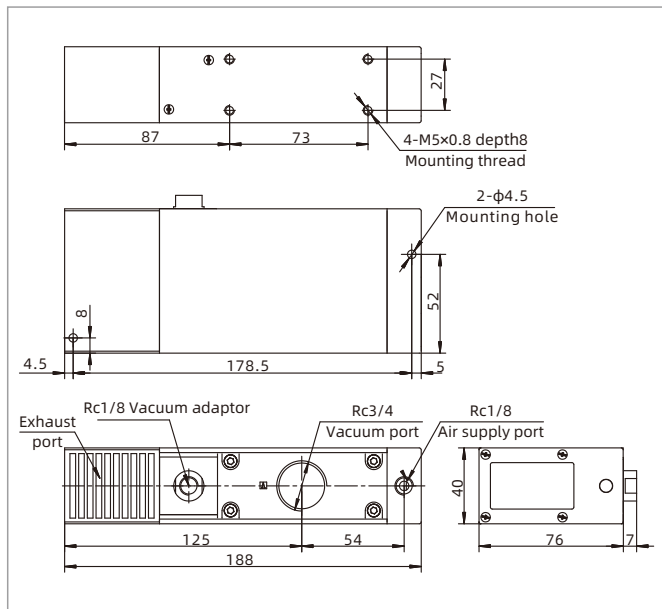
AZL112-NP



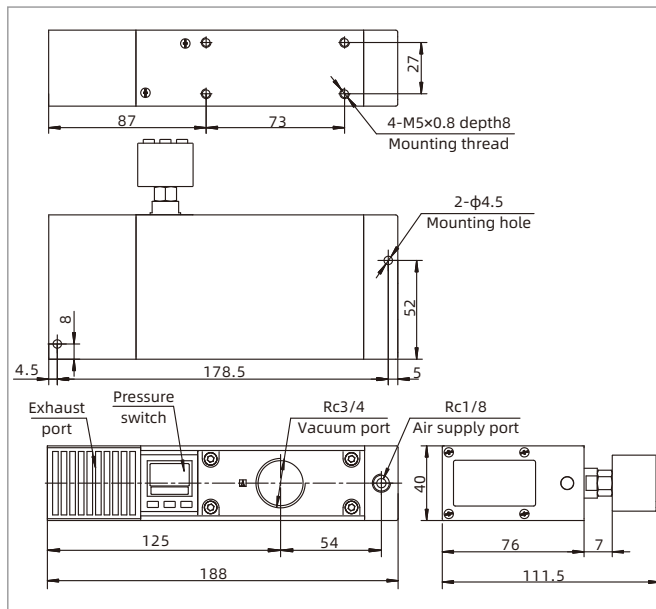
AZL112-DCN AZL112-DCP



AZL212



AZL212-NP



AZL212-DCN AZL212-DCP

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ALH Series

Mini Vacuum Generator



UNIVERSAL

Features

- ◇ Small size, light weight.
- ◇ Standard quick connector, connection, fast and convenient

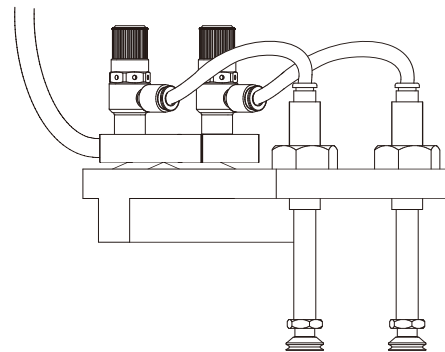
Advantage

- ◇ Standard quick connector, connection, fast and convenient
- ◇ Centralized exhaust option available
- ◇ Low noise level



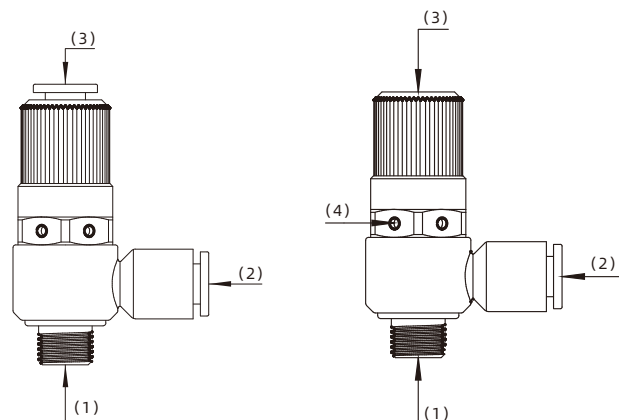
Application

- ◇ Suitable for handling electronic components and other small workpieces



Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Exhaust port
- ◇ (4) Exhaust port



ALH Series

Mini Vacuum Generator

How to order

ALH 07 E - A6 - J
 ① ② ③ ④ ⑤

| ① Series | Nozzle diameter | ③ Specification | ④ Vacuum port specifications | ⑤ Exhaust |
|----------|----------------------------|----------------------------------|-------------------------------|---|
| ALH | 07 - Nozzle diameter 0.7mm | E - Low air supply pressure type | A6 - $\phi 6$ quick connector | Nil - Default direct exhaust J - Centralized exhaust |

Technical parameters

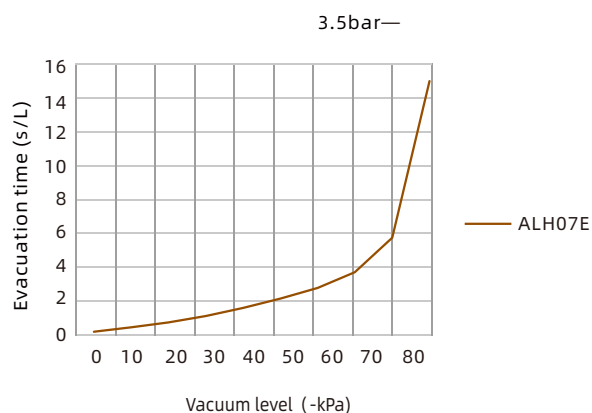
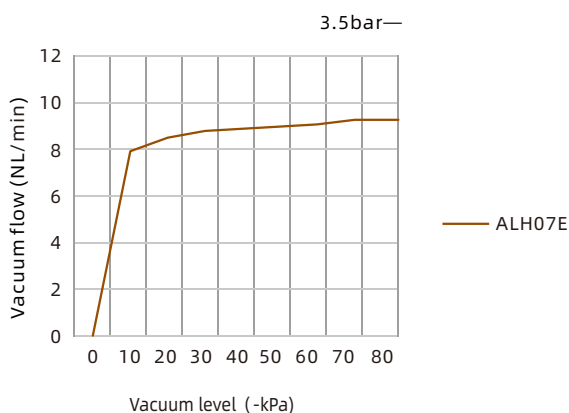
| Model | Rated air supply pressure bar | Air supply pressure range bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g |
|-------------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|----------|
| ALH07E-A6 | 3.5 | 3.0~6.0 | 90 | 9.5 | 20 | 70 | 37 |
| ALH07E-A6-J | 3.5 | 3.0~6.0 | 90 | 9.5 | 20 | - | 40 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|---|-----|-----|-----|-----|-----|-----|-----|-----|------------------------|
| ALH07E | 0 | 8.3 | 8.9 | 9.2 | 9.3 | 9.4 | 9.5 | 9.7 | 9.7 | 90 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

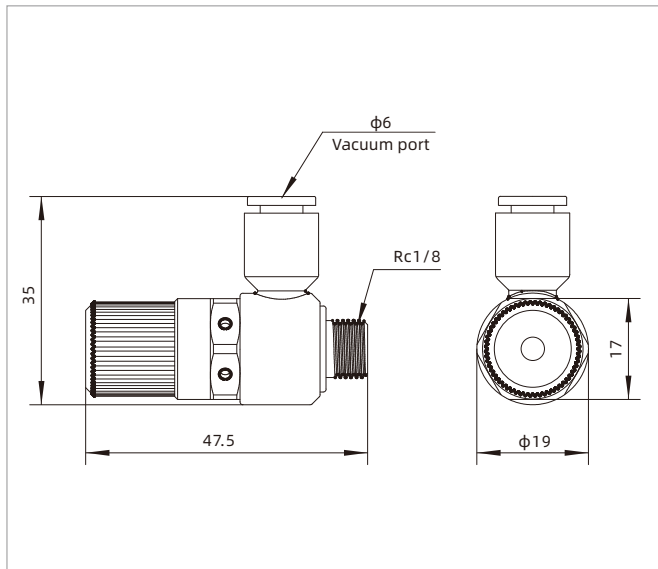
| Model | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|---|-----|-----|-----|-----|-----|----|-----|----|------------------------|
| ALH07E | 0 | 0.7 | 1.5 | 2.5 | 3.8 | 5.3 | 7 | 9.5 | 15 | 90 |



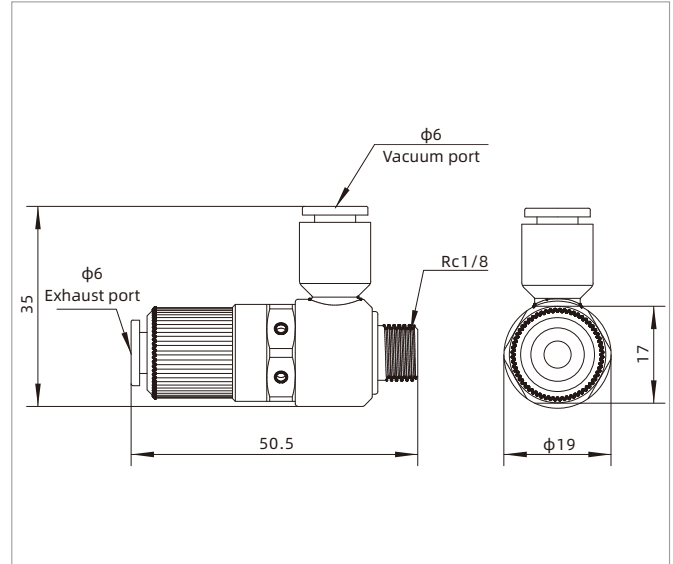
ALH Series

Mini Vacuum Generator

Dimensions (mm)



ALH07E-A6



ALH07E-A6-J

AZH Series

Basic Vacuum Generator



Features

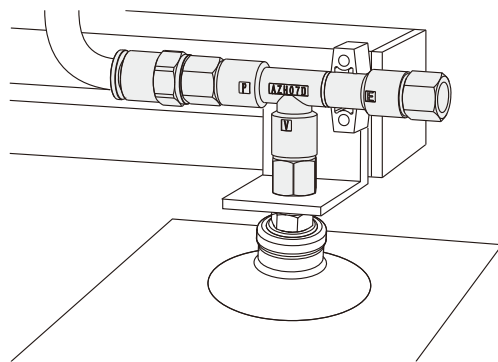
- ◇ Single stage vacuum generator with plastic housing
- ◇ High vacuum level type and large vacuum flow type for option
- ◇ Body ported type and box type for option
- ◇ Thread connection or one-touch fitting for port connection

Advantages

- ◇ Small size, light weight and cost-effective
- ◇ Suitable for various occasions
- ◇ Box type with built-in silencer to reduce noise
- ◇ Thread connection and one-touch fitting for option

Applications

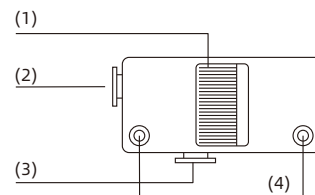
- ◇ Widely used in all kinds of vacuum systems
- ◇ Suitable for various handling operations such as automotive, metal sheet, wood, food and packaging, etc.
- ◇ High vacuum type and large flow type for different occasions



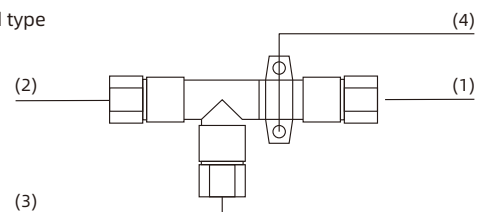
Structure

- ◇ (1) Exhaust port
- ◇ (2) Air supply port
- ◇ (3) Vacuum port
- ◇ (4) Mounting hole

B - Box type



D - Body ported type



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AZH Series

Basic Vacuum Generator



How to order

AZH 07 B S - 06 - 06
AZH 07 D S - 01 - 01 - 01
 ① ② ③ ④ ⑤ ⑥ ⑦

| ① Series | ② Nozzle diameter | ③ Shape | ④ Specification | ⑤ Air supply port | ⑥ Vacuum port | ⑦ Exhaust port |
|----------|-------------------|----------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| AZH | 05 - φ0.5mm | B - Box type | S - High vacuum level type | 06 - φ6 One-touch fitting | 06 - φ6 One-touch fitting | 06 - φ6 One-touch fitting |
| | 07 - φ0.7mm | D - Body ported type | (-88kPa) | 08 - φ8 One-touch fitting | 10 - φ10 One-touch fitting | 08 - φ8 One-touch fitting |
| | 10 - φ1.0mm | | L - Large vacuum flow type | 10 - φ10 One-touch fitting | 12 - φ12 One-touch fitting | 10 - φ10 One-touch fitting |
| | 13 - φ1.3mm | | (-48kPa) | 12 - φ12 One-touch fitting | 16 - φ16 One-touch fitting | 12 - φ12 One-touch fitting |
| | 15 - φ1.5mm | | | 01 - Rc1/8 Female thread | 01 - Rc1/8 Female thread | 16 - φ16 One-touch fitting |
| | 18 - φ1.8mm | | | 02 - Rc1/4 Female thread | 02 - Rc1/4 Female thread | 01 - Rc1/8 Female thread |
| | 20 - φ2.0mm | | | 03 - Rc3/8 Female thread | 03 - Rc3/8 Female thread | 02 - Rc1/4 Female thread |
| | | | | | 04 - Rc1/2 Female thread | 03 - Rc3/8 Female thread |
| | | | | | | 04 - Rc1/2 Female thread |

Selection-Box type

| Model/Shape BS | | BL | |
|-------------------|---------------|---------------|---------------|
| AZH05BS-06-06 | AZH05BS-01-01 | AZH05BL-06-06 | AZH05BL-01-01 |
| AZH07BS-06-06 | AZH07BS-01-01 | AZH07BL-06-06 | AZH07BL-01-01 |
| AZH10BS-06-06 | AZH10BS-01-01 | AZH10BL-06-06 | AZH10BL-01-01 |
| AZH13BS-08-10 | AZH13BS-01-02 | AZH13BL-08-10 | AZH13BL-01-02 |

Selection-Body ported type

| Model/Shape DS | | DL | |
|-------------------|------------------|------------------|------------------|
| AZH05DS-06-06-06 | AZH05DS-01-01-01 | AZH05DL-06-06-06 | AZH05DL-01-01-01 |
| AZH07DS-06-06-06 | AZH07DS-01-01-01 | AZH07DL-06-06-06 | AZH07DL-01-01-01 |
| AZH10DS-06-06-08 | AZH10DS-01-01-01 | AZH10DL-06-06-08 | AZH10DL-01-01-01 |
| AZH13DS-08-10-10 | AZH13DS-01-02-02 | AZH13DL-08-10-10 | AZH13DL-01-02-02 |
| AZH15DS-10-12-12 | AZH15DS-02-03-03 | AZH15DL-10-12-12 | AZH15DL-02-03-03 |
| AZH18DS-12-12-12 | AZH18DS-03-03-03 | AZH18DL-12-12-12 | AZH18DL-03-03-03 |
| AZH20DS-12-16-16 | AZH20DS-03-04-04 | AZH20DL-12-16-16 | AZH20DL-03-04-04 |

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | | Max. vacuum flow NL/min | | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) | | |
|--------|-------------------------------|------------------------|----|-------------------------|----|------------------------|-------------------|------------------------|----------|---------------------------|---------------|----------------|
| | | S | L | S | L | | | | | Air supply port S | Vacuum port V | Exhaust port E |
| AZH05B | 4.5 | 88 | 48 | 5 | 9 | 13.5 | 68 | 5~50 | 28 | φ6 | φ6 | - |
| AZH07B | 4.5 | 88 | 48 | 12 | 22 | 23.5 | 68 | 5~50 | 28 | φ6 | φ6 | - |
| AZH10B | 4.5 | 88 | 48 | 24 | 34 | 46.0 | 72 | 5~50 | 33 | φ6 | φ6 | - |
| AZH13B | 4.5 | 88 | 48 | 40 | 75 | 78.0 | 72 | 5~50 | 66 | φ8 | φ10 | - |

AZH Series

Basic Vacuum Generator

Technical parameters

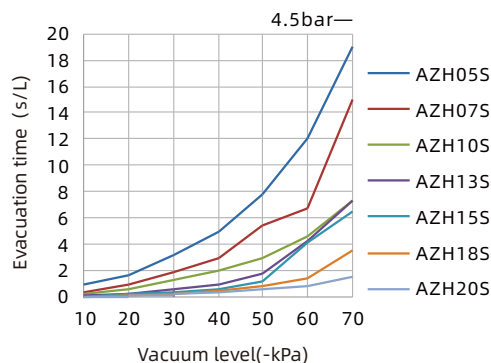
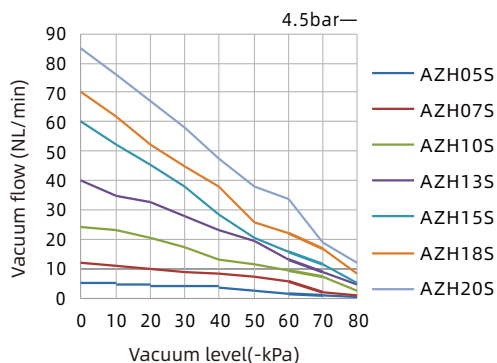
| Model | Rated air supply pressure bar | Max. vacuum level -kPa | | Max. vacuum flow NL/min | | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) | | |
|--------|-------------------------------|------------------------|----|-------------------------|-----|------------------------|-------------------|------------------------|----------|---------------------------|---------------|----------------|
| | | S | L | S | L | | | | | Air supply port S | Vacuum port V | Exhaust port E |
| AZH05D | 4.5 | 88 | 48 | 7.5 | 9 | 13.5 | 75 | 5~50 | 11 | φ6 | φ6 | φ6 |
| AZH07D | 4.5 | 88 | 48 | 12 | 22 | 23.5 | 75 | 5~50 | 12 | φ6 | φ6 | φ6 |
| AZH10D | 4.5 | 88 | 48 | 24 | 34 | 46.0 | 68 | 5~50 | 16 | φ6 | φ6 | φ8 |
| AZH13D | 4.5 | 88 | 48 | 40 | 75 | 78.0 | 68 | 5~50 | 27 | φ8 | φ10 | φ10 |
| AZH15D | 4.5 | 88 | 53 | 60 | 80 | 97.0 | 72 | 5~50 | 43 | φ10 | φ12 | φ12 |
| AZH18D | 4.5 | 88 | 53 | 70 | 110 | 150.0 | 72 | 5~50 | 55 | φ12 | φ12 | φ12 |
| AZH20D | 4.5 | 88 | 53 | 85 | 140 | 185.0 | 75 | 5~50 | 95 | φ12 | φ16 | φ16 |

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|---------------------|------|------|------|------|------|------|------|------|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | | |
| AZH05S | 4.5 | 13.5 | 5.0 | 4.5 | 4.1 | 3.8 | 3.3 | 2.3 | 1.6 | 0.9 | 0.3 | 88 | |
| AZH07S | 4.5 | 23.5 | 12.0 | 11.0 | 10.0 | 9.0 | 8.0 | 7.0 | 5.5 | 2.1 | 0.8 | 88 | |
| AZH10S | 4.5 | 46.0 | 24.0 | 23.0 | 20.5 | 17.5 | 13.0 | 11.5 | 9.5 | 7.0 | 2.5 | 88 | |
| AZH13S | 4.5 | 78.0 | 40.0 | 35.0 | 32.5 | 28.0 | 23.0 | 19.5 | 13.0 | 9.0 | 4.5 | 88 | |
| AZH15S | 4.5 | 97.0 | 60.0 | 52.5 | 45.5 | 38.0 | 28.5 | 20.5 | 15.5 | 11.5 | 5.0 | 88 | |
| AZH18S | 4.5 | 150.0 | 70.0 | 62.0 | 52.0 | 45.0 | 38.0 | 26.0 | 22.0 | 16.5 | 8.5 | 88 | |
| AZH20S | 4.5 | 185.0 | 85.0 | 76.0 | 67.0 | 58.0 | 47.5 | 38.0 | 33.5 | 19.0 | 12.0 | 88 | |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|---------------------|------|------|------|------|-------|-------|----|------------------------|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | | |
| AZH05S | 4.5 | 13.5 | 0.89 | 1.70 | 3.20 | 5.00 | 7.80 | 12.00 | 19.00 | 88 | |
| AZH07S | 4.5 | 23.5 | 0.37 | 1.00 | 1.90 | 3.00 | 5.40 | 6.70 | 15.00 | 88 | |
| AZH10S | 4.5 | 46.0 | 0.25 | 0.60 | 1.25 | 2.00 | 2.90 | 4.60 | 7.30 | 88 | |
| AZH13S | 4.5 | 78.0 | 0.10 | 0.27 | 0.53 | 1.00 | 1.75 | 4.20 | 7.30 | 88 | |
| AZH15S | 4.5 | 97.0 | 0.04 | 0.21 | 0.35 | 0.63 | 1.23 | 4.10 | 6.50 | 88 | |
| AZH18S | 4.5 | 150.0 | 0.02 | 0.15 | 0.29 | 0.46 | 0.78 | 1.38 | 3.51 | 88 | |
| AZH20S | 4.5 | 185.0 | 0.02 | 0.12 | 0.21 | 0.34 | 0.55 | 0.85 | 1.58 | 88 | |



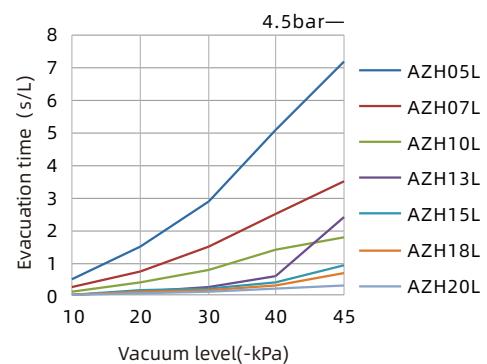
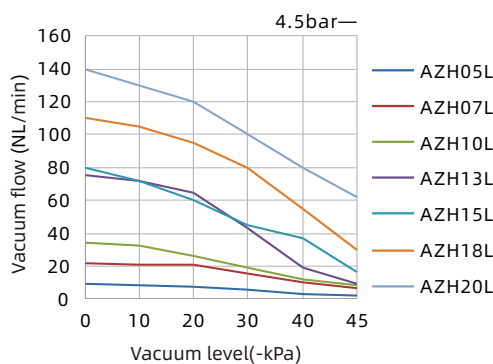
Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 45 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|-------|-------|-------|-------|------|------|------------------------|
| AZH05L | 4.5 | 13.5 | 9.0 | 8.0 | 7.0 | 6.0 | 3.0 | 1.9 | 48 |
| AZH07L | 4.5 | 23.5 | 22.0 | 21.0 | 20.5 | 15.5 | 10.5 | 6.8 | 48 |
| AZH10L | 4.5 | 46.0 | 34.0 | 32.0 | 26.0 | 19.0 | 12.0 | 8.0 | 48 |
| AZH13L | 4.5 | 78.0 | 75.0 | 72.0 | 65.0 | 43.0 | 19.0 | 9.0 | 48 |
| AZH15L | 4.5 | 97.0 | 80.0 | 72.0 | 60.0 | 45.0 | 36.5 | 16.0 | 53 |
| AZH18L | 4.5 | 150.0 | 110.0 | 105.0 | 95.0 | 80.0 | 55.0 | 30.0 | 53 |
| AZH20L | 4.5 | 185.0 | 140.0 | 130.0 | 120.0 | 100.0 | 80.0 | 62.0 | 53 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 45 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|------|------------------------|
| AZH05L | 4.5 | 13.5 | 0.49 | 1.50 | 2.90 | 5.10 | 7.20 | 48 |
| AZH07L | 4.5 | 23.5 | 0.28 | 0.75 | 1.50 | 2.50 | 3.50 | 48 |
| AZH10L | 4.5 | 46.0 | 0.14 | 0.40 | 0.81 | 1.40 | 1.80 | 48 |
| AZH13L | 4.5 | 78.0 | 0.04 | 0.12 | 0.24 | 0.62 | 2.40 | 48 |
| AZH15L | 4.5 | 97.0 | 0.03 | 0.15 | 0.23 | 0.40 | 0.92 | 53 |
| AZH18L | 4.5 | 150.0 | 0.02 | 0.10 | 0.18 | 0.32 | 0.67 | 53 |
| AZH20L | 4.5 | 185.0 | 0.01 | 0.08 | 0.14 | 0.20 | 0.30 | 53 |

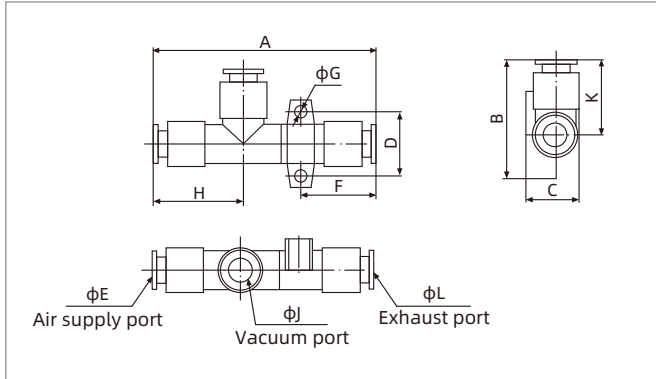
Technical parameters



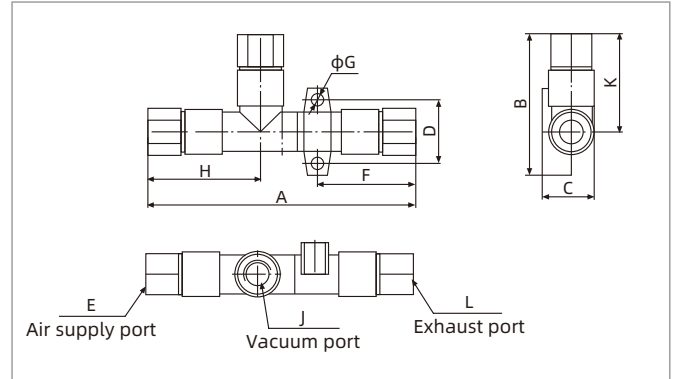
AZH Series

Basic Vacuum Generator

Dimensions(mm)



AZH - D Body ported type(One-touch fitting)



AZH - D Body ported type(Female thread connection)

| Model/Size | A | B | C | D | E | F | G | H | L | K | J |
|------------------|-------|------|------|------|----|------|-----|------|----|------|----|
| AZH05DS-06-06-06 | 58.5 | 34.0 | 14.2 | 17.0 | 6 | 21.0 | 3.2 | 24.0 | 6 | 22.0 | 6 |
| AZH07DS-06-06-06 | 61.0 | 34.0 | 14.2 | 17.0 | 6 | 22.0 | 3.2 | 24.0 | 6 | 22.0 | 6 |
| AZH10DS-06-06-08 | 66.0 | 37.0 | 17.2 | 20.0 | 6 | 24.5 | 4.2 | 26.0 | 8 | 23.0 | 6 |
| AZH10DL-06-06-08 | 70.0 | 37.0 | 17.2 | 20.0 | 6 | 24.5 | 4.2 | 26.0 | 8 | 23.0 | 6 |
| AZH13DS-08-10-10 | 74.0 | 42.5 | 20.0 | 22.0 | 8 | 27.0 | 4.2 | 28.0 | 10 | 27.5 | 10 |
| AZH13DL-08-10-10 | 79.5 | 42.5 | 20.0 | 22.0 | 8 | 27.0 | 4.2 | 28.0 | 10 | 27.5 | 10 |
| AZH15DS-10-12-12 | 93.3 | 47.0 | 22.5 | 27.0 | 10 | 32.8 | 4.2 | 31.5 | 12 | 29.5 | 12 |
| AZH18DS-12-12-12 | 114.0 | 41.0 | 21.0 | 10.0 | 12 | 50.0 | 3.5 | 35.5 | 12 | 30.5 | 12 |
| AZH20DS-12-16-16 | 124.6 | 46.0 | 27.0 | 12.0 | 12 | 54.3 | 3.5 | 38.5 | 16 | 32.7 | 16 |

AZH - D Body ported type(One-touch fitting)

| Model/Size | A | B | C | D | E | F | G | H | L | K | J |
|------------------|-------|------|------|------|-------|------|-----|------|-------|------|-------|
| AZH05DS-01-01-01 | 73.5 | 41.5 | 14.2 | 17.0 | Rc1/8 | 28.5 | 3.2 | 31.5 | Rc1/8 | 29.5 | Rc1/8 |
| AZH07DS-01-01-01 | 76.0 | 41.5 | 14.2 | 17.0 | Rc1/8 | 29.5 | 3.2 | 31.5 | Rc1/8 | 29.5 | Rc1/8 |
| AZH10DS-01-01-01 | 82.0 | 44.5 | 17.2 | 20.0 | Rc1/8 | 33.0 | 4.2 | 33.5 | Rc1/8 | 30.5 | Rc1/8 |
| AZH10DL-01-01-01 | 86.0 | 44.5 | 17.2 | 20.0 | Rc1/8 | 33.0 | 4.2 | 33.5 | Rc1/8 | 30.5 | Rc1/8 |
| AZH13DS-01-02-02 | 94.5 | 54.0 | 20.0 | 22.0 | Rc1/8 | 38.5 | 4.2 | 36.5 | Rc1/4 | 39.0 | Rc1/4 |
| AZH13DL-01-02-02 | 99.5 | 54.0 | 20.0 | 22.0 | Rc1/8 | 38.5 | 4.2 | 36.5 | Rc1/4 | 39.0 | Rc1/4 |
| AZH15DS-02-03-03 | 116.5 | 58.5 | 22.5 | 27.0 | Rc1/4 | 44.5 | 4.2 | 43.0 | Rc3/8 | 41.0 | Rc3/8 |
| AZH18DS-03-03-03 | 133.0 | 52.5 | 21.0 | 10.0 | Rc3/8 | 57.5 | 3.5 | 47.0 | Rc3/8 | 42.0 | Rc3/8 |
| AZH20DS-03-04-04 | 151.0 | 61.0 | 27.0 | 12.0 | Rc3/8 | 69.3 | 3.5 | 50.0 | Rc1/2 | 47.7 | Rc1/2 |

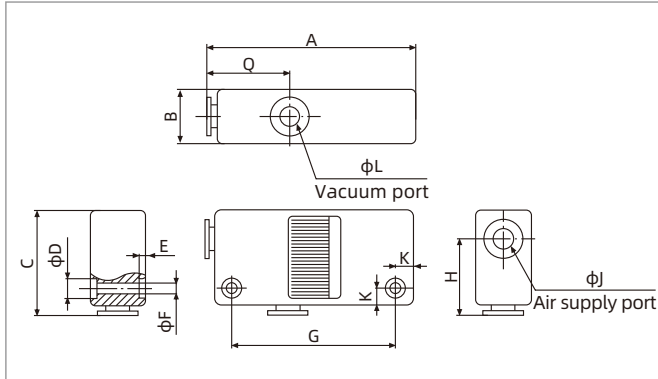
AZH - D Body ported type(Female thread connection)

AZH Series

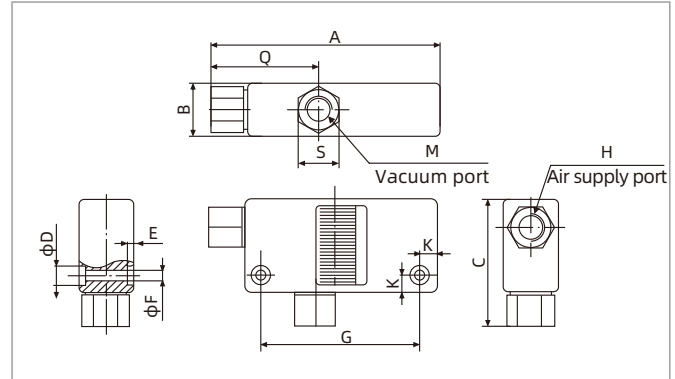
Basic Vacuum Generator



Dimensions(mm)



AZH - B Box type(One-touch fitting)



AZH - B Box type(Female thread connection)

| Model/Size | A | B | C | D | E | F | G | H | Q | L | K | J |
|--------------|----|----|------|-----|---|-----|----|------|----|----|---|---|
| AZH05B-06-06 | 60 | 16 | 31 | 5.8 | 2 | 3.2 | 47 | 22 | 24 | 6 | 5 | 6 |
| AZH07B-06-06 | 60 | 16 | 31 | 5.8 | 2 | 3.2 | 47 | 22 | 24 | 6 | 5 | 6 |
| AZH10B-06-06 | 63 | 18 | 32 | 5.8 | 2 | 3.2 | 50 | 23 | 26 | 6 | 5 | 6 |
| AZH13B-08-10 | 78 | 23 | 38.5 | 7.5 | 3 | 4.2 | 61 | 27.5 | 28 | 10 | 7 | 8 |

AZH - B Box type(One-touch fitting)

| Model/Size | A | B | C | D | E | F | G | H | Q | M | K | S |
|--------------|------|----|----|-----|---|-----|----|-------|------|-------|---|----|
| AZH05B-01-01 | 68 | 16 | 39 | 5.8 | 2 | 3.2 | 47 | Rc1/8 | 31.5 | Rc1/8 | 5 | 12 |
| AZH07B-01-01 | 68 | 16 | 39 | 5.8 | 2 | 3.2 | 47 | Rc1/8 | 31.5 | Rc1/8 | 5 | 12 |
| AZH10B-01-01 | 71 | 18 | 40 | 5.8 | 2 | 3.2 | 50 | Rc1/8 | 33.5 | Rc1/8 | 5 | 12 |
| AZH13B-01-02 | 86.5 | 23 | 50 | 7.5 | 3 | 4.2 | 61 | Rc1/8 | 36.5 | Rc1/4 | 7 | 14 |

AZH - B Box type(Female thread connection)

AZU Series

Basic Vacuum Generator



ELECTRONICS

Features

- ◇ Axial connection
- ◇ Plastic housing
- ◇ High vacuum type and large flow type for option

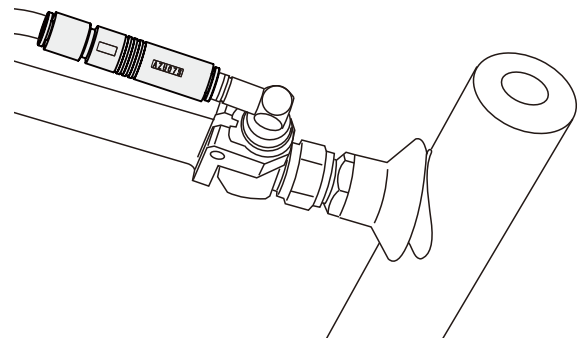
Advantages

- ◇ Installing directly to hose
- ◇ Suitable for small space
- ◇ Easy installation, no additional installation accessories are required



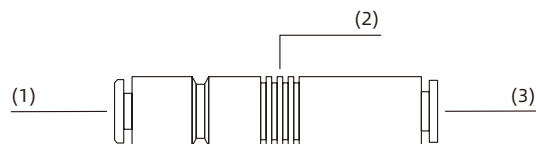
Applications

- ◇ Linear type to install to PU hose directly
- ◇ Suitable for handling system of limited space
- ◇ Handling of electronic components



Structure

- ◇ (1) Air supply port
- ◇ (2) Exhaust port
- ◇ (3) Vacuum port



AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

AZU Series

Basic Vacuum Generator

How to order

AZU 05 S

① ② ③

| ① Series | ② Nozzle diameter | ③ Specification |
|----------|--|--|
| AZU | 05 - ϕ 0.5mm 07 - ϕ 0.7mm | S - High vacuum level type (-85kPa) L - Large vacuum flow type (-48kPa) |

Selection

| Model/Nozzle diameter | 05 | 07 |
|-----------------------|--------|--------|
| AZU□S | AZU05S | AZU07S |
| AZU□L | AZU05L | AZU07L |

Technical parameters

| Model | Nozzle diameter mm | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) | |
|--------|--------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|---------------------------|---------------|
| | | | | | | | | | Air supply port P | Vacuum port V |
| AZU05S | 0.5 | 4.5 | 85 | 7 | 9 | 68 | 5~60 | 6.5 | ϕ 6 | ϕ 6 |
| AZU07S | 0.7 | 4.5 | 85 | 12 | 19 | 68 | 5~60 | 7.0 | ϕ 6 | ϕ 6 |
| AZU05L | 0.5 | 4.5 | 48 | 12 | 9 | 70 | 5~60 | 6.5 | ϕ 6 | ϕ 6 |
| AZU07L | 0.7 | 4.5 | 48 | 21 | 19 | 70 | 5~60 | 7.0 | ϕ 6 | ϕ 6 |

◇ Note: Max. operating pressure 7bar, standard operating pressure 4.5bar

Vacuum flow(NL/min) at different vacuum levels(-kPa)

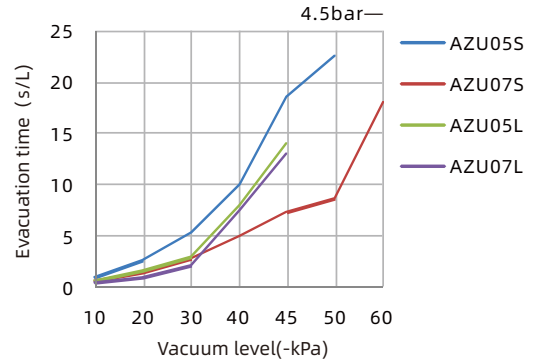
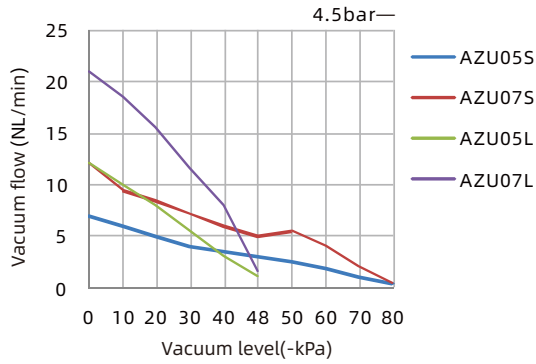
| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | | | | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|---------------------|------|------|------|-----|-----|-----|-----|-----|-----|----|------------------------|
| | | | 0 | 10 | 20 | 30 | 40 | 48 | 50 | 60 | 70 | 80 | | |
| AZU05S | 4.5 | 9 | 7.0 | 6.0 | 5.0 | 4.0 | 3.5 | - | 2.5 | 1.8 | 1.0 | 0.4 | 85 | |
| AZU07S | 4.5 | 19 | 12.0 | 9.5 | 8.5 | 7.2 | 6.0 | - | 5.5 | 4.0 | 2.0 | 0.4 | 85 | |
| AZU05L | 4.5 | 9 | 12.0 | 10.0 | 8.0 | 5.5 | 3.0 | 1.0 | - | - | - | - | 48 | |
| AZU07L | 4.5 | 19 | 21.0 | 18.5 | 15.5 | 11.5 | 8.0 | 1.5 | - | - | - | - | 48 | |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

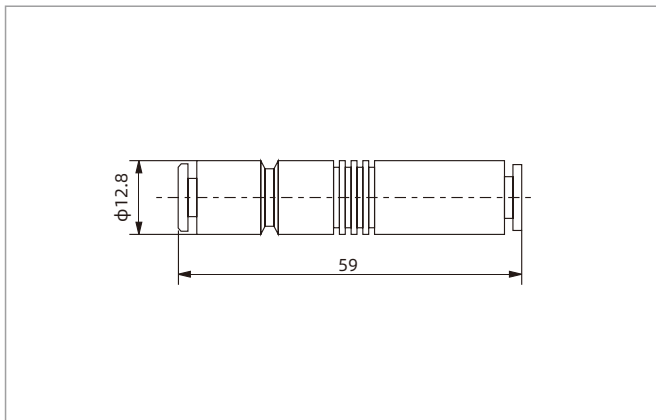
| Model | Air supply pressure bar | Air consumption NL/min | Vacuum level (-kPa) | | | | | | | | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|---------------------|-----|-----|------|------|------|----|----|------------------------|
| | | | 10 | 20 | 30 | 40 | 45 | 50 | 60 | | |
| AZU05S | 4.5 | 9 | 0.90 | 2.6 | 5.2 | 10.0 | - | 22.5 | - | 85 | |
| AZU07S | 4.5 | 19 | 0.53 | 1.4 | 2.7 | 5.0 | - | 8.7 | 18 | 85 | |
| AZU05L | 4.5 | 9 | 0.60 | 1.5 | 2.9 | 8.0 | 14.0 | - | - | 48 | |
| AZU07L | 4.5 | 19 | 0.34 | 0.9 | 2.0 | 7.5 | 13.0 | - | - | 48 | |

AZU Series

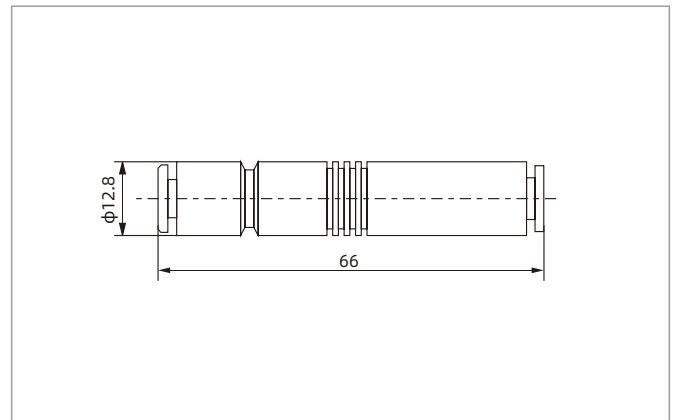
Basic Vacuum Generator



Dimensions(mm)



AZU05



AZU07

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ACV Series

Basic Vacuum Generator

AIRBEST



UNIVERSAL

RoHS

Features

- ◇ Single stage and compact structure
- ◇ High vacuum level type and large flow type for option
- ◇ Optional pressure switch

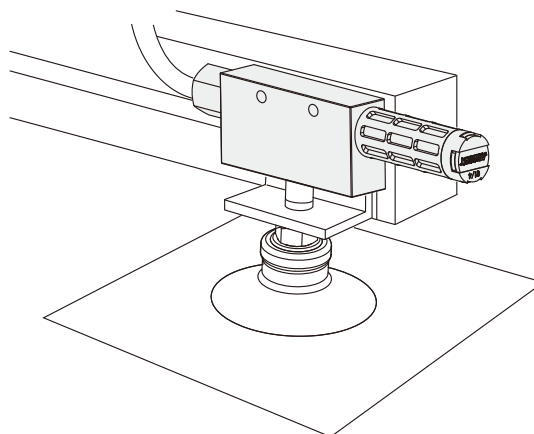


Advantages

- ◇ Long lifetime and easy maintenance
- ◇ Meeting all kinds of working conditions
- ◇ Cost-effective and simple pressure switch for detecting directly

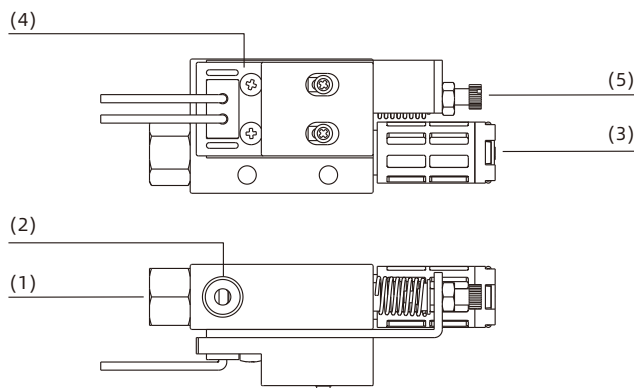
Applications

- ◇ Widely used in all kinds of vacuum systems
- ◇ Suitable for various handling operations such as automotive, metal sheet, wood, food and packaging, etc.
- ◇ High vacuum type and large flow type for different occasions
- ◇ Simple structure, the metal nozzle and body can be used in occasions of complicated environment, it is easy to maintain and clean



Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Silencer
- ◇ (4) Pressure switch
- ◇ (5) Adjusting nut



ACV Series

Basic Vacuum Generator

How to order

ACV - 10 HS CK

① ② ③ ④

| ① Series | ② Nozzle diameter | ③ Specification | ④ Pressure switch |
|----------|-------------------|--------------------------------------|--------------------------------------|
| ACV | 05 - ϕ 0.5mm | HS - High vacuum level type (-87kPa) | Nil - Without pressure switch |
| | 10 - ϕ 1.0mm | LS - Large vacuum flow type (-57kPa) | CK - With adjustable pressure switch |
| | 15 - ϕ 1.5mm | | |
| | 20 - ϕ 2.0mm | | |
| | 25 - ϕ 2.5mm | | |
| | 30 - ϕ 3.0mm | | |

Selection

| Model/Pressure switch Nil-Without pressure switch | | CK-With adjustable pressure switch | Model/Pressure switch Nil-Without pressure switch | | CK-With adjustable pressure switch |
|--|--|------------------------------------|--|--|------------------------------------|
| ACV-05HS | | ACV-05HSCK | ACV-05LS | | ACV-05LSCK |
| ACV-10HS | | ACV-10HSCK | ACV-10LS | | ACV-10LSCK |
| ACV-15HS | | ACV-15HSCK | ACV-15LS | | ACV-15LSCK |
| ACV-20HS | | ACV-20HSCK | ACV-20LS | | ACV-20LSCK |
| ACV-25HS | | - | ACV-25LS | | - |
| ACV-30HS | | - | ACV-30LS | | - |

Technical parameters

| Model | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight(g) | | Recommended hose dia.(mm) | |
|----------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------------|-----|---------------------------|-----------------|
| | | | | | | | Without switch | CK | Air supply port (P) | Vacuum port (V) |
| ACV-05HS | 5.0 | 87 | 7 | 13 | 68 | 0~60 | 80 | 120 | ϕ 8 | ϕ 8 |
| ACV-10HS | 5.0 | 90 | 27 | 44 | 68 | 0~60 | 80 | 120 | ϕ 8 | ϕ 8 |
| ACV-15HS | 5.0 | 90 | 63 | 100 | 72 | 0~60 | 140 | 190 | ϕ 8 | ϕ 8 |
| ACV-20HS | 5.0 | 90 | 110 | 180 | 72 | 0~60 | 350 | 460 | ϕ 8 | ϕ 10 |
| ACV-25HS | 5.0 | 90 | 160 | 265 | 75 | 0~60 | 730 | 700 | ϕ 10 | ϕ 12 |
| ACV-30HS | 5.0 | 90 | 225 | 385 | 75 | 0~60 | 870 | 846 | ϕ 10 | ϕ 12 |
| ACV-05LS | 5.0 | 57 | 10 | 13 | 68 | 0~60 | 75 | 115 | ϕ 8 | ϕ 8 |
| ACV-10LS | 5.0 | 57 | 36 | 44 | 68 | 0~60 | 75 | 115 | ϕ 8 | ϕ 8 |
| ACV-15LS | 5.0 | 57 | 95 | 100 | 72 | 0~60 | 135 | 180 | ϕ 8 | ϕ 8 |
| ACV-20LS | 5.0 | 57 | 170 | 180 | 72 | 0~60 | 330 | 440 | ϕ 8 | ϕ 10 |
| ACV-25LS | 5.0 | 57 | 250 | 265 | 75 | 0~60 | 710 | 680 | ϕ 10 | ϕ 12 |
| ACV-30LS | 5.0 | 57 | 350 | 385 | 75 | 0~60 | 840 | 816 | ϕ 10 | ϕ 12 |

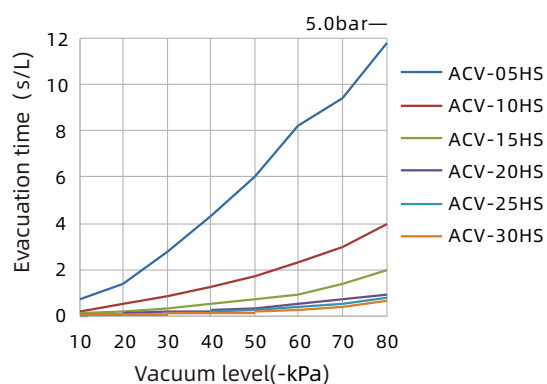
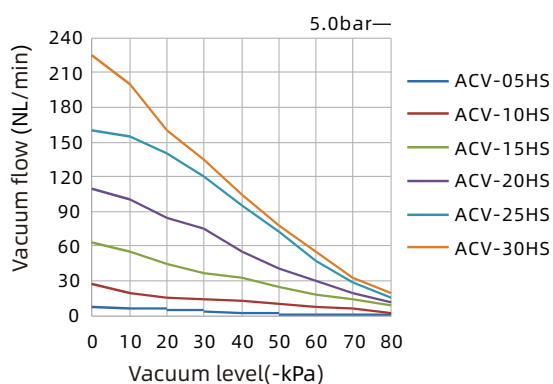
Basic Vacuum Generator

Vacuum flow(NL/min) at different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|----------|-------------------------|------------------------|-------|-------|-------|-------|-------|------|------|------|-------|------------------------|
| ACV-05HS | 5.0 | 13 | 7.0 | 5.5 | 4.2 | 3.0 | 1.5 | 0.8 | 0.5 | 0.2 | 0.05 | 87 |
| ACV-10HS | 5.0 | 44 | 27.0 | 19.0 | 16.0 | 14.5 | 13.0 | 10.5 | 8.0 | 6.5 | 2.50 | 90 |
| ACV-15HS | 5.0 | 100 | 63.0 | 55.0 | 44.0 | 37.0 | 32.5 | 25.0 | 18.0 | 14.0 | 9.00 | 90 |
| ACV-20HS | 5.0 | 180 | 110.0 | 100.0 | 85.0 | 75.0 | 55.0 | 40.5 | 30.0 | 20.0 | 12.00 | 90 |
| ACV-25HS | 5.0 | 265 | 160.0 | 155.0 | 140.0 | 120.0 | 95.0 | 72.0 | 47.0 | 28.0 | 15.00 | 90 |
| ACV-30HS | 5.0 | 385 | 225.0 | 200.0 | 160.0 | 135.0 | 105.0 | 78.0 | 55.0 | 33.0 | 19.00 | 90 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|----------|-------------------------|------------------------|------|------|------|------|------|------|------|-------|------------------------|
| ACV-05HS | 5.0 | 13 | 0.68 | 1.38 | 2.77 | 4.32 | 6.02 | 8.25 | 9.44 | 11.82 | 87 |
| ACV-10HS | 5.0 | 44 | 0.20 | 0.49 | 0.82 | 1.25 | 1.74 | 2.32 | 2.95 | 4.00 | 90 |
| ACV-15HS | 5.0 | 100 | 0.08 | 0.19 | 0.32 | 0.48 | 0.69 | 0.92 | 1.38 | 1.95 | 90 |
| ACV-20HS | 5.0 | 180 | 0.04 | 0.10 | 0.17 | 0.23 | 0.34 | 0.49 | 0.71 | 0.92 | 90 |
| ACV-25HS | 5.0 | 265 | 0.03 | 0.07 | 0.11 | 0.17 | 0.24 | 0.35 | 0.49 | 0.75 | 90 |
| ACV-30HS | 5.0 | 385 | 0.03 | 0.06 | 0.09 | 0.14 | 0.20 | 0.27 | 0.41 | 0.63 | 90 |



Vacuum flow(NL/min) at different vacuum levels(-kPa)

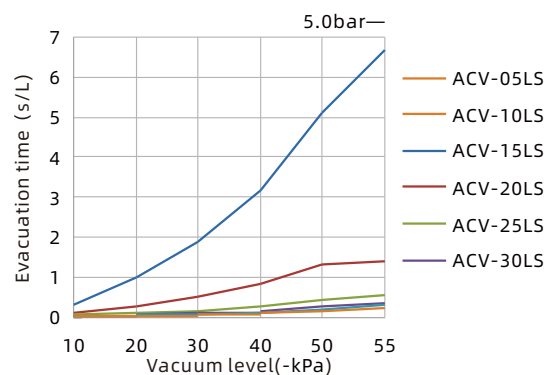
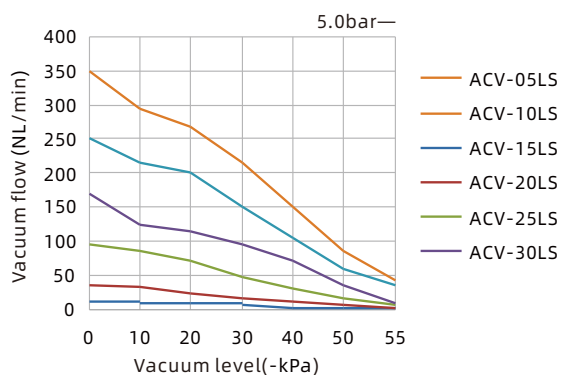
| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 55 | Max. vacuum level -kPa |
|----------|-------------------------|------------------------|-------|-------|-------|-------|-------|------|------|------------------------|
| ACV-05LS | 5.0 | 13 | 10.0 | 9.0 | 8.0 | 6.5 | 2.5 | 1.8 | 0.7 | 57 |
| ACV-10LS | 5.0 | 44 | 36.0 | 31.5 | 23.5 | 16.5 | 10.0 | 6.5 | 2.5 | 57 |
| ACV-15LS | 5.0 | 100 | 95.0 | 85.0 | 70.0 | 47.5 | 30.5 | 15.5 | 5.5 | 57 |
| ACV-20LS | 5.0 | 180 | 170.0 | 125.0 | 115.0 | 95.0 | 70.0 | 35.5 | 7.5 | 57 |
| ACV-25LS | 5.0 | 265 | 250.0 | 215.0 | 200.0 | 150.0 | 105.0 | 60.0 | 36.0 | 57 |
| ACV-30LS | 5.0 | 385 | 350.0 | 295.0 | 267.0 | 215.0 | 150.0 | 85.0 | 41.0 | 57 |

ACV Series

Basic Vacuum Generator

Evacuation time(s/L) to reach different vacuum levels(-kPa)

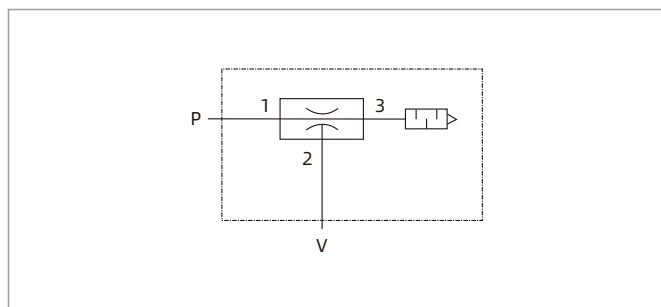
| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 55 | Max. vacuum level -kPa |
|----------|-------------------------|------------------------|------|------|------|------|------|------|------------------------|
| ACV-05LS | 5.0 | 13 | 0.31 | 0.98 | 1.89 | 3.17 | 5.12 | 6.70 | 57 |
| ACV-10LS | 5.0 | 44 | 0.12 | 0.28 | 0.51 | 0.83 | 1.32 | 1.40 | 57 |
| ACV-15LS | 5.0 | 100 | 0.45 | 0.10 | 0.15 | 0.26 | 0.42 | 0.56 | 57 |
| ACV-20LS | 5.0 | 180 | 0.03 | 0.06 | 0.11 | 0.14 | 0.25 | 0.34 | 57 |
| ACV-25LS | 5.0 | 265 | 0.02 | 0.05 | 0.08 | 0.12 | 0.18 | 0.30 | 57 |
| ACV-30LS | 5.0 | 385 | 0.02 | 0.04 | 0.06 | 0.09 | 0.13 | 0.22 | 57 |



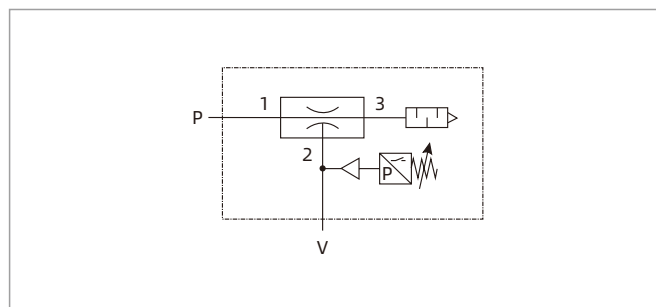
Technical parameters-Pressure switch

| Model | ACV-CK (Adjustable pressure switch) |
|----------------------------------|-------------------------------------|
| Fluid | Air |
| Set pressure range(-kPa) | 20~53 |
| Ambient temperature | 0~60°C (Non-freezing) |
| Operating accuracy(-kPa) | ±5.3 |
| Hysteresis(-kPa) | 4.0~13.3 |
| Operating voltage(V) | DC24V below |
| Load current(A) | 0.2 |
| Effective length of lead wire(m) | 0.7 |

Air circuit schematic diagram



ACV Standard



ACV - CK With pressure switch

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

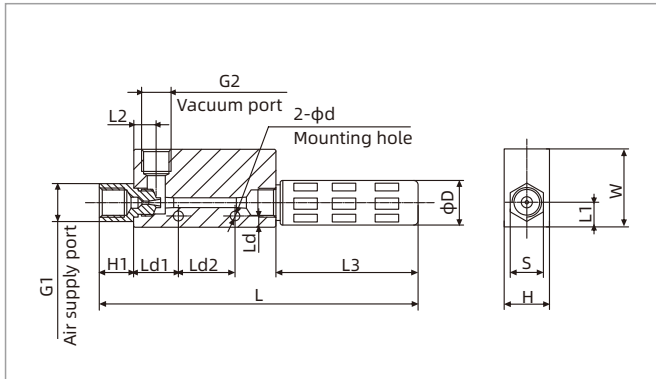
ACPS

APB

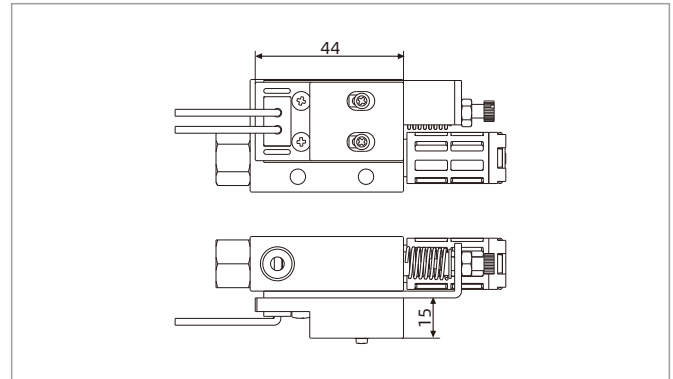
ACV Series

Basic Vacuum Generator

Dimensions(mm)



ACV Standard



ACV - CK With pressure switch

| Model/Size | L | H | W | G1 | H1 | L1 | S | G2 | L2 | ϕd | Ld | Ld1 | Ld2 | ϕD | L3 |
|------------|-----|----|----|-------|----|----|----|-------|----|----------|-----|-----|-----|----------|-----|
| ACV-05 | 85 | 16 | 33 | Rp1/8 | 10 | 10 | 14 | Rp1/8 | 8 | 4.5 | 4.5 | 14 | 20 | 15 | 30 |
| ACV-10 | 85 | 16 | 33 | Rp1/8 | 10 | 10 | 14 | Rp1/8 | 8 | 4.5 | 4.5 | 14 | 20 | 15 | 30 |
| ACV-15 | 129 | 20 | 35 | Rp1/4 | 15 | 11 | 17 | Rp1/4 | 10 | 4.5 | 5.0 | 20 | 25 | 19 | 51 |
| ACV-20 | 161 | 30 | 40 | Rp1/4 | 20 | 15 | 24 | Rp3/8 | 13 | 6.0 | 7.0 | 28 | 32 | 28 | 56 |
| ACV-20CK | 161 | 30 | 50 | Rp1/4 | 20 | 15 | 24 | Rp3/8 | 13 | 6.0 | 7.0 | 28 | 32 | 28 | 56 |
| ACV-25 | 236 | 40 | 60 | Rc3/8 | 17 | 20 | 27 | Rc1/2 | 16 | 6.0 | 5.5 | 20 | 50 | 40 | 119 |
| ACV-30 | 257 | 40 | 60 | Rc1/2 | 20 | 20 | 30 | Rc3/4 | 20 | 6.0 | 5.5 | 33 | 50 | 40 | 119 |

Repair kits

| Model of silencer | Connection thread | Color | Applicable vacuum generator |
|-------------------|-------------------|-------|-----------------------------|
| ZSB-X-G1M | G1/8Male thread | | ACV-05HS、10HS |
| ZSB-F-G1M | G1/8Male thread | | ACV-05LS、10LS |
| ZSB-X-G2M | G1/4Male thread | | ACV-15HS |
| ZSB-F-G2M | G1/4Male thread | | ACV-15LS |
| ZSB-X-G4M | G1/2Male thread | | ACV-20HS |
| ZSB-F-G4M | G1/2Male thread | | ACV-20LS |
| ZSA-G6M | G3/4Male thread | | ACV-25HS /LS、30HS / LS |

ASBP Series

Basic Vacuum Generator



UNIVERSAL



Features

- ◇ Plastic housing, small size and light weight
- ◇ Nozzle diameter 1.0mm and 1.5mm
- ◇ Threaded connection

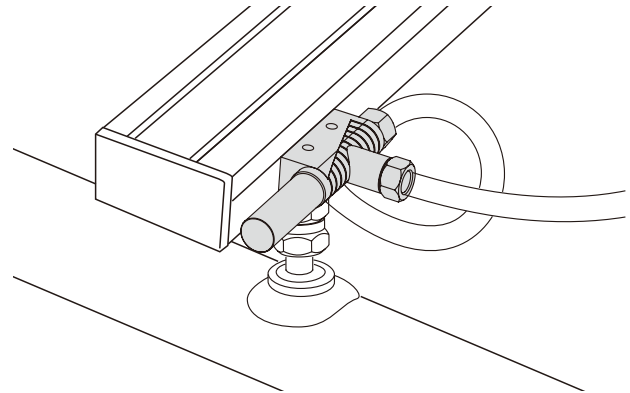
Advantages

- ◇ Suitable for fast handling
- ◇ Low air consumption
- ◇ Easy installation and space saving
- ◇ Low noise and easy maintenance



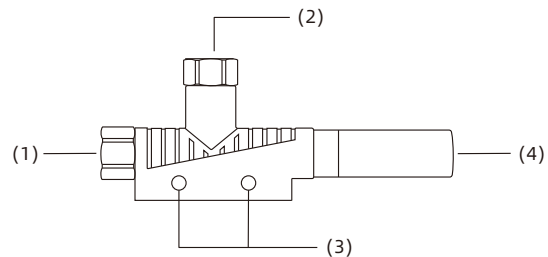
Applications

- ◇ Basic vacuum generator with plastic housing
- ◇ Compact structure, can be installed in row
- ◇ Handling of electronic components



Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum port
- ◇ (3) Mounting hole
- ◇ (4) Exhaust port



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ASBP Series

Basic Vacuum Generator

How to order

ASBP 10

① ②

| ① Series | ② Nozzle diameter |
|----------|--|
| ASBP | 10 - ϕ 1.0mm 15 - ϕ 1.5mm |

Selection

| Model/Nozzle diameter | 10 | 15 |
|-----------------------|--------|--------|
| ASBP□ | ASBP10 | ASBP15 |

Technical parameters

| Model | Nozzle diameter mm | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Working temperature °C | Weight g | Recommended hose dia.(mm) | |
|--------|--------------------|-------------------------------|------------------------|-------------------------|------------------------|-------------------|------------------------|----------|---------------------------|---------------|
| | | | | | | | | | Air supply port P | Vacuum port V |
| ASBP10 | 1.0 | 4.5 | 85 | 38 | 50 | 59 | 0~60 | 22 | ϕ 6 | ϕ 8 |
| ASBP15 | 1.5 | 4.5 | 85 | 72 | 110 | 65 | 0~60 | 22 | ϕ 6 | ϕ 8 |

◇ Note: Max.operating pressure 7bar, standard operating pressure 4.5bar

ASBP Series

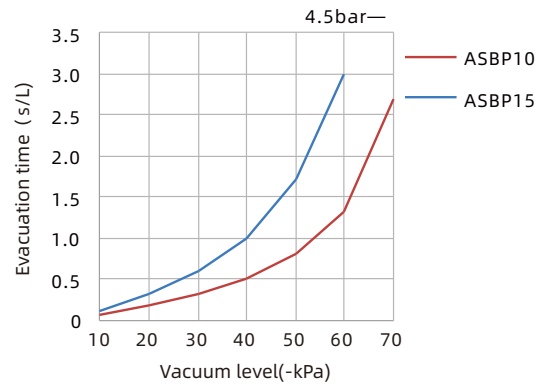
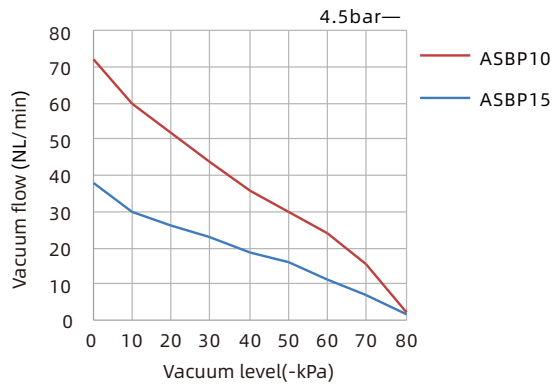
Basic Vacuum Generator

Vacuum flow(NL/min) at different vacuum levels(-kPa)

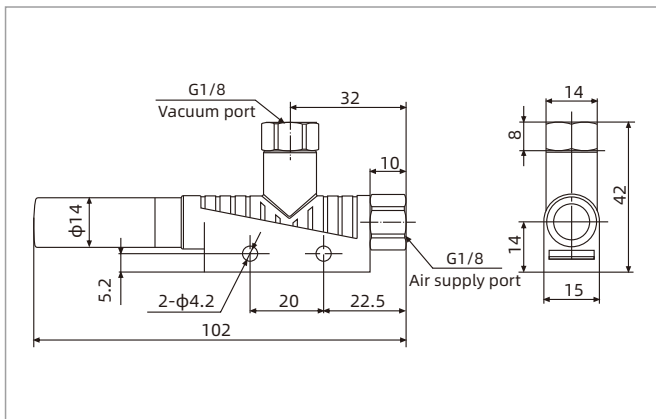
| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|----|----|----|----|------|----|----|------|-----|------------------------|
| ASBP10 | 4.5 | 50 | 38 | 30 | 26 | 23 | 18.6 | 16 | 11 | 7.0 | 1.8 | 85 |
| ASBP15 | 4.5 | 110 | 72 | 60 | 52 | 44 | 36.0 | 30 | 24 | 15.5 | 2.2 | 85 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | Max. vacuum level -kPa |
|--------|-------------------------|------------------------|------|------|------|------|------|------|-----|------------------------|
| ASBP10 | 4.5 | 50 | 0.13 | 0.33 | 0.60 | 1.00 | 1.72 | 3.00 | - | 85 |
| ASBP15 | 4.5 | 110 | 0.06 | 0.18 | 0.32 | 0.52 | 0.81 | 1.32 | 2.7 | 85 |



Dimensions(mm)



ASBP

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ALS Series

Linear Single Stage Vacuum Generator



UNIVERSAL

Features

- ◇ It is installed directly between suction cup and compressed air source
- ◇ Aluminum alloy body, small size, light weight

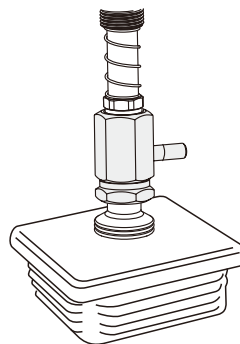
Advantages

- ◇ No need to connect PU hose, it can directly produce vacuum at the working site
- ◇ Saving space, suitable for installation occasions with small space and fast movement



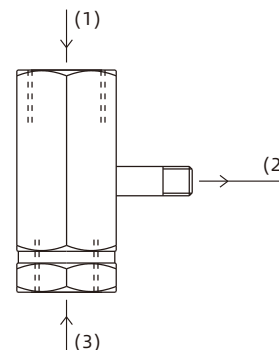
Applications

- ◇ The linear vacuum generator is connected with the suction cup and the compressed air source directly, which can reduce the evacuation time
- ◇ Suitable for a variety of handling process, such as industrial robots and feeding systems



Structure

- ◇ (1) Air supply port
- ◇ (2) Exhaust port
- ◇ (3) Vacuum port



ALS Series

Linear Single Stage Vacuum Generator

How to order

ALS - M5F
 ① ②

| Series | Vacuum port connection thread |
|--------|-------------------------------|
| ALS | M5F - M5×0.8 female thread |
| | G1F - G1/8 female thread |
| | G2F - G1/4 female thread |

Selection

| Model/ Vacuum port connection thread M5F | G1F | G2F |
|---|---------|---------|
| ALS-M5F | ALS-G1F | ALS-G2F |

Technical parameters

| Model | Rated air supply pressure bar | Max.vacuum level -kPa | Max.vacuum flow NL/min | Air consumption NL/min | Noise level dB(A) | Weight g |
|---------|----------------------------------|--------------------------|---------------------------|---------------------------|----------------------|-------------|
| ALS-M5F | 5.0 | 85 | 14.4 | 42 | 80 | 18 |
| ALS-G1F | 5.0 | 85 | 14.4 | 42 | 80 | 22 |
| ALS-G2F | 5.0 | 85 | 14.4 | 42 | 80 | 21 |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ALS Series



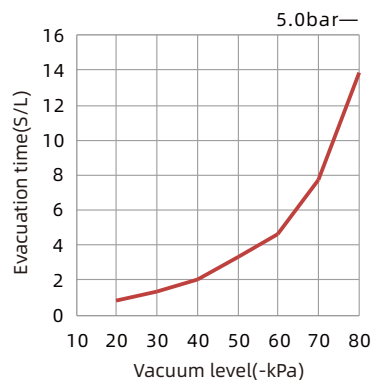
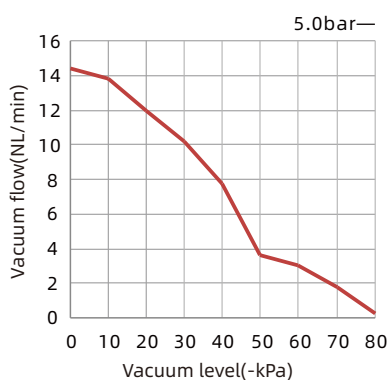
Linear Single Stage Vacuum Generator

Vacuum flow(NL/min) at different vacuum levels(-kPa)

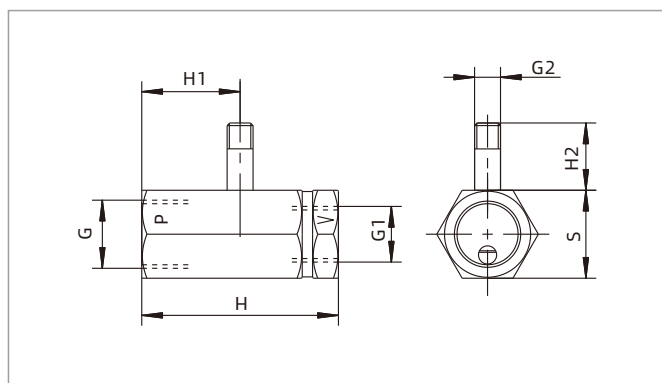
| Model | Air supply pressure bar | Air consumption NL/min | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|-------|-------|-------|-------|------|------|------|------|------|------------------------|
| ALS | 5.0 | 42 | 14.40 | 13.80 | 12.00 | 10.20 | 7.80 | 3.60 | 3.00 | 1.80 | 0.24 | 85 |

Evacuation time(s/L) to reach different vacuum levels(-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | Max. vacuum level -kPa |
|-------|-------------------------|------------------------|------|------|------|------|------|------|------|-------|------------------------|
| ALS | 5.0 | 42 | 0.39 | 0.79 | 1.34 | 2.06 | 3.32 | 4.62 | 7.71 | 13.97 | 85 |



Dimensions(mm)



ALS

| Model/size | H | H1 | H2 | G | G1 | G2 | S |
|------------|----|------|----|------|--------|--------|----|
| ALS-M5F | 30 | 15 | 13 | G1/4 | M5×0.8 | M5×0.8 | 17 |
| ALS-G1F | 35 | 17.5 | 13 | G1/4 | G1/8 | M5×0.8 | 17 |
| ALS-G2F | 38 | 19 | 13 | G1/4 | G1/4 | M5×0.8 | 17 |

ACP Series

Conveying Vacuum Generator



BIOPHARMING



FOOD



PACKAGING

Features

- ◇ Straight-through design, extremel large vacuum flow
- ◇ Vacuum flow is adjustable according to the working condition
- ◇ Different diameters are available

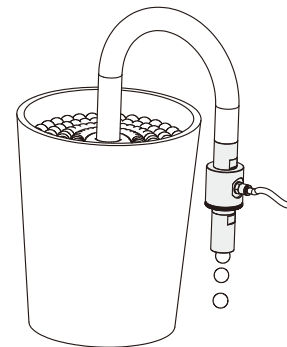
Advantages

- ◇ Handling of workpieces with high permeability, particle, powder, gas and fluid
- ◇ Vacuum flow can be manually adjusted according to the different working conditions



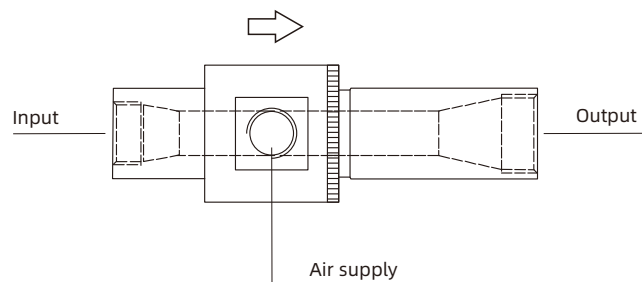
Applications

- ◇ Handling of loose materials such as textile and paper
- ◇ Conveying of grains such as wheat and corn
- ◇ Conveying of powder particles such as laundry detergent and plastic particles
- ◇ Removal of cutter chips during machining
- ◇ Suction of non-corrosive waste water and waste gas during industrial processing



Structure

- ◇ Straight-through design, can adsorb and transport different materials continuously
- ◇ All ports are connected with female thread



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ACP Series

Conveying Vacuum Generator

How to order

ACP 250 S
 ① ② ③

| ① Series | ② Specification | ③ Material |
|----------|-----------------|----------------------|
| ACP | 250 | Nil - Aluminum alloy |
| | 375 | S - Stainless steel |
| | 500 | |
| | 750 | |

Selection

| Model/Material Nil-Aluminum alloy | S - Stainless steel |
|--------------------------------------|---------------------|
| ACP250 | ACP250S |
| ACP375 | ACP375S |
| ACP500 | ACP500S |
| ACP750 | ACP750S |

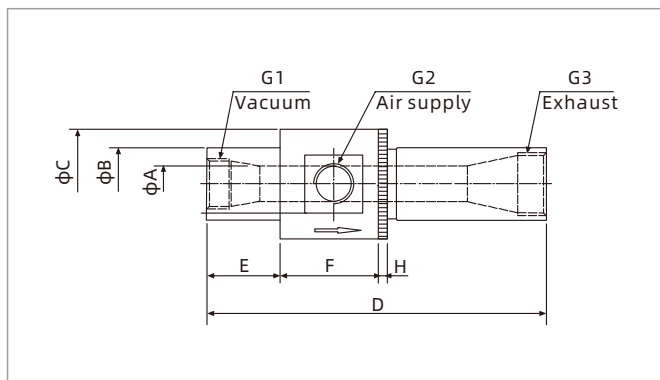
Technical parameters

| Model | Rated air supply pressure bar | Air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Working temperature °C | Weight (g) | |
|--------|-------------------------------|-------------------------|------------------------|-------------------------|------------------------|------------------------|----------------|-----------------|
| | | | | | | | Aluminum alloy | Stainless steel |
| ACP250 | 5.5 | 7 | 85 | 280 | 112~342 | -20~80 | 100 | 296 |
| ACP375 | 5.5 | 7 | 85 | 846 | 176~825 | -20~80 | 286 | 846 |
| ACP500 | 5.5 | 7 | 70 | 1,695 | 341~939 | -20~80 | 401 | 1,189 |
| ACP750 | 5.5 | 7 | 70 | 3,390 | 650~1,813 | -20~80 | 540 | 1,599 |

ACP Series

Conveying Vacuum Generator

Dimensions(mm)



ACP

| Model/Size | A | B | C | D | E | F | H | G1 | G2 | G3 |
|------------|------|----|----|---------|----|----|---|------|------|------|
| ACP250 | 6.5 | 19 | 32 | 94~105 | 22 | 32 | 5 | G1/4 | G1/8 | G1/4 |
| ACP375 | 9.5 | 25 | 45 | 155~165 | 38 | 45 | 5 | G3/8 | G3/8 | G1/2 |
| ACP500 | 13.0 | 32 | 51 | 155~160 | 38 | 51 | 5 | G1/2 | G3/8 | G3/4 |
| ACP750 | 19.0 | 38 | 58 | 175~189 | 38 | 51 | 5 | G3/4 | G1/2 | G1" |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ACPF Series

Conveying Vacuum Generator



Features

- ◇ Straight-through design, extremely large vacuum flow
- ◇ Different diameters are available, the largest diameter is 38mm

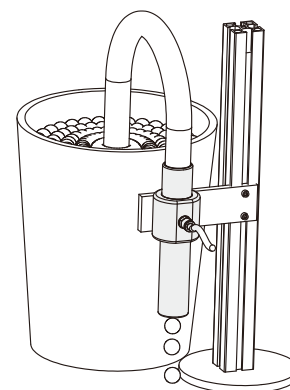
Advantages

- ◇ Handling of workpieces with high permeability, particle, powder, gas and fluid



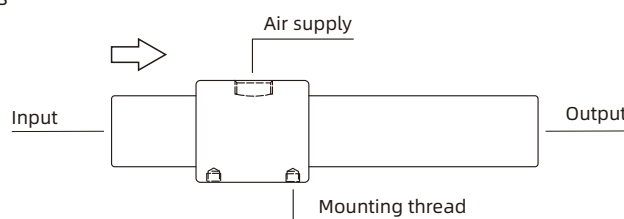
Applications

- ◇ Handling of loose materials such as textile and paper
- ◇ Conveying of grains such as wheat and corn
- ◇ Conveying of powder particles such as laundry detergent and plastic particles
- ◇ Removal of cutter chips during machining
- ◇ Suction of non-corrosive waste water and waste gas during industrial processing



Structure

- ◇ Straight-through design, can adsorb and transport different materials continuously
- ◇ With mounting threaded hole
- ◇ The ports of ACPF3-3 are threaded connection, and the others are connected by external steel wire hoses



ACPF Series

Conveying Vacuum Generator

How to order

ACPF 2-3 S
 ① ② ③

| ① Series | Specification | ③ Material |
|----------|---------------|---------------------|
| ACPF | 2-3 | Nil- Aluminum alloy |
| | 3-3 | S-Stainless steel |
| | 5-6 | |
| | 7-6 | |
| | 15-3 | |
| | 15-6 | |

Selection

| Model/Material | |
|--------------------|---------------------|
| Nil-Aluminum alloy | S - Stainless steel |
| ACPF2-3 | ACPF2-3S |
| ACPF3-3 | ACPF3-3S |
| ACPF5-6 | ACPF5-6S |
| ACPF7-6 | ACPF7-6S |
| ACPF15-3 | ACPF15-3S |
| ACPF15-6 | ACPF15-6S |

Technical parameters

| Model | Nozzle diameter mm | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | | Working temperature °C | Weight(g) | |
|----------|--------------------|-------------------------------|------------------------|-------------------------|------------------------|--------|------------------------|----------------|-----------------|
| | | | | | 2.8bar | 5.5bar | | Aluminum alloy | Stainless steel |
| ACPF2-3 | 6.5 | 6.0 | 26.0 | 295 | 85 | 160 | -20~80 | 85 | 252 |
| ACPF3-3 | 9.5 | 6.0 | 16.0 | 425 | 95 | 170 | -20~80 | 69 | 205 |
| ACPF5-6 | 12.5 | 6.0 | 35.0 | 870 | 395 | 680 | -20~80 | 170 | 505 |
| ACPF7-6 | 19.0 | 6.0 | 28.0 | 1,825 | 790 | 1,365 | -20~80 | 388 | 1,151 |
| ACPF15-3 | 25.0 | 6.0 | 4.4 | 4,400 | 405 | 695 | -20~80 | 519 | 1,537 |
| ACPF15-6 | 38.0 | 6.0 | 9.0 | 5,610 | 790 | 1,365 | -20~80 | 659 | 1,953 |

Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX Combined Type

AMC

AM/AL/AH

AM/AL Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

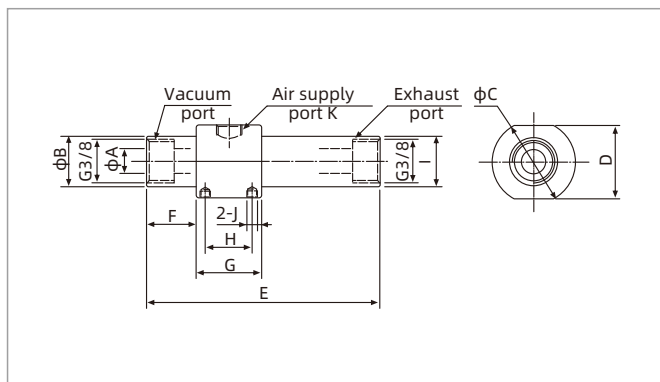
ACPS

APB

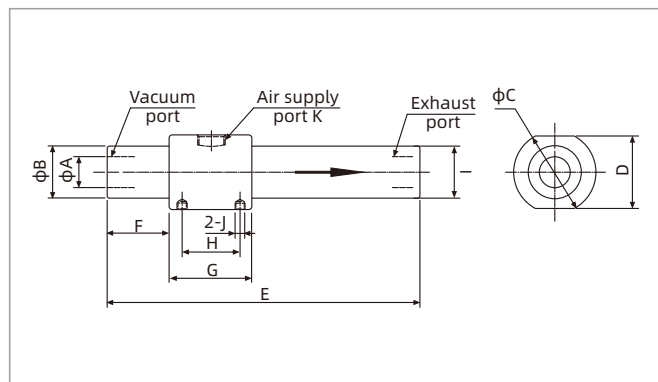
ACPF Series

Conveying Vacuum Generator

Dimensions(mm)



ACPF3-3



ACPF(Other sizes)

| Model/Size | A | B | C | D | E | F | G | H | I | J | K |
|------------|------|------|----|----|-----|----|----|----|------|--------|------|
| ACPF2-3 | 6.5 | 18.5 | 32 | 28 | 89 | 19 | 25 | 18 | 19.5 | M4×0.7 | G1/8 |
| ACPF3-3 | 9.5 | 18.5 | 32 | 28 | 89 | 19 | 25 | 18 | 19.5 | M4×0.7 | G1/8 |
| ACPF5-6 | 12.5 | 24.0 | 38 | 34 | 140 | 25 | 32 | 23 | 25.0 | M4×0.7 | G1/4 |
| ACPF7-6 | 19.0 | 31.0 | 50 | 45 | 190 | 38 | 50 | 35 | 33.0 | M4×0.7 | G3/8 |
| ACPF15-3 | 25.0 | 38.0 | 59 | 55 | 198 | 40 | 56 | 40 | 38.0 | M4×0.7 | G3/8 |
| ACPF15-6 | 38.0 | 49.6 | 69 | 65 | 205 | 40 | 60 | 42 | 49.6 | M4×0.7 | G3/8 |

ACPS Series

Conveying Vacuum Generator



Features

- ◇ Straight-through design, extremely large vacuum flow
- ◇ Different diameters are available

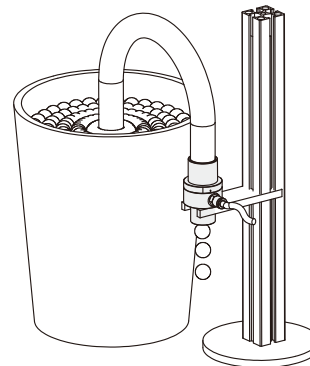
Advantages

- ◇ Handling of workpieces with high permeability, particle, powder, gas and fluid



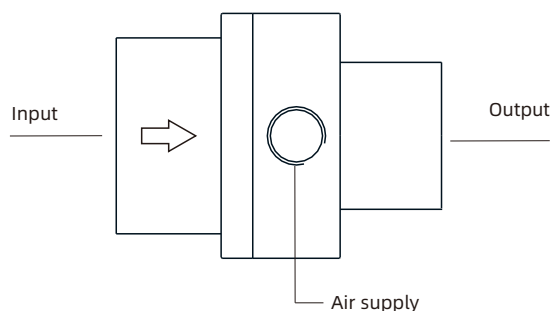
Applications

- ◇ Handling of loose materials such as textile and paper
- ◇ Conveying of grains such as wheat and corn
- ◇ Conveying of powder particles such as laundry detergent and plastic particles
- ◇ Removal of cutter chips during machining
- ◇ Suction of non-corrosive waste water and waste gas during industrial processing



Structure

- ◇ Straight-through design, can adsorb and transport different materials continuously
- ◇ Compressed air goes through the lateral annular gap



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

ACPS Series

Conveying Vacuum Generator

How to order

ACPS 10

① ②

| ① Series | ② Nozzle diameter |
|----------|--|
| ACPS | 10 - ϕ 10mm 20 - ϕ 20mm 40 - ϕ 40mm 75 - ϕ 75mm |

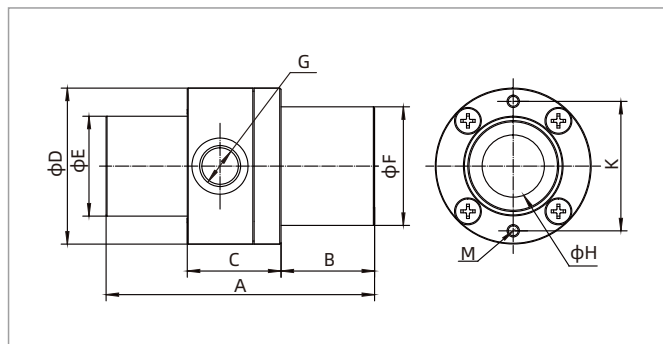
Selection

| Model/Nozzle diameter | 10 | 20 | 40 | 75 |
|-----------------------|--------|--------|--------|--------|
| ACPS□ | ACPS10 | ACPS20 | ACPS40 | ACPS75 |

Technical parameters

| Model | Nozzle diameter mm | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Working temperature °C | Weight g |
|--------|--------------------|-------------------------------|------------------------|-------------------------|------------------------|------------------------|----------|
| ACPS10 | 10 | 5.0 | 12 | 550 | 140 | -20~80 | 77 |
| ACPS20 | 20 | 5.0 | 4 | 1,375 | 265 | -20~80 | 189 |
| ACPS40 | 40 | 5.0 | 2 | 2,250 | 470 | -20~80 | 522 |
| ACPS75 | 75 | 5.0 | 1 | 8,640 | 876 | -20~80 | 2,308 |

Dimensions(mm)



ACPS

| Model/Size | A | B | C | D | E | F | G | H | K | M |
|------------|-----|----|----|-----|-----|-----|------|----|-------|----------|
| ACPS10 | 70 | 23 | 21 | 37 | 19 | 19 | G1/8 | 10 | 29.0 | 2-M4×0.7 |
| ACPS20 | 86 | 30 | 30 | 50 | 32 | 38 | G1/4 | 20 | 41.5 | 2-M4×0.7 |
| ACPS40 | 94 | 30 | 34 | 84 | 52 | 75 | G3/8 | 40 | 72.0 | 2-M4×0.7 |
| ACPS75 | 180 | 34 | 65 | 140 | 100 | 125 | G1/2 | 75 | 126.0 | 2-M6×1 |

APB Series

High Pressure Vacuum Blower



PACKAGING



WOOD



COMPOSITE MATERIAL

Features

- ◇ Extremely high suction capacity
- ◇ The housing and impeller are made of high strength die-casting aluminum alloy
- ◇ Available in various suction capacity

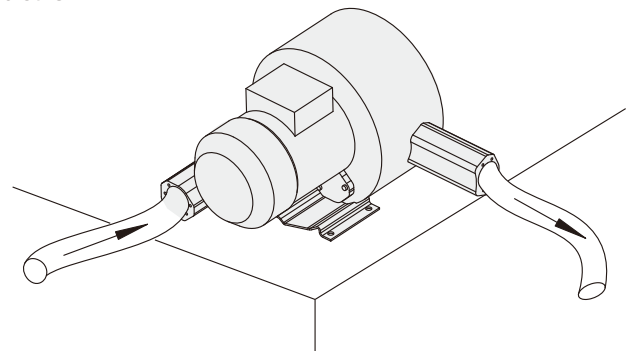
Advantages

- ◇ Fast and reliable handling of porous materials
- ◇ Low noise and high suction capacity
- ◇ It can be precisely selected according to the actual working conditions



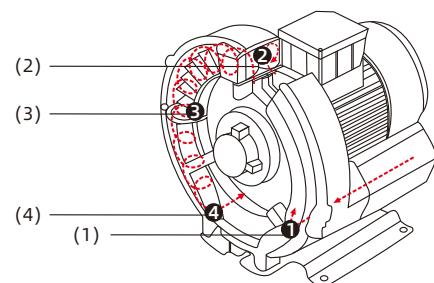
Applications

- ◇ Handling of cartons, wood, foam materials, heat insulating materials and other extremely porous materials
- ◇ Extremely high suction flow to compensate for leakage easily



Structure

- ◇ (1) Air supply port
- ◇ (2) Side channel
- ◇ (3) Impeller
- ◇ (4) Exhaust port



Vacuum Generator

AZK

AZQ

AZX

AZD

AGS

AGB

AGP

AGX

AGE

ABM/ABX

ABM/ABX
Combined Type

AMC

AM/AL/AH

AM/AL
Combined Type

AMD

AZW

AZR

ABT

ABP

ABQ

AEVC

AZL

ALH

AZH

AZU

ACV

ASBP

ALS

ACP

ACPF

ACPS

APB

APB Series

High Pressure Vacuum Blower

How to order

APB - 420

① ②

| ② Series | ① Specifications |
|----------|------------------|
| APB | 420 |
| | 520 |
| | 620 |
| | 720 |
| | 820 |
| | 920 |

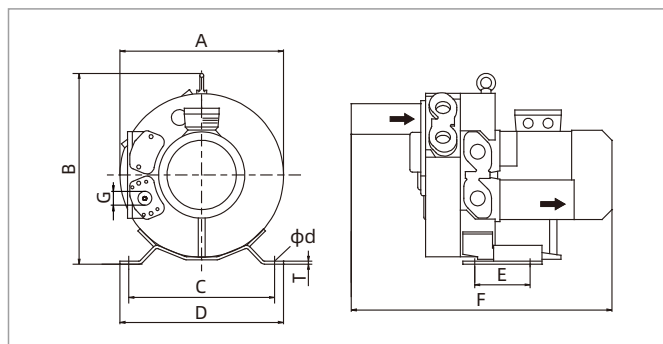
Selection

| Model | Model |
|---------|---------|
| APB-420 | APB-720 |
| APB-520 | APB-820 |
| APB-620 | APB-920 |

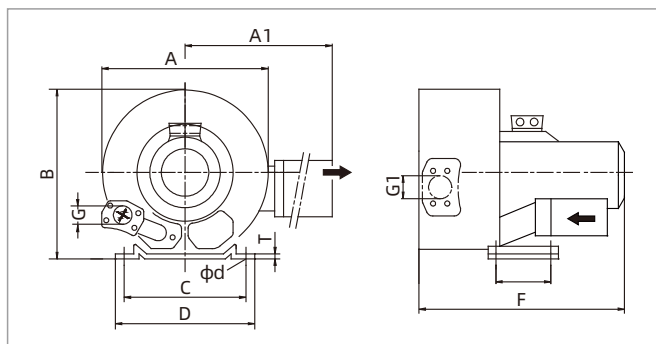
Technical parameters

| Model | Motor (50HZ) | | | Max. flow m ³ /h | Max. vacuum level -kPa | Max. pressure mbar | Noise level dB(A) | Protection grade IP | Weight kg |
|---------|-------------------|--------------------|--------------------|--------------------------------|------------------------------|--------------------------|-------------------------|---------------------------|--------------|
| | Rated power KW | Input voltage V | Rated current A | | | | | | |
| APB-420 | 1.5 | 220-240△/345-415 | 7.5△/4.3Y | 87 | 48 | 450 | 61 | IP55 | 33 |
| APB-520 | 2.2 | 220-240△/345-415 | 11.4△/6.6Y | 120 | 47 | 460 | 64 | IP55 | 40 |
| APB-620 | 3.2 | 220-240△/345-415 | 13.0△/7.5Y | 165 | 46 | 500 | 67 | IP55 | 48 |
| APB-720 | 5.5 | 345-415△/600-720 | 13.0△/7.7Y | 320 | 44 | 500 | 73 | IP55 | 66 |
| APB-820 | 7.5 | 345-415△/600-720 | 13.3△/7.7Y | 520 | 40 | 400 | 74 | IP55 | 86 |
| APB-920 | 16.5 | 345-415△/600-720 | 35.0△/20.0Y | 1,110 | 41 | 370 | 74 | IP55 | 197 |

Dimensions(mm)



APB-420~620

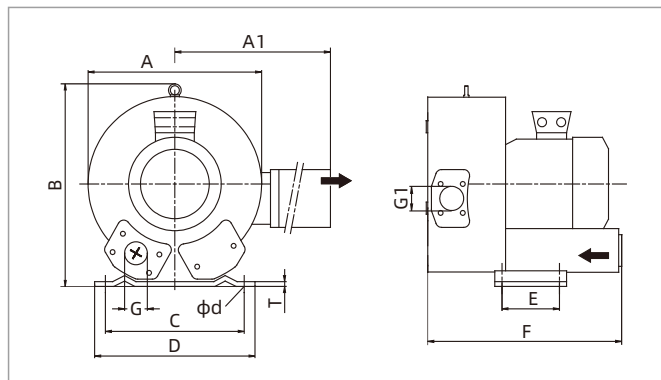


APB-720

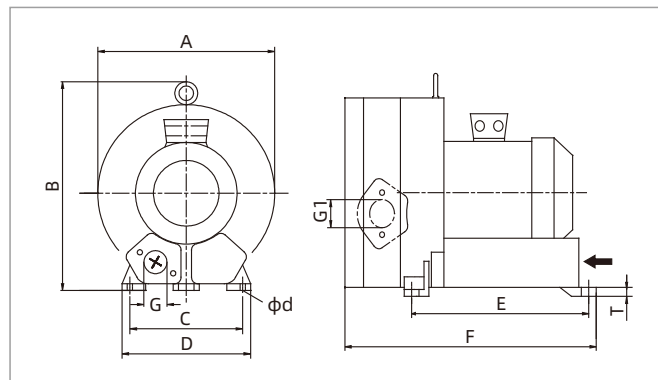
APB Series

High Pressure Vacuum Blower

Dimensions(mm)



APB-820



APB-920

| Model/Size | A | A1 | B | C | D | ϕd | E | F | T | G | G1 |
|------------|-----|-----|-----|-----|-----|----------|-----|-----|-----|---------------|----|
| APB-420 | 363 | - | 414 | 315 | 350 | 14 | 130 | 529 | 4 | G1"1/4depth18 | - |
| APB-520 | 387 | - | 435 | 328 | 363 | 14 | 130 | 549 | 5 | G1"1/4depth18 | - |
| APB-620 | 442 | - | 495 | 372 | 406 | 14 | 152 | 578 | 5 | G1"1/4depth18 | - |
| APB-720 | 426 | 426 | 410 | 290 | 325 | 15 | 140 | 571 | 4.5 | $\phi 55$ | - |
| APB-820 | 500 | 549 | 509 | 356 | 545 | 15 | 170 | 589 | 6 | G2"1/2 | - |
| APB-920 | 615 | - | 623 | 360 | 415 | 15 | 533 | 786 | 21 | $\phi 100$ | - |

Safety Information

- ◇ Remarks: If this product has the following applications: logistics and transportation, consumer goods industry, agriculture, construction industry, comprehensive trade, etc. This type of equipment usually includes exposed parts. They are very dangerous since they are moving parts or rotating parts in many cases during the working process. Unauthorized removal of protective covers, improper use, improper operation or insufficient maintenance may cause serious personal injury or equipment failure.
- ◇ The staff responsible for safety must ensure: Only qualified personnel can operate such equipment. Qualified personnel are already fully familiar with the operation manual when operating these equipment and can operate according to the installation manual systematically. Unqualified personnel are not allowed to operate such equipment.
- ◇ Qualified personnel: the personnel authorized by the person in charge of plant safety. They complete a certain necessary work based on their own experience and training, knowledge of relevant standards, and ability to prevent accidents, while being aware of potential dangers and take necessary measures.
- ◇ DIN VDE 0105 or IGC 364 stipulates that unqualified personnel shall not be engaged in electrical equipment work. Product manuals or catalogue cannot contain all the detailed information, especially it is impossible to cover every possible safety, operation and maintenance method. Therefore, these operating manuals only include the necessary information for qualified personnel to operate the equipment correctly. If the detailed parameters of the product are lacking, please contact us for more information.

C Vacuum Suction Cups

Suction cups

Products overview

Suction cups

154 SZ Series

Standard Suction Cup

- ◇ Diameter: 2-50mm
- ◇ Material: N WS CN CS HP



ELECTRONICS



185 SOFA Series

Oval Flat Suction Cup

- ◇ Size: 6×18mm
- ◇ Material: N WS



ELECTRONICS



162 SP3 Series

Suction Cup

- ◇ Diameter: 1.5-16mm
- ◇ Material: N WS CN CS HP



ELECTRONICS



186 STP Series

Ultra-thin Flower-Shaped Suction Cup

- ◇ Diameter: 35-60mm
- ◇ Material: S WS



PACKAGING HIGH SEALING



176 SUF Series

Small Flat Suction Cup

- ◇ Diameter: 3.5-5.5mm
- ◇ Material: N S



ELECTRONICS



188 SFT Series

Flat Suction Cup Special for Plastic Film and Paper

- ◇ Diameter: 15-40mm
- ◇ Material: WS HD NR



PAPER



PLASTIC BAG



SOLAR



ANTI-DEFORMATION



177 SAN Series

Nozzle Type Suction Cup

- ◇ Diameter: 0.8-1.1mm
- ◇ Material: N WS CN CS



ELECTRONICS



192 SFA Series

Flat Ultra-thin Lip Suction Cup

- ◇ Diameter: 20-50mm
- ◇ Material: S



PLASTIC BAG



HIGH SEALING



178 SAO Series

Oval Flat Suction Cup

- ◇ Size: 3.5×7-8×30mm
- ◇ Material: N WS CN CS



ELECTRONICS



194 SBT Series

Bellows Suction Cup Special for Thin Workpieces

- ◇ Diameter: 16mm
- ◇ Material: N WS



PLASTIC BAG



ANTI-DEFORMATION



Suction cups

Products overview

Suction cups

195 SBL Series

4.5 Bellows Suction Cup

- ◇ Diameter: 15-50mm
- ◇ Material: N S WS



RoHS

209 SXP Series

PU Bellows Suction Cup

- ◇ Diameter: 20-70mm
- ◇ Material: U UG UD



RoHS

198 SBLP Series

Multiple Bellows Suction Cup Special for Soft Packing Bags

- ◇ Diameter: 30-50mm
- ◇ Material: S



RoHS

213 SGP Series

PU Bellows Suction Cup

- ◇ Diameter: 25-55mm
- ◇ Material: U UD



RoHS

200 SBS Series

Suction Cup Special for Spherical Objects

- ◇ Diameter: 30-35mm
- ◇ Material: S WS WSA



RoHS

216 SBOF Series

2.5 Bellows Oval Suction Cup

- ◇ Size: 35×28 45×28mm
- ◇ Material: V



RoHS

202 SFP Series

PU Flat Suction Cup

- ◇ Diameter: 20-40mm
- ◇ Material: U UY



RoHS

219 STC Series

1.5 Bellows Suction Cup Special for Metal Sheet

- ◇ Diameter: 22-125mm
- ◇ Material: N HK HD



RoHS

205 SBP Series

PU Bellows Suction Cup

- ◇ Diameter: 10-70mm
- ◇ Material: U UY UD



RoHS

223 SFF Series

Flat Suction Cup Special for Metal Sheet

- ◇ Diameter: 30-125mm
- ◇ Material: N NG HK HD



RoHS

Suction cups

Products overview

Suction cups

227 SOB SERIES

Oval Bellows Suction Cup Special for Metal Sheet

◇ Size: 30×60-70×140mm

◇ Material: N HK HD



RoHS

244 SBF Series

1.5 Bellows Suction Cup Special for Metal Sheet

◇ Diameter: 30-100mm

◇ Material: U



RoHS

230 SOF Series

Oval Flat Suction Cup Special for Metal Sheet

◇ Size: 16×50-70×140mm

◇ Material: N NG HK HD



RoHS

247 SDM Series

Flat Suction Cup Special for Metal Sheet

◇ Diameter: 100mm

◇ Material: U



RoHS

234 SOG Series

Oval Flat Suction Cup Special for Cylindrical Objects

◇ Size: 15×40mm 35×100mm

◇ Material: N



RoHS

249 SFU Series

Big Flat Suction Cup

◇ Diameter: 100-400mm

◇ Material: N WS



RoHS

237 SFM Series

Flat Suction Cup Special for Oily Metal Sheet

◇ Diameter: 30-120mm

◇ Material: U



RoHS

253 SFK Series

Flat Suction Cup Special for Rough Surface Objects

◇ Diameter: 110-250mm

◇ Material: E



RoHS

241 SOM SERIES

Oval Flat Suction Cup Special for Long and Narrow Objects

◇ Size: 20×60-40×100mm

◇ Material: U



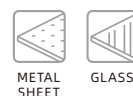
RoHS

256 SHT Series

High Temperature Suction Cup

◇ Diameter: 35-90mm

◇ Material: --



Suction cups

Products overview

Suction cups

258 SDL Series

Annular Suction Cup

◇ Diameter: 100mm

◇ Material: N



METAL SHEET



RoHS

271 SBA Series

1.5 Bellows Suction Cup

◇ Diameter: 6-78mm

◇ Material: N WS HD NR



UNIVERSAL



RoHS

259 SFG Series

Flat Suction Cup for Glass Industry

◇ Diameter: 125-400mm

◇ Material: E HD



GLASS



SLIPPING RESISTANCE



HIGH SEALING RESISTANCE



RoHS

276 SF Series

Universal Flat Suction Cup

◇ Diameter: 15-300mm

◇ Material: N S WS CS



UNIVERSAL



RoHS

262 SFGT Series

Big Flat Suction Cup

◇ Diameter: 65-160mm

◇ Material: ws



METAL SHEET



GLASS



RoHS

282 SU Series

Universal Flat Suction Cup

◇ Diameter: 6-80mm

◇ Material: N S WS CS



UNIVERSAL



RoHS

264 SFD Series

Flat Suction Cup for Wood Industry

◇ Diameter: 40-70mm

◇ Material: N WS NR



WOOD



RoHS

286 SP2F Series

Universal Flat Suction Cup

◇ Diameter: 10-15mm

◇ Material: N WS CN CS



PAPER



ANTI-DEFORMATION



RoHS

266 SB Series

Universal Bellows Suction Cup

◇ Diameter: 5-150mm

◇ Material: N S WS CS



UNIVERSAL



RoHS

293 SPA Series

Thin Lip Flat Suction Cup

◇ Diameter: 10-50mm

◇ Material: N WS CN CS



PAPER



ANTI-DEFORMATION



RoHS

Suction cups

Products overview

Suction cups

302 SPD Series

Thin Lip Flat Suction Cup

- ◇ Diameter: 10-15mm
- ◇ Material: N WS



PAPER



334 SH Series

Heavy Load Flat Suction Cup

- ◇ Diameter: 40-125mm
- ◇ Material: N WS



METAL SHEET



WOOD



HEAVY LOAD



304 SPF Series

Flat Suction Cup

- ◇ Diameter: 2-200mm
- ◇ Material: N WS CN CS



UNIVERSAL



341 SHB Series

Heavy Load Bellows Suction Cup

- ◇ Diameter: 40-125mm
- ◇ Material: N WS



METAL SHEET



WOOD



HEAVY LOAD



CURVED SURFACE



316 SPC Series

Bellows Suction Cup

- ◇ Diameter: 3-90mm
- ◇ Material: N WS CN CS



PACKAGING



PLASTIC



ELECTRONICS



348 SBB Series

1.5 Bellows Big Suction Cup

- ◇ Diameter: 200-300mm
- ◇ Material: N



HEAVY LOAD



322 SPJ Series

Bellows Suction Cup

- ◇ Diameter: 4-80mm
- ◇ Material: N WS CN CS HP



PACKAGING



PLASTIC



350 SOP Series

Circular Foam Rubber Cup

- ◇ Diameter: 40-220mm
- ◇ Material: NF OF



STONE



ROUGH SURFACE



331 SPU Series

Swivel Flat Suction Cup

- ◇ Diameter: 10-100mm
- ◇ Material: N WS



METAL SHEET



WOOD



CURVED SURFACE



352 SNP Series

Rectangular Foam Rubber Cup

- ◇ Size: 50×135-140×290mm
- ◇ Material: NF OF



STONE



ROUGH SURFACE



SZ Series

Standard Suction Cup

AIRBEST



ELECTRONICS



Features

- ◇ Available in various shapes: U type, C type, B type and D type
- ◇ Simple structure
- ◇ Conductive material available
- ◇ Available in various sizes

Advantages

- ◇ Small size and light weight
- ◇ Suitable for workpieces of various sizes and shapes



B-Bellows type

D-Deep type

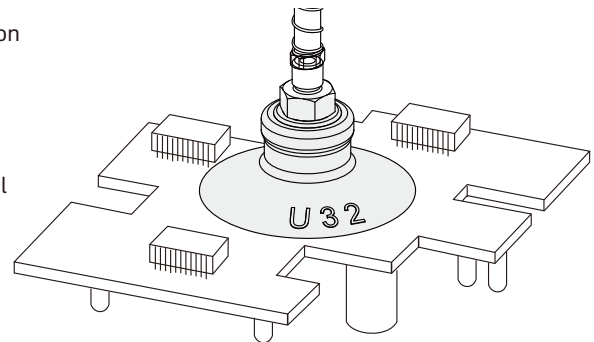


U-Flat type

C-Flat type with ribs

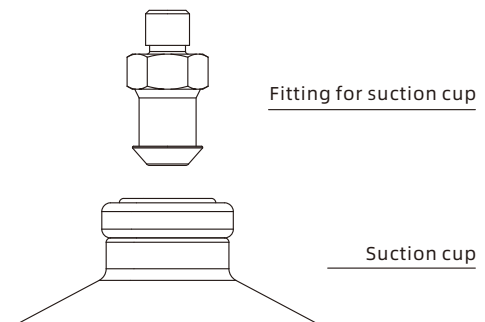
Applications

- ◇ U type suitable for workpieces with even surface and without deformation
- ◇ C type suitable for easily deformed workpieces
- ◇ B type suitable for workpieces with inclined surface
- ◇ D type suitable for spherical objects
- ◇ Suitable for handling of paper box, small sized semiconductor, spherical objects and food, ect.
- ◇ Conductive material suitable for 3C industry



Structure

- ◇ Split structure for easy replacement of wearing parts



SZ Series

Standard Suction Cup

How to order

SZ B 10 N
 ① ② ③ ④

| ① Series | ② Suction cup type | ③ Diameter | | ④ Material & Hardness | |
|----------|--------------------|------------|------------|--------------------------|----|
| SZ | U - Flat | 2 - φ2mm | 16 - φ16mm | N - NBR | 50 |
| | C - Flat with ribs | 4 - φ4mm | 20 - φ20mm | WS - White silicone | 45 |
| | B - 1.5 bellows | 6 - φ6mm | 25 - φ25mm | CN - Conductive NBR | 55 |
| | D - Deep | 8 - φ8mm | 32 - φ32mm | CS - Conductive silicone | 55 |
| | | 10 - φ10mm | 40 - φ40mm | HP - Mark free rubber | 50 |
| | | 13 - φ13mm | 50 - φ50mm | | |

◇ Note: HP material is not for all sizes. Please contact AIRBEST if need

Selection

| Diameter of suction cup | Suction cup type | | | |
|-------------------------|------------------|--------------------|-----------------|----------|
| | U - Flat | C - Flat with ribs | B - 1.5 Bellows | D - Deep |
| φ2 | SZU2□ | - | - | - |
| φ4 | SZU4□ | - | - | - |
| φ6 | SZU6□ | - | SZB6□ | - |
| φ8 | SZU8□ | - | SZB8□ | - |
| φ10 | SZU10□ | SZC10□ | SZB10□ | SZD10□ |
| φ13 | SZU13□ | SZC13□ | SZB13□ | - |
| φ16 | SZU16□ | SZC16□ | SZB16□ | SZD16□ |
| φ20 | SZU20□ | SZC20□ | SZB20□ | - |
| φ25 | SZU25□ | SZC25□ | SZB25□ | SZD25□ |
| φ32 | SZU32□ | SZC32□ | SZB32□ | - |
| φ40 | SZU40□ | SZC40□ | SZB40□ | SZD40□ |
| φ50 | SZU50□ | SZC50□ | SZB50□ | - |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SZ Series

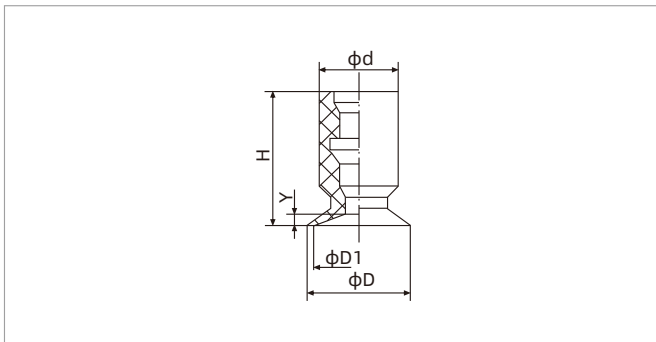
Standard Suction Cup

Technical parameters

| Diameter of suction cup | Pull-out force N | Inner volume(cm ³) | | | | Recommended hose dia. mm | MPQ pcs |
|-------------------------|------------------|--------------------------------|------|-------|-----|--------------------------|---------|
| | | SZU | SZC | SZB | SZD | | |
| φ2 | 0.15 | < 0.1 | - | - | - | 4 | 10 |
| φ4 | 0.6 | < 0.1 | - | - | - | 4 | 10 |
| φ6 | 1.2 | < 0.1 | - | < 0.1 | - | 4 | 10 |
| φ8 | 2.2 | < 0.1 | - | < 0.1 | - | 4 | 10 |
| φ10 | 3.5 | 0.15 | 0.15 | 0.3 | 0.3 | 6 | 10 |
| φ13 | 6 | 0.2 | 0.2 | 0.9 | - | 6 | 10 |
| φ16 | 9.6 | 0.3 | 0.3 | 1.3 | 0.6 | 6 | 10 |
| φ20 | 15 | 0.6 | 0.6 | 2.2 | - | 6 | 5 |
| φ25 | 24 | 0.9 | 0.9 | 3.3 | 1.5 | 6 | 5 |
| φ32 | 38 | 1.6 | 1.6 | 7.2 | - | 6 | 5 |
| φ40 | 60 | 3.5 | 3.5 | 15 | 9 | 6 | 1 |
| φ50 | 92 | 6 | 6 | 25 | - | 6 | 1 |

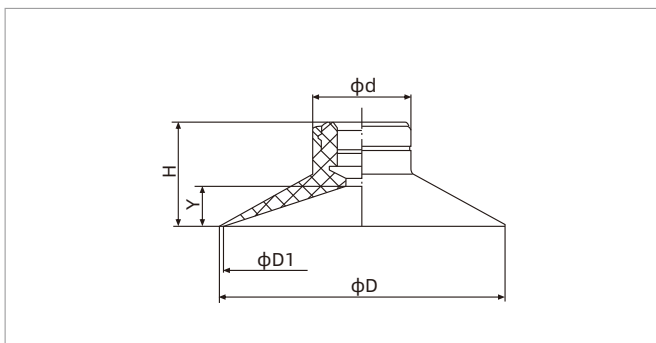
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



SZU2-8

| Model/Size | D | D1 | H | d | Y | Weight g |
|------------|-----|----|----|---|-----|----------|
| SZU2□ | 2.6 | 2 | 12 | 7 | 0.5 | 0.3 |
| SZU4□ | 4.8 | 4 | 12 | 7 | 0.8 | 0.3 |
| SZU6□ | 7 | 6 | 12 | 7 | 0.8 | 0.4 |
| SZU8□ | 9 | 8 | 12 | 7 | 1 | 0.4 |



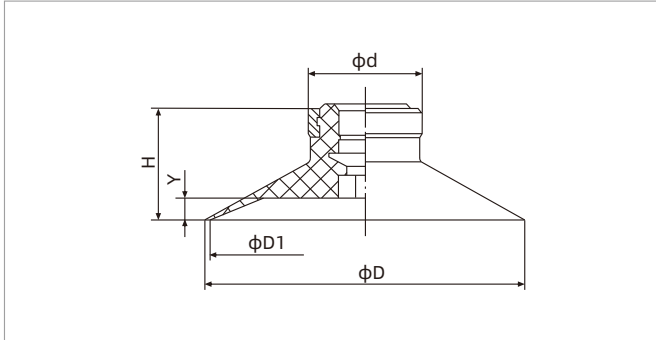
SZU10-50

| Model/Size | D | D1 | H | d | Y | Weight g |
|------------|----|----|------|----|-----|----------|
| SZU10□ | 12 | 10 | 12 | 13 | 3 | 0.8 |
| SZU13□ | 15 | 13 | 12 | 13 | 3 | 0.8 |
| SZU16□ | 18 | 16 | 12.5 | 13 | 3.5 | 0.9 |
| SZU20□ | 23 | 20 | 14 | 15 | 4 | 1.6 |
| SZU25□ | 28 | 25 | 14 | 15 | 4 | 1.8 |
| SZU32□ | 35 | 32 | 14.5 | 15 | 4.5 | 2.3 |
| SZU40□ | 43 | 40 | 18.5 | 18 | 6.5 | 5.5 |
| SZU50□ | 53 | 50 | 19.5 | 18 | 7.5 | 6.9 |

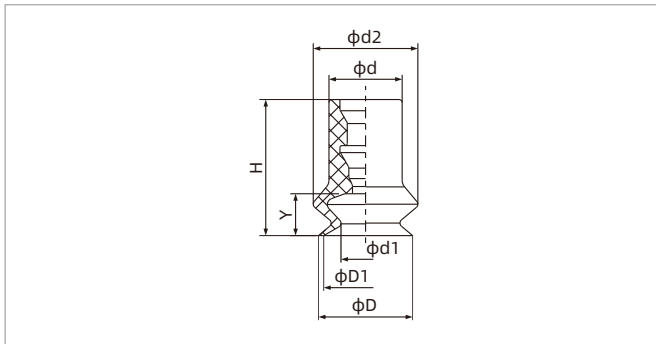
SZ Series

Standard Suction Cup

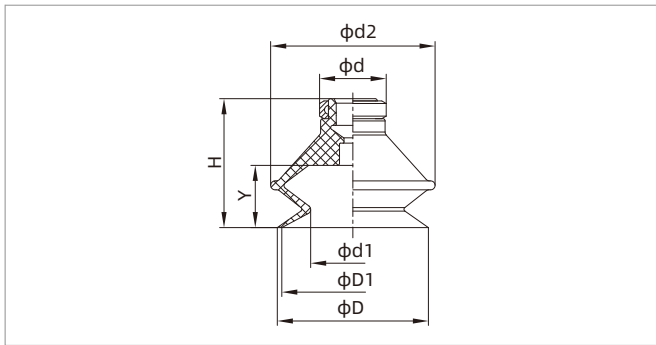
Dimensions(mm)



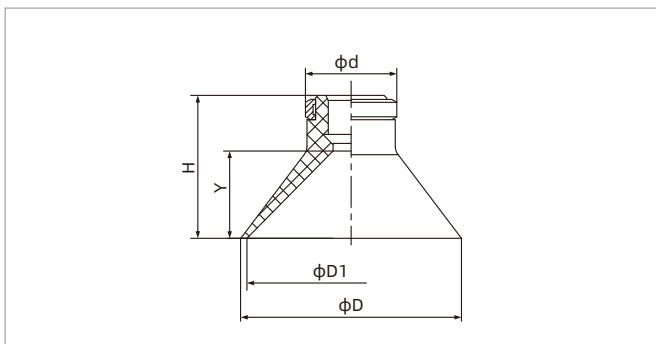
SZC10-50



SZB6-8



SZB10-50



SZD10-40

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | D1 | H | d | Y | Weight g |
|------------|----|----|------|----|-----|----------|
| SZC10□ | 12 | 10 | 12 | 13 | 1.7 | 0.8 |
| SZC13□ | 15 | 13 | 12 | 13 | 1.8 | 1.0 |
| SZC16□ | 18 | 16 | 12.5 | 13 | 1.2 | 0.9 |
| SZC20□ | 23 | 20 | 14 | 15 | 1.7 | 1.6 |
| SZC25□ | 28 | 25 | 14 | 15 | 1.8 | 2.1 |
| SZC32□ | 35 | 32 | 14.5 | 15 | 2.3 | 2.4 |
| SZC40□ | 43 | 40 | 18.5 | 18 | 3.3 | 5.5 |
| SZC50□ | 53 | 50 | 19.5 | 18 | 3.8 | 7.3 |

| Model/Size | D | D1 | H | d | d1 | d2 | Y | Buffer stroke | Weight g |
|------------|---|----|----|---|-----|------|---|---------------|----------|
| SZB6□ | 7 | 6 | 13 | 7 | 3.3 | 9.1 | 4 | 4 | 0.4 |
| SZB8□ | 9 | 8 | 13 | 7 | 4.7 | 10.1 | 4 | 4 | 0.4 |

| Model/Size | D | D1 | H | d | d1 | d2 | Y | Buffer stroke | Weight g |
|------------|----|----|------|----|------|------|------|---------------|----------|
| SZB10□ | 12 | 10 | 16 | 13 | 5.5 | 13.8 | 5.5 | 5 | 1.1 |
| SZB13□ | 15 | 13 | 18.5 | 13 | 8.7 | 19 | 7.5 | 7 | 1.7 |
| SZB16□ | 18 | 16 | 20 | 13 | 9.9 | 21 | 8.5 | 7 | 2.1 |
| SZB20□ | 22 | 20 | 23.5 | 15 | 12.4 | 25 | 10.5 | 8.5 | 2.9 |
| SZB25□ | 27 | 25 | 24 | 15 | 15.6 | 28 | 10.5 | 8.5 | 3.9 |
| SZB32□ | 34 | 32 | 29 | 15 | 18.9 | 37 | 14 | 11 | 6.7 |
| SZB40□ | 43 | 40 | 34 | 18 | 24.4 | 48 | 16 | 13 | 13.3 |
| SZB50□ | 53 | 50 | 38 | 18 | 32.4 | 57 | 19 | 17 | 18.8 |

| Model/Size | D | D1 | H | d | Y | Weight g |
|------------|------|----|----|----|----|----------|
| SZD10□ | 12 | 10 | 15 | 13 | 6 | 1.0 |
| SZD16□ | 18 | 16 | 16 | 13 | 7 | 1.2 |
| SZD25□ | 28 | 25 | 20 | 15 | 10 | 1.8 |
| SZD40□ | 43.5 | 40 | 28 | 18 | 17 | 5.9 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

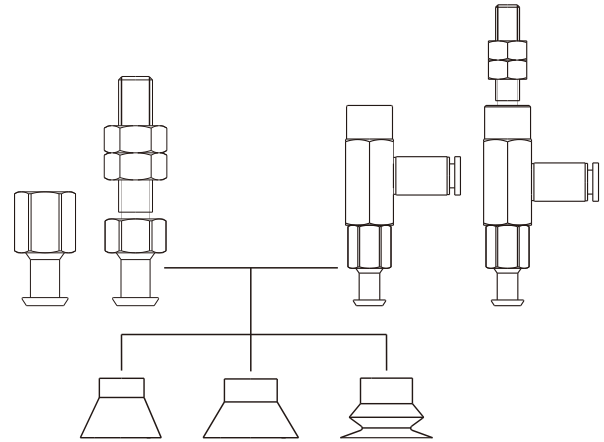
SZ Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of replacement suction cup and locking fitting
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port, male and female thread for mounting
- ◇ Lateral vacuum port, male and female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SZU10N - LA6 - M5M

① ② ③

| ① Model | ② Vacuum port direction | ③ Mounting thread |
|---------|--|-----------------------------|
| SZU10N | Nil - Vertical | M5M - M5×0.8 male thread |
| SZC | LA4 - Lateral, one-touch fitting φ4 hose | M6M - M6×1 male thread |
| SZB | LA6 - Lateral, one-touch fitting φ6 hose | M8M - M8×1 male thread |
| SZD | | M5F - M5×0.8 female thread |
| | | M8F - M8×1.25 female thread |

◇ Please refer to page 155 for suction cup selection

Selection

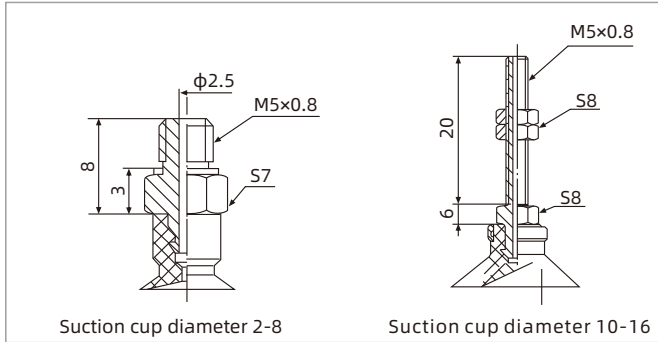
| Diameter of suction cup | Vacuum port direction | | | Mounting thread | | | | |
|-------------------------|-----------------------|-----|-----|-----------------|-----|-----|-----|-----|
| | Nil | LA4 | LA6 | M5M | M6M | M8M | M5F | M8F |
| 2-8 | ● | ● | ● | ● | - | - | ● | - |
| 10-16 | ● | ● | ● | ● | - | - | ● | - |
| 20-32 | ● | ● | ● | - | ● | - | ● | - |
| 40-50 | ● | - | ● | - | - | ● | - | ● |

◇ Note: "●" default, in stock, "-" unavailable

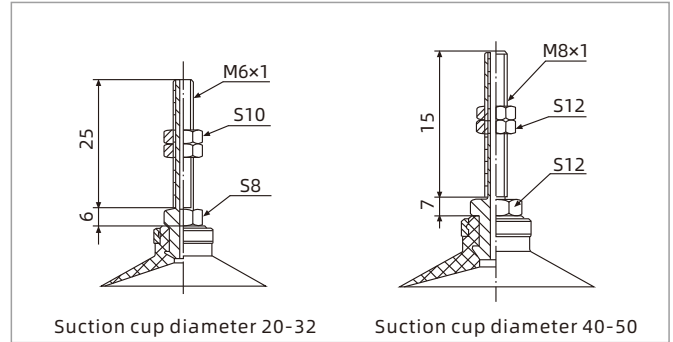
SZ Series

Suction Cup with Locking Fitting

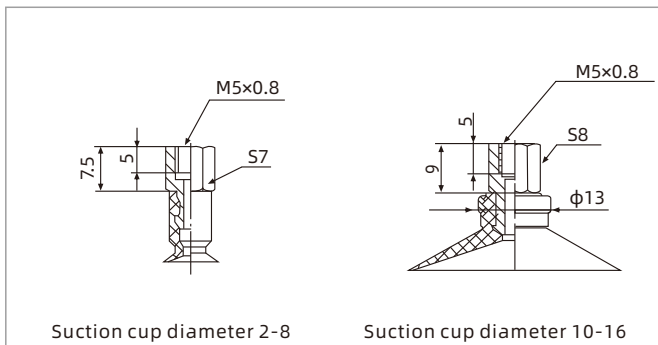
Dimensions(mm)



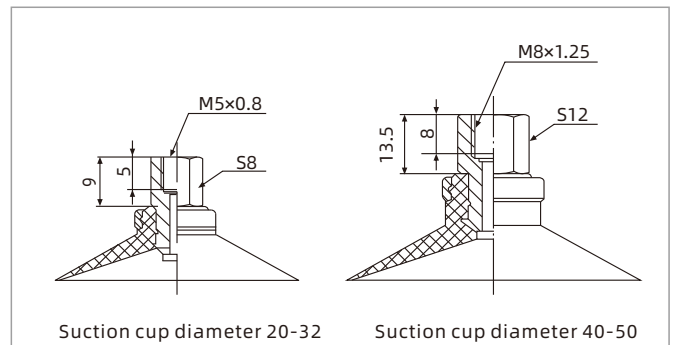
Vertical-Male thread connection



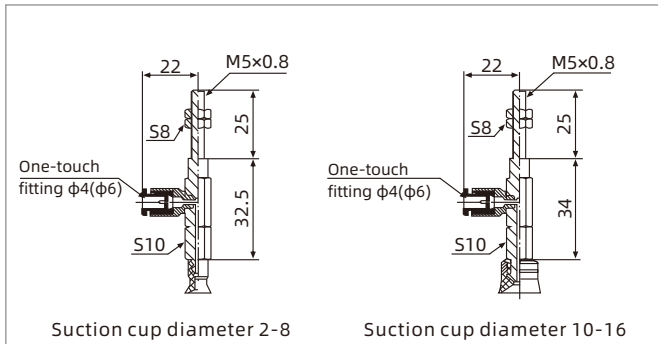
Vertical-Male thread connection



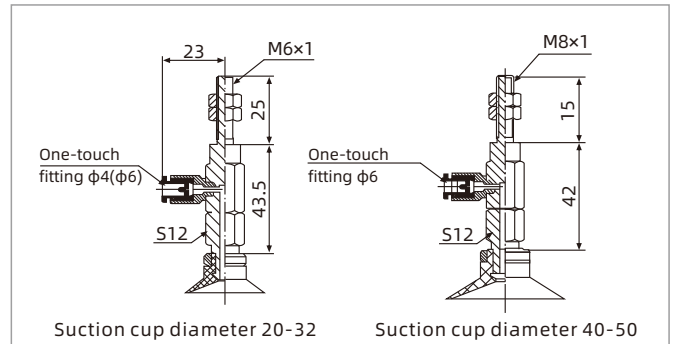
Vertical-Female thread connection



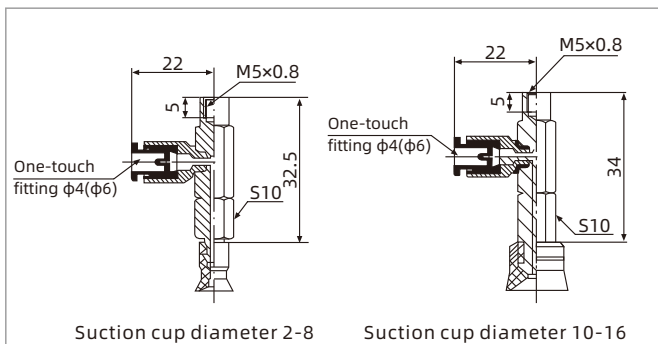
Vertical-Female thread connection



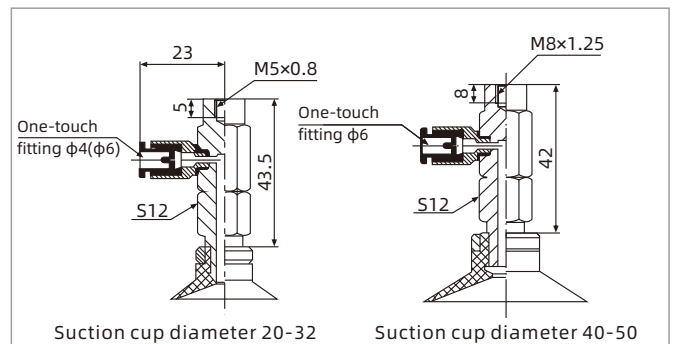
Lateral-Male thread connection



Lateral-Male thread connection



Lateral-Female thread connection



Lateral-Female thread connection

SZ

SP3

SUF

SAN

SAO

SOFA

STP

SFT

SFA

SBT

SBL

SBLP

SBS

SFP

SBP

SXP

SGP

SBOF

STC

SFF

SOB

SOE

SOG

SFM

SOM

SBF

SDM

SFU

SFK

SHT

SDL

SFG

SFGT

SFD

SB

SBA

SF

SU

SP2F

SPA

SPD

SPF

SPC

SPJ

SPU

SH

SHB

SBB

SOP

SNP

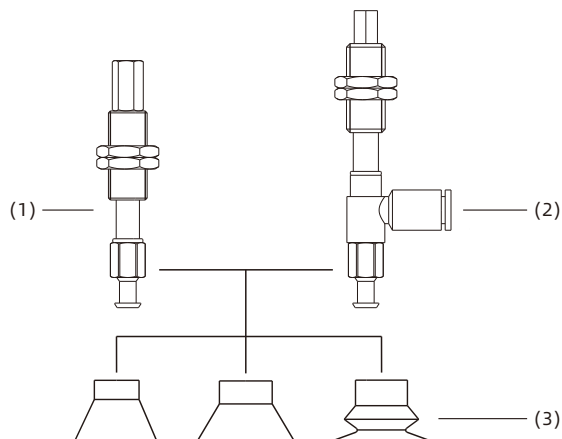
SZ Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SZU10N - E I 10 R A6 - M10

① ② ③ ④ ⑤ ⑥ ⑦

| ① Model | ② Level compensator type | ③ Buffer type | ④ Buffer stroke | ⑤ Rotary type | ⑥ Vacuum port connection | ⑦ Mounting thread |
|---------------|--------------------------|---------------------|-----------------|---------------------------|--|-------------------|
| SZU10N | E - PSPE Series | I - Internal spring | 6 20 | Nil - Vertical rotating | Nil - M5x0.8 female thread | M8 - M8x1 |
| SZC | | | 10 30 | R - Vertical non-rotating | A4 - one-touch fitting φ4 hose | M10 - M10x1 |
| SZB | | | 15 40 | L - Lateral rotating | A6 - one-touch fitting φ6 hose | M14 - M14x1 |
| SZD | | | 25 50 | B - Lateral non-rotating | B4 - Pagoda fitting φ4 hose B6 - Pagoda fitting φ6 hose | |

◇ Please refer to page 155 for suction cup selection

Selection

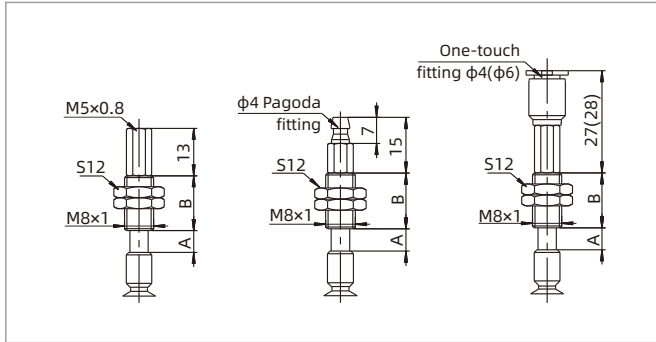
| Diameter of suction cup | Buffer stroke | Rotary type | | | | Vacuum port connection | | | | | Mounting thread |
|-------------------------|--------------------|-------------|---|---|---|------------------------|----|----|----|----|-----------------|
| | | Nil | R | L | B | Nil | A4 | A6 | B4 | B6 | |
| 2-8 | 6, 10, 15, 25 | ● | ● | ● | ● | ● | ● | ● | ● | - | M8 |
| 10-32 | 10, 20, 30, 40, 50 | ● | ● | ● | ● | ● | ● | ● | - | ● | M10 |
| 40-50 | 10, 20, 30, 50 | ● | - | - | - | ● | - | - | - | - | M14 |

◇ Note: "●" default, in stock, "-" unavailable

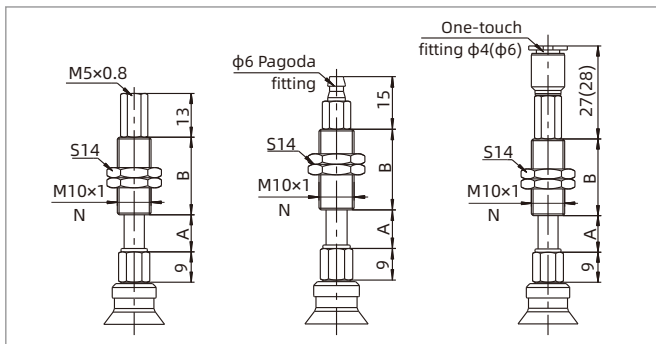
SZ Series

Suction Cup with Level Compensator

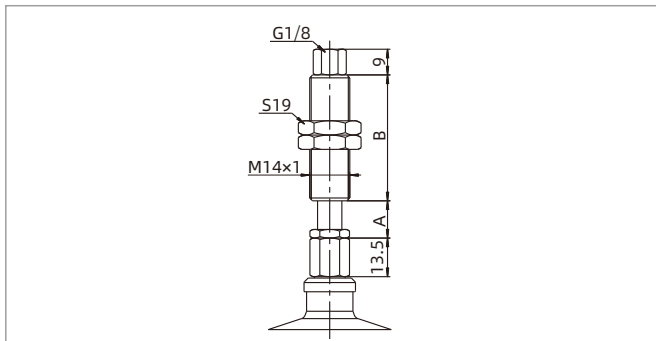
Dimensions(mm)



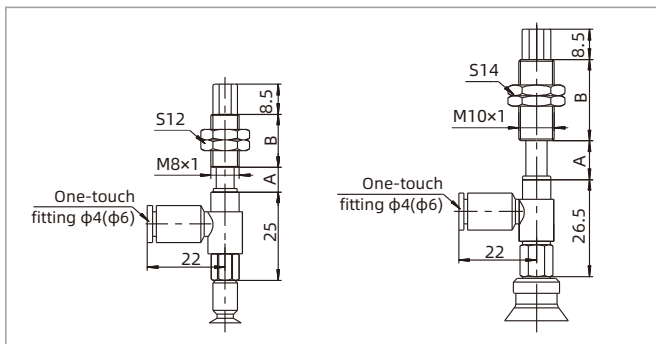
Vertical direction Suction cup diameter 2-8



Vertical direction Suction cup diameter 10-32



Vertical direction Suction cup diameter 40-50



Lateral direction Suction cup diameter 2-8 Suction cup diameter 10-32

| Suction cup dia./ Size | A | B | Buffer stroke | F1 (N) | F2 (N) |
|------------------------|----|----|---------------|--------|--------|
| 2-8 | 6 | 15 | 6 | 0.8 | 1.2 |
| | 11 | 43 | 10 | 0.8 | 1.2 |
| | 16 | 43 | 15 | 0.8 | 1.2 |
| | 26 | 43 | 25 | 0.8 | 1.2 |

| Suction cup dia./ Size | A | B | Buffer stroke | F1 (N) | F2 (N) |
|------------------------|------|----|---------------|--------|--------|
| 10-32 | 11.5 | 23 | 10 | 1.0 | 3.0 |
| | 21.5 | 51 | 20 | 1.0 | 3.0 |
| | 31.5 | 51 | 30 | 1.0 | 3.0 |
| | 41.5 | 77 | 40 | 1.0 | 3.0 |
| | 51.5 | 77 | 50 | 1.0 | 3.0 |

◇ Note: No thread at N, non-rotating N=4, rotating N=3

| Suction cup dia./ Size | A | B | Buffer stroke | F1 (N) | F2 (N) |
|------------------------|----|----|---------------|--------|--------|
| 40-50 | 13 | 44 | 10 | 2.0 | 5.5 |
| | 23 | 44 | 20 | 2.0 | 5.5 |
| | 33 | 44 | 30 | 2.0 | 5.5 |
| | 53 | 75 | 50 | 2.0 | 5.5 |

| Suction cup dia./ Size | A | B | Buffer stroke | F1 (N) | F2 (N) |
|------------------------|----|----|---------------|--------|--------|
| 2-8 | 8 | 15 | 6 | 0.8 | 1.2 |
| | 11 | 43 | 10 | 0.8 | 1.2 |
| | 16 | 43 | 15 | 0.8 | 1.2 |
| | 26 | 43 | 25 | 0.8 | 1.2 |
| 10-32 | 11 | 23 | 10 | 1.0 | 3.0 |
| | 21 | 51 | 20 | 1.0 | 3.0 |
| | 31 | 51 | 30 | 1.0 | 3.0 |
| | 41 | 77 | 40 | 1.0 | 3.0 |
| | 51 | 77 | 50 | 1.0 | 3.0 |

◇ Note: "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

SZ

SP3

SUF

SAN

SAO

SOFA

STP

SFT

SFA

SBT

SBL

SBLP

SBS

SFP

SBP

SXP

SGP

SBOF

STC

SFF

SOB

SOE

SOG

SFM

SOM

SBF

SDM

SFU

SFK

SHT

SDL

SFG

SFGT

SFD

SB

SBA

SF

SU

SP2F

SPA

SPD

SPF

SPC

SPJ

SPU

SH

SHB

SBB

SOP

SNP

SP3 Series

Suction Cup



ELECTRONICS



Features

- ◇ Suction cups of same diameter among U/C/B types use same fitting
- ◇ Small size, short height
- ◇ Available in conductive material

Advantages

- ◇ Used in various occasions, suction cups are interchangeable
- ◇ Suitable for occasions with limited space
- ◇ Discharge static electricity gently to protect workpieces from damage



U-Flat



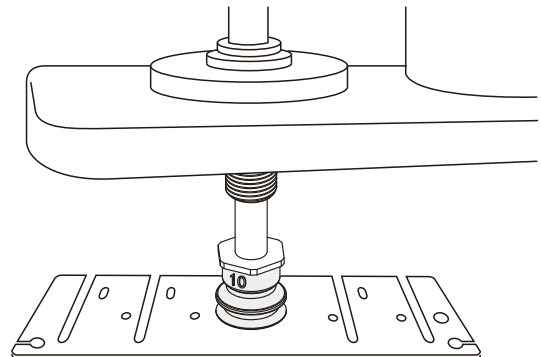
C-Flat with ribs



B-1.5 bellows

Applications

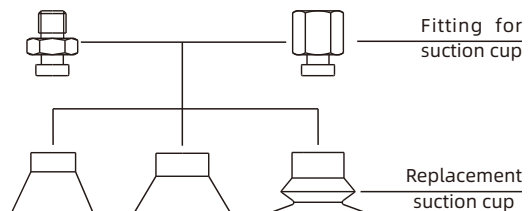
- ◇ U type suitable for workpieces with even surface and without deformation
- ◇ C type suitable for easily deformed workpieces
- ◇ B type suitable for workpieces with inclined surface
- ◇ Suitable for handling of workpieces with small size and light weight
- ◇ Conductive material suitable for 3C industry



Structure

- ◇ Split structure for easy replacement of wearing parts

In the same series, replacement suction cup and locking fitting can be combined as required



SP3 Series

Suction Cup

How to order

SP3 B 10 N - M5M
 ① ② ③ ④ ⑤

| ① Series | ② Suction cup type | ③ Diameter | ④ Material & Hardness | ⑤ Connection thread | |
|----------|--------------------|--------------------|--|---|----------------------------|
| SP3 | U - Flat | 1.5 - ϕ 1.5mm | 2 - ϕ 2mm | N - NBR 55 | Nil - Suction cup only |
| | C - Flat with ribs | 3.5 - ϕ 3.5mm | 4 - ϕ 4mm | WS - White silicone 50 | M3F - M3×0.5 female thread |
| | B - 1.5 Bellows | 10 - ϕ 10mm | 6 - ϕ 6mm | CN - Conductive NBR 55 | M5F - M5×0.8 female thread |
| | | 13 - ϕ 13mm | 8 - ϕ 8mm | CS - Conductive silicone 55 | M3M - M3×0.5 male thread |
| | | 16 - ϕ 16mm | HP - Mark free rubber 55 | M5M - M5×0.8 male thread | |

◇ Note: HP material is not for all sizes. Please contact AIRBEST if need

Selection

| Diameter of suction cup | Suction cup type | | | Connection thread | | | | MPQ pcs |
|-------------------------|------------------|---|---|-------------------|-----|-----|-----|---------|
| | U | C | B | M3F | M3M | M5F | M5M | |
| ϕ 1.5 | ● | - | - | ● | ● | - | - | 10 |
| ϕ 2 | ● | - | - | ● | ● | - | - | 10 |
| ϕ 3.5 | ● | - | - | ● | ● | - | - | 10 |
| ϕ 4 | - | ● | ● | - | - | ● | ● | 10 |
| ϕ 6 | - | ● | ● | - | - | ● | ● | 10 |
| ϕ 8 | - | ● | ● | - | - | ● | ● | 10 |
| ϕ 10 | - | ● | ● | - | - | ● | ● | 10 |
| ϕ 13 | - | ● | ● | - | - | ● | ● | 10 |
| ϕ 16 | - | ● | ● | - | - | ● | ● | 10 |

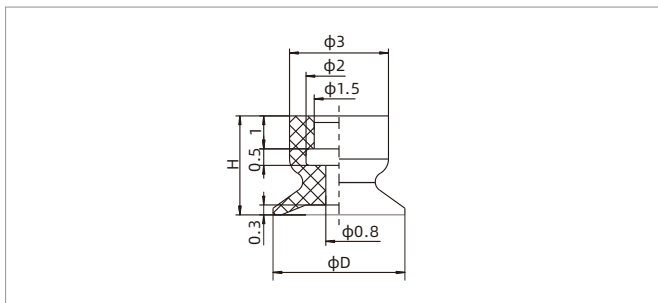
◇ Note: "●" default, in stock, "-" unavailable

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SP3 Series

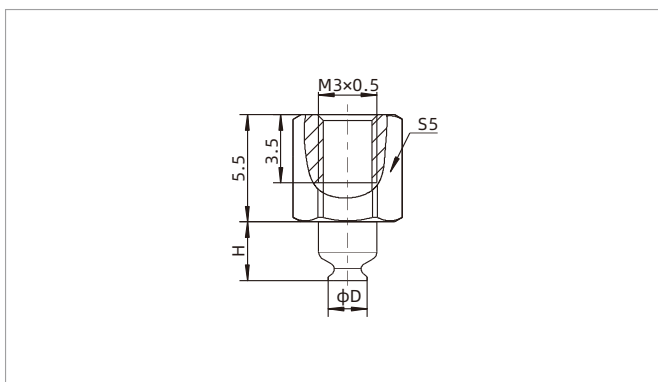
Suction Cup

Dimensions(mm) - U type



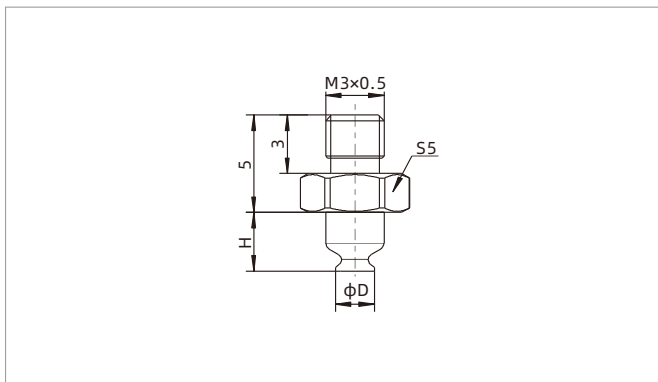
SP3U1.5-3.5

| Model/Size | D | H | Weight g |
|------------|-----|-----|----------|
| SP3U1.5□ | 2.0 | 3.0 | 0.1 |
| SP3U2□ | 2.5 | 3.0 | 0.1 |
| SP3U3.5□ | 4.0 | 3.0 | 0.1 |



SP3U1.5-3.5 F - Female thread connection

| Model/Size | D | H | Weight g |
|--------------|-----|-----|----------|
| SP3U1.5□-M3F | 2.0 | 3.0 | 0.9 |
| SP3U2□-M3F | 2.5 | 3.0 | 0.9 |
| SP3U3.5□-M3F | 4.0 | 3.0 | 0.9 |



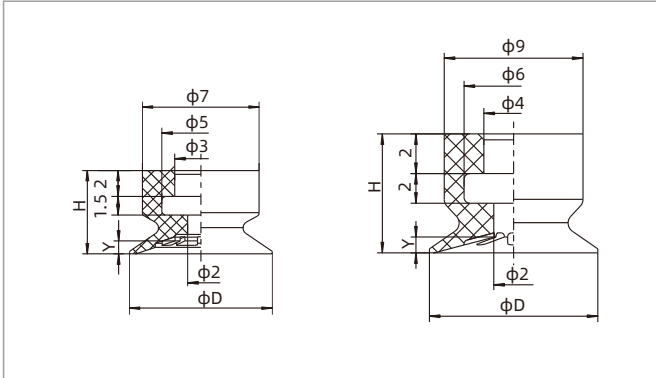
SP3U1.5-3.5 M - Male thread connection

| Model/Size | D | H | Weight g |
|--------------|-----|-----|----------|
| SP3U1.5□-M3M | 2.0 | 3.0 | 0.6 |
| SP3U2□-M3M | 2.5 | 3.0 | 0.6 |
| SP3U3.5□-M3M | 4.0 | 3.0 | 0.6 |

SP3 Series

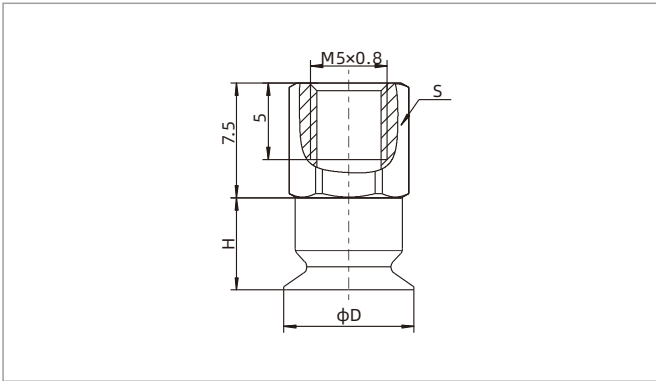
Suction Cup

Dimensions(mm) - C type

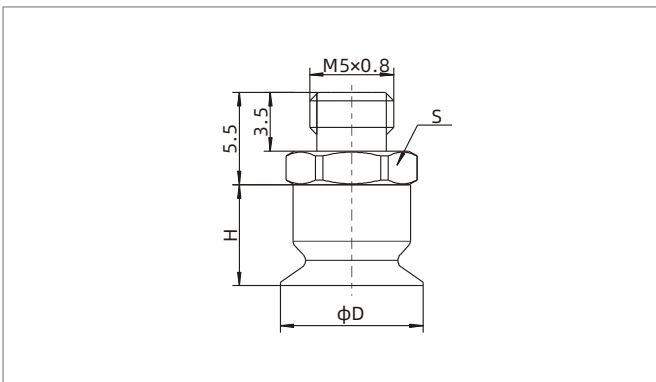


SP3C4-8

SP3C10-16



SP3C4-16 F - Female thread connection



SP3C4-16 M - Male thread connection

| Model/Size | D | H | Y | Weight g |
|------------|------|-----|-----|----------|
| SP3C4□ | 4.5 | 6.0 | 0.5 | 0.3 |
| SP3C6□ | 6.5 | 6.0 | 0.8 | 0.3 |
| SP3C8□ | 8.5 | 6.0 | 0.8 | 0.3 |
| SP3C10□ | 11.0 | 7.0 | 1.0 | 0.6 |
| SP3C13□ | 14.0 | 7.0 | 1.2 | 0.7 |
| SP3C16□ | 17.0 | 7.0 | 1.2 | 0.8 |

| Model/Size | D | H | S | Weight g |
|-------------|------|-----|------|----------|
| SP3C4□-M5F | 4.5 | 6.0 | 7.0 | 2.3 |
| SP3C6□-M5F | 6.5 | 6.0 | 7.0 | 2.3 |
| SP3C8□-M5F | 8.5 | 6.0 | 7.0 | 2.3 |
| SP3C10□-M5F | 11.0 | 7.0 | 10.0 | 5.7 |
| SP3C13□-M5F | 14.0 | 7.0 | 10.0 | 5.8 |
| SP3C16□-M5F | 17.0 | 7.0 | 10.0 | 5.9 |

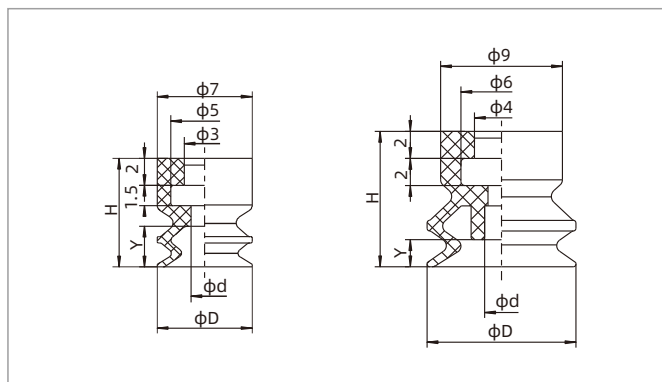
| Model/Size | D | H | S | Weight g |
|-------------|------|-----|------|----------|
| SP3C4□-M5M | 4.5 | 6.0 | 7.0 | 1.7 |
| SP3C6□-M5M | 6.5 | 6.0 | 7.0 | 1.7 |
| SP3C8□-M5M | 8.5 | 6.0 | 7.0 | 1.7 |
| SP3C10□-M5M | 11.0 | 7.0 | 10.0 | 3.0 |
| SP3C13□-M5M | 14.0 | 7.0 | 10.0 | 3.1 |
| SP3C16□-M5M | 17.0 | 7.0 | 10.0 | 3.2 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
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- SF
- SU
- SP2F
- SPA
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- SBB
- SOP
- SNP

SP3 Series

Suction Cup

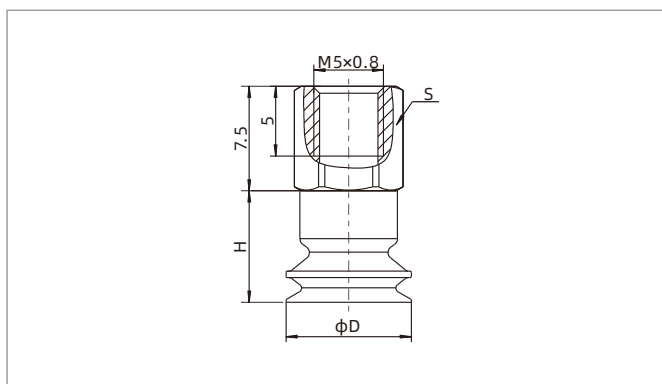
Dimensions(mm) - B type



SP3B4-8

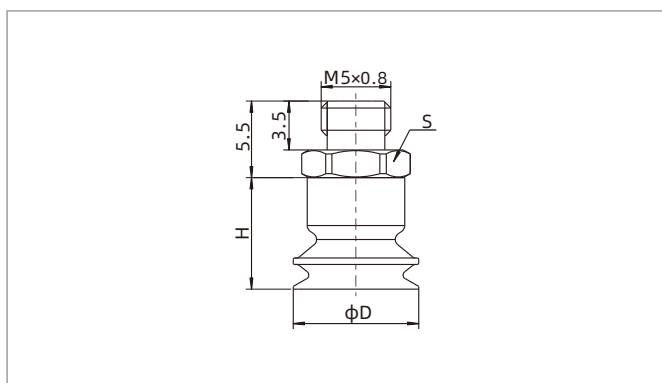
SP3B10-16

| Model/Size | D | H | d | Y | Weight g |
|------------|------|------|-----|-----|----------|
| SP3B4□ | 4.5 | 8.0 | 1.8 | 2.2 | 0.3 |
| SP3B6□ | 7.0 | 8.0 | 2.0 | 3.0 | 0.3 |
| SP3B8□ | 9.0 | 8.0 | 2.0 | 3.0 | 0.4 |
| SP3B10□ | 11.0 | 10.0 | 2.0 | 2.0 | 0.8 |
| SP3B13□ | 14.0 | 10.0 | 3.0 | 2.0 | 1.0 |
| SP3B16□ | 17.0 | 10.0 | 3.0 | 2.0 | 1.1 |



SP3B4-16 F - Female thread connection

| Model/Size | D | H | S | Weight g |
|-------------|------|------|------|----------|
| SP3B4□-M5F | 4.5 | 8.0 | 7.0 | 2.3 |
| SP3B6□-M5F | 7.0 | 8.0 | 7.0 | 2.3 |
| SP3B8□-M5F | 9.0 | 8.0 | 7.0 | 2.4 |
| SP3B10□-M5F | 11.0 | 10.0 | 10.0 | 5.9 |
| SP3B13□-M5F | 14.0 | 10.0 | 10.0 | 6.1 |
| SP3B16□-M5F | 17.0 | 10.0 | 10.0 | 6.2 |



SP3B4-16 M - Male thread connection

◇ Note: The dimensional tolerance conforms to the GB/T 3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | H | S | Weight g |
|-------------|------|------|------|----------|
| SP3B4□-M5M | 4.5 | 8.0 | 7.0 | 1.7 |
| SP3B6□-M5M | 7.0 | 8.0 | 7.0 | 1.7 |
| SP3B8□-M5M | 9.0 | 8.0 | 7.0 | 1.8 |
| SP3B10□-M5M | 11.0 | 10.0 | 10.0 | 3.2 |
| SP3B13□-M5M | 14.0 | 10.0 | 10.0 | 3.4 |
| SP3B16□-M5M | 17.0 | 10.0 | 10.0 | 3.5 |

Mounting parts

| Item | Model | Applicable suction cup |
|-------------------------|---------------|--------------------------------|
| | Female thread | |
| Fitting for suction cup | PJS-M3F-ST0.5 | SP3U1.5, 2, 3.5 |
| | PJS-M5F-ST1.5 | SP3C4, 6, 8; SP3B4, 6, 8 |
| | PJS-M5F-ST2 | SP3C10, 13, 16; SP3B10, 13, 16 |

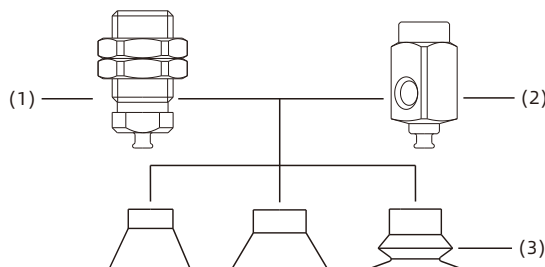
SP3 Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of replacement suction cup(3) and locking fitting(1 or 2)
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SP3B10N - L M5F - M5F
 ① ② ③ ④

| ① Model | ② Vacuum port direction | ③ Vacuum port connection | ④ Mounting thread |
|---------|-------------------------|----------------------------|---|
| SP3B10N | Nil - Vertical | M3F - M3×0.5 female thread | M3F - M3×0.5 female thread |
| | L - Lateral | M5F - M5×0.8 female thread | M5F - M5×0.8 female thread M6M - M6×0.75 male thread M10M - M10×1 male thread M12M - M12×1 male thread |

◇ Please refer to page 163 for suction cup selection

Selection

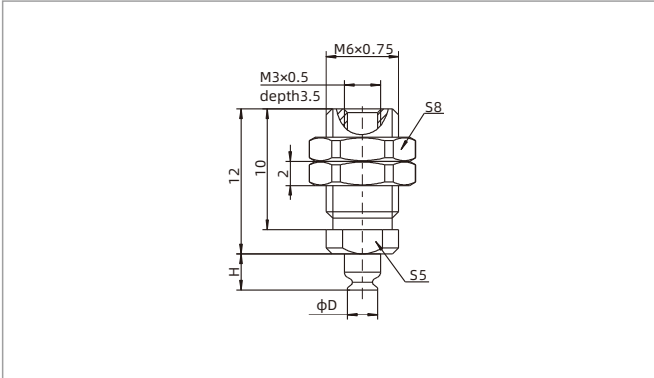
| Model | Nil-Vertical Vacuum port connection | Mounting thread | L- Lateral Vacuum port connection | Mounting thread |
|-------------|-------------------------------------|-----------------|-----------------------------------|-----------------|
| SP3U1.5-3.5 | M3F | M6M | M3F | M3F |
| SP3C4-8 | M5F | M10M | M5F | M5F |
| SP3C10-16 | M5F | M12M | M5F | M5F |
| SP3B4-8 | M5F | M10M | M5F | M5F |
| SP3B10-16 | M5F | M12M | M5F | M5F |

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SP3 Series

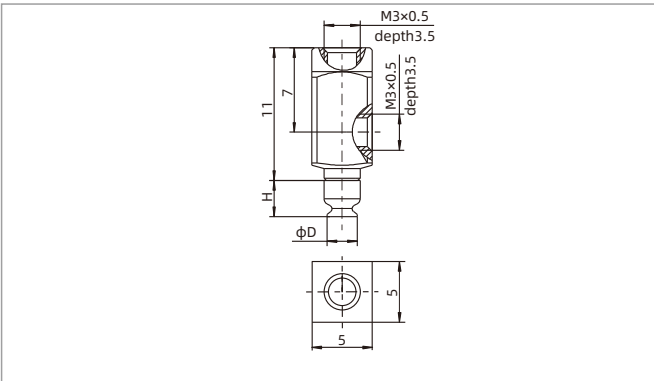
Suction Cup with Locking Fitting

Dimensions(mm) - U type



SP3U1.5-3.5 Vertical-Male thread connection

| Model/Size | D | H | Weight g |
|------------------|-----|-----|----------|
| SP3U1.5□-M3F-M6M | 2.0 | 3.0 | 2.8 |
| SP3U2□-M3F-M6M | 2.5 | 3.0 | 2.8 |
| SP3U3.5□-M3F-M6M | 4.0 | 3.0 | 2.8 |



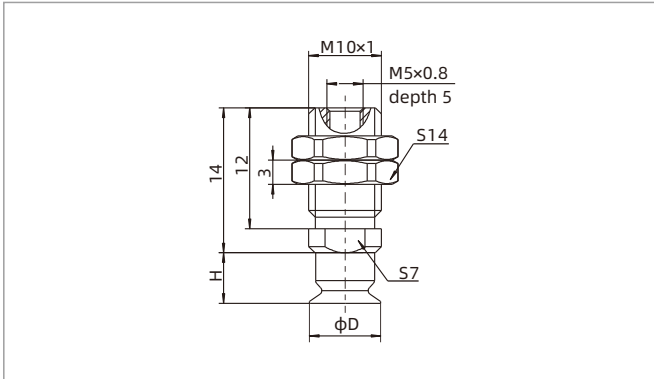
SP3U1.5-3.5 Lateral-Female thread connection

| Model/Size | D | H | Weight g |
|-------------------|-----|-----|----------|
| SP3U1.5□-LM3F-M3F | 2.0 | 3.0 | 1.9 |
| SP3U2□-LM3F-M3F | 2.5 | 3.0 | 1.9 |
| SP3U3.5□-LM3F-M3F | 4.0 | 3.0 | 1.9 |

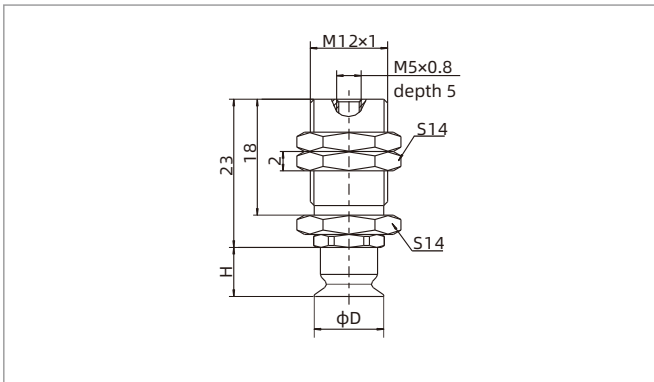
SP3 Series

Suction Cup with Locking Fitting

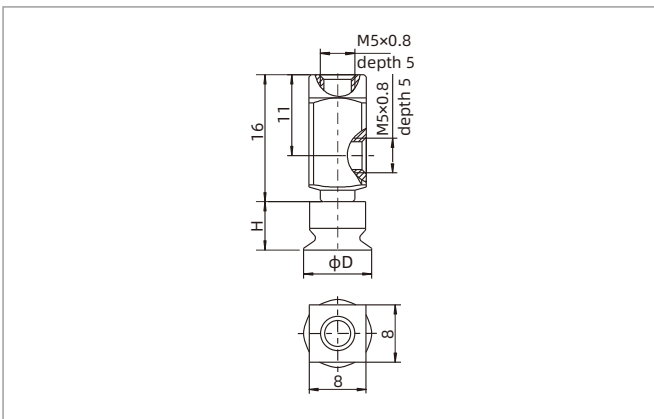
Dimensions(mm) - C type



SP3C4-8 Vertical-Male thread connection



SP3C10-16 Vertical-Male thread connection



SP3C4-16 Lateral-Female thread connection

| Model/Size | D | H | Weight g |
|-----------------|-----|-----|----------|
| SP3C4□-M5F-M10M | 4.5 | 6.0 | 11.0 |
| SP3C6□-M5F-M10M | 6.5 | 6.0 | 11.0 |
| SP3C8□-M5F-M10M | 8.5 | 6.0 | 11.0 |

| Model/Size | D | H | Weight g |
|------------------|------|-----|----------|
| SP3C10□-M5F-M12M | 11.0 | 7.0 | 18.8 |
| SP3C13□-M5F-M12M | 14.0 | 7.0 | 18.9 |
| SP3C16□-M5F-M12M | 17.0 | 7.0 | 19.0 |

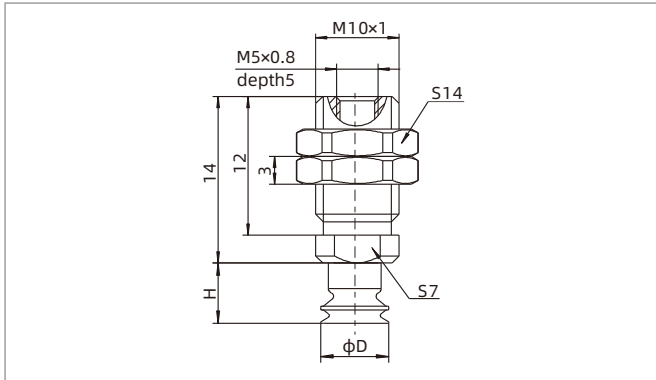
| Model/Size | D | H | Weight g |
|------------------|------|-----|----------|
| SP3C4□-LM5F-M5F | 4.5 | 6.0 | 7.0 |
| SP3C6□-LM5F-M5F | 6.5 | 6.0 | 7.0 |
| SP3C8□-LM5F-M5F | 8.5 | 6.0 | 7.0 |
| SP3C10□-LM5F-M5F | 11.0 | 7.0 | 7.7 |
| SP3C13□-LM5F-M5F | 14.0 | 7.0 | 7.8 |
| SP3C16□-LM5F-M5F | 17.0 | 7.0 | 7.9 |

- SZ
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- SFG
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- SB
- SBA
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- SP2F
- SPA
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- SBB
- SOP
- SNP

SP3 Series

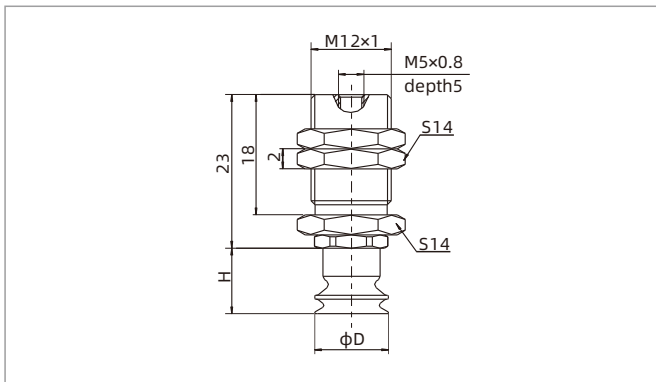
Suction Cup with Locking Fitting

Dimensions(mm) -B type



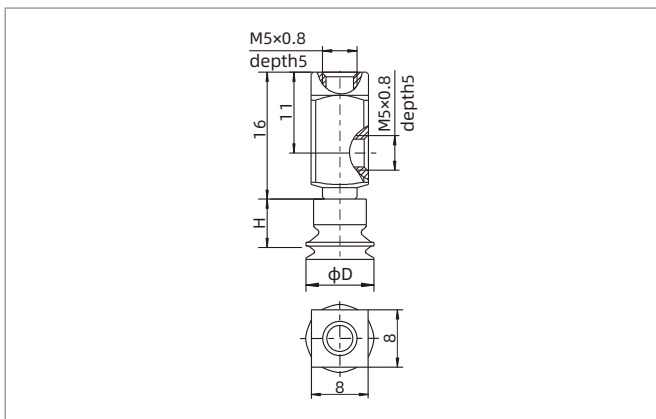
SP3B□□-M5F-M10M

| Model/Size | D | H | Weight g |
|-----------------|-----|-----|----------|
| SP3B4□-M5F-M10M | 4.5 | 8.0 | 11.0 |
| SP3B6□-M5F-M10M | 7.0 | 8.0 | 11.0 |
| SP3B8□-M5F-M10M | 9.0 | 8.0 | 11.1 |



SP3B□□-M5F-M12M

| Model/Size | D | H | Weight g |
|------------------|------|------|----------|
| SP3B10□-M5F-M12M | 11.0 | 10.0 | 19.0 |
| SP3B13□-M5F-M12M | 14.0 | 10.0 | 19.2 |
| SP3B16□-M5F-M12M | 17.0 | 10.0 | 19.3 |



SP3B□□-LM5F-M5F

| Model/Size | D | H | Weight g |
|------------------|------|------|----------|
| SP3B4□-LM5F-M5F | 4.5 | 8.0 | 7.0 |
| SP3B6□-LM5F-M5F | 7.0 | 8.0 | 7.0 |
| SP3B8□-LM5F-M5F | 9.0 | 8.0 | 7.1 |
| SP3B10□-LM5F-M5F | 11.0 | 10.0 | 7.9 |
| SP3B13□-LM5F-M5F | 14.0 | 10.0 | 8.1 |
| SP3B16□-LM5F-M5F | 17.0 | 10.0 | 8.2 |

Mounting parts

| Item | Model | | Applicable suction cup |
|-----------------|--------------------|--------------------|--------------------------------|
| | Vertical direction | Lateral direction | |
| Locking fitting | PJF-M3F-M6M-ST0.5 | PJF-LM3F-M3F-ST0.5 | SP3U1.5, 2, 3.5 |
| | PJF-M5F-M10M-ST1.5 | PJF-LM5F-M5F-ST1.5 | SP3C4, 6, 8; SP3B4, 6, 8 |
| | PJF-M5F-M12M-ST2 | PJF-LM5F-M5F-ST2 | SP3C10, 13, 16; SP3B10, 13, 16 |

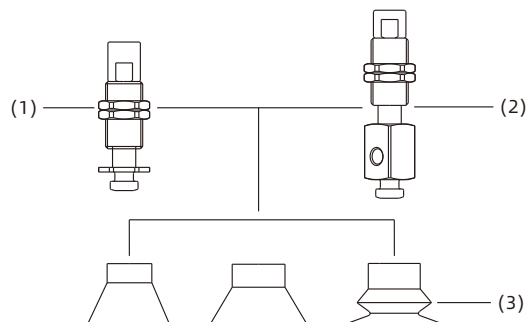
SP3 Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator(1 or 2)
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and level compensator can be combined as required



How to order

SP3B10N - I 10 R - M8
 ① ② ③ ④ ⑤

| ① Model | ② Vacuum port direction | ③ Buffer stroke | ④ Rotary type | ⑤ Mounting thread |
|---------|-------------------------|-----------------|------------------|-------------------|
| SP3B10N | I - Vertical | 3 15 | Nil - Rotating | M6 - M6×0.75 |
| | L - Lateral | 6 20 | R - Non-rotating | M8 - M8×0.75 |
| | | 10 | | |

◇ Please refer to page 163 for suction cup selection

Selection

| Model | Vacuum port direction | | Rotary type | | Buffer stroke | Mounting thread |
|-------------|-----------------------|-----------|--------------|----------------|---------------|-----------------|
| | I-Vertical | L-Lateral | Nil-Rotating | R-Non-rotating | | |
| SP3U1.5-3.5 | ● | ● | ● | - | 3 6 | M6 |
| SP3U1.5-3.5 | ● | ● | - | ● | 3 6 | M8 |
| SP3C4-16 | ● | ● | ● | ● | 3 6 10 15 20 | M8 |
| SP3B4-16 | ● | ● | ● | ● | 3 6 10 15 20 | M8 |

◇ Note: "●" default, in stock, "-" unavailable

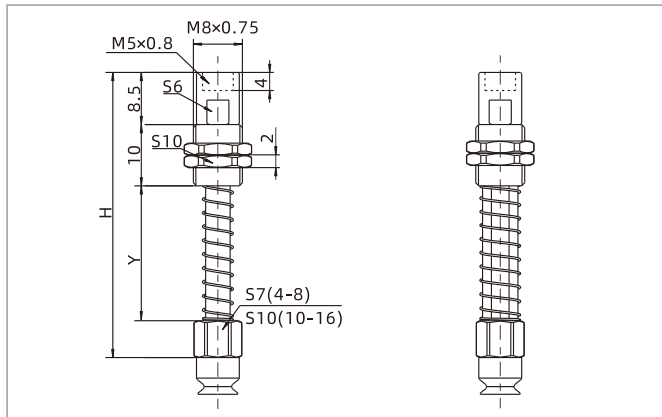
- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
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- SFK
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- SFGT
- SFD
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- SBA
- SF
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- SP2F
- SPA
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- SOP
- SNP

SP3 Series

Suction Cup with Level Compensator

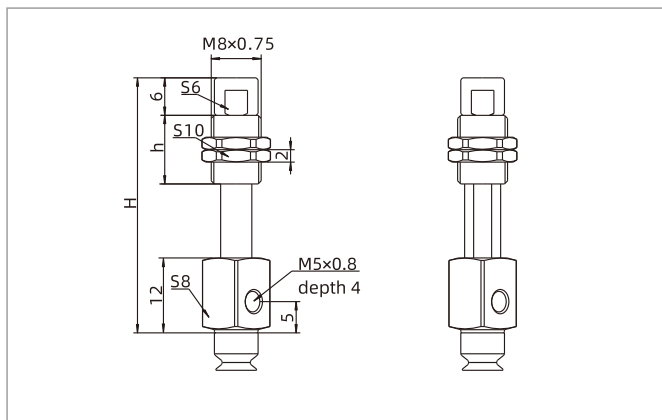


Dimensions(mm) -C type



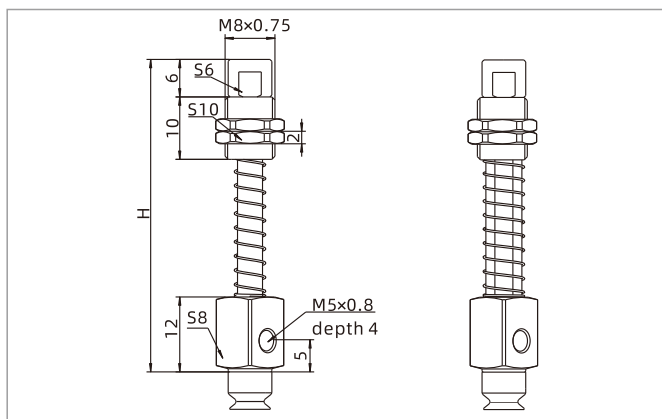
SP3C4-16 Vertical rotating

SP3C4-16 Vertical non-rotating



SP3C4-16 Lateral rotating

SP3C4-16 Lateral non-rotating



SP3C4-16 Lateral rotating

SP3C4-16 Lateral non-rotating

| Model/Size | H | Y | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|------|---------------|------|------|------|----------|
| SP3C□-I15-M8 | 49.0 | 24.5 | 15 | 0.6 | 1.3 | 1.9 | 10.3 |
| SP3C□-I15R-M8 | 49.0 | 24.5 | 15 | 0.6 | 1.3 | 1.8 | 12.3 |
| SP3C□-I20-M8 | 56.5 | 32.0 | 20 | 0.7 | 1.2 | 1.8 | 10.9 |
| SP3C□-I20R-M8 | 56.5 | 32.0 | 20 | 0.8 | 1.3 | 1.8 | 13.4 |

| Model/Size | H | h | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|------|---------------|------|------|------|----------|
| SP3C□-L3-M8 | 33.0 | 11.0 | 3 | 0.8 | 1.0 | 1.2 | 12.8 |
| SP3C□-L3R-M8 | 33.0 | 11.0 | 3 | 0.8 | 1.0 | 1.2 | 12.2 |
| SP3C□-L6-M8 | 39.5 | 14.5 | 6 | 0.7 | 1.0 | 1.2 | 14.2 |
| SP3C□-L6R-M8 | 39.5 | 14.5 | 6 | 0.7 | 1.0 | 1.2 | 13.4 |
| SP3C□-L10-M8 | 49.5 | 20.5 | 10 | 0.6 | 1.2 | 1.9 | 16.6 |
| SP3C□-L10R-M8 | 49.5 | 20.5 | 10 | 0.6 | 1.2 | 1.9 | 15.4 |

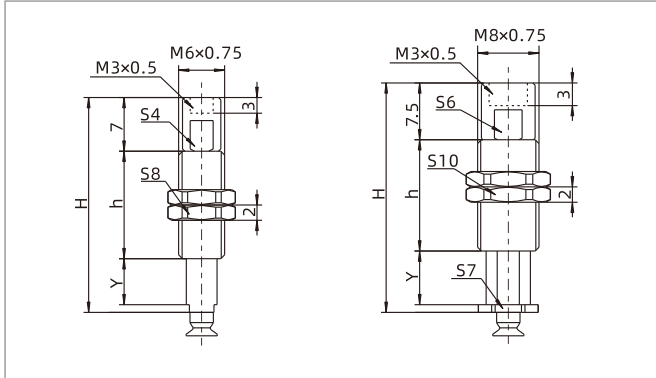
| Model/Size | H | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|---------------|------|------|------|----------|
| SP3C□-L15-M8 | 52.5 | 15 | 0.6 | 1.3 | 1.9 | 16.3 |
| SP3C□-L15R-M8 | 52.5 | 15 | 0.6 | 1.3 | 1.8 | 15.5 |
| SP3C□-L20-M8 | 60.0 | 20 | 0.7 | 1.2 | 1.8 | 15.1 |
| SP3C□-L20R-M8 | 60.0 | 20 | 0.8 | 1.3 | 1.8 | 16.6 |

- ◇ Note: 1. Please refer to page 163 for suction cup selection
 2. F1, F2, and F3 represent the elastic force of the buffer support rod at 0 stroke, 50% stroke, and 100% stroke

SP3 Series

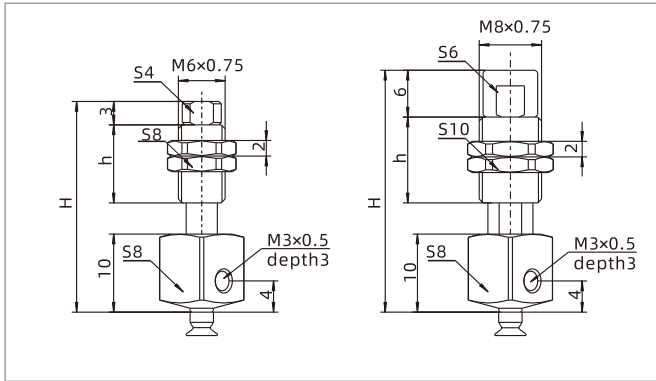
Suction Cup with Level Compensator

Dimensions(mm) -U type



SP3U1.5-3.5 Vertical rotating

SP3U1.5-3.5 Vertical non-rotating



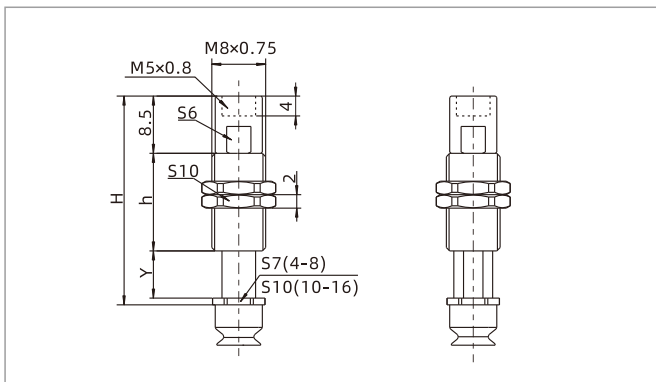
SP3U1.5-3.5 Lateral rotating

SP3U1.5-3.5 Lateral non-rotating

| Model/Size | H | h | Y | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|--------------|------|------|-----|---------------|------|------|------|----------|
| SP3U□-I3-M6 | 21.0 | 10.0 | 3.0 | 3 | 0.7 | 1.0 | 1.2 | 3.4 |
| SP3U□-I3R-M8 | 23.5 | 11.0 | 3.0 | 6 | 0.8 | 1.0 | 1.2 | 6.8 |
| SP3U□-I6-M6 | 28.0 | 14.0 | 6.0 | 3 | 0.8 | 1.0 | 1.2 | 4.4 |
| SP3U□-I6R-M8 | 30.0 | 14.5 | 6.0 | 6 | 0.7 | 1.0 | 1.2 | 8.2 |

| Model/Size | H | h | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|--------------|------|------|---------------|------|------|------|----------|
| SP3U□-L3-M6 | 27.0 | 10.0 | 3 | 0.7 | 1.0 | 1.2 | 7.7 |
| SP3U□-L3R-M8 | 31.0 | 11.0 | 6 | 0.8 | 1.0 | 1.2 | 11.0 |
| SP3U□-L6-M6 | 34.0 | 14.0 | 3 | 0.8 | 1.0 | 1.2 | 8.6 |
| SP3U□-L6R-M8 | 37.5 | 14.5 | 6 | 0.7 | 1.0 | 1.2 | 12.2 |

Dimensions(mm) -C type



SP3C4-16 Vertical rotating

SP3C4-16 Vertical non-rotating

| Model/Size | H | h | Y | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|------|------|---------------|------|------|------|----------|
| SP3C□-I3-M8 | 24.5 | 11.0 | 4.0 | 3 | 0.8 | 1.0 | 1.2 | 7.4 |
| SP3C□-I3R-M8 | 24.5 | 11.0 | 4.0 | 3 | 0.8 | 1.0 | 1.2 | 7.3 |
| SP3C□-I6-M8 | 31.0 | 14.5 | 7.0 | 6 | 0.7 | 1.0 | 1.2 | 8.6 |
| SP3C□-I6R-M8 | 31.0 | 14.5 | 7.0 | 6 | 0.7 | 1.0 | 1.2 | 8.6 |
| SP3C□-I10-M8 | 41.0 | 20.5 | 11.0 | 10 | 0.6 | 1.2 | 1.9 | 10.5 |
| SP3C□-I10R-M8 | 41.0 | 20.5 | 11.0 | 10 | 0.6 | 1.2 | 1.9 | 10.5 |

◇ Note: 1. Please refer to page 163 for suction cup selection
 2. F1, F2, and F3 represent the elastic force of the buffer support rod at 0 stroke, 50% stroke, and 100% stroke

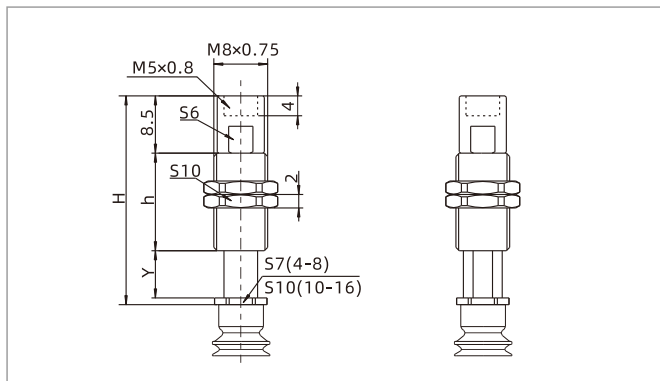
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- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SP3 Series

Suction Cup with Level Compensator

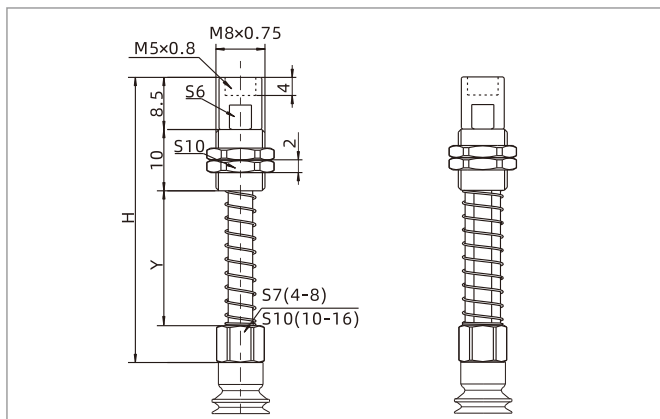


Dimensions(mm) -B type



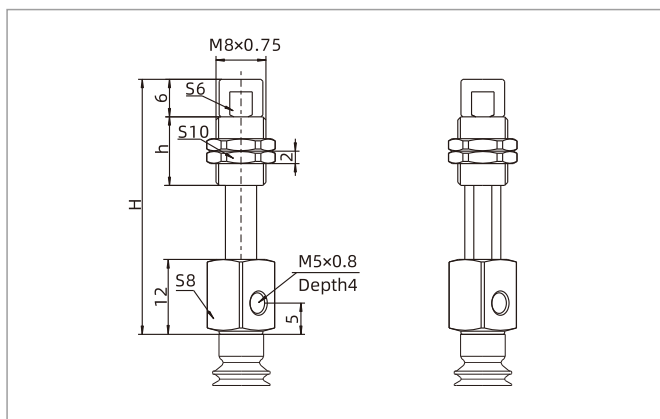
SP3B4-16 Vertical rotating

SP3B4-16 Vertical non-rotating



SP3B4-16 Vertical rotating

SP3B4-16 Vertical non-rotating



SP3B4-16 Lateral rotating

SP3B4-16 Lateral non-rotating

| Model/Size | H | h | Y | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|------|----|---------------|------|------|------|----------|
| SP3B□-I3-M8 | 24.5 | 11.0 | 4 | 3 | 0.8 | 1.0 | 1.2 | 7.4 |
| SP3B□-I3R-M8 | 24.5 | 11.0 | 4 | 3 | 0.8 | 1.0 | 1.2 | 7.3 |
| SP3B□-I6-M8 | 31.0 | 14.5 | 7 | 6 | 0.7 | 1.0 | 1.2 | 8.6 |
| SP3B□-I6R-M8 | 31.0 | 14.5 | 7 | 6 | 0.7 | 1.0 | 1.2 | 8.6 |
| SP3B□-I10-M8 | 41.0 | 20.5 | 11 | 10 | 0.6 | 1.2 | 1.9 | 10.5 |
| SP3B□-I10R-M8 | 41.0 | 20.5 | 11 | 10 | 0.6 | 1.2 | 1.9 | 10.5 |

| Model/Size | H | Y | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|------|---------------|------|------|------|----------|
| SP3B□-I15-M8 | 49.0 | 24.5 | 15 | 0.6 | 1.3 | 1.9 | 10.3 |
| SP3B□-I15R-M8 | 49.0 | 24.5 | 15 | 0.6 | 1.3 | 1.8 | 12.3 |
| SP3B□-I20-M8 | 56.5 | 32.0 | 20 | 0.7 | 1.2 | 1.8 | 10.9 |
| SP3B□-I20R-M8 | 56.5 | 32.0 | 20 | 0.8 | 1.3 | 1.8 | 13.4 |

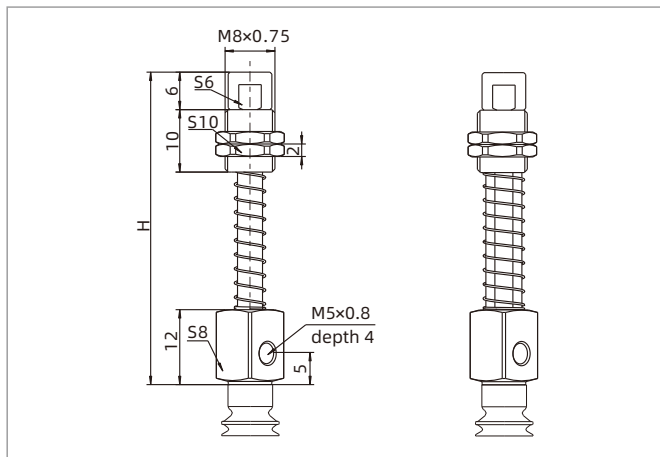
| Model/Size | H | h | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|------|---------------|------|------|------|----------|
| SP3B□-L3-M8 | 33.0 | 11.0 | 3 | 0.8 | 1.0 | 1.2 | 12.8 |
| SP3B□-L3R-M8 | 33.0 | 11.0 | 3 | 0.8 | 1.0 | 1.2 | 12.2 |
| SP3B□-L6-M8 | 39.5 | 14.5 | 6 | 0.7 | 1.0 | 1.2 | 14.2 |
| SP3B□-L6R-M8 | 39.5 | 14.5 | 6 | 0.7 | 1.0 | 1.2 | 13.4 |
| SP3B□-L10-M8 | 49.5 | 20.5 | 10 | 0.6 | 1.2 | 1.9 | 16.6 |
| SP3B□-L10R-M8 | 49.5 | 20.5 | 10 | 0.6 | 1.2 | 1.9 | 15.4 |

◇ Note: 1. Please refer to page 163 for suction cup selection
 2. F1, F2, and F3 represent the elastic force of the buffer support rod at 0 stroke, 50% stroke, and 100% stroke

SP3 Series

Suction Cup with Level Compensator

Dimensions(mm) -B type



SP3B4-16 Lateral rotating

SP3B4-16 Lateral non-rotating

| Model/Size | H | Buffer stroke | F1 N | F2 N | F3 N | Weight g |
|---------------|------|---------------|------|------|------|----------|
| SP3B□-L15-M8 | 52.5 | 15 | 0.2 | 0.5 | 1.9 | 16.3 |
| SP3B□-L15R-M8 | 52.5 | 15 | 0.2 | 0.5 | 1.8 | 15.5 |
| SP3B□-L20-M8 | 59.5 | 20 | 0.2 | 0.5 | 1.8 | 15.1 |
| SP3B□-L20R-M8 | 59.5 | 20 | 0.2 | 0.5 | 1.8 | 16.6 |

◇ Note: 1. Please refer to page 163 for suction cup selection
 2. F1, F2, and F3 represent the elastic force of the buffer support rod at 0 stroke, 50% stroke, and 100% stroke

Mounting parts - Level compensator

| Model Vertical rotating | Vertical non-rotating | Model Lateral rotating | Lateral non-rotating | Buffer stroke | Applicable suction cup |
|-------------------------|-----------------------|------------------------|----------------------|---------------|--------------------------------|
| PSP3-I3ST0.5-M6 | PSP3-I3RST0.5-M8 | PSP3-L3ST0.5-M6 | PSP3-L3RST0.5-M8 | 3 | SP3U1.5, 2, 3.5 |
| PSP3-I6ST0.5-M6 | PSP3-I6RST0.5-M8 | PSP3-L6ST0.5-M6 | PSP3-L6RST0.5-M8 | 6 | |
| PSP3-I3ST1.5-M8 | PSP3-I3RST1.5-M8 | PSP3-L3ST1.5-M8 | PSP3-L3RST1.5-M8 | 3 | SP3C4, 6, 8; SP3B4, 6, 8 |
| PSP3-I6ST1.5-M8 | PSP3-I6RST1.5-M8 | PSP3-L6ST1.5-M8 | PSP3-L6RST1.5-M8 | 6 | |
| PSP3-I10ST1.5-M8 | PSP3-I10RST1.5-M8 | PSP3-L10ST1.5-M8 | PSP3-L10RST1.5-M8 | 10 | |
| PSP3-I15ST1.5-M8 | PSP3-I15RST1.5-M8 | PSP3-L15ST1.5-M8 | PSP3-L15RST1.5-M8 | 15 | |
| PSP3-I20ST1.5-M8 | PSP3-I20RST1.5-M8 | PSP3-L20ST1.5-M8 | PSP3-L20RST1.5-M8 | 20 | |
| PSP3-I3ST2-M8 | PSP3-I3RST2-M8 | PSP3-L3ST2-M8 | PSP3-L3RST2-M8 | 3 | SP3C10, 13, 16; SP3B10, 13, 16 |
| PSP3-I6ST2-M8 | PSP3-I6RST2-M8 | PSP3-L6ST2-M8 | PSP3-L6RST2-M8 | 6 | |
| PSP3-I10ST2-M8 | PSP3-I10RST2-M8 | PSP3-L10ST2-M8 | PSP3-L10RST2-M8 | 10 | |
| PSP3-I15ST2-M8 | PSP3-I15RST2-M8 | PSP3-L15ST2-M8 | PSP3-L15RST2-M8 | 15 | |
| PSP3-I20ST2-M8 | PSP3-I20RST2-M8 | PSP3-L20ST2-M8 | PSP3-L20RST2-M8 | 20 | |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SUF Series

Small Flat Suction Cup

AIRBEST



Features

- ◇ Standard flat lip
- ◇ Small size, light weight

Advantages

- ◇ Good airtightness, suitable for handling workpiece with smooth and even surface
- ◇ Suitable for handling small workpieces in electronic industry



Applications

- ◇ Suitable for handling small workpieces, such as electronic components, sheet metal, solar wafer, etc.

Structure

- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately.

How to order

SUF 3.5 N - M5M

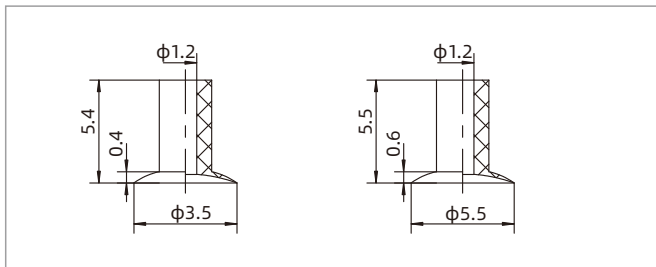
① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------------|------------------------|--------------------------|
| SUF | 3.5 - ϕ 3.5mm | N - NBR 55 | Nil - Suction cup only |
| | 5.5 - ϕ 5.5mm | S - Silicone 50 | M5M - M5×0.8 male thread |

Selection

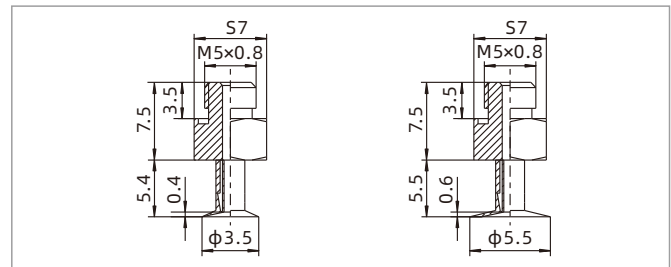
| Model | Connection thread M - Male thread | MPQ pcs | Weight g |
|----------------------|--------------------------------------|------------|-------------|
| SUF3.5N SUF3.5S | SUF3.5N-M5M SUF3.5S-M5M | 10 | 0.1 |
| SUF5.5N SUF5.5S | SUF5.5N-M5M SUF3.5S-M5M | 10 | 0.1 |

Dimensions(mm)



SUF3.5

SUF5.5



SUF3.5□-M5M

SUF5.5□-M5M

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model | Applicable suction cup |
|-------------------------|----------------|------------------------|
| Fitting for suction cup | PJS-M5M-SUF5.5 | SUF3.5,5.5 |

SAN Series

Nozzle Suction Cup



Features

- ◇ Nozzle design
- ◇ Small diameter
- ◇ Conductive material available

Advantages

- ◇ Fast handling of mini type workpieces
- ◇ Ideal for occasions with limited space

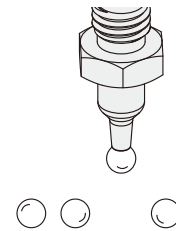


Applications

- ◇ Handling of mini type electronic components and thin sheet metal
- ◇ Handling of workpieces of small size and light weight
- ◇ Conductive material is suitable for electronic industry

Structure

- ◇ Split structure for easy replacement of wearing parts



How to order

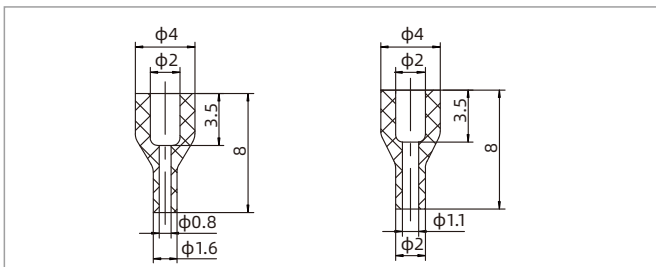
SAN 1.1 N - M5M

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--|--------------------------|--|
| SAN | 0.8 - ϕ 0.8mm 1.1 - ϕ 1.1mm | N - NBR | 55 |
| | | WS - White silicone | 50 |
| | | CN - Conductive NBR | 55 |
| | | CS - Conductive silicone | 55 |
| | | | Nil - Suction cup only M5M - M5x0.8 male thread |

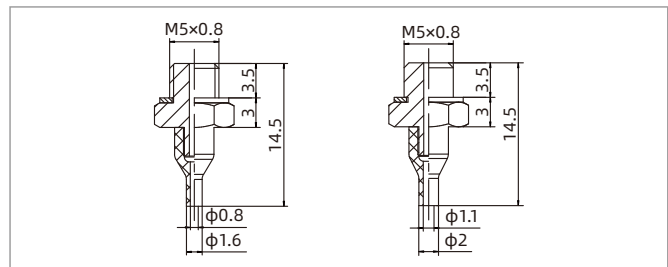
◇ Note: Min. package: 10pcs/bag

Dimensions(mm)



SAN0.8

SAN1.1



SAN0.8□-M5M

SAN1.1□-M5M

◇ Note: The dimensional tolerance conforms to the GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model | Applicable suction cup |
|-------------------------|----------------|------------------------|
| Fitting for suction cup | PJS-M5M-SAN1.1 | SAN0.8, 1.1 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SAO Series

Oval Flat Suction Cup

AIRBEST



ELECTRONICS

RoHS

Features

- ◇ Oval and Flat structure
- ◇ Conductive material available
- ◇ Various sizes available

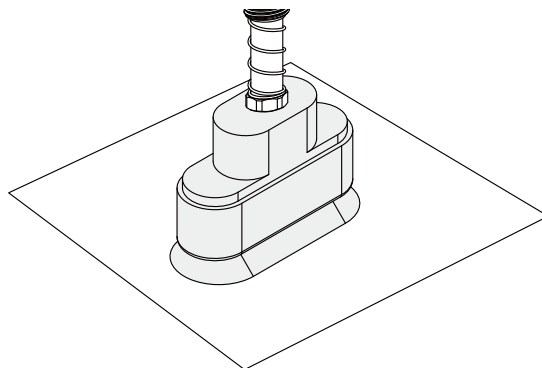
Advantages

- ◇ Small sizes, large suction force, suitable for handling of long and narrow workpieces
- ◇ Discharge static electricity gently to protect workpieces from damage
- ◇ Suitable for workpieces of various sizes and shapes



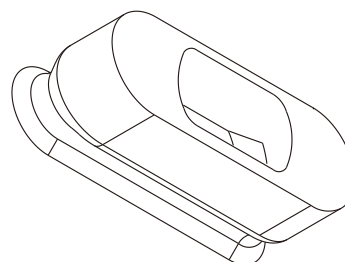
Applications

- ◇ Handling of long and narrow workpieces with even surface
- ◇ Handling of electronic components
- ◇ Conductive material is suitable for 3C industry



Structure

- ◇ Split structure for easy replacement of wearing parts



SAO Series

Oval Flat Suction Cup

How to order

SAO 8x20 N

① ② ③

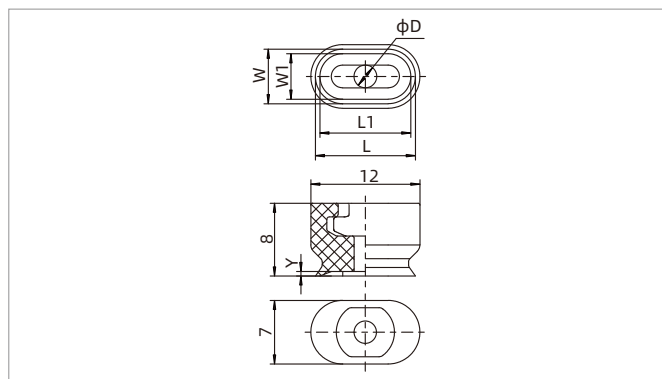
| ① Series | ② Size | ③ Material & Hardness |
|----------|---------------|---------------------------------|
| SAO | 3.5x7 6x20 | N - NBR 55 |
| | 4x10 8x20 | WS - White silicone 50 |
| | 5x10 4x30 | CN - Conductive NBR 55 |
| | 6x10 5x30 | CS - Conductive silicone 55 |
| | 4x20 6x30 | |
| | 5x20 8x30 | |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min. Curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|----------|------------------|------------------------------|-----------------------------------|----------|--------------------------|---------|
| SAO3.5x7 | 0.9 | <0.1 | 6 | 0.5 | 4 | 10 |
| SAO4x10 | 1.6 | <0.1 | 7 | 0.4 | 4 | 10 |
| SAO5x10 | 2 | <0.1 | 9 | 0.4 | 4 | 10 |
| SAO6x10 | 2.4 | <0.1 | 13 | 0.5 | 4 | 10 |
| SAO4x20 | 3.2 | <0.1 | 8 | 0.8 | 4 | 10 |
| SAO5x20 | 4.2 | <0.1 | 11 | 0.7 | 4 | 10 |
| SAO6x20 | 5 | <0.1 | 14 | 0.9 | 4 | 10 |
| SAO8x20 | 6.5 | <0.1 | 16 | 0.9 | 4 | 10 |
| SAO4x30 | 5.2 | <0.1 | 8 | 1.3 | 4 | 10 |
| SAO5x30 | 6.5 | <0.1 | 10 | 1.1 | 4 | 10 |
| SAO6x30 | 7.8 | <0.1 | 14 | 1.2 | 4 | 10 |
| SAO8x30 | 10.2 | 0.1 | 18 | 1.3 | 4 | 10 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



| Model/Size | W | L | W1 | L1 | D | Y |
|------------|-----|----|-----|----|-------|-----|
| SAO3.5x7 □ | 4.5 | 8 | 3.5 | 7 | 2-1.5 | 0.5 |
| SAO4x10 □ | 5 | 11 | 4 | 10 | 2-1.5 | 0.5 |
| SAO5x10 □ | 6 | 11 | 5 | 10 | 2.5 | 0.5 |
| SAO6x10 □ | 7 | 11 | 6 | 10 | 2.5 | 0.5 |

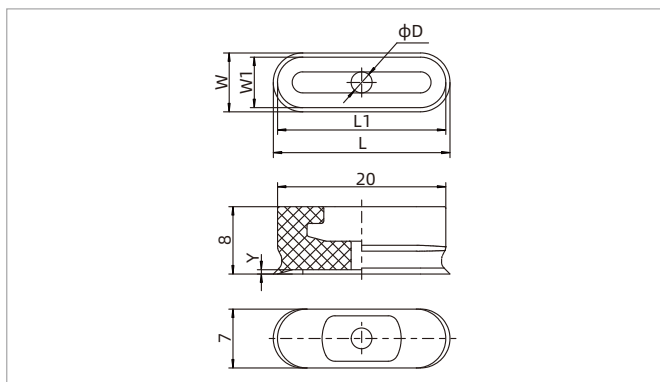
SAO

SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SAO Series

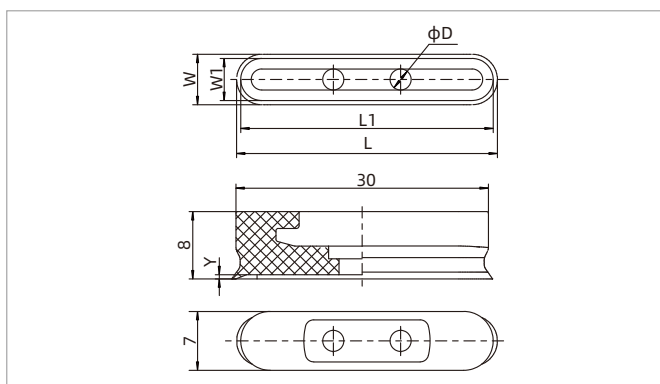
Oval Flat Suction Cup

Dimensions(mm)



| Model/Size | W | L | W1 | L1 | D | Y |
|------------|---|----|----|----|-------|-----|
| SAO4×20□ | 5 | 21 | 4 | 20 | 2-1.8 | 0.5 |
| SAO5×20□ | 6 | 21 | 5 | 20 | 2-2 | 0.5 |
| SAO6×20□ | 7 | 21 | 6 | 20 | 2.5 | 0.5 |
| SAO8×20□ | 9 | 21 | 8 | 20 | 3 | 0.8 |

SAO



| Model/Size | W | L | W1 | L1 | D | Y |
|------------|---|----|----|----|-------|-----|
| SAO4×30□ | 5 | 31 | 4 | 30 | 2-1.8 | 0.5 |
| SAO5×30□ | 6 | 31 | 5 | 30 | 2-2.5 | 0.5 |
| SAO6×30□ | 7 | 31 | 6 | 30 | 2-2.5 | 0.5 |
| SAO8×30□ | 9 | 31 | 8 | 30 | 2-2.5 | 0.8 |

SAO

◇ Note: The dimensional tolerance conforms to the GB/T 3672.1-2002-1 M3 rubber product dimensional tolerance standard

SAO Series

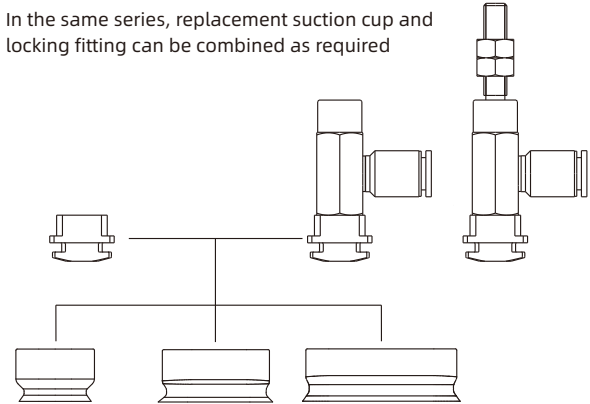
Suction Cup with Locking Fitting



Structure

- ◇ Consisting of replacement suction cup and locking fitting
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port, female thread for mounting
- ◇ Lateral vacuum port, male and female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SAO5×20N - LA6 - M5F

①

②

③

| ① Model | ② Vacuum port direction | ③ Mounting thread |
|----------|--|--|
| SAO5×20N | Nil - Vertical LA4 - Lateral, one-touch fitting ϕ 4 hose LA6 - Lateral, one-touch fitting ϕ 6 hose | M5M - M5×0.8 male thread M5F - M5×0.8 female thread |

◇ Please refer to page 179 for suction cup selection

Selection

| Connection thread M - Male thread | | F - Female thread | | |
|--------------------------------------|-------------------|-------------------|-------------------|---------------|
| SAO3.5×7□-LA4-M5M | SAO3.5×7□-LA6-M5M | SAO3.5×7□-LA4-M5F | SAO3.5×7□-LA6-M5F | SAO3.5×7□-M5F |
| SAO4×10□-LA4-M5M | SAO4×10□-LA6-M5M | SAO4×10□-LA4-M5F | SAO4×10□-LA6-M5F | SAO4×10□-M5F |
| SAO5×10□-LA4-M5M | SAO5×10□-LA6-M5M | SAO5×10□-LA4-M5F | SAO5×10□-LA6-M5F | SAO5×10□-M5F |
| SAO6×10□-LA4-M5M | SAO6×10□-LA6-M5M | SAO6×10□-LA4-M5F | SAO6×10□-LA6-M5F | SAO6×10□-M5F |
| SAO4×20□-LA4-M5M | SAO4×20□-LA6-M5M | SAO4×20□-LA4-M5F | SAO4×20□-LA6-M5F | SAO4×20□-M5F |
| SAO5×20□-LA4-M5M | SAO5×20□-LA6-M5M | SAO5×20□-LA4-M5F | SAO5×20□-LA6-M5F | SAO5×20□-M5F |
| SAO6×20□-LA4-M5M | SAO6×20□-LA6-M5M | SAO6×20□-LA4-M5F | SAO6×20□-LA6-M5F | SAO6×20□-M5F |
| SAO8×20□-LA4-M5M | SAO8×20□-LA6-M5M | SAO8×20□-LA4-M5F | SAO8×20□-LA6-M5F | SAO8×20□-M5F |
| SAO4×30□-LA4-M5M | SAO4×30□-LA6-M5M | SAO4×30□-LA4-M5F | SAO4×30□-LA6-M5F | SAO4×30□-M5F |
| SAO5×30□-LA4-M5M | SAO5×30□-LA6-M5M | SAO5×30□-LA4-M5F | SAO5×30□-LA6-M5F | SAO5×30□-M5F |
| SAO6×30□-LA4-M5M | SAO6×30□-LA6-M5M | SAO6×30□-LA4-M5F | SAO6×30□-LA6-M5F | SAO6×30□-M5F |
| SAO8×30□-LA4-M5M | SAO8×30□-LA6-M5M | SAO8×30□-LA4-M5F | SAO8×30□-LA6-M5F | SAO8×30□-M5F |

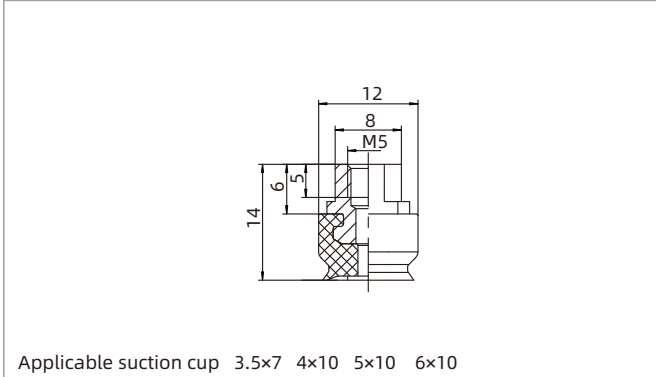
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SP3
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SDM
SFU
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SHT
SDL
SFG
SFGT
SFD
SB
SBA
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SBB
SOP
SNP

SAO Series

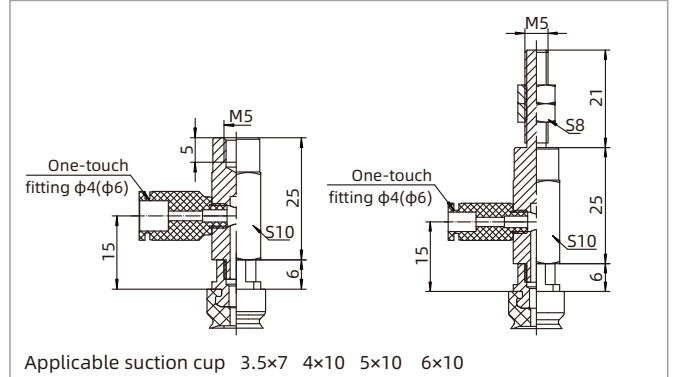
Suction Cup with Locking Fitting



Dimensions(mm)

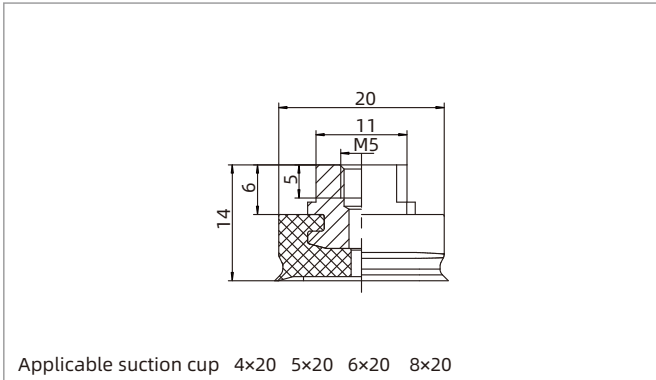


Vertical-Female thread connection

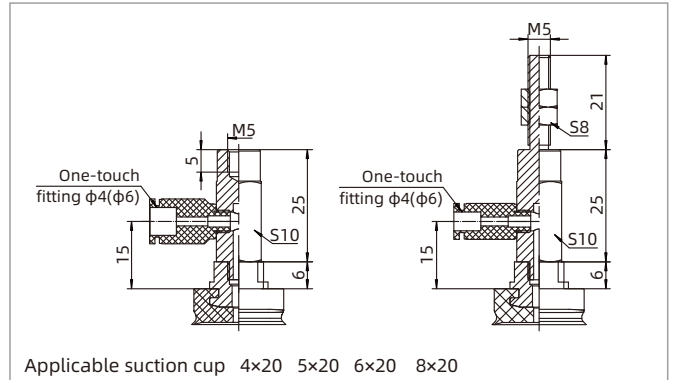


Lateral-Female thread connection

Lateral-Male thread connection

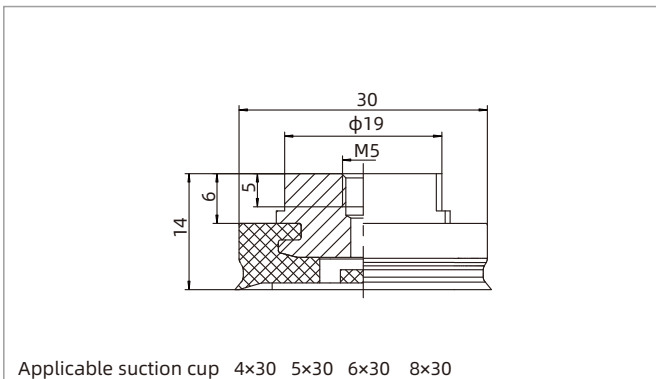


Vertical-Female thread connection

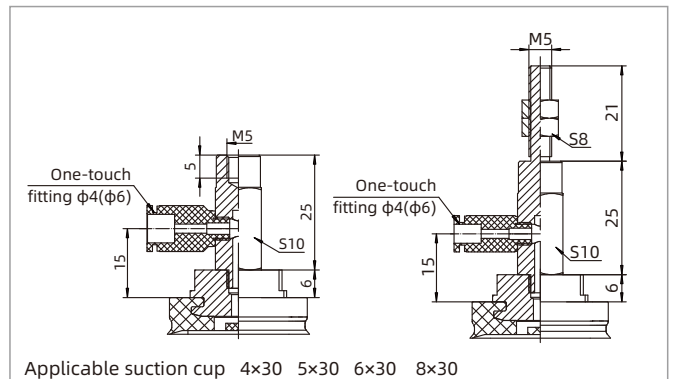


Lateral-Female thread connection

Lateral-Male thread connection



Vertical-Female thread connection



Lateral-Female thread connection

Lateral-Male thread connection

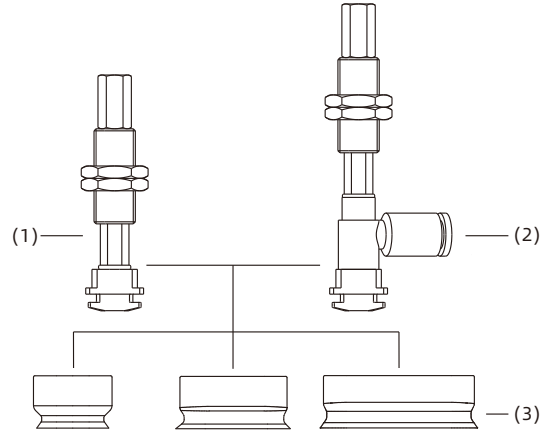
SAO Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and level compensator can be combined as required



How to order

SAO5×20N - E | 10 R A6 - M10

① ② ③ ④ ⑤ ⑥ ⑦

| ① Series | ② Level compensator type | ③ Buffer type | ④ Buffer stroke | ⑤ Rotary type | ⑥ Vacuum port connection | ⑦ Mounting thread |
|----------|--------------------------|---------------------|----------------------------|---|--|-------------------|
| SAO5×20N | E - PSPE Series | I - Internal spring | 10 40 20 50 30 | R - Vertical non-rotating B - Lateral non-rotating | Nil - M5×0.8 female thread A4 - One-touch fitting φ4 hose A6 - One-touch fitting φ6 hose | M10 - M10×1 |

◇ Please refer to page 179 for suction cup selection

Selection

| Rotary type/ Vacuum port connection | Nil | A4 | A6 |
|--|-----|----|----|
| R - Vertical non-rotating | ● | ● | ● |
| B - Lateral non-rotating | - | ● | ● |

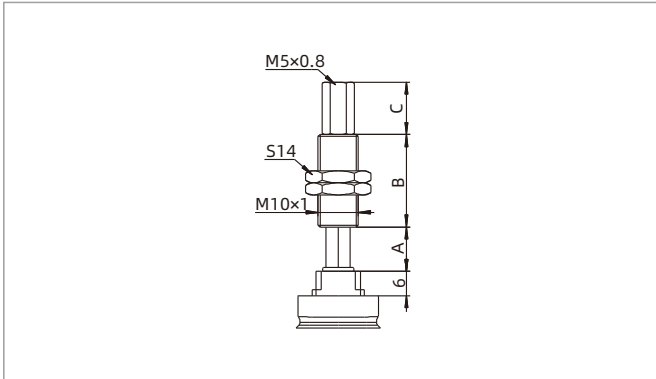
◇ Note: "●" default, in stock, "-" unavailable

SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

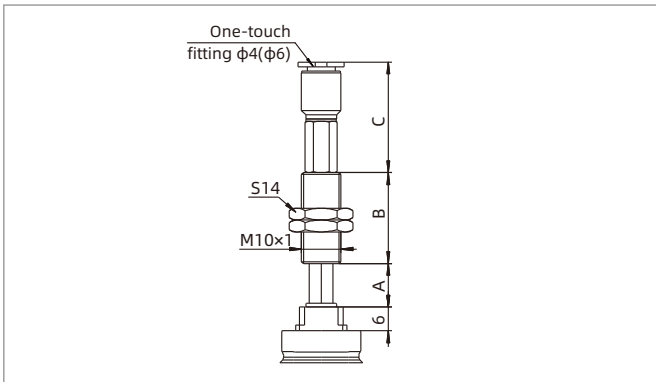
SAO Series

Suction Cup with Level Compensator

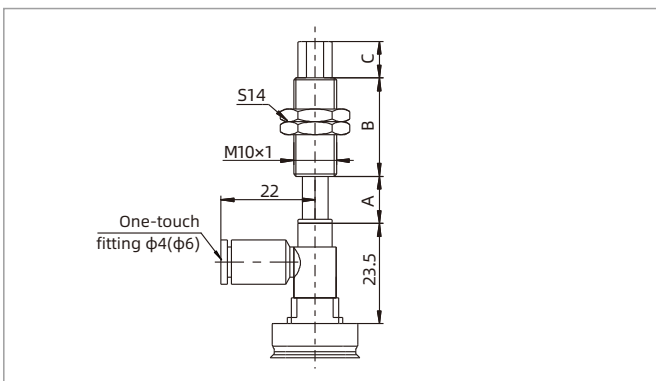
Dimensions(mm)



Vertical-Female thread connection



Vertical-One-touch fitting



Lateral-One-touch fitting

| Model/Size | A | B | C | Buffer stroke | F1 (N) | F2 (N) |
|----------------|----|----|----|---------------|--------|--------|
| SAO□-EI10R-M10 | 11 | 23 | 13 | 10 | 1.0 | 3.0 |
| SAO□-EI20R-M10 | 21 | 51 | 13 | 20 | 1.0 | 3.0 |
| SAO□-EI30R-M10 | 31 | 51 | 13 | 30 | 1.0 | 3.0 |
| SAO□-EI40R-M10 | 41 | 77 | 13 | 40 | 1.0 | 3.0 |
| SAO□-EI50R-M10 | 51 | 77 | 13 | 50 | 1.0 | 3.0 |

| Model/Size | A | B | C | Buffer stroke | F1 (N) | F2 (N) |
|-----------------|----|----|----|---------------|--------|--------|
| SAO□-EI10R□-M10 | 11 | 23 | 28 | 10 | 1.0 | 3.0 |
| SAO□-EI20R□-M10 | 21 | 51 | 28 | 20 | 1.0 | 3.0 |
| SAO□-EI30R□-M10 | 31 | 51 | 28 | 30 | 1.0 | 3.0 |
| SAO□-EI40R□-M10 | 41 | 77 | 28 | 40 | 1.0 | 3.0 |
| SAO□-EI50R□-M10 | 51 | 77 | 28 | 50 | 1.0 | 3.0 |

| Model/Size | A | B | C | Buffer stroke | F1 (N) | F2 (N) |
|-----------------|----|----|-----|---------------|--------|--------|
| SAO□-EI10B□-M10 | 11 | 23 | 8.5 | 10 | 1.0 | 3.0 |
| SAO□-EI20B□-M10 | 21 | 51 | 8.5 | 20 | 1.0 | 3.0 |
| SAO□-EI30B□-M10 | 31 | 51 | 8.5 | 30 | 1.0 | 3.0 |
| SAO□-EI40B□-M10 | 41 | 77 | 8.5 | 40 | 1.0 | 3.0 |
| SAO□-EI50B□-M10 | 51 | 77 | 8.5 | 50 | 1.0 | 3.0 |

◇ Note: 1. Please refer to page 179 for suction cup selection
 2. "F1" means spring force at 0 stroke, "F2" means spring force at max. Stroke

SOFA Series

Oval Flat Suction Cup



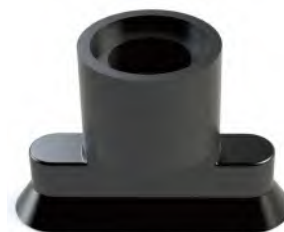
Suction Cup

Features

- ◇ Oval Flat suction cup

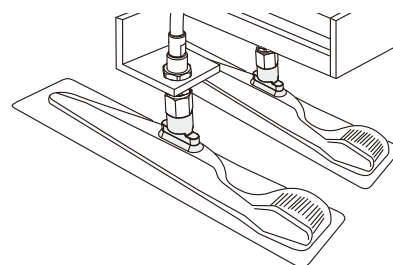
Advantages

- ◇ Handling long and narrow workpieces or flat workpieces with reinforced rib on surface
- ◇ Small size, light weight



Applications

- ◇ Handling small, long and narrow workpieces
- ◇ Electronic products



How to order

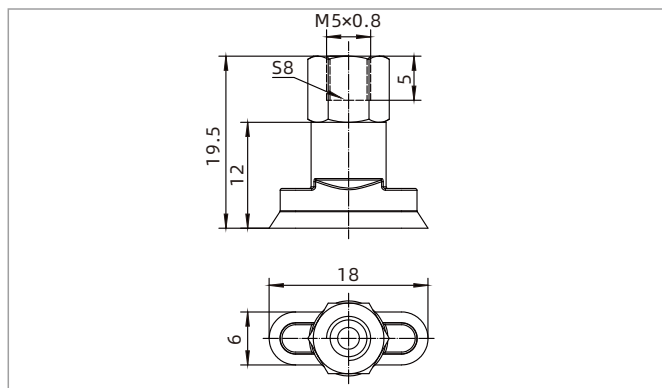
SOFA 6×18 N - M5F

① ② ③ ④

| ① Series | ② Size | ③ Material & Hardness | ④ Connection thread |
|----------|--------|--|--|
| SOFA | 6×18 | N - NBR 55 WS - White silicone 50 | Nil - Suction cup only M5F - M5×0.8 female thread |

- ◇ Min package: 10pcs

Dimensions(mm)



SOFA6×18-M5F

- ◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

STP Series

Ultra-thin Flower-shaped Suction Cup

AIRBEST



PLASTIC BAG



HIGH SEALING



Features

- ◇ Ultra-thin soft sealing lip design
- ◇ Double reinforced rib structure
- ◇ Food grade POM and silicone
- ◇ Lateral air ports are evenly distributed
- ◇ Two sizes and two hardness are optional

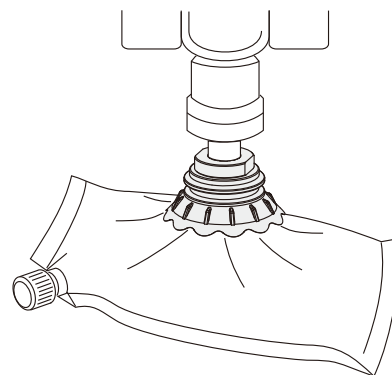
Advantages

- ◇ Optimal sealing, good for fitting different soft packing bags
- ◇ Effectively enhance suction cup strength, ensure maximum grasping capacity
- ◇ Can be used for food package handling
- ◇ Prevent soft package from deformation during grabbing and blocking the air port
- ◇ 35 degrees white silicone is suitable for softer bags, 50 degrees blue silicone is suitable for harder bags



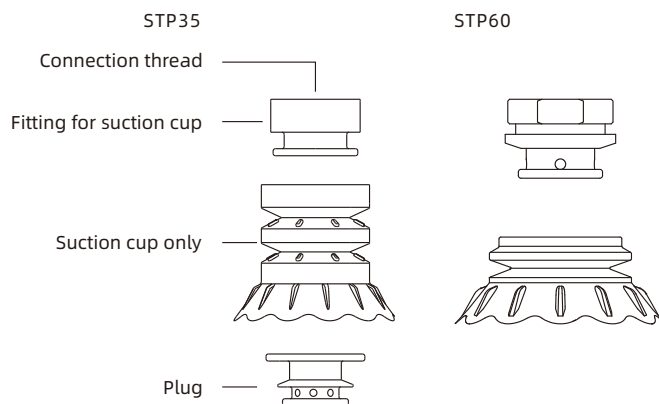
Applications

- ◇ Suitable for handling soft packaging plastic bags, such as bags of washing powder, detergent, tissue, express bags, etc.
- ◇ Food grade silicone can be used in food industry, such as bag of milk, bread, puffed food, etc.



Structure

- ◇ STP35 is 2.5 bellows and with large compressed stroke
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately



STP Series

Ultra-thin Flower-shaped Suction Cup

How to order

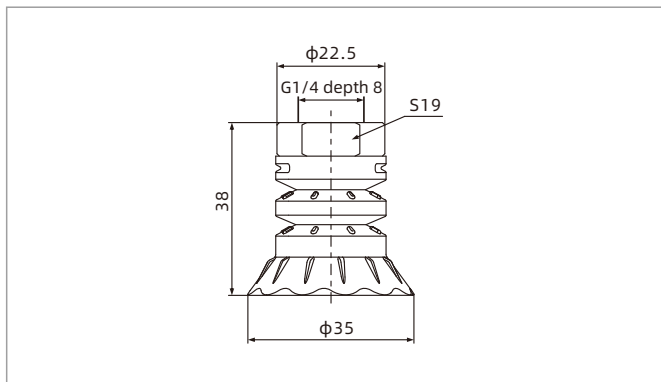
STP 60 S - G3F
 ① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|--|--------------------------|
| STP | 35 - ϕ 35mm | S - Silicone 50 | G2F - G1/4 female thread |
| | 60 - ϕ 60mm | WS - White silicone 35 | G3F - G3/8 female thread |

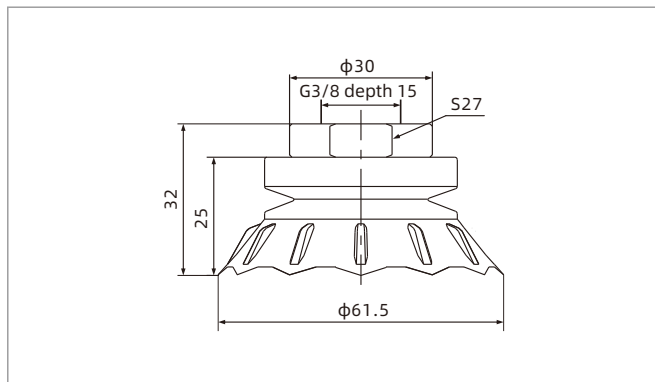
Selection

| Model | Material S | | MPQ pcs | Weight g |
|-------|------------|-------------|---------|----------|
| | S | WS | | |
| STP35 | STP35S-G2F | STP35WS-G2F | 1 | 5 |
| STP60 | STP60S-G3F | STP60WS-G3F | 1 | 9 |

Dimensions(mm)



STP35□-G2F



STP60□-G3F

◇Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SFT Series

Thin Lip Flat Suction Cup

AIRBEST



PAPER



PLASTIC BAG



GLASS



SOLAR



COMPOSITE MATERIAL



ANTI-DEFORMATION



Features

- ◇ Ultra-thin sealing lip
- ◇ High temperature and mark free material is optional

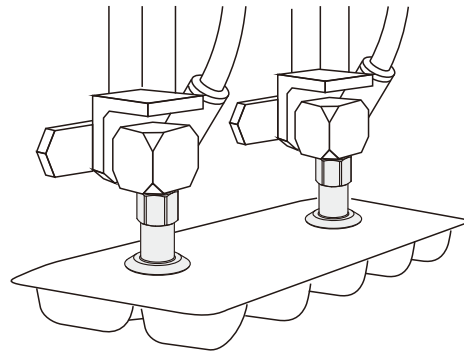
Advantages

- ◇ Suitable for film, paper and solar panels
- ◇ Prevent the workpiece from being sucked into the suction cup
- ◇ Suction without mark, can also for high temperature and mark free
- ◇ Prevent paper and film from wrinkling
- ◇ High temperature resistance, ozone resistance and UV radiation, suitable for handling in paper and printing industry



Applications

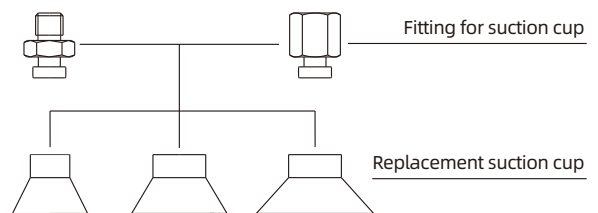
- ◇ Handling all kinds of packaging materials, such as paper, plastic film, opening plastic bag
- ◇ Handling fragile workpieces, such as thin wooden panels, solar silicon wafers, solar cell



Structure

- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately

In same series, replacement suction cup and fitting can be combined on request.



SFT Series

Thin Lip Flat Suction Cup

How to order

SFT 15 HD - M5M

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|------------------------------------|-----------------------------|
| SFT | 15 - ϕ 15mm | WS - White silicone | 50 Nil - Suction cup only |
| | 20 - ϕ 20mm | HD - High temp/ Mark free material | 60 M5M - M5x0.8 male thread |
| | 24 - ϕ 24mm | NR - Natural rubber | 40 G1M - G1/8 male thread |
| | 30 - ϕ 30mm | | G2M - G1/4 male thread |
| | 34 - ϕ 34mm | G1F - G1/8 female thread | |
| | 35 - ϕ 35mm | G2F - G1/4 female thread | |
| | 40 - ϕ 40mm | | |

Selection

| Model | Connection thread | |
|--------|--------------------------|-------------------|
| | M - Male thread | F - Female thread |
| SFT15□ | SFT15□-M5M SFT15□-G1M | SFT15□-G1F |
| SFT20□ | SFT20□-M5M SFT20□-G1M | SFT20□-G1F |
| SFT24□ | SFT24□-M5M SFT24□-G1M | SFT24□-G1F |
| SFT30□ | SFT30□-G2M | SFT30□-G2F |
| SFT34□ | SFT34□-G2M | SFT34□-G2F |
| SFT35□ | SFT35□-G2M | SFT35□-G2F |
| SFT40□ | SFT40□-G2M | SFT40□-G2F |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SFT15 | 8 | 0.2 | 16 | 0.5 | 6 | 10 |
| SFT20 | 14 | 0.5 | 18 | 0.8 | 6 | 5 |
| SFT24 | 20 | 0.7 | 23 | 1 | 6 | 5 |
| SFT30 | 32 | 1.3 | 28 | 2.7 | 8 | 5 |
| SFT34 | 41 | 2 | 33 | 3.1 | 8 | 5 |
| SFT35 | 43 | 1.5 | 19 | 5.8 | 8 | 5 |
| SFT40 | 56.5 | 3 | 39 | 4.5 | 8 | 5 |

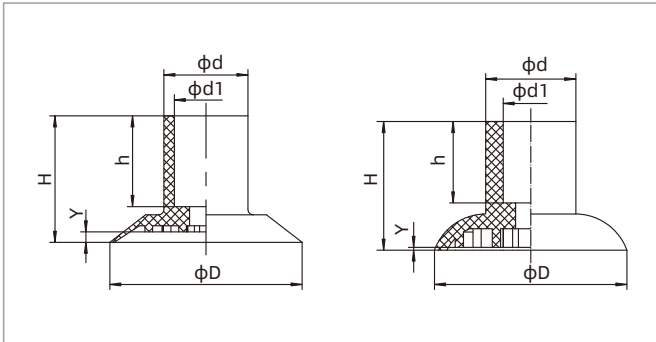
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT**
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SKF
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SFP
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SFT Series

Thin Lip Flat Suction Cup

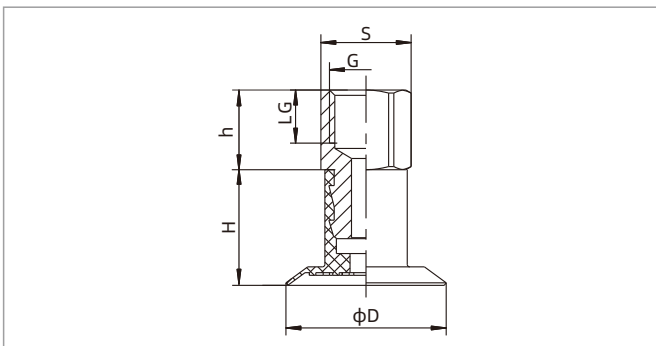
Dimensions(mm) - Suction cup only



SFT15-40

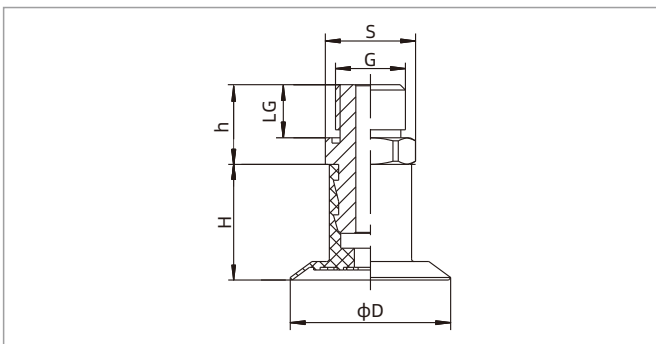
SFT35

| Model/Size | D | H | d | h | d1 | Y |
|------------|------|------|------|------|------|-----|
| SFT15□ | 14.5 | 10 | 9 | 7.2 | 4.5 | 0.9 |
| SFT20□ | 20.9 | 10.4 | 10.5 | 7.2 | 4.5 | 1.5 |
| SFT24□ | 24.4 | 10.8 | 10 | 7.2 | 4.5 | 1.7 |
| SFT30□ | 30.6 | 21.8 | 15.6 | 15.7 | 11.2 | 2 |
| SFT34□ | 34.5 | 23 | 14.8 | 16.8 | 11.2 | 1.4 |
| SFT35□ | 35 | 23.5 | 16.5 | 14.8 | 10 | 0.5 |
| SFT40□ | 40.5 | 20.5 | 16 | 14.5 | 8 | 2.3 |



SFT - Female thread connection

| Model/Size | D | H | h | G | LG | S |
|------------|------|------|----|------|----|----|
| SFT15□-G1F | 14.5 | 10 | 12 | G1/8 | 8 | 14 |
| SFT20□-G1F | 20.9 | 10.4 | 12 | G1/8 | 8 | 14 |
| SFT24□-G1F | 24.4 | 10.8 | 12 | G1/8 | 8 | 14 |
| SFT30□-G2F | 30.6 | 21.8 | 15 | G1/4 | 10 | 17 |
| SFT34□-G2F | 34.5 | 23 | 15 | G1/4 | 10 | 17 |
| SFT35□-G2F | 35 | 23.5 | 15 | G1/4 | 10 | 17 |
| SFT40□-G2F | 40.5 | 20.5 | 15 | G1/4 | 10 | 17 |



SFT - Male thread connection

| Model/Size | D | H | h | G | LG | S |
|------------|------|------|------|--------|-----|----|
| SFT15□-M5M | 14.5 | 10 | 10 | M5×0.8 | 5 | 7 |
| SFT15□-G1M | 14.5 | 10 | 13.5 | G1/8 | 7.5 | 14 |
| SFT20□-M5M | 20.9 | 10.4 | 10 | M5×0.8 | 5 | 7 |
| SFT20□-G1M | 20.9 | 10.4 | 13.5 | G1/8 | 7.5 | 14 |
| SFT24□-M5M | 24.4 | 10.8 | 10 | M5×0.8 | 5 | 7 |
| SFT24□-G1M | 24.4 | 10.8 | 13.5 | G1/8 | 7.5 | 14 |
| SFT30□-G2M | 30.6 | 21.8 | 15 | G1/4 | 10 | 17 |
| SFT34□-G2M | 34.5 | 23 | 15 | G1/4 | 10 | 17 |
| SFT35□-G2M | 35 | 23.5 | 15 | G1/4 | 10 | 17 |
| SFT40□-G2M | 40.5 | 20.5 | 15 | G1/4 | 10 | 17 |

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-M5M-SFT24 | - | SFT15, 20, 24 |
| | PJS-G1M-SFT24 | PJS-G1F-SFT24 | SFT15, 20, 24 |
| | PJS-G2M-SFT34 | PJS-G2F-SFT34 | SFT30, 34 |
| | PJS-G2M-SFT35 | PJS-G2F-SFT35 | SFT35 |
| | PJS-G2M-SFT40 | PJS-G2F-SFT40 | SFT40 |

SFA Series

Ultra-thin Lip Flat Suction Cup Special for Plastic Bags

AIRBEST



PLASTIC BAG



HIGH SEALING



Suction Cup

Features

- ◇ Ultra-thin sealing lip
- ◇ Support structure at the bottom

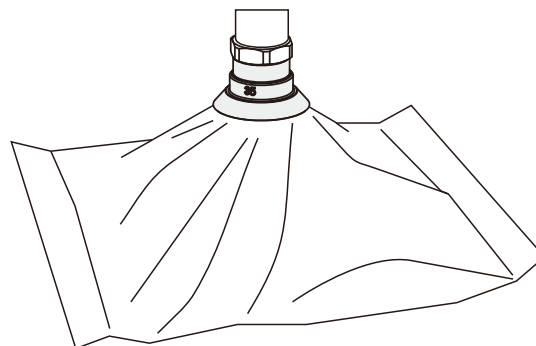
Advantages

- ◇ Suitable for film products, can fit workpiece closely
- ◇ Prevent the workpiece from being sucked into suction cup and wrinkling
- ◇ Food grade silicone, suitable for food package



Applications

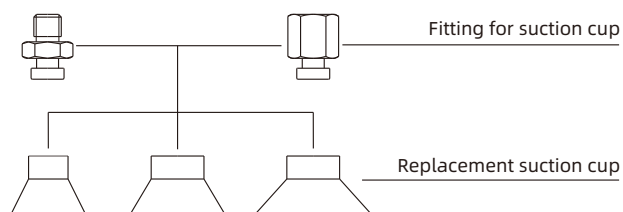
- ◇ Handling plastic film packaging bag
- ◇ Open film packaging bag in packaging production line



Structure

- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately

In same series, replacement suction cup and fitting can be combined on request.



SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SFA Series

Ultra-thin Lip Flat Suction Cup Special for Plastic Bags

How to order

SFA 20 S - M5M

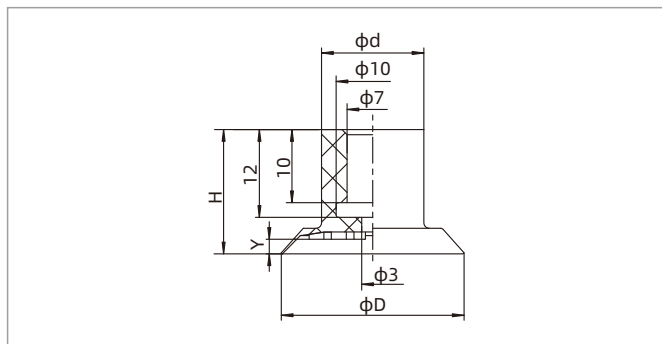
① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|---|---|
| SFA | 20 - ϕ 20mm | S - Silicone 40 | Nil - Suction cup only |
| | 25 - ϕ 25mm | | M5M - M5x0.8 male thread M5F - M5x0.8 female thread |
| | 35 - ϕ 35mm | | G1M - G1/8 male thread M8F - M8x1.25 female thread |
| | 50 - ϕ 50mm | | G2M - G1/4 male thread G3M - G3/8 male thread |

Selection

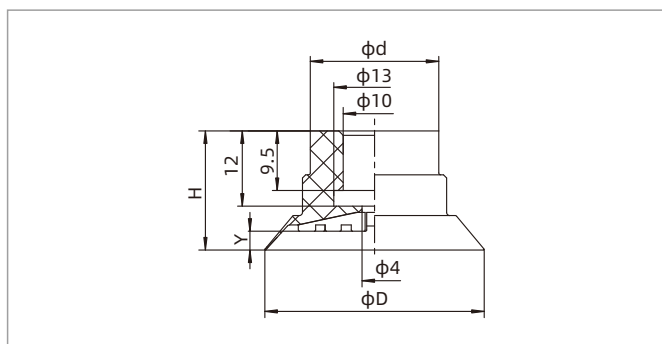
| Model | Connection thread M - Male thread | | F - Female thread | MPQ pcs |
|--------|--------------------------------------|------------|-------------------|------------|
| | | | | |
| SFA20S | SFA20S-M5M | SFA20S-G1M | SFA20S-M5F | 5 |
| SFA25S | SFA25S-M5M | SFA25S-G1M | SFA25S-M5F | 5 |
| SFA35S | SFA35S-G2M | SFA35S-G3M | SFA35S-M8F | 5 |
| SFA50S | SFA50S-G2M | SFA50S-G3M | SFA50S-M8F | 1 |

Dimensions(mm) - Suction cup only



SFA20-25

| Model/Size | D | H | d | Y |
|------------|----|----|----|-----|
| SFA20S | 20 | 17 | 13 | 1.6 |
| SFA25S | 25 | 17 | 14 | 2 |



SFA35-50

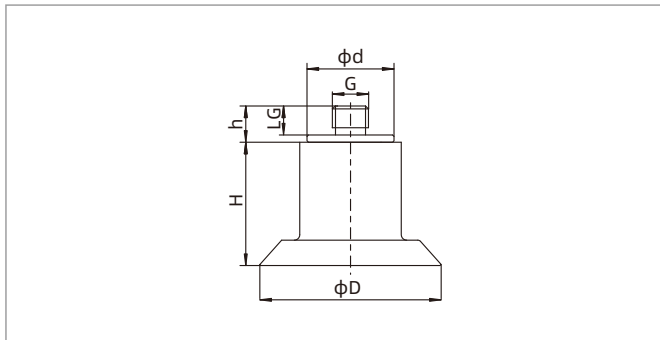
| Model/Size | D | H | d | Y |
|------------|----|----|------|-----|
| SFA35S | 35 | 19 | 20.5 | 3 |
| SFA50S | 50 | 22 | 20.5 | 4.5 |

SFA Series

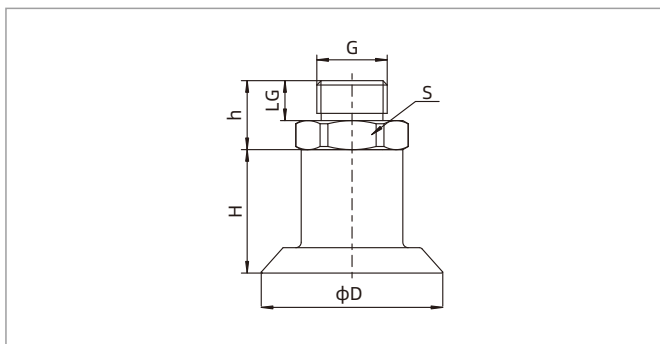
Ultra-thin Lip Flat Suction Cup Special for Plastic Bags



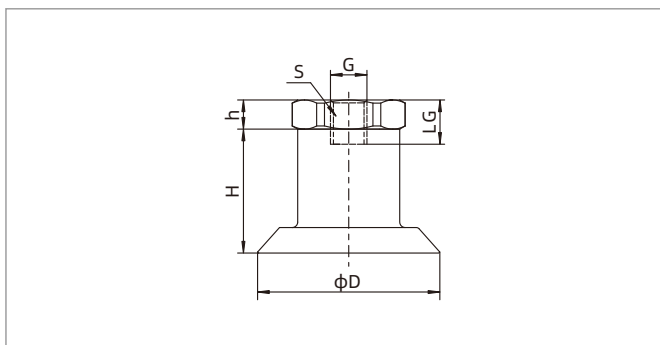
Dimensions(mm) - Suction cup with fitting



SFA - Male thread connection



SFA - Male thread connection



SFA - Female thread connection

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | H | h | G | LG | d |
|------------|----|----|---|--------|----|----|
| SFA20S-M5M | 20 | 17 | 5 | M5×0.8 | 4 | 12 |
| SFA25S-M5M | 25 | 17 | 5 | M5×0.8 | 4 | 12 |

| Model/Size | D | H | h | G | LG | S |
|------------|----|----|------|------|-----|----|
| SFA20S-G1M | 20 | 17 | 9.5 | G1/8 | 5.5 | 14 |
| SFA25S-G1M | 25 | 17 | 9.5 | G1/8 | 5.5 | 14 |
| SFA35S-G2M | 35 | 19 | 11.5 | G1/4 | 6.5 | 21 |
| SFA35S-G3M | 35 | 19 | 11.5 | G3/8 | 6.5 | 21 |
| SFA50S-G2M | 50 | 22 | 11.5 | G1/4 | 6.5 | 21 |
| SFA50S-G3M | 50 | 22 | 11.5 | G3/8 | 6.5 | 21 |

| Model/Size | D | H | h | G | LG | S |
|------------|----|----|---|---------|----|----|
| SFA20S-M5F | 20 | 17 | 4 | M5×0.8 | 5 | 14 |
| SFA25S-M5F | 25 | 17 | 4 | M5×0.8 | 5 | 14 |
| SFA35S-M8F | 35 | 19 | 6 | M8×1.25 | 8 | 21 |
| SFA50S-M8F | 50 | 22 | 6 | M8×1.25 | 8 | 21 |

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-M5M-SFA20 | PJS-M5F-SFA20 | SFA20,25 |
| | PJS-G1M-SFA20 | - | SFA20,25 |
| | PJS-G2M-SFA50 | PJS-M8F-SFA50 | SFA35,50 |
| | PJS-G3M-SFA50 | - | SFA35,50 |

SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SBT Series

Bellows Suction Cup Special for Thin Workpieces

AIRBEST



PACKAGING



ANTI-DEFORMATION



Features

- ◇ Designed with slightly curved bottom and distributed holes avoiding permanent deformation of thin workpieces
- ◇ 1.5 bellows has certain buffer effect
- ◇ Split structure for easy replacement of wearing parts

Applications

- ◇ Thin film objects such as aluminum foil and silver paper, etc.



How to order

SBT 16 N - M5F

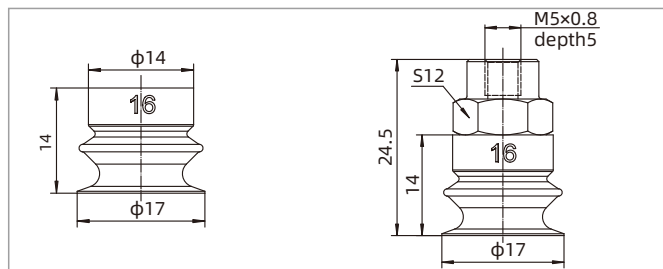
① ② ③ ④

| ① Series | ② Diameter | ③ Material&Hardness | ④ Connection thread |
|----------|------------------|--|--|
| SBT | 16 - ϕ 16mm | N - NBR 40 WS - White silicone 30 | Nil - Suction cup only M5F - M5×0.8 female thread M5M - M5×0.8 male thread |

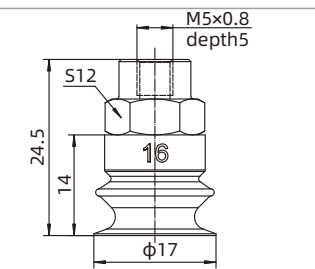
Technical parameters

| Model | Pull-out force (N) | Inner volume cm ³ | Weight g |
|-------|--------------------|------------------------------|----------|
| SBT16 | 8 | < 0.1 | 1.3 |

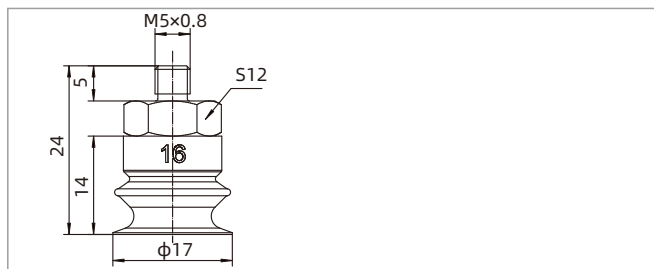
Dimensions (mm)



SBT16



SBT16-M5F



SBT16-M5M

SBL Series

4.5 Bellows Suction Cup



FOOD
PACKAGING



PLASTIC BAG



FDA



Features

- ◇ 4.5 Bellows
- ◇ Thin sealing lip
- ◇ Food grade silicone

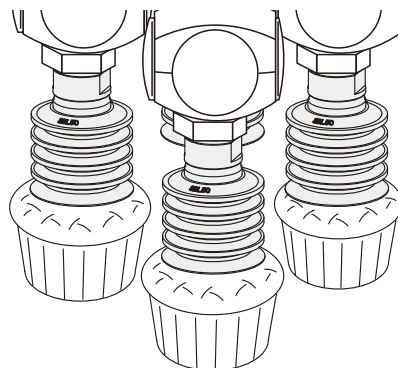
Advantages

- ◇ Suitable for handling workpieces with irregular shape
- ◇ Grabbing soft package with good airtightness
- ◇ Direct contact with food



Applications

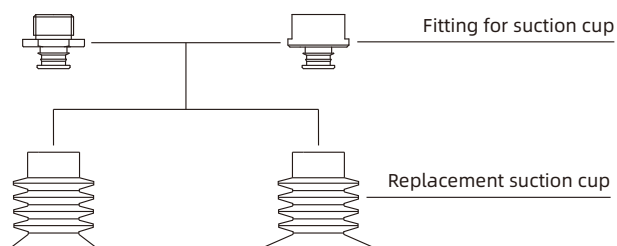
- ◇ Handling very soft products, such as plastic bags, aluminum foil bags, etc
- ◇ Handling fragile products, such as glass, egg, etc
- ◇ Handling food, such as bread, biscuits, etc
- ◇ Grabbing package bags containing solid products, powder or liquid safely



Structure

- ◇ Multiple bellows, large compressed stroke
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately

In same series, replacement suction cup and fitting can be combined on request.



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT**
- SBL**
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SP2
- SPD
- SPE
- SPC
- SPJ
- SPU
- SHB
- SBB
- SBB
- SOP
- SNP

How to order

SBL 15 S - M5M

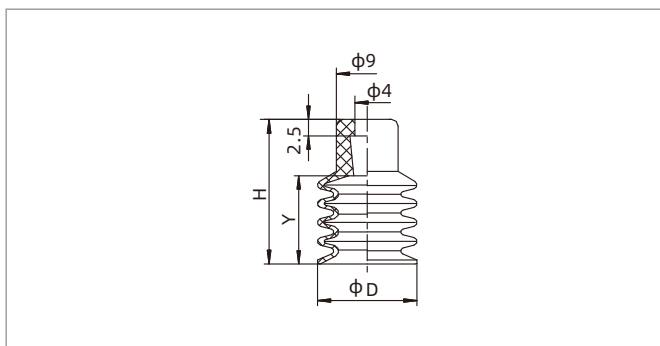
① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|---|--|
| SBL | 15 - ϕ 15mm | N - NBR 55 | Nil - Suction cup only M5M - M5x0.8 male thread |
| | 20 - ϕ 20mm | S - Silicone 50 | G1F - G1/8 female thread G1M - G1/8 male thread |
| | 30 - ϕ 30mm | WS - White silicone 50 | G2F - G1/4 female thread G2M - G1/4 male thread |
| | 40 - ϕ 40mm | | G3F - G3/8 female thread G3M - G3/8 male thread |
| | 50 - ϕ 50mm | | |

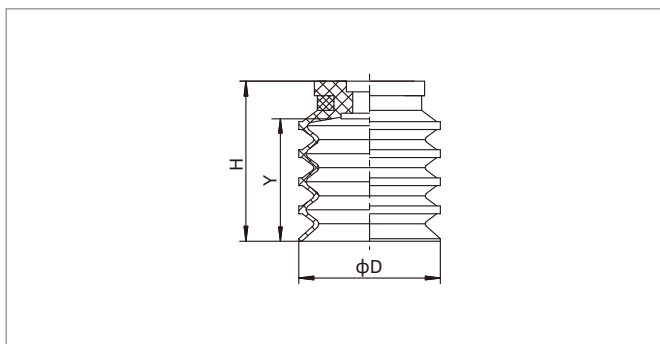
Selection

| Model | Connection thread | | MPQ pcs |
|--------|--------------------------|--------------------------|---------|
| | M - Male thread | F - Female thread | |
| SBL15□ | SBL15□-M5M | - | 5 |
| SBL20□ | SBL20□-G1M | SBL20□-G1F | 5 |
| SBL30□ | SBL30□-G1M | SBL30□-G1F | 1 |
| SBL40□ | SBL40□-G1M | SBL40□-G1F | 1 |
| SBL50□ | SBL50□-G2M SBL50□-G3M | SBL50□-G2F SBL50□-G3F | 1 |

Dimensions(mm) - Suction cup only



SBL15



SBL20-50

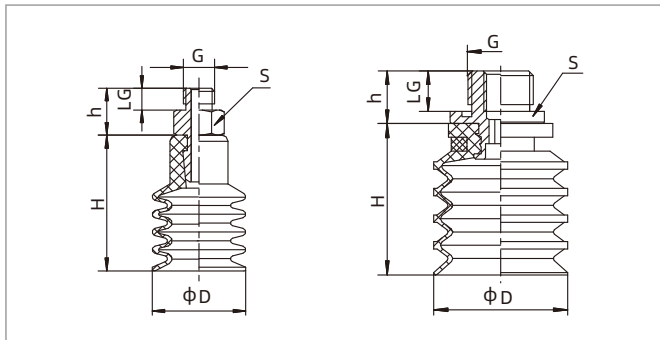
| Model/Size | D | H | Y | Weight g |
|------------|------|------|------|----------|
| SBL15□ | 15.5 | 21.5 | 13.5 | 12 |

| Model/Size | D | H | Y | Weight g |
|------------|----|----|------|----------|
| SBL20□ | 20 | 23 | 17.5 | 2.3 |
| SBL30□ | 30 | 32 | 25.5 | 5.8 |
| SBL40□ | 40 | 42 | 34.5 | 12.4 |
| SBL50□ | 50 | 52 | 40 | 20.9 |

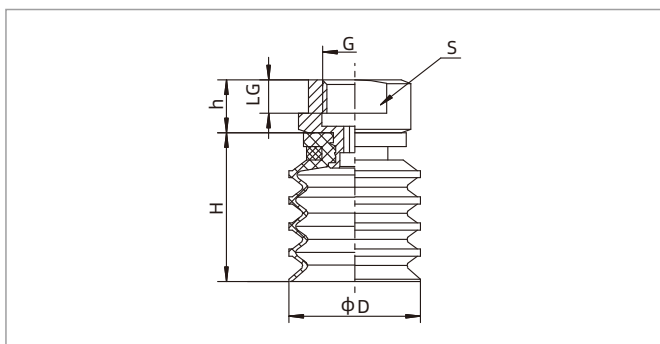
SBL Series

4.5 Bellows Suction Cup

Dimensions(mm) - Suction cup with fitting



SBL - Male thread connection



SBL - Female thread connection

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | H | h | G | LG | S |
|------------|------|------|-----|--------|-----|----|
| SBL15□-M5M | 15.5 | 21.5 | 7.5 | M5×0.8 | 3.5 | 7 |
| SBL20□-G1M | 20 | 23 | 7.8 | G1/8 | 6 | 13 |
| SBL30□-G1M | 30 | 32 | 12 | G1/8 | 6 | 17 |
| SBL40□-G1M | 40 | 42 | 12 | G1/8 | 6 | 17 |
| SBL50□-G2M | 50 | 52 | 17 | G1/4 | 9 | 24 |
| SBL50□-G3M | 50 | 52 | 18 | G3/8 | 10 | 24 |

| Model/Size | D | H | h | G | LG | S |
|------------|----|----|----|------|----|----|
| SBL20□-G1F | 20 | 23 | 8 | G1/8 | 7 | 13 |
| SBL30□-G1F | 30 | 32 | 10 | G1/8 | 7 | 17 |
| SBL40□-G1F | 40 | 42 | 10 | G1/8 | 7 | 17 |
| SBL50□-G2F | 50 | 52 | 13 | G1/4 | 10 | 24 |
| SBL50□-G3F | 50 | 52 | 13 | G3/8 | 11 | 24 |

Mounting parts

| Item | Model | | Applicable suction cup |
|-------------------------|-----------------|-------------------|------------------------|
| | M - Male thread | F - Female thread | |
| Fitting for suction cup | PJS-M5M-SC3 | - | SBL15 |
| | PJS-G1M-SF1 | PJS-G1F-SF1 | SBL20 |
| | PJS-G1M-SF2 | PJS-G1F-SF2 | SBL30,40 |
| | PJS-G2M-SF3 | PJS-G2F-SF3 | SBL50 |
| | PJS-G3M-SF3 | PJS-G3F-SF3 | SBL50 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL**
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SBLP Series

Bellows Suction Cup Special for Soft Packing Bags



FOOD
PACKAGING



PLASTIC BAG



FDA



Features

- ◇ Thin sealing lip
- ◇ 4.5 Bellows structure
- ◇ Big size, increasing vacuum flow
- ◇ Food grade silicone
- ◇ Plugs are optional

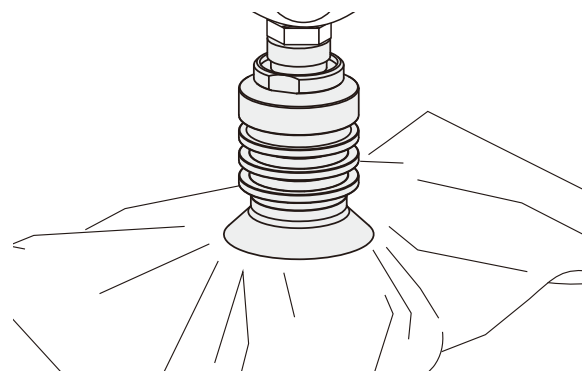
Advantages

- ◇ Have good airtightness when grab soft packing bag or flexible workpiece
- ◇ Effectively compensate height difference of packing bag with irregular shapes
- ◇ When grabbing porous workpieces, it can compensate the grabbing capacity by large flow
- ◇ Direct contact with food
- ◇ Prevent soft plastic film to be sucked into suction cup



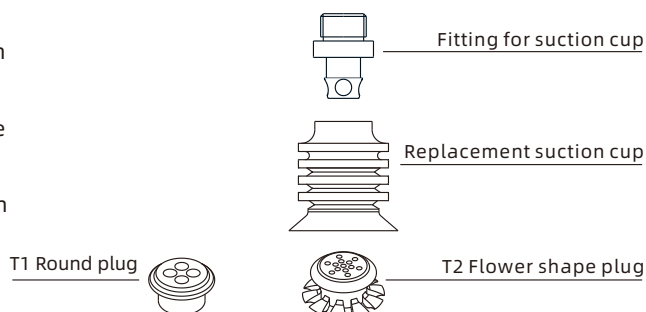
Applications

- ◇ Handling soft packing bag, such as EXPRESS bag, aluminum foil bags, laundry detergent bags, water bags, etc.
- ◇ Handling food package, such as bread, biscuits, milk, etc.
- ◇ Suitable for opening the bags, such as woven bags opening and dragging, etc.
- ◇ Grabbing packing bags containing solid products, powder or liquid safely



Structure

- ◇ Multiple bellows, large compressed stroke
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately
- ◇ T1 - White round plug, for light, thin and soft workpieces with large deformation
- ◇ T2 - Blue flower shape plug, for hard workpieces with small deformation



SBLP Series

Bellows Suction Cup Special for Soft Packing Bags



How to order

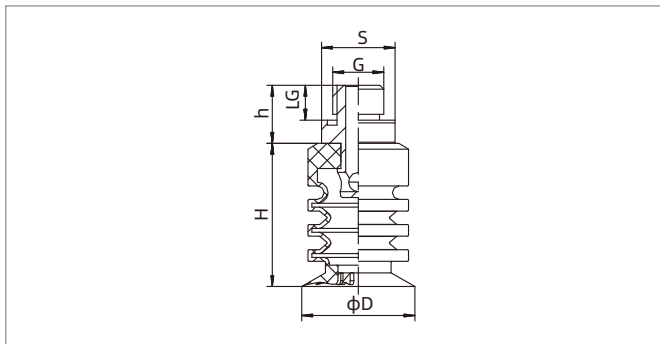
SBLP 40 S - G3M - T1
 ① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Special specification |
|----------|--|------------------------|---|--|
| SBLP | 30 - ϕ 30mm 40 - ϕ 40mm 50 - ϕ 50mm | S - Silicone 40 | Nil - Suction cup G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread | Nil - Standard T1 - White round plug T2 - Blue flower shape plug |

Selection

| Model | M - Male thread | T1 - White round plug | T2 - Blue flower shape plug | MPQ pcs |
|---------|-----------------|---------------------------|-----------------------------|---------|
| SBLP30S | SBLP30S-G2M | - | SBLP30S-T2 SBLP30S-G2M-T2 | 1 |
| SBLP40S | SBLP40S-G3M | SBLP40S-T1 SBLP40S-G3M-T1 | SBLP40S-T2 SBLP40S-G3M-T2 | 1 |
| SBLP50S | SBLP50S-G4M | - | SBLP50S-T2 SBLP50S-G4M-T2 | 1 |

Dimensions(mm)



SBLP

| Model/Size | D | H | G | h | LG | S | Weight g |
|-------------|----|------|------|----|----|----|----------|
| SBLP30S-G2M | 30 | 36.5 | G1/4 | 15 | 9 | 19 | 14.4 |
| SBLP40S-G3M | 40 | 40 | G3/8 | 16 | 10 | 22 | 24.1 |
| SBLP50S-G4M | 50 | 55 | G1/2 | 16 | 10 | 28 | 43.3 |

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | T1 - White round plug | T2 - Blue flower shape plug | Applicable suction cup |
|-------------------------|--------------------------|-----------------------|-----------------------------|------------------------|
| Fitting for suction cup | PJS-G2M-SBLP30 | - | SBLP30-T2 | SBLP30 |
| | PJS-G3M-SBLP40 | SBLP40-T1 | SBLP40-T2 | SBLP40 |
| | PJS-G4M-SBLP50 | - | SBLP50-T2 | SBLP50 |

SBS Series

AIRBEST

Bellows Suction Cup Special for Spherical Objects



SPHERICAL
OBJECT



FDA



Features

- ◇ Ultra-soft and tapered sealing lip
- ◇ Special inner structure
- ◇ Food grade silicone

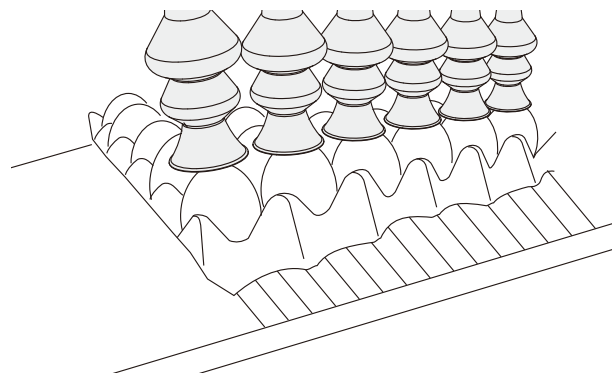
Advantages

- ◇ Effectively fit surface of spherical workpiece
- ◇ The corresponding suction cup can be accurately selected according to the shape of the adsorbed food
- ◇ Direct contact with food



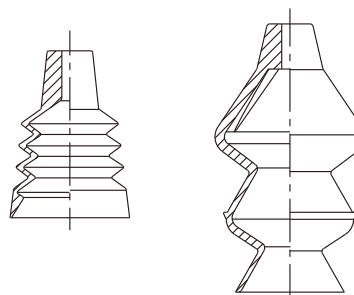
Applications

- ◇ Directly contact and handle candy and food, which are round, oval, and with irregular shapes
- ◇ Handling food with irregular surfaces or decorative shapes
- ◇ Multiple bellows suction cups are suitable for handling soft-contact food, such as eggs



Structure

- ◇ Special sealing lip, suitable for handling irregular products
- ◇ Ultra-thin, soft and tapered sealing lip, suitable for handling fragile objects



SBS Series

Bellows Suction Cup Special for Spherical Objects



How to order

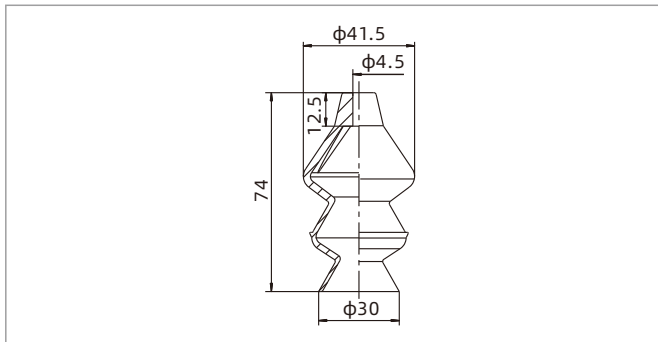
SBS 30 S
① ② ③

| ① Series | ② Diameter | ③ Material & Hardness |
|----------|------------------|---|
| SBS | 30 - ϕ 30mm | S - Silicone 35 |
| | 33 - ϕ 33mm | WS - White silicone 50 |
| | 34 - ϕ 34mm | WSA - White silicone 30 |
| | 35 - ϕ 35mm | |

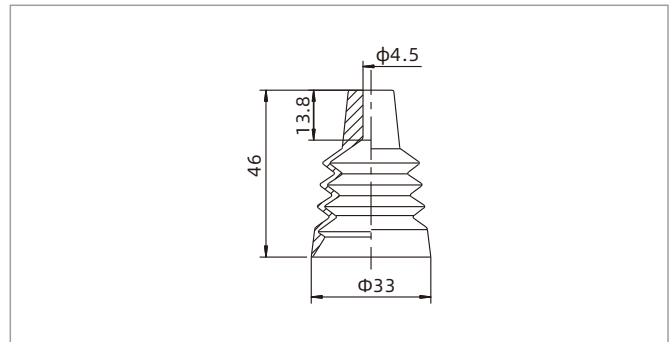
Selection

| Model | Material S | WS | WSA | MPQ pcs | Weight g |
|-------|------------|---------|----------|---------|----------|
| SBS30 | SBS30S | - | - | 1 | 17 |
| SBS33 | - | SBS33WS | SBS33WSA | 1 | 8 |
| SBS34 | SBS34S | SBS34WS | SBS34WSA | 1 | 19.3 |
| SBS35 | - | SBS35WS | SBS35WSA | 1 | 9.7 |

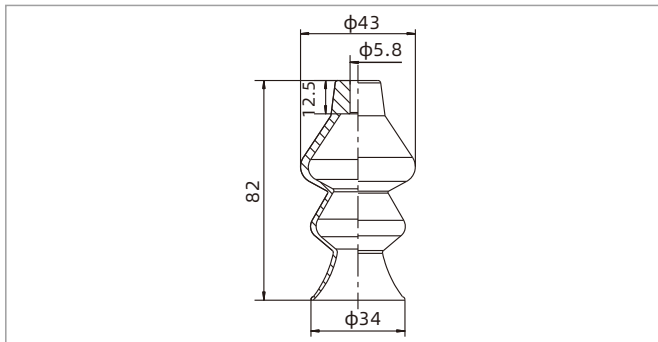
Dimensions(mm)



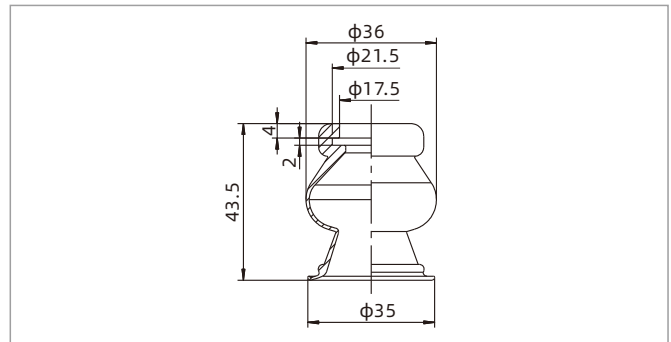
SBS30



SBS33



SBS34



SBS35

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

SFP Series

PU Flat Suction Cup

AIRBEST



PACKAGING



LONG LIFETIME



Features

- ◇ Support structure at bottom
- ◇ PU material
- ◇ Various sizes are available

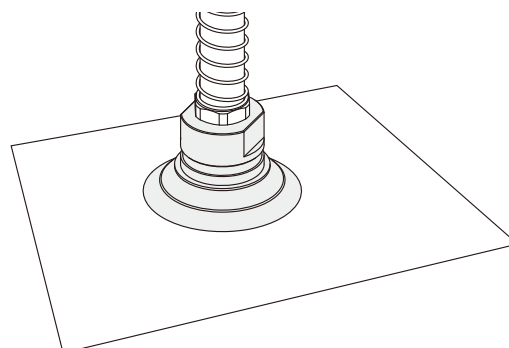
Advantages

- ◇ Preventing thin workpieces from permanent deformation
- ◇ Good wear resistance, long lifetime
- ◇ Suitable for workpieces with different sizes and shapes



Applications

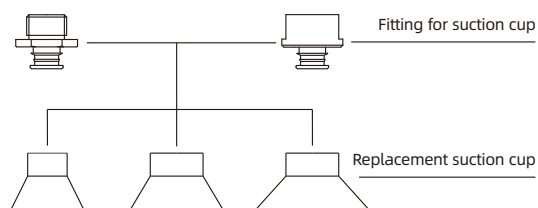
- ◇ Suitable for handling cardboard box or cardboard
- ◇ Suitable for handling carton or handling in packaging machinery
- ◇ Suitable for stacking and unstacking
- ◇ PU material has good wear resistance, suitable for heavy load occasions



Structure

- ◇ Suction cup and fitting are split structure design
- ◇ Fitting for suction cup is with mesh filter

In same series, replacement suction cup and fitting can be combined on request



SFP Series

PU Flat Suction Cup

How to order

SFP 20 U - G1F
 ① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | | ④ Connection thread |
|----------|------------------|-----------------------|----|--------------------------|
| SFP | 20 - ϕ 20mm | U - PU | 60 | Nil - Suction cup only |
| | 30 - ϕ 30mm | UY - PU | 40 | G1M - G1/8 male thread |
| | 40 - ϕ 40mm | | | G1F - G1/8 female thread |

Selection

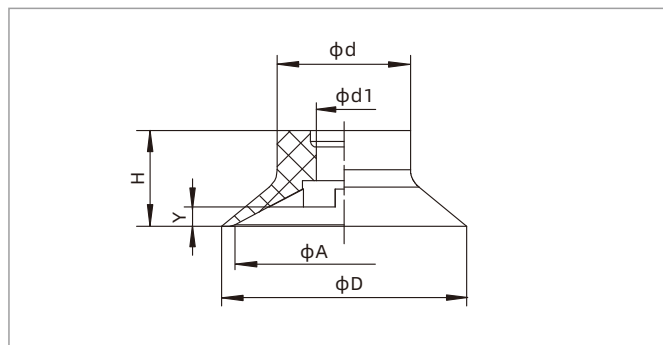
| Model | Connection thread | F - Female thread |
|--------|-------------------|-------------------|
| | M - Male thread | |
| SFP20□ | SFP20□-G1M | SFP20□-G1F |
| SFP30□ | SFP30□-G1M | SFP30□-G1F |
| SFP40□ | SFP40□-G1M | SFP40□-G1F |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SFP20 | 14 | 0.36 | 24 | 1.1 | 6 | 5 |
| SFP30 | 21 | 1 | 42 | 2.5 | 6 | 5 |
| SFP40 | 56.5 | 2.7 | 52 | 6 | 6 | 5 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm) - Suction cup only



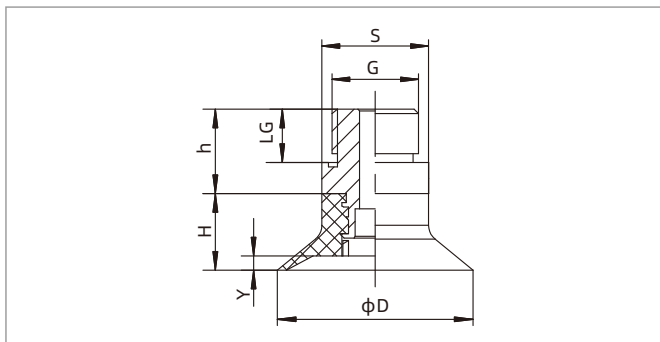
SFP20-40

| Model/Size | D | H | A | d | d1 | Y |
|------------|----|------|----|------|-----|-----|
| SFP20□ | 22 | 8.6 | 20 | 12 | 5 | 1.6 |
| SFP30□ | 31 | 10.5 | 30 | 15.8 | 5 | 2 |
| SFP40□ | 41 | 14 | 40 | 21 | 6.5 | 2.5 |

SFP Series

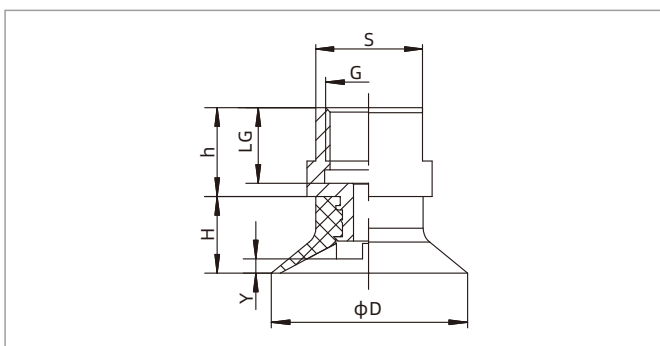
PU Flat Suction Cup

Dimensions(mm)



SFP20-40 Male thread connection

| Model/Size | D | H | G | h | LG | S | Y |
|------------|----|------|------|-----|----|----|-----|
| SFP20□-G1M | 22 | 8.6 | G1/8 | 7.8 | 6 | 13 | 1.6 |
| SFP30□-G1M | 31 | 10.5 | G1/8 | 7.8 | 6 | 13 | 2 |
| SFP40□-G1M | 41 | 14 | G1/8 | 12 | 6 | 17 | 2.5 |



SFP20-40 Female thread connection

| Model/Size | D | H | G | h | LG | S | Y |
|------------|----|------|------|----|----|----|-----|
| SFP20□-G1F | 22 | 8.6 | G1/8 | 8 | 7 | 13 | 1.6 |
| SFP30□-G1F | 31 | 10.5 | G1/8 | 8 | 7 | 13 | 2 |
| SFP40□-G1F | 41 | 14 | G1/8 | 10 | 7 | 17 | 2.5 |

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model | | Applicable suction cup |
|-------------------------|-----------------|-------------------|------------------------|
| | M - Male thread | F - Female thread | |
| Fitting for suction cup | PJS-G1M-SF1-EW | PJS-G1F-SF1-EW | SFP20, 30 |
| | PJS-G1M-SF2-EW | PJS-G1F-SF2-EW | SFP40 |

SBP Series

PU Bellows Suction Cup



Features

- ◇ 1.5 Bellows
- ◇ Internal support structure at bottom
- ◇ PU material
- ◇ Various sizes are available

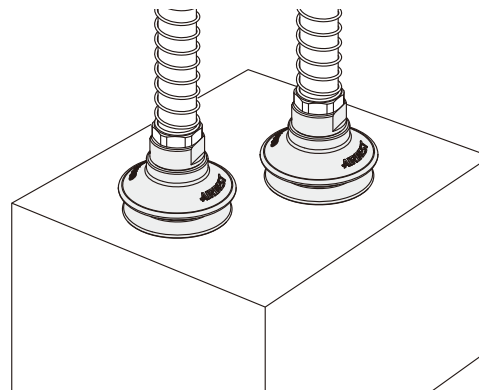
Advantages

- ◇ Easy to fit the uneven surface of workpiece, and has buffer effect
- ◇ Prevent thin workpieces from permanent deformation
- ◇ Good wear resistance, long lifetime
- ◇ Suitable for workpieces with different sizes and shapes



Applications

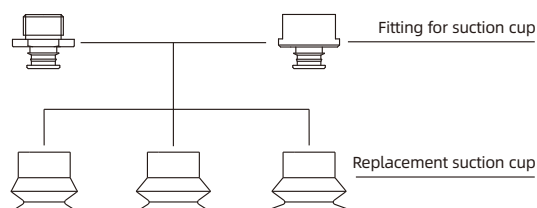
- ◇ Suitable for handling cardboard box or cardboard
- ◇ Suitable for handling carton or handling in packaging machinery
- ◇ Suitable for stacking and unstacking
- ◇ PU material has good wear resistance, suitable for heavy load occasions



Structure

- ◇ For suction cup with diameter $\phi 10\text{-}\phi 50\text{mm}$, suction cup and fitting are split structure design
- ◇ For suction cup with diameter $\phi 70\text{mm}$, suction cup and fitting are one-piece structure design
- ◇ Fitting for suction cup is with filter mesh

In same series, replacement suction cup and fitting can be combined on request



SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SBP Series

PU Bellows Suction Cup

How to order

SBP 30 U - G1F
 ① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------|---|--|
| SBP | 10 - φ10mm | U - PU 60 | Nil - Suction cup only |
| | 15 - φ15mm | UY - PU 40 | M5M - M5x0.8 male thread |
| | 20 - φ20mm | UD - PU 30 60 | G1M - G1/8 male thread |
| | 30 - φ30mm | | G2M - G1/4 male thread |
| | 40 - φ40mm | | G3M - G3/8 male thread |
| | 50 - φ50mm | | G1F - G1/8 female thread |
| | 70 - φ70mm | | G2F - G1/4 female thread G3F - G3/8 female thread |

Selection

| Model | Connection thread | |
|--------|--------------------------|--------------------------|
| | M - Male thread | F - Female thread |
| SBP10□ | SBP10□-M5M | - |
| SBP15□ | SBP15□-M5M | - |
| SBP20□ | SBP20□-G1M | SBP20□-G1F |
| SBP30□ | SBP30□-G1M | SBP30□-G1F |
| SBP40□ | SBP40□-G1M | SBP40□-G1F |
| SBP50□ | SBP50□-G2M SBP50□-G3M | SBP50□-G2F SBP50□-G3F |
| SBP70□ | SBP70□-G3M | SBP70□-G3F |

◇ Note: UD material is not available for SBP10

Technical parameters

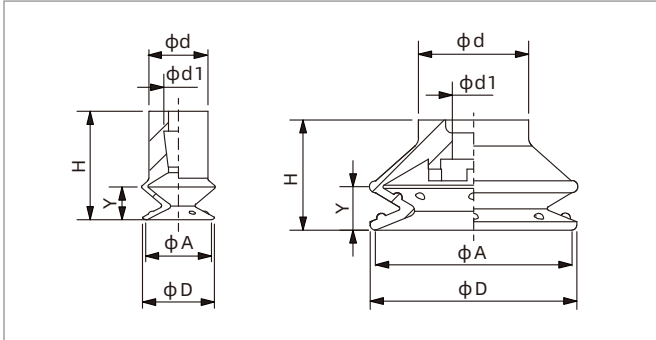
| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SBP10 | 3.5 | 0.2 | 10 | 0.8 | 6 | 5 |
| SBP15 | 7.9 | 0.5 | 25 | 1.4 | 6 | 5 |
| SBP20 | 14 | 2 | 31 | 2.1 | 6 | 5 |
| SBP30 | 31 | 4 | 47 | 4.8 | 6 | 5 |
| SBP40 | 56.5 | 9 | 59 | 11.5 | 6 | 1 |
| SBP50 | 88 | 17 | 68 | 20.7 | 8 | 1 |
| SBP70 | 173 | 55 | 91 | 68.3 | 10 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

SBP Series

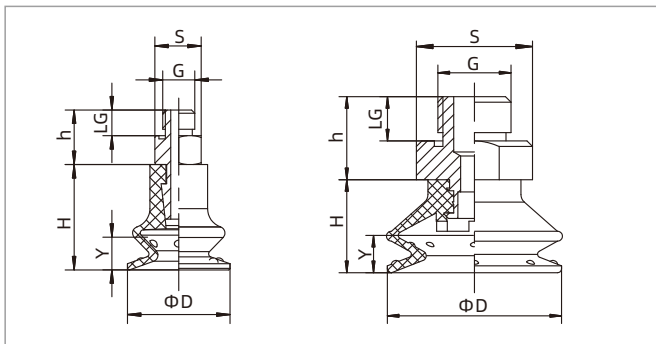
PU Bellows Suction Cup

Dimensions(mm)

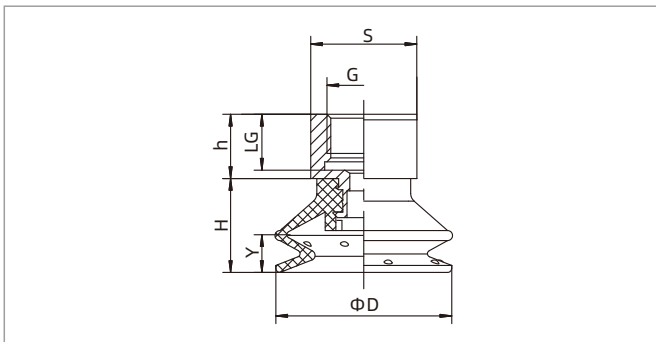


SBP10-15

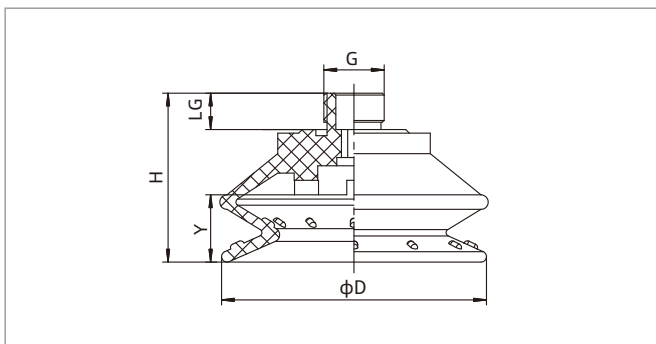
SBP20-50



SBP10-50 Male thread connection



SBP20-50 Female thread connection



SBP70 Male thread connection

| Model/Size | D | H | A | d | d1 | Y |
|------------|------|------|----|------|------|------|
| SBP10□ | 10.9 | 16.5 | 10 | 9 | 5 | 5 |
| SBP15□ | 16 | 19 | 15 | 9 | 5.5 | 5.8 |
| SBP20□ | 21 | 18 | 20 | 12 | 5 | 7.5 |
| SBP30□ | 31.5 | 16.8 | 30 | 16.8 | 6.5 | 6.6 |
| SBP40□ | 42 | 22.4 | 40 | 22.4 | 6.5 | 8.8 |
| SBP50□ | 52.5 | 29.3 | 50 | 28 | 10.5 | 12.3 |

| Model/Size | D | H | G | h | LG | S | Y |
|------------|------|------|--------|-----|-----|----|------|
| SBP10□-M5M | 10.9 | 16.5 | M5×0.8 | 7.5 | 3.5 | 7 | 5 |
| SBP15□-M5M | 16 | 19 | M5×0.8 | 7.5 | 3.5 | 7 | 5.8 |
| SBP20□-G1M | 21 | 18 | G1/8 | 7.8 | 6 | 13 | 7.5 |
| SBP30□-G1M | 31.5 | 16.8 | G1/8 | 12 | 6 | 17 | 6.6 |
| SBP40□-G1M | 42 | 22.4 | G1/8 | 12 | 6 | 17 | 8.8 |
| SBP50□-G2M | 52.5 | 29.3 | G1/4 | 17 | 9 | 24 | 12.3 |
| SBP50□-G3M | 52.5 | 29.3 | G3/8 | 18 | 10 | 24 | 12.3 |

| Model/Size | D | H | G | h | LG | S | Y |
|------------|------|------|------|----|----|----|------|
| SBP20□-G1F | 21 | 18 | G1/8 | 8 | 7 | 13 | 7.5 |
| SBP30□-G1F | 31.5 | 16.8 | G1/8 | 10 | 7 | 17 | 6.6 |
| SBP40□-G1F | 42 | 22.4 | G1/8 | 10 | 7 | 17 | 8.8 |
| SBP50□-G2F | 52.5 | 29.3 | G1/4 | 13 | 10 | 24 | 12.3 |
| SBP50□-G3F | 52.5 | 29.3 | G3/8 | 13 | 11 | 24 | 12.3 |

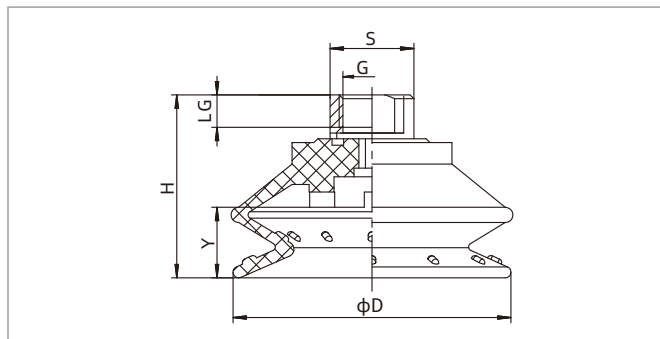
| Model/Size | D | H | G | LG | Y |
|------------|----|------|------|----|------|
| SBP70□-G3M | 73 | 46.5 | G3/8 | 10 | 16.5 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP**
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SBP Series

PU Bellows Suction Cup

Dimensions(mm)



| Model/Size | D | H | G | LG | S | Y |
|------------|----|----|------|------|----|------|
| SBP70□-G3F | 73 | 48 | G3/8 | 11.5 | 22 | 16.5 |

SBP70 Female thread connection

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-M5M-SC3 | - | SBP10, 15 |
| | PJS-G1M-SF1-EW | PJS-G1F-SF1-EW | SBP20 |
| | PJS-G1M-SF2-EW | PJS-G1F-SF2-EW | SBP30, 40 |
| | PJS-G2M-SF3-EW | PJS-G2F-SF3-EW | SBP50 |
| | PJS-G3M-SF3-EW | PJS-G3F-SF3-EW | SBP50 |

SXP Series

PU Bellows Suction Cup



Features

- ◇ 2.5 Bellows
- ◇ Internal support structure at bottom
- ◇ PU material
- ◇ Various sizes are available

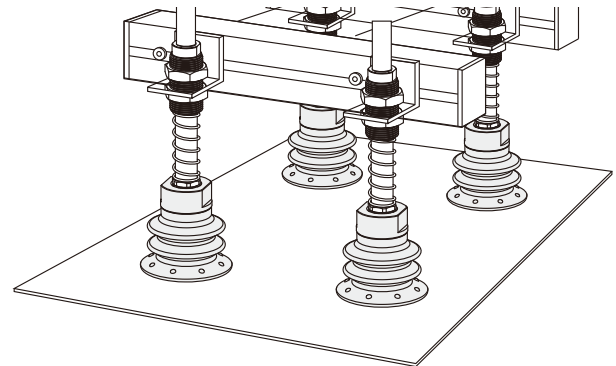
Advantages

- ◇ Easy to fit uneven surface of workpiece, and has buffer effect
- ◇ Prevent thin workpieces from permanent deformation
- ◇ Good wear resistance, long lifetime
- ◇ Suitable for workpieces with different sizes and shapes



Applications

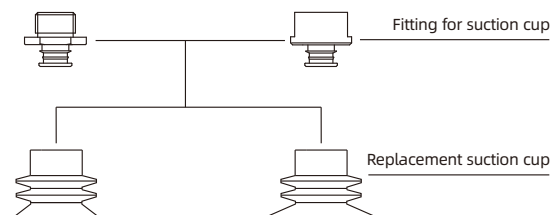
- ◇ Suitable for workpieces with every uneven surfaces, such as cartons, pipes, etc, fitting surfaces perfectly
- ◇ Suitable for handling cardboard box or cardboard
- ◇ Suitable for handling carton or handling in packaging machinery
- ◇ PU material has good wear resistance, suitable for heavy load occasions



Structure

- ◇ For suction cup with diameter $\phi 20\text{-}\phi 50\text{mm}$, suction cup and fitting are split structure design
- ◇ For suction cup with diameter $\phi 70\text{mm}$, suction cup and fitting are one-piece structure design
- ◇ Fitting for suction cup is with filter mesh

In same series, replacement suction cup and fitting can be combined on request



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SXP**
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SXP Series

PU Bellows Suction Cup

How to order

SXP 30 U - G1F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------|-----------------------|--------------------------|
| SXP | 20 - φ20mm | U - PU 60 | Nil - Scution cup only |
| | 25 - φ25mm | UG - PU 55 | G1M - G1/8 male thread |
| | 30 - φ30mm | UD - PU 30 60 | G2M - G1/4 male thread |
| | 35 - φ35mm | | G3M - G3/8 male thread |
| | 40 - φ40mm | | G1F - G1/8 female thread |
| | 50 - φ50mm | | G2F - G1/4 female thread |
| | 70 - φ70mm | | G3F - G3/8 female thread |

Selection

| Model | Connection thread | |
|--------|--------------------------|--------------------------|
| | M - Male thread | F - Female thread |
| SXP20□ | SXP20□-G1M | SXP20□-G1F |
| SXP25□ | SXP25□-G1M | SXP25□-G1F |
| SXP30□ | SXP30□-G1M | SXP30□-G1F |
| SXP35□ | SXP35□-G1M | SXP35□-G1F |
| SXP40□ | SXP40□-G1M | SXP40□-G1F |
| SXP50□ | SXP50□-G2M SXP50□-G3M | SXP50□-G2F SXP50□-G3F |
| SXP70□ | SXP70□-G3M | SXP70□-G3F |

Technical parameters

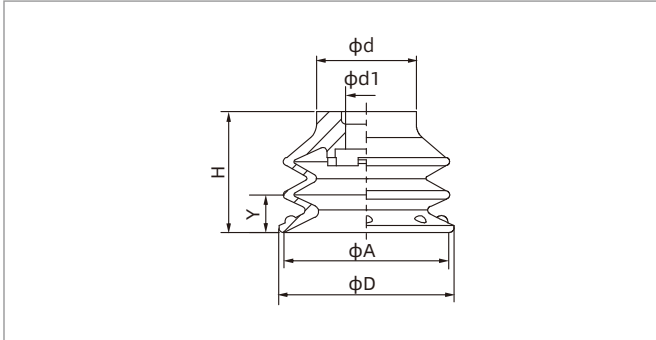
| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SXP20 | 14 | 2 | 24 | 1.8 | 6 | 5 |
| SXP25 | 22 | 3 | 31 | 3.1 | 6 | 5 |
| SXP30 | 31 | 5 | 30 | 4.4 | 6 | 5 |
| SXP35 | 43 | 9 | 39 | 7.4 | 6 | 1 |
| SXP40 | 56.5 | 11 | 45 | 10.4 | 6 | 1 |
| SXP50 | 88 | 21 | 55 | 19.9 | 8 | 1 |
| SXP70 | 173 | 55 | 80 | 66 | 10 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

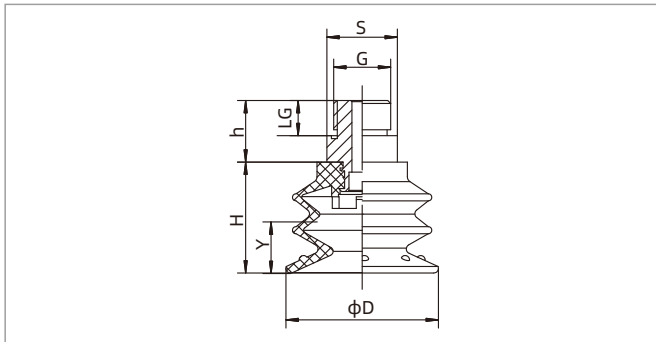
SXP Series

PU Bellows Suction Cup

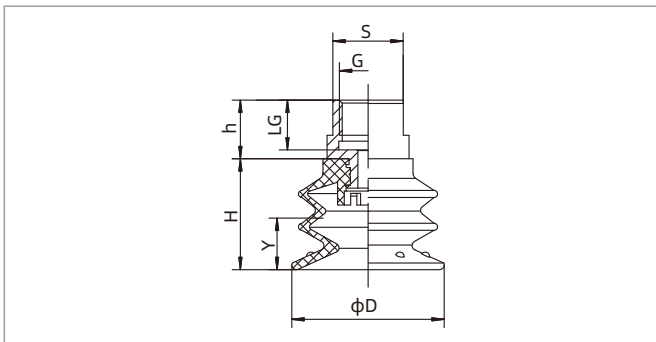
Dimensions(mm)



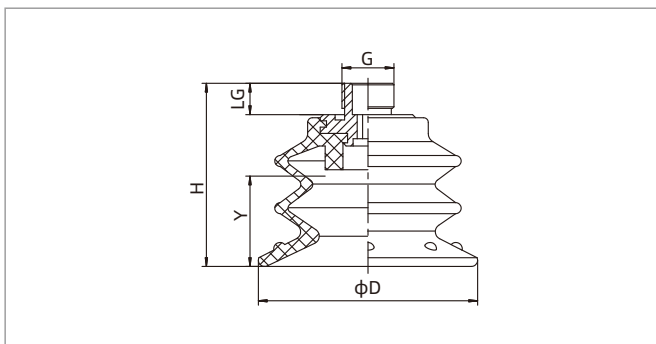
SXP20-50



SXP20-50 Male thread connection



SXP20-50 Female thread connection



SXP70 Male thread connection

| Model/Size | D | H | A | d | d1 | Y |
|------------|----|------|------|------|------|------|
| SXP20□ | 21 | 14.8 | 20 | 12 | 5 | 4.5 |
| SXP25□ | 26 | 18.9 | 24.4 | 15.4 | 5 | 7.3 |
| SXP30□ | 30 | 21.3 | 28 | 16.5 | 5 | 8 |
| SXP35□ | 35 | 25.3 | 33 | 21 | 6.5 | 9.8 |
| SXP40□ | 40 | 28.4 | 37.5 | 22 | 6.5 | 10.6 |
| SXP50□ | 50 | 35.5 | 47 | 27.5 | 10.5 | 13.4 |

| Model/Size | D | H | G | h | LG | S | Y |
|------------|----|------|------|-----|----|----|------|
| SXP20□-G1M | 21 | 14.8 | G1/8 | 7.8 | 6 | 13 | 4.5 |
| SXP25□-G1M | 26 | 18.9 | G1/8 | 7.8 | 6 | 13 | 7.3 |
| SXP30□-G1M | 30 | 21.3 | G1/8 | 7.8 | 6 | 13 | 8 |
| SXP35□-G1M | 35 | 25.3 | G1/8 | 12 | 6 | 17 | 9.8 |
| SXP40□-G1M | 40 | 28.4 | G1/8 | 12 | 6 | 17 | 10.6 |
| SXP50□-G2M | 50 | 35.5 | G1/4 | 17 | 9 | 24 | 13.4 |
| SXP50□-G3M | 50 | 35.5 | G3/8 | 18 | 10 | 24 | 13.4 |

| Model/Size | D | H | G | h | LG | S | Y |
|------------|----|------|------|----|----|----|------|
| SXP20□-G1F | 21 | 14.8 | G1/8 | 8 | 7 | 13 | 4.5 |
| SXP25□-G1F | 26 | 18.9 | G1/8 | 8 | 7 | 13 | 7.3 |
| SXP30□-G1F | 30 | 21.3 | G1/8 | 8 | 7 | 13 | 8 |
| SXP35□-G1F | 35 | 25.3 | G1/8 | 10 | 7 | 17 | 9.8 |
| SXP40□-G1F | 40 | 28.4 | G1/8 | 10 | 7 | 17 | 10.6 |
| SXP50□-G2F | 50 | 35.5 | G1/4 | 13 | 10 | 24 | 13.4 |
| SXP50□-G3F | 50 | 35.5 | G3/8 | 13 | 11 | 24 | 13.4 |

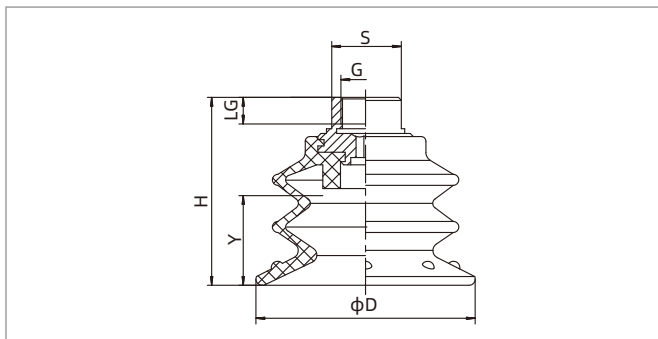
| Model/Size | D | H | G | LG | Y |
|------------|----|------|------|----|------|
| SXP70□-G3M | 70 | 58.5 | G3/8 | 10 | 18.6 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP**
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SXP Series

PU Bellows Suction Cup

Dimensions(mm)



| Model/Size | D | H | G | LG | S | Y |
|------------|----|----|------|------|----|------|
| SXP70□-G3F | 70 | 60 | G3/8 | 11.5 | 22 | 18.6 |

SXP70 Female thread connection

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-G1M-SF1-EW | PJS-G1F-SF1-EW | SXP20, 25, 30 |
| | PJS-G1M-SF2-EW | PJS-G1F-SF2-EW | SXP35, 40 |
| | PJS-G2M-SF3-EW | PJS-G2F-SF3-EW | SXP50 |
| | PJS-G3M-SF3-EW | PJS-G3F-SF3-EW | SXP50 |

SGP Series

PU Bellows Suction Cup



PACKAGING



LONG LIFETIME



Features

- ◇ 2.5 Bellows
- ◇ Internal support structure at bottom
- ◇ PU material
- ◇ Various sizes are available

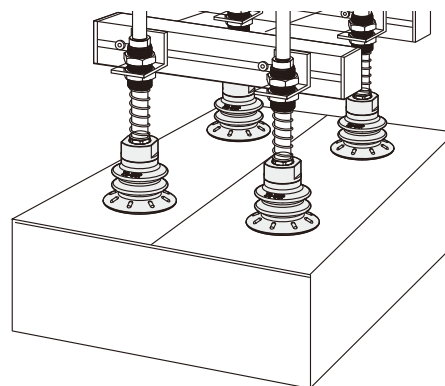
Advantages

- ◇ Easy to fit uneven surface of workpiece, and has buffer effect
- ◇ Prevent thin workpieces from permanent deformation
- ◇ Good wear resistance, long lifetime
- ◇ Suitable for workpieces with different sizes and shapes



Applications

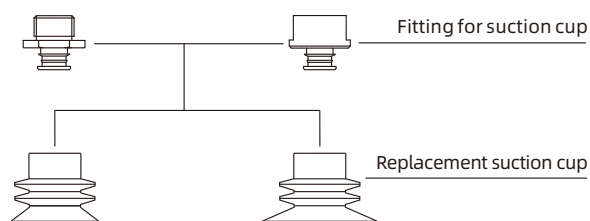
- ◇ Suitable for workpieces with every uneven surfaces, such as cartons, pipes, etc, fit surfaces perfectly
- ◇ Suitable for handling cardboard box or cardboard
- ◇ Suitable for handling carton or handling in packaging machinery
- ◇ PU material has good wear resistance, suitable for heavy load occasions



Structure

- ◇ Suction cup and fitting are split structure design
- ◇ Fitting for suction cup is with filter mesh

In same series, replacement suction cup and fitting can be combined on request



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SGP**
- SGP**
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SGP Series

PU Bellows Suction Cup

How to order

SGP 35 U - G1F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|--|--|
| SGP | 25 - ϕ 25mm | U - PU 55 | Nil - Suction cup only |
| | 35 - ϕ 35mm | UD - PU 30 | G1M - G1/8 male thread |
| | 45 - ϕ 45mm | | G2M - G1/4 male thread |
| | 55 - ϕ 55mm | | G3M - G3/8 male thread G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread |

Selection

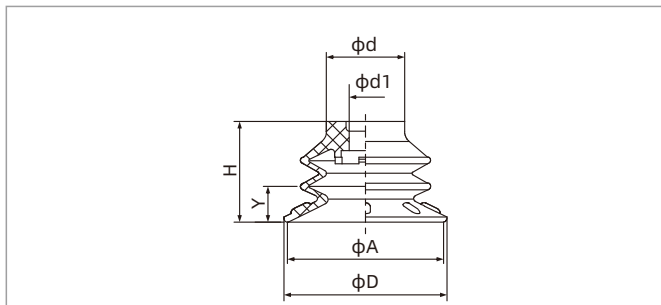
| Model | Connection thread | |
|--------|--------------------------|--------------------------|
| | M - Male thread | F - Female thread |
| SGP25□ | SGP25□-G1M | SGP25□-G1F |
| SGP35□ | SGP35□-G1M | SGP35□-G1F |
| SGP45□ | SGP45□-G1M | SGP45□-G1F |
| SGP55□ | SGP55□-G2M SGP55□-G3M | SGP55□-G2F SGP55□-G3F |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SGP25 | 22 | 3 | 31 | 2 | 6 | 5 |
| SGP35 | 43 | 6 | 42 | 4.8 | 6 | 5 |
| SGP45 | 71 | 13 | 54 | 11 | 6 | 1 |
| SGP55 | 106 | 23 | 64 | 19.9 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



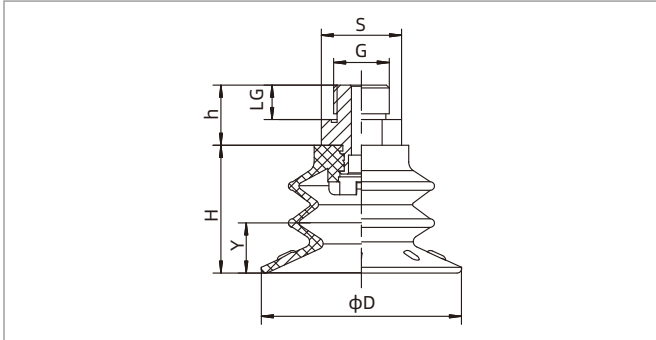
| Model/Size | D | H | A | d | d1 | y |
|------------|----|------|------|------|------|------|
| SGP25□ | 25 | 15.5 | 24 | 12 | 5 | 5.5 |
| SGP35□ | 35 | 22.3 | 33.4 | 16.5 | 5 | 8.4 |
| SGP45□ | 45 | 29.3 | 42.8 | 22 | 6.6 | 11.5 |
| SGP55□ | 55 | 36.3 | 52.4 | 27.5 | 10.5 | 12.9 |

SGP25-55

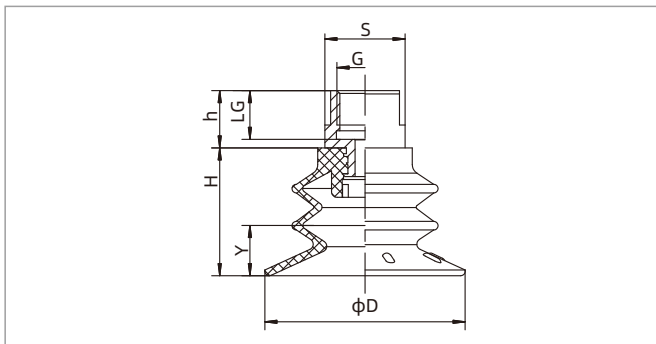
SGP Series

PU Bellows Suction Cup

Dimensions(mm)



SGP25-55 Male thread connection



SGP25-55 Female thread connection

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | H | G | h | LG | S | Y |
|------------|----|------|------|-----|----|----|------|
| SGP25□-G1M | 25 | 15.5 | G1/8 | 7.8 | 6 | 13 | 5.5 |
| SGP35□-G1M | 35 | 22.3 | G1/8 | 7.8 | 6 | 13 | 8.4 |
| SGP45□-G1M | 45 | 29.3 | G1/8 | 12 | 6 | 17 | 11.5 |
| SGP55□-G2M | 55 | 36.3 | G1/4 | 17 | 9 | 24 | 12.9 |
| SGP55□-G3M | 55 | 36.3 | G3/8 | 18 | 10 | 24 | 12.9 |

| Model/Size | D | H | G | h | LG | S | Y |
|------------|----|------|------|----|----|----|------|
| SGP25□-G1F | 25 | 15.5 | G1/8 | 8 | 7 | 13 | 5.5 |
| SGP35□-G1F | 35 | 22.3 | G1/8 | 8 | 7 | 13 | 8.4 |
| SGP45□-G1F | 45 | 29.3 | G1/8 | 10 | 7 | 17 | 11.5 |
| SGP55□-G2F | 55 | 36.3 | G1/4 | 13 | 10 | 24 | 12.9 |
| SGP55□-G3F | 55 | 36.3 | G3/8 | 13 | 11 | 24 | 12.9 |

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-G1M-SF1-EW | PJS-G1F-SF1-EW | SGP25, 35 |
| | PJS-G1M-SF2-EW | PJS-G1F-SF2-EW | SGP45 |
| | PJS-G2M-SF3-EW | PJS-G2F-SF3-EW | SGP55 |
| | PJS-G3M-SF3-EW | PJS-G3F-SF3-EW | SGP55 |

- SZ
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- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP**
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SBOF Series

2.5 Bellows Oval Suction Cup



Features

- ◇ 2.5 Bellows oval suction cup
- ◇ Material Vinyl

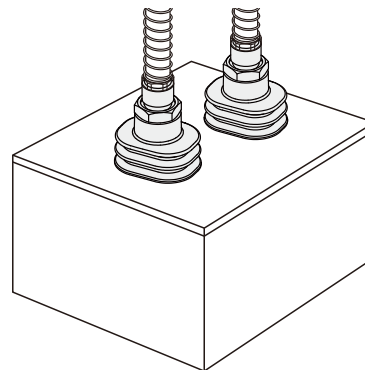
Advantages

- ◇ Easy to fit uneven surface of workpiece, and has buffer effect
- ◇ Excellent wearing resistance, long lifetime



Applications

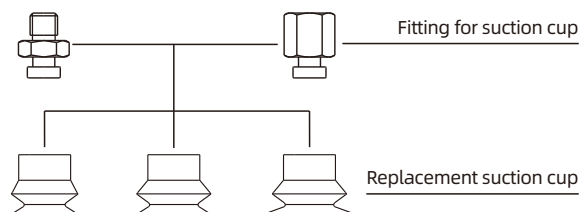
- ◇ Suitable for unpacking machines and handling soft packaging products
- ◇ Suitable for medical industry, such as washing packing bags containing chlorinated disinfectant
- ◇ Suitable for handling CD and DVD



Structure

- ◇ 2.5 Bellows, large compressed stroke
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately

In same series, replacement suction cup and fitting can be combined on request.



SBOF Series

2.5 Bellows Oval Suction Cup

How to order

SBOF 35×28 V - G2M

① ② ③ ④

| ① Series | ② Size | ③ Material & Hardness | ④ Connection thread |
|----------|----------------------|-----------------------|--|
| SBOF | 35×28 mm 45×28 mm | V - Vinyl 55 | Nil - Suction cup only M10M - M10×1.5 male thread G2M - G1/4 male thread G2F - G1/4 female thread |

Selection

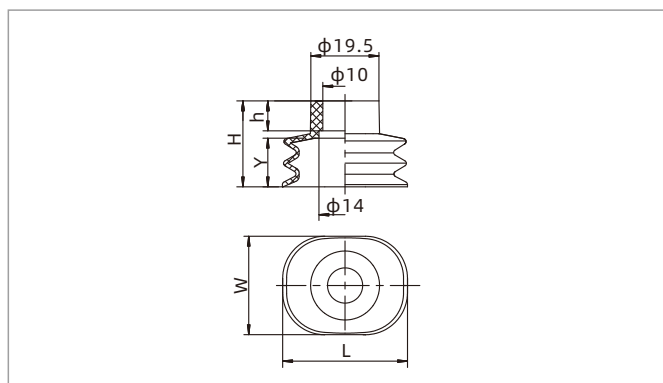
| Model | Connection thread | |
|------------|-------------------------------------|-------------------|
| | M - Male thread | F - Female thread |
| SBOF35×28V | SBOF35×28V-M10M SBOF35×28V-G2M | SBOF35×28V-G2F |
| SBOF45×28V | SBOF45×28V-M10M SBOF45×28V-G2M | SBOF45×28V-G2F |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-----------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SBOF35×28 | 44 | 22 | 39 | 5.8 | 8 | 1 |
| SBOF45×28 | 57 | 26 | 39 | 8.2 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm) - Suction cup only



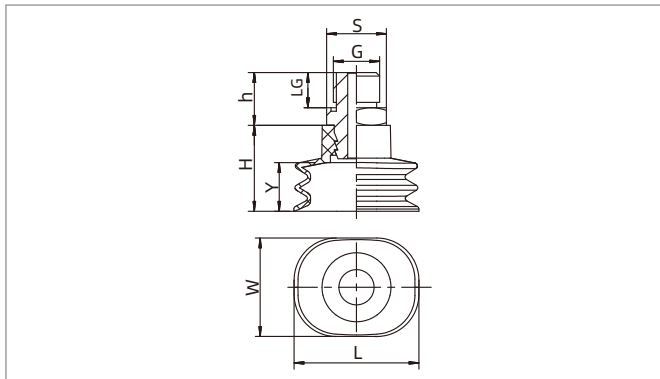
| Model/Size | L | W | H | h | Y(Stroke) |
|------------|----|----|------|-----|-----------|
| SBOF35×28V | 35 | 28 | 24.5 | 8.5 | 12 |
| SBOF45×28V | 45 | 28 | 25 | 9.5 | 13 |

SBOF

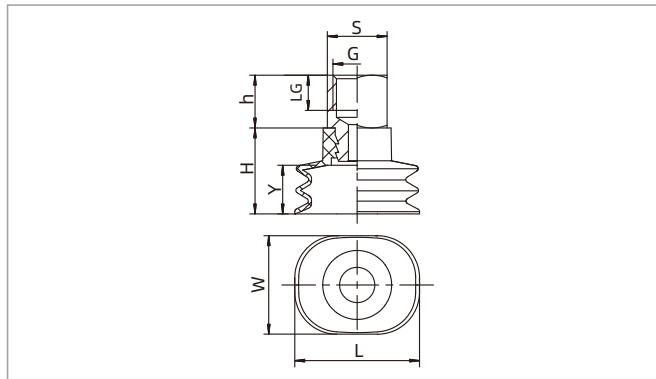
SBOF Series

2.5 Bellows Oval Suction Cup

Dimensions(mm) - Suction cup with fitting



SBOF - Male thread connection



SBOF - Female thread connection

| Model/Size | L | W | H | h | G | LG | S | Y |
|-----------------|----|----|------|----|---------|----|----|----|
| SBOF35×28V-M10M | 35 | 28 | 24.5 | 15 | M10×1.5 | 10 | 17 | 12 |
| SBOF35×28V-G2M | 35 | 28 | 24.5 | 15 | G1/4 | 10 | 17 | 12 |
| SBOF35×28V-G2F | 35 | 28 | 24.5 | 15 | G1/4 | 12 | 17 | 12 |
| SBOF45×28V-M10M | 45 | 28 | 25 | 15 | M10×1.5 | 10 | 17 | 13 |
| SBOF45×28V-G2M | 45 | 28 | 25 | 15 | G1/4 | 10 | 17 | 13 |
| SBOF45×28V-G2F | 45 | 28 | 25 | 15 | G1/4 | 12 | 17 | 13 |

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model | Applicable suction cup |
|-------------------------|---------------|------------------------|
| Fitting for suction cup | PJS-M10M-SBOF | SBOF35×28,SBOF45×28 |
| | PJS-G2M-SBOF | SBOF35×28,SBOF45×28 |
| | PJS-G2F-SBOF | SBOF35×28,SBOF45×28 |

STC Series

1.5 Bellows Suction Cup Special for Metal Sheet



Features

- ◇ 1.5 Bellows structure
- ◇ Internal large area pattern support structure
- ◇ Various sizes and specifications are available

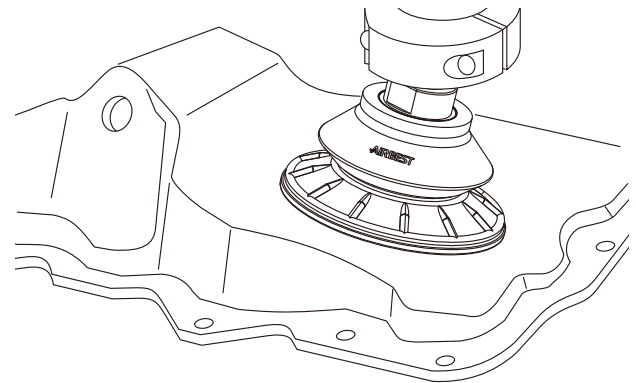
Advantages

- ◇ Easy to fit the uneven surface of workpiece, and has buffer effect
- ◇ Effectively enhance friction force between suction cups and workpieces
- ◇ The max. temp of HK material is 250°C, it can be used to pick up high temp metal sheet
- ◇ The max. temp of HD material is 160°C, it can be used to pick up high temp glass without mark
- ◇ Suitable for workpieces with different sizes and shapes



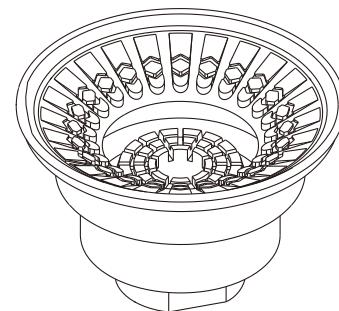
Applications

- ◇ Suitable for fast handling of metal plates, short cycle time
- ◇ Handling metal sheet and aluminum plates without deformation
- ◇ The internal special pattern groove design prevents the oily sheet metal from slipping during handling
- ◇ Used in automotive stamping metal parts handling system



Structure

- ◇ 1.5 Bellows structure, large compressed stroke
- ◇ Suction cup and fitting are one-piece structure design



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF**
- STC**
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

1.5 Bellows Suction Cup Special for Metal Sheet

How to order

STC 50 N - G3F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------|-----------------------------------|-----------------------------|
| STC | 22 - φ22mm | N - NBR | 60 G2F - G1/4 female thread |
| | 30 - φ30mm | HK - Extra high temp rubber | 65 G3F - G3/8 female thread |
| | 40 - φ40mm | HD - High temp/mark free material | 60 G2M - G1/4 male thread |
| | 50 - φ50mm | | M10M - M10×1.5 male thread |
| | 60 - φ60mm | M14M - M14×1.5 male thread | |
| | 80 - φ80mm | RA - Rectangular adapter | |
| | 100 - φ100mm | | |
| | 125 - φ125mm | | |

Selection

| Model | Connection thread | | | | | |
|-----------|-------------------|--------------|--------------|-------------|-------------|------------|
| | G2M | M10M | M14M | G2F | G3F | RA |
| STC22N-□ | STC22N-G2M | STC22N-M10M | STC22N-M14M | STC22N-G2F | STC22N-G3F | STC22N-RA |
| STC30N-□ | STC30N-G2M | STC30N-M10M | STC30N-M14M | STC30N-G2F | STC30N-G3F | STC30N-RA |
| STC40N-□ | STC40N-G2M | STC40N-M10M | STC40N-M14M | STC40N-G2F | STC40N-G3F | STC40N-RA |
| STC50N-□ | STC50N-G2M | STC50N-M10M | STC50N-M14M | STC50N-G2F | STC50N-G3F | STC50N-RA |
| STC60N-□ | STC60N-G2M | STC60N-M10M | STC60N-M14M | STC60N-G2F | STC60N-G3F | STC60N-RA |
| STC80N-□ | STC80N-G2M | STC80N-M10M | STC80N-M14M | STC80N-G2F | STC80N-G3F | STC80N-RA |
| STC100N-□ | STC100N-G2M | STC100N-M10M | STC100N-M14M | STC100N-G2F | STC100N-G3F | STC100N-RA |
| STC125N-□ | STC125N-G2M | STC125N-M10M | STC125N-M14M | STC125N-G2F | STC125N-G3F | STC125N-RA |

| Model | Connection thread | | | Model | Connection thread | | |
|------------|-------------------|--------------|--------------|------------|-------------------|--------------|--------------|
| | G2M | G2F | G3F | | G2M | G2F | G3F |
| STC22HK-□ | STC22HK-G2M | STC22HK-G2F | STC22HK-G3F | STC22HD-□ | STC22HD-G2M | STC22HD-G2F | STC22HD-G3F |
| STC30HK-□ | STC30HK-G2M | STC30HK-G2F | STC30HK-G3F | STC30HD-□ | STC30HD-G2M | STC30HD-G2F | STC30HD-G3F |
| STC40HK-□ | STC40HK-G2M | STC40HK-G2F | STC40HK-G3F | STC40HD-□ | STC40HD-G2M | STC40HD-G2F | STC40HD-G3F |
| STC50HK-□ | STC50HK-G2M | STC50HK-G2F | STC50HK-G3F | STC50HD-□ | STC50HD-G2M | STC50HD-G2F | STC50HD-G3F |
| STC60HK-□ | STC60HK-G2M | STC60HK-G2F | STC60HK-G3F | STC60HD-□ | STC60HD-G2M | STC60HD-G2F | STC60HD-G3F |
| STC80HK-□ | STC80HK-G2M | STC80HK-G2F | STC80HK-G3F | STC80HD-□ | STC80HD-G2M | STC80HD-G2F | STC80HD-G3F |
| STC100HK-□ | STC100HK-G2M | STC100HK-G2F | STC100HK-G3F | STC100HD-□ | STC100HD-G2M | STC100HD-G2F | STC100HD-G3F |
| STC125HK-□ | STC125HK-G2M | STC125HK-G2F | STC125HK-G3F | STC125HD-□ | STC125HD-G2M | STC125HD-G2F | STC125HD-G3F |

STC Series

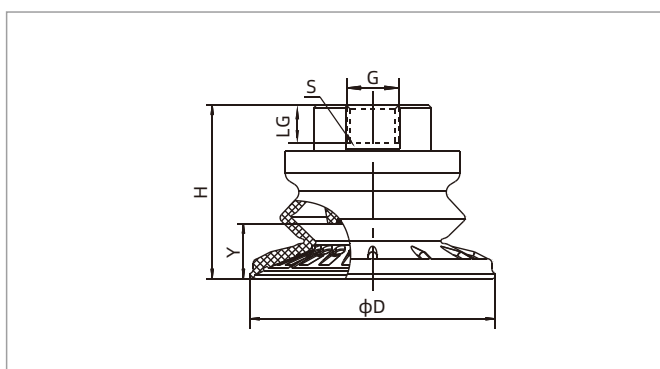
1.5 Bellows Suction Cup Special for Metal Sheet

Technical parameters

| Model | Vertical pull-out force N | Lateral pull-out force N | Lateral pull-out force Oily surface (N) | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------------|--------------------------|---|------------------------------|----------------------------------|----------|--------------------------|---------|
| STC22 | 23 | 20 | 6.5 | 1.5 | 20 | 8.6 | 6 | 5 |
| STC30 | 35 | 28 | 12 | 6.3 | 35 | 12 | 6 | 5 |
| STC40 | 62 | 37 | 34 | 7.2 | 40 | 13.5 | 6 | 1 |
| STC50 | 85 | 58 | 55 | 11.2 | 45 | 21 | 8 | 1 |
| STC60 | 141 | 88 | 83 | 22.5 | 52 | 29 | 8 | 1 |
| STC80 | 236 | 141 | 136 | 57 | 70.5 | 51 | 8 | 1 |
| STC100 | 371 | 228 | 221 | 92 | 95 | 77 | 8 | 1 |
| STC125 | 558 | 352 | 335 | 191 | 140 | 165 | 10 | 1 |

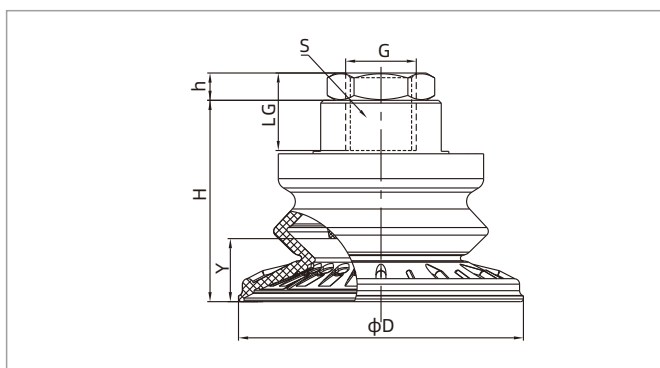
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces

Dimensions(mm)



F - Female thread

| Model/Size | D | H | G | LG | S | Y |
|-------------|------|------|------|----|----|------|
| STC22□-G2F | 22 | 25 | G1/4 | 10 | 16 | 5.5 |
| STC30□-G2F | 32 | 28 | G1/4 | 11 | 17 | 9.5 |
| STC40□-G2F | 42 | 28.5 | G1/4 | 11 | 17 | 10 |
| STC50□-G3F | 52 | 36.2 | G3/8 | 13 | 22 | 11.5 |
| STC60□-G3F | 62.5 | 41 | G3/8 | 13 | 22 | 14.5 |
| STC80□-G3F | 82 | 49.5 | G3/8 | 13 | 22 | 22.5 |
| STC100□-G3F | 103 | 55 | G3/8 | 13 | 22 | 25 |
| STC125□-G3F | 128 | 68 | G3/8 | 13 | 22 | 32 |



F - Female thread

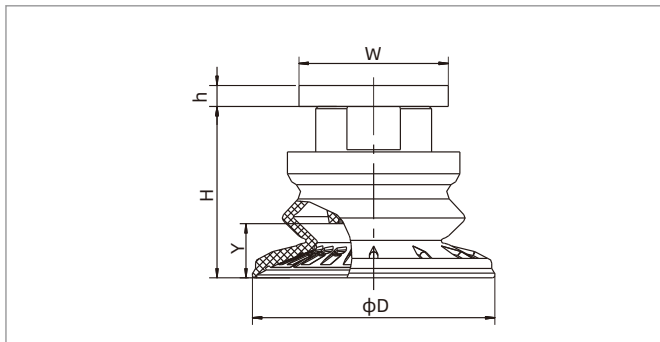
| Model/Size | D | H | G | h | LG | S | Y |
|-------------|------|------|------|----|----|----|------|
| STC22□-G3F | 22 | 25 | G3/8 | 14 | 11 | 22 | 5.5 |
| STC30□-G3F | 32 | 28 | G3/8 | 14 | 11 | 22 | 9.5 |
| STC40□-G3F | 42 | 28.5 | G3/8 | 14 | 11 | 22 | 10 |
| STC50□-G2F | 52 | 36.2 | G1/4 | 5 | 13 | 9 | 11.5 |
| STC60□-G2F | 62.5 | 41 | G1/4 | 5 | 13 | 9 | 14.5 |
| STC80□-G2F | 82 | 49.5 | G1/4 | 5 | 13 | 9 | 22.5 |
| STC100□-G2F | 103 | 55 | G1/4 | 5 | 13 | 9 | 25 |
| STC125□-G2F | 128 | 68 | G1/4 | 5 | 13 | 9 | 32 |

- SZ
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- SAO
- SOFA
- STP
- SFT
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- SBLP
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- SFP
- SBP
- SXP
- SGP
- SBOF
- STC**
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- SDL
- SFG
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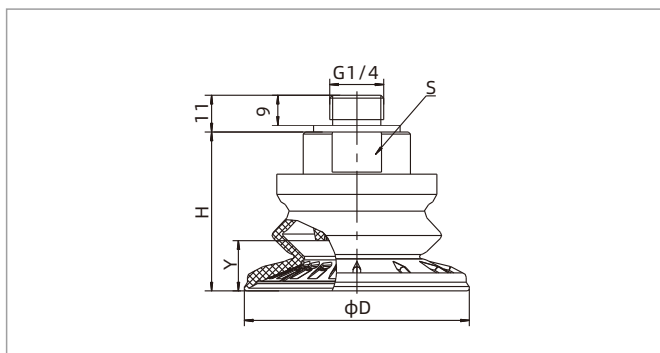
STC Series

1.5 Bellows Suction Cup Special for Metal Sheet

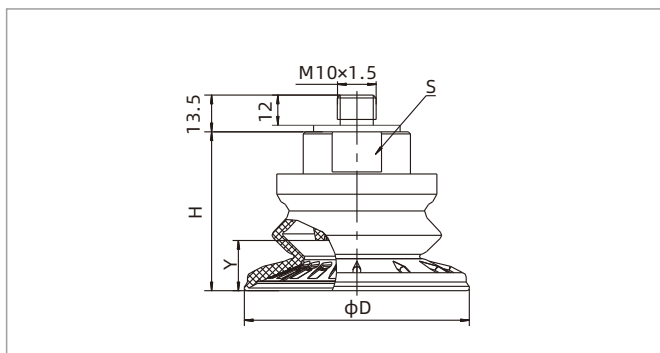
Dimensions(mm)



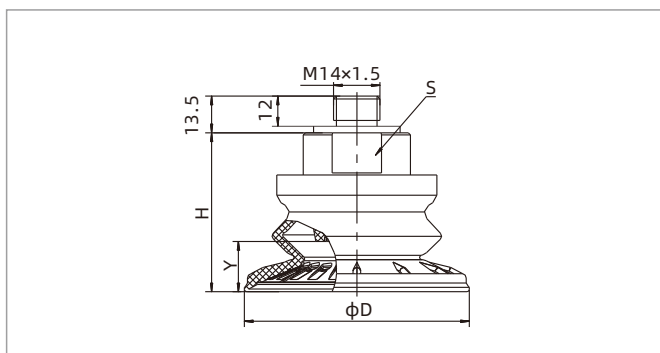
RA - Rectangular adapter



M - Male thread



M - Male thread



M - Male thread

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | H | W | h | Y |
|------------|------|------|-----------|-----|------|
| STC22□-RA | 22 | 25 | 31.8×31.8 | 4.7 | 5.5 |
| STC30□-RA | 32 | 28 | 31.8×31.8 | 4.7 | 9.5 |
| STC40□-RA | 42 | 28.5 | 31.8×31.8 | 4.7 | 10 |
| STC50□-RA | 52 | 36.2 | 31.8×31.8 | 4.7 | 11.5 |
| STC60□-RA | 62.5 | 41 | 31.8×31.8 | 4.7 | 14.5 |
| STC80□-RA | 82 | 49.5 | 31.8×31.8 | 4.7 | 22.5 |
| STC100□-RA | 103 | 55 | 31.8×31.8 | 4.7 | 25 |
| STC125□-RA | 128 | 68 | 31.8×31.8 | 4.7 | 32 |

| Model/Size | D | H | S | Y |
|-------------|------|------|----|------|
| STC22□-G2M | 22 | 25 | 17 | 5.5 |
| STC30□-G2M | 32 | 28 | 17 | 9.5 |
| STC40□-G2M | 42 | 28.5 | 17 | 10 |
| STC50□-G2M | 52 | 36.2 | 22 | 11.5 |
| STC60□-G2M | 62.5 | 41 | 22 | 14.5 |
| STC80□-G2M | 82 | 49.5 | 22 | 22.5 |
| STC100□-G2M | 103 | 55 | 22 | 25 |
| STC125□-G2M | 128 | 68 | 22 | 32 |

| Model/Size | D | H | S | Y |
|--------------|------|------|----|------|
| STC22□-M10M | 22 | 25 | 17 | 5.5 |
| STC30□-M10M | 32 | 28 | 17 | 9.5 |
| STC40□-M10M | 42 | 28.5 | 17 | 10 |
| STC50□-M10M | 52 | 36.2 | 22 | 11.5 |
| STC60□-M10M | 62.5 | 41 | 22 | 14.5 |
| STC80□-M10M | 82 | 49.5 | 22 | 22.5 |
| STC100□-M10M | 103 | 55 | 22 | 25 |
| STC125□-M10M | 128 | 68 | 22 | 32 |

| Model/Size | D | H | S | Y |
|--------------|------|------|----|------|
| STC22□-M14M | 22 | 25 | 17 | 5.5 |
| STC30□-M14M | 32 | 28 | 17 | 9.5 |
| STC40□-M14M | 42 | 28.5 | 17 | 10 |
| STC50□-M14M | 52 | 36.2 | 22 | 11.5 |
| STC60□-M14M | 62.5 | 41 | 22 | 14.5 |
| STC80□-M14M | 82 | 49.5 | 22 | 22.5 |
| STC100□-M14M | 103 | 55 | 22 | 25 |
| STC125□-M14M | 128 | 68 | 22 | 32 |

SFF Series

Flat Suction Cup Special for Metal Sheet

AIRBEST



METAL SHEET



SLIPPING RESISTANCE



OILY SURFACE



Suction Cup

Features

- ◇ Internal large area support structure
- ◇ Various sizes are available

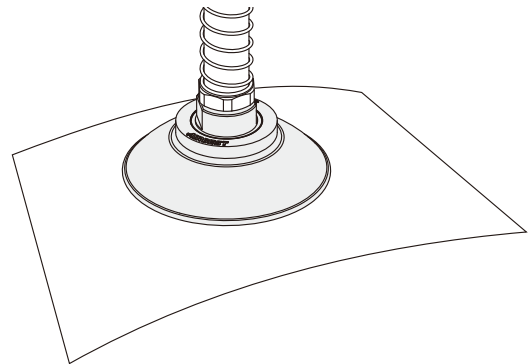
Advantages

- ◇ Effectively enhance the friction force between suction cups and workpieces
- ◇ The max. temp of HK material is 250°C, it can be used to pick up high temp metal sheet
- ◇ The max. temp of HD material is 160°C, it can be used to pick up high temp glass without mark
- ◇ Suitable for workpieces with different sizes and shapes



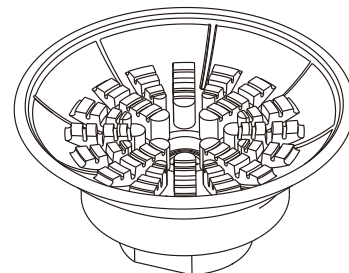
Applications

- ◇ Handling of oily metal sheet
- ◇ Handling metal sheet and aluminum plates without deformation
- ◇ Used for loading and unloading of material during CNC or machine tool processing
- ◇ Handling curved metal sheets
- ◇ Used in automotive stamping metal parts handling systems



Structure

- ◇ Suction cup and fitting are one-piece structure



SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SFF Series

Flat Suction Cup Special for Metal Sheet

How to order

SFF 50 N - G3F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------|-----------------------------------|-------------------------------|
| SFF | 30 - φ30mm | N - NBR | 60 G2F - G1/4 female thread |
| | 40 - φ40mm | NG - NBR | 45 G3F - G3/8 female thread |
| | 50 - φ50mm | HK - Extra high temp rubber | 65 G2M - G1/4 male thread |
| | 60 - φ60mm | HD - High temp/mark free material | 60 M10M - M10×1.5 male thread |
| | 80 - φ80mm | | M14M - M14×1.5 male thread |
| | 100 - φ100mm | | RA - Rectangular adapter |
| | 125 - φ125mm | | |

Selection

| Model | Connection thread | | | | | |
|-----------|-------------------|--------------|--------------|-------------|-------------|------------|
| | G2M | M10M | M14M | G2F | G3F | RA |
| SFF30N-□ | SFF30N-G2M | SFF30N-M10M | SFF30N-M14M | SFF30N-G2F | SFF30N-G3F | SFF30N-RA |
| SFF40N-□ | SFF40N-G2M | SFF40N-M10M | SFF40N-M14M | SFF40N-G2F | SFF40N-G3F | SFF40N-RA |
| SFF50N-□ | SFF50N-G2M | SFF50N-M10M | SFF50N-M14M | SFF50N-G2F | SFF50N-G3F | SFF50N-RA |
| SFF60N-□ | SFF60N-G2M | SFF60N-M10M | SFF60N-M14M | SFF60N-G2F | SFF60N-G3F | SFF60N-RA |
| SFF80N-□ | SFF80N-G2M | SFF80N-M10M | SFF80N-M14M | SFF80N-G2F | SFF80N-G3F | SFF80N-RA |
| SFF100N-□ | SFF100N-G2M | SFF100N-M10M | SFF100N-M14M | SFF100N-G2F | SFF100N-G3F | SFF100N-RA |
| SFF125N-□ | SFF125N-G2M | SFF125N-M10M | SFF125N-M14M | SFF125N-G2F | SFF125N-G3F | SFF125N-RA |

| Model | Connection thread | | | | | |
|------------|-------------------|---------------|--------------|--------------|--------------|-------------|
| | G2M | M10M | M14M | G2F | G3F | RA |
| SFF30NG-□ | SFF30NG-G2M | SFF30NG-M10M | SFF30N-M14M | SFF30NG-G2F | SFF30NG-G3F | SFF30NG-RA |
| SFF40NG-□ | SFF40NG-G2M | SFF40NG-M10M | SFF40N-M14M | SFF40NG-G2F | SFF40NG-G3F | SFF40NG-RA |
| SFF50NG-□ | SFF50NG-G2M | SFF50NG-M10M | SFF50N-M14M | SFF50NG-G2F | SFF50NG-G3F | SFF50NG-RA |
| SFF60NG-□ | SFF60NG-G2M | SFF60NG-M10M | SFF60N-M14M | SFF60NG-G2F | SFF60NG-G3F | SFF60NG-RA |
| SFF80NG-□ | SFF80NG-G2M | SFF80NG-M10M | SFF80N-M14M | SFF80NG-G2F | SFF80NG-G3F | SFF80NG-RA |
| SFF100NG-□ | SFF100NG-G2M | SFF100NG-M10M | SFF100N-M14M | SFF100NG-G2F | SFF100NG-G3F | SFF100NG-RA |
| SFF125NG-□ | SFF125NG-G2M | SFF125NG-M10M | SFF125N-M14M | SFF125NG-G2F | SFF125NG-G3F | SFF125NG-RA |

| Model | Connection thread | | | Model | Connection thread | | |
|------------|-------------------|--------------|--------------|------------|-------------------|--------------|--------------|
| | G2M | G2F | G3F | | G2M | G2F | G3F |
| SFF30HK-□ | SFF30HK-G2M | SFF30HK-G2F | SFF30HK-G3F | SFF30HD-□ | SFF30HD-G2M | SFF30HD-G2F | SFF30HD-G3F |
| SFF40HK-□ | SFF40HK-G2M | SFF40HK-G2F | SFF40HK-G3F | SFF40HD-□ | SFF40HD-G2M | SFF40HD-G2F | SFF40HD-G3F |
| SFF50HK-□ | SFF50HK-G2M | SFF50HK-G2F | SFF50HK-G3F | SFF50HD-□ | SFF50HD-G2M | SFF50HD-G2F | SFF50HD-G3F |
| SFF60HK-□ | SFF60HK-G2M | SFF60HK-G2F | SFF60HK-G3F | SFF60HD-□ | SFF60HD-G2M | SFF60HD-G2F | SFF60HD-G3F |
| SFF80HK-□ | SFF80HK-G2M | SFF80HK-G2F | SFF80HK-G3F | SFF80HD-□ | SFF80HD-G2M | SFF80HD-G2F | SFF80HD-G3F |
| SFF100HK-□ | SFF100HK-G2M | SFF100HK-G2F | SFF100HK-G3F | SFF100HD-□ | SFF100HD-G2M | SFF100HD-G2F | SFF100HD-G3F |
| SFF125HK-□ | SFF125HK-G2M | SFF125HK-G2F | SFF125HK-G3F | SFF125HD-□ | SFF125HD-G2M | SFF125HD-G2F | SFF125HD-G3F |

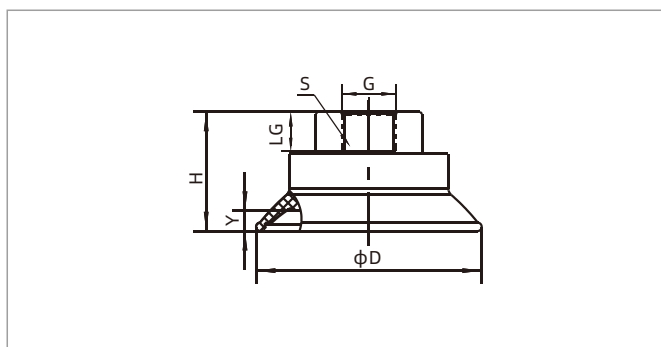
SFF Series

Flat Suction Cup Special for Metal Sheet

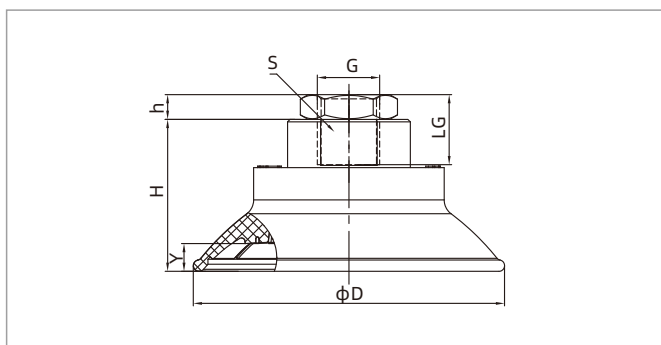
Technical parameters

| Model | Vertical pull-out force N | Lateral pull-out force N | Lateral pull-out force Oily surface(N) | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------------|--------------------------|--|------------------------------|----------------------------------|----------|--------------------------|---------|
| SFF30 | 45 | 35 | 33 | 1.6 | 35 | 11 | 6 | 1 |
| SFF40 | 72 | 54 | 51 | 3.5 | 47.5 | 13 | 6 | 1 |
| SFF50 | 112 | 90 | 86 | 7.5 | 70 | 20 | 8 | 1 |
| SFF60 | 145 | 102 | 93 | 12.6 | 81 | 26 | 8 | 1 |
| SFF80 | 288 | 212 | 190 | 35 | 115 | 43 | 8 | 1 |
| SFF100 | 445 | 322 | 308 | 60 | 141 | 57 | 8 | 1 |
| SFF125 | 660 | 475 | 400 | 115 | 165 | 145 | 10 | 1 |

Dimensions(mm)



F - Female thread connection



F - Female thread connection

| Model/Size | D | H | G | LG | S | Y |
|-------------|------|------|------|----|----|------|
| SFF30□-G2F | 32 | 19.5 | G1/4 | 11 | 17 | 2.7 |
| SFF40□-G2F | 42 | 22 | G1/4 | 11 | 17 | 3.4 |
| SFF50□-G3F | 52 | 28 | G3/8 | 13 | 22 | 4.7 |
| SFF60□-G3F | 62.5 | 31 | G3/8 | 13 | 22 | 6 |
| SFF80□-G3F | 83 | 34.5 | G3/8 | 13 | 22 | 6 |
| SFF100□-G3F | 102 | 36.5 | G3/8 | 13 | 22 | 9.2 |
| SFF125□-G3F | 128 | 43 | G3/8 | 13 | 22 | 12.5 |

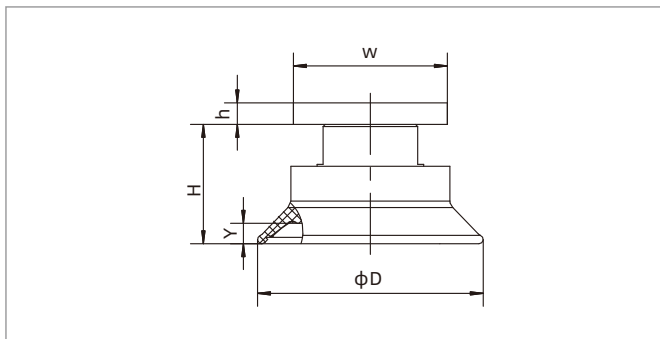
| Model/Size | D | H | G | h | LG | S | Y |
|-------------|------|------|------|----|----|----|------|
| SFF30□-G3F | 32 | 19.5 | G3/8 | 14 | 11 | 22 | 2.7 |
| SFF40□-G3F | 42 | 22 | G3/8 | 14 | 11 | 22 | 3.4 |
| SFF50□-G2F | 52 | 28 | G1/4 | 5 | 13 | 19 | 4.7 |
| SFF60□-G2F | 62.5 | 31 | G1/4 | 5 | 13 | 19 | 6 |
| SFF80□-G2F | 83 | 34.5 | G1/4 | 5 | 13 | 19 | 6 |
| SFF100□-G2F | 102 | 36.5 | G1/4 | 5 | 13 | 19 | 9.2 |
| SFF125□-G2F | 128 | 43 | G1/4 | 5 | 13 | 19 | 12.5 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF**
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SFF Series

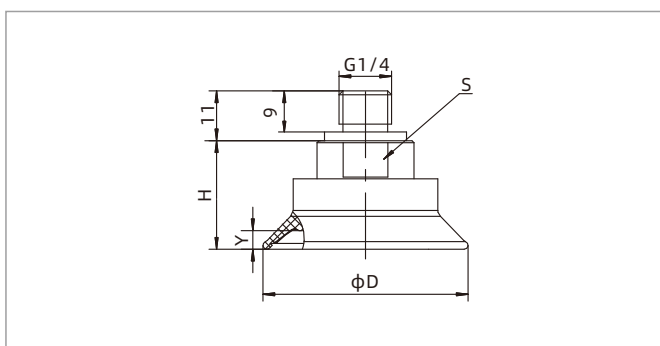
Flat Suction Cup Special for Metal Sheet

Dimensions(mm)



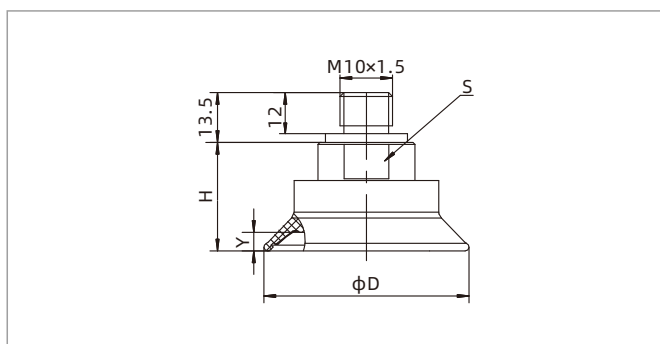
RA - Rectangular adapter

| Model/Size | D | H | W | h | Y |
|------------|------|------|-----------|-----|------|
| SFF30□-RA | 32 | 19.5 | 31.8×31.8 | 4.7 | 2.7 |
| SFF40□-RA | 42 | 22 | 31.8×31.8 | 4.7 | 3.7 |
| SFF50□-RA | 52 | 28 | 31.8×31.8 | 4.7 | 4.7 |
| SFF60□-RA | 62.5 | 31 | 31.8×31.8 | 4.7 | 6 |
| SFF80□-RA | 83 | 34.5 | 31.8×31.8 | 4.7 | 6 |
| SFF100□-RA | 102 | 36.5 | 31.8×31.8 | 4.7 | 9.2 |
| SFF125□-RA | 128 | 43 | 31.8×31.8 | 4.7 | 12.5 |



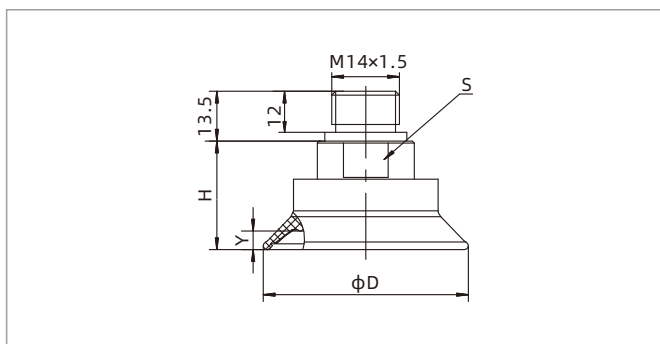
M - Male thread connection

| Model/Size | D | H | s | Y |
|-------------|------|------|----|------|
| SFF30□-G2M | 32 | 19.5 | 17 | 2.7 |
| SFF40□-G2M | 42 | 22 | 17 | 3.7 |
| SFF50□-G2M | 52 | 28 | 22 | 4.7 |
| SFF60□-G2M | 62.5 | 31 | 22 | 6 |
| SFF80□-G2M | 83 | 34.5 | 22 | 6 |
| SFF100□-G2M | 102 | 36.5 | 22 | 9.2 |
| SFF125□-G2M | 128 | 43 | 22 | 12.5 |



M - Male thread connection

| Model/Size | D | H | s | Y |
|--------------|------|------|----|------|
| SFF30□-M10M | 32 | 19.5 | 17 | 2.7 |
| SFF40□-M10M | 42 | 22 | 17 | 3.7 |
| SFF50□-M10M | 52 | 28 | 22 | 4.7 |
| SFF60□-M10M | 62.5 | 31 | 22 | 6 |
| SFF80□-M10M | 83 | 34.5 | 22 | 6 |
| SFF100□-M10M | 102 | 36.5 | 22 | 9.2 |
| SFF125□-M10M | 128 | 43 | 22 | 12.5 |



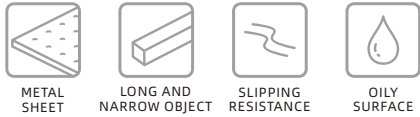
M - Male thread connection

| Model/Size | D | H | s | Y |
|--------------|------|------|----|------|
| SFF30□-M14M | 32 | 19.5 | 17 | 2.7 |
| SFF40□-M14M | 42 | 22 | 17 | 3.7 |
| SFF50□-M14M | 52 | 28 | 22 | 4.7 |
| SFF60□-M14M | 62.5 | 31 | 22 | 6 |
| SFF80□-M14M | 83 | 34.5 | 22 | 6 |
| SFF100□-M14M | 102 | 36.5 | 22 | 9.2 |
| SFF125□-M14M | 128 | 43 | 22 | 12.5 |

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

SOB Series

Oval Suction Cup Special for Metal Sheet



Suction Cup

Features

- ◇ 1.5 Bellows oval structure
- ◇ Internal large area pattern support structure
- ◇ Various sizes and specifications are available

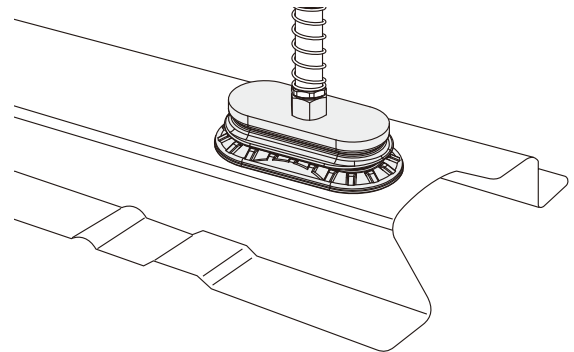
Advantages

- ◇ Handling long and narrow workpieces with even surface or curvature
- ◇ The max. temp of HK material is 250°C, it can be used to pick up high temp metal sheet
- ◇ The max. temp of HD material is 160°C, it can be used to pick up high temp glass without mark
- ◇ Suitable for workpieces with different sizes and shapes



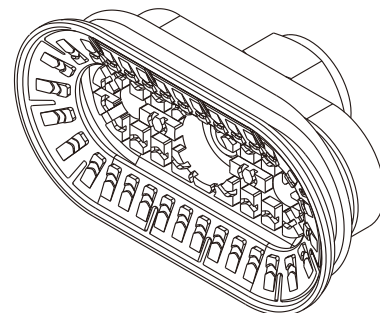
Applications

- ◇ Handling narrow and long metal parts in fast speed, short cycle time
- ◇ Handling metal sheet and aluminum plates without deformation
- ◇ Handling automotive stamping metal parts



Structure

- ◇ 1.5 Bellows structure
- ◇ Suction cup and fitting are one-piece structure



SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SOB Series

Oval Suction Cup Special for Metal Sheet

How to order

SOB 30×60 N - G3F

① ② ③ ④

| ① Series | ② Size | ③ Material & Hardness | ④ Connection thread |
|----------|--------|-----------------------------------|---|
| SOB | 30×60 | N - NBR | 60 G2F - G1/4 female thread |
| | 40×80 | HK - Extra high temp rubber | 65 G3F - G3/8 female thread |
| | 55×110 | HD - High temp/mark free material | 60 G2M - G1/4 male thread |
| | 70×140 | | M10M - M10×1.5 male thread M14M - M14×1.5 male thread RA - Rectangular adapter |

Selection

| Model | Connection thread | | | | | |
|--------------|-------------------|-----------------|-----------------|----------------|----------------|---------------|
| | G2M | M10M | M14M | G2F | G3F | RA |
| SOB30×60N-□ | SOB30×60N-G2M | SOB30×60N-M10M | SOB30×60N-M14M | SOB30×60N-G2F | SOB30×60N-G3F | SOB30×60N-RA |
| SOB40×80N-□ | SOB40×80N-G2M | SOB40×80N-M10M | SOB40×80N-M14M | SOB40×80N-G2F | SOB40×80N-G3F | SOB40×80N-RA |
| SOB55×110N-□ | SOB55×110N-G2M | SOB55×110N-M10M | SOB55×110N-M14M | SOB55×110N-G2F | SOB55×110N-G3F | SOB55×110N-RA |
| SOB70×140N-□ | SOB70×140N-G2M | SOB70×140N-M10M | SOB70×140N-M14M | SOB70×140N-G2F | SOB70×140N-G3F | SOB70×140N-RA |

| Model | Connection thread | | |
|---------------|-------------------|-----------------|-----------------|
| | G2M | G2F | G3F |
| SOB30×60HK-□ | SOB30×60HK-G2M | SOB30×60HK-G2F | SOB30×60HK-G3F |
| SOB40×80HK-□ | SOB40×80HK-G2M | SOB40×80HK-G2F | SOB40×80HK-G3F |
| SOB55×110HK-□ | SOB55×110HK-G2M | SOB55×110HK-G2F | SOB55×110HK-G3F |
| SOB70×140HK-□ | SOB70×140HK-G2M | SOB70×140HK-G2F | SOB70×140HK-G3F |

| Model | Connection thread | | |
|---------------|-------------------|-----------------|-----------------|
| | G2M | G2F | G3F |
| SOB30×60HD-□ | SOB30×60HD-G2M | SOB30×60HD-G2F | SOB30×60HD-G3F |
| SOB40×80HD-□ | SOB40×80HD-G2M | SOB40×80HD-G2F | SOB40×80HD-G3F |
| SOB55×110HD-□ | SOB55×110HD-G2M | SOB55×110HD-G2F | SOB55×110HD-G3F |
| SOB70×140HD-□ | SOB70×140HD-G2M | SOB70×140HD-G2F | SOB70×140HD-G3F |

Technical parameters

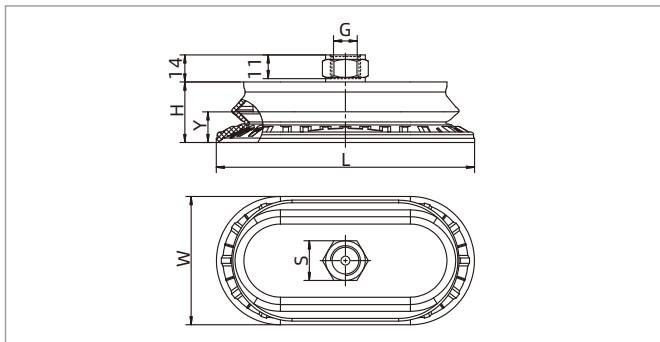
| Model | Vertical pull-out force N | Lateral pull-out force N | Lateral pull-out force (Oily surface)N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-----------|---------------------------|--------------------------|--|------------------------------|----------------------------------|----------|--------------------------|---------|
| SOB30×60 | 53 | 60 | 50 | 8.7 | 25 | 26 | 6 | 1 |
| SOB40×80 | 110 | 118 | 101 | 20 | 32 | 33 | 8 | 1 |
| SOB55×110 | 197 | 200 | 183 | 50 | 50 | 75 | 8 | 1 |
| SOB70×140 | 275 | 295 | 267 | 100 | 70 | 117 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces

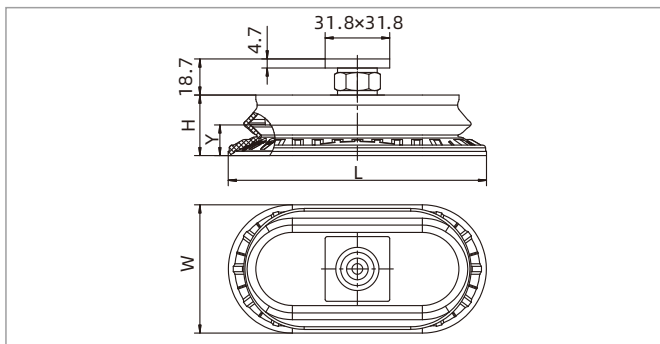
SOB Series

Oval Suction Cup Special for Metal Sheet

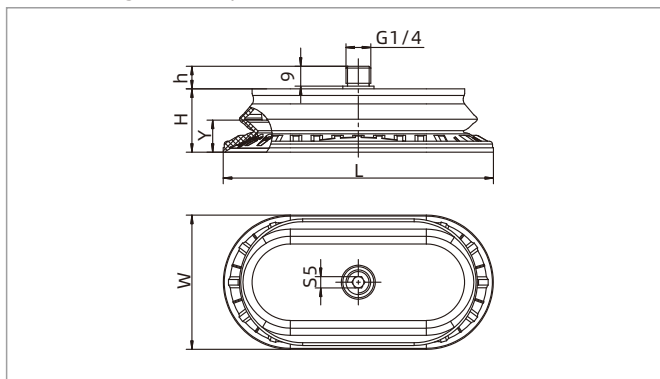
Dimensions(mm)



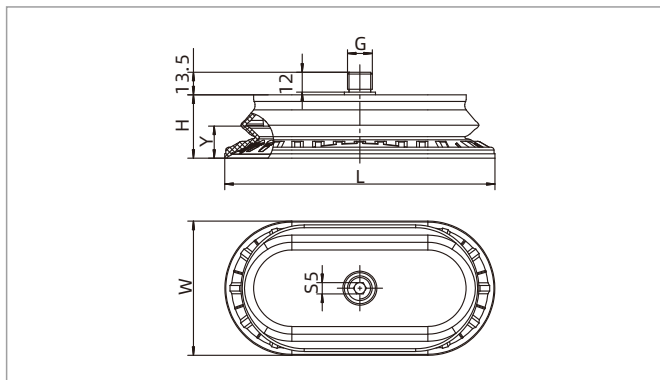
F - Female thread connection



RA - Rectangular adapter



M - Male thread connection



M - Male thread connection

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | L | W | H | G | S | Y |
|----------------|-----|------|------|------|----|------|
| SOB30×60N-G2F | 62 | 31 | 20 | G1/4 | 17 | 6 |
| SOB30×60N-G3F | 62 | 31 | 20 | G3/8 | 22 | 6 |
| SOB40×80N-G2F | 82 | 41 | 22.7 | G1/4 | 17 | 8.8 |
| SOB40×80N-G3F | 82 | 41 | 22.7 | G3/8 | 22 | 8.8 |
| SOB55×110N-G2F | 112 | 57 | 29 | G1/4 | 17 | 12.5 |
| SOB55×110N-G3F | 112 | 57 | 29 | G3/8 | 22 | 12.5 |
| SOB70×140N-G2F | 143 | 70.5 | 33 | G1/4 | 17 | 17 |
| SOB70×140N-G3F | 143 | 70.5 | 33 | G3/8 | 22 | 17 |

| Model/Size | L | W | H | Y |
|---------------|-----|------|------|------|
| SOB30×60N-RA | 62 | 31 | 20 | 6 |
| SOB40×80N-RA | 82 | 41 | 22.7 | 8.8 |
| SOB55×110N-RA | 112 | 57 | 29 | 12.5 |
| SOB70×140N-RA | 143 | 70.5 | 33 | 17 |

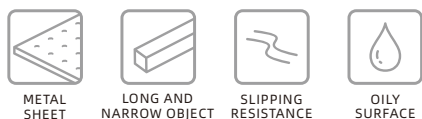
| Model/Size | L | W | H | h | Y |
|----------------|-----|------|------|------|------|
| SOB30×60N-G2M | 62 | 31 | 20 | 10.5 | 6 |
| SOB40×80N-G2M | 82 | 41 | 22.7 | 10.5 | 8.8 |
| SOB55×110N-G2M | 112 | 57 | 29 | 11 | 12.5 |
| SOB70×140N-G2M | 143 | 70.5 | 33 | 11 | 17 |

| Model/Size | L | W | H | G | Y |
|-----------------|-----|------|------|---------|------|
| SOB30×60N-M10M | 62 | 31 | 20 | M10×1.5 | 6 |
| SOB30×60N-M14M | 62 | 31 | 20 | M14×1.5 | 6 |
| SOB40×80-M10M | 82 | 41 | 22.7 | M10×1.5 | 8.8 |
| SOB40×80N-M14M | 82 | 41 | 22.7 | M14×1.5 | 8.8 |
| SOB55×110-M10M | 112 | 57 | 29 | M10×1.5 | 12.5 |
| SOB55×110N-M14M | 112 | 57 | 29 | M14×1.5 | 12.5 |
| SOB70×140-M10M | 143 | 70.5 | 33 | M10×1.5 | 17 |
| SOB70×140N-M14M | 143 | 70.5 | 33 | M14×1.5 | 17 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB**
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SOF Series

Oval Flat Suction Cup Special for Metal Sheet



Features

- ◇ Oval flat suction cup
- ◇ Internal large area pattern support structure
- ◇ Various sizes are available

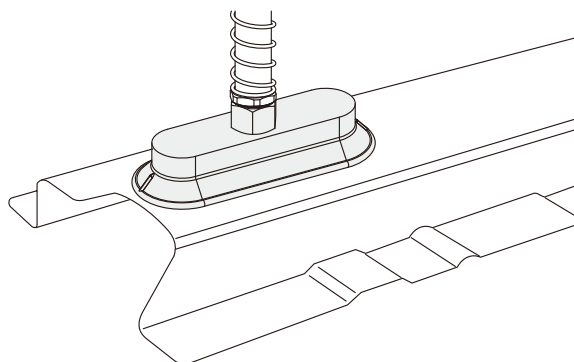
Advantages

- ◇ Handling long and narrow workpieces
- ◇ Effectively enhance friction force between suction cups and workpieces
- ◇ The max. temp of HK material is 250°C, it can be used to pick up high temp metal sheet
- ◇ The max. temp of HD material is 160°C, it can be used to pick up high temp glass without mark
- ◇ Suitable for workpieces with different sizes and shapes



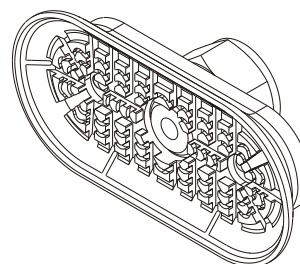
Applications

- ◇ Handling narrow and long metal parts in fast speed, short cycle time
- ◇ Handling metal sheet and aluminum plates without deformation
- ◇ Handling automotive stamping metal parts



Structure

- ◇ Suction cup and fitting are one-piece structure



Oval Flat Suction Cup Speical for Metal Sheet

How to order

SOF 40×80 N - G3F

① ② ③ ④

| ① Series | ② Size | ③ Material & Hardness | ④ Connection thread |
|----------|--------------|-----------------------------------|---|
| SOF | 16×50 40×110 | N - NBR | 60 G2F - G1/4 female thread M10M - M10×1.5 male thread |
| | 20×80 50×100 | NG - NBR | 45 G3F - G3/8 female thread M14M - M14×1.5 male thread |
| | 23×60 60×120 | HK - Extra high temp rubber | 65 G2M - G1/4 male thread RA - Rectangular adapter |
| | 30×90 70×140 | HD - High temp/mark free material | 60 |
| | 40×80 | | |

Selection

| Model | Connection thread | | | | | |
|--------------|-------------------|-----------------|-----------------|----------------|----------------|---------------|
| | G2M | M10M | M14M | G2F | G3F | RA |
| SOF16×50□-□ | SOF16×50□-G2M | SOF16×50□-M10M | SOF16×50□-M14M | SOF16×50□-G2F | SOF16×50□-G3F | SOF16×50□-RA |
| SOF20×80□-□ | SOF20×80□-G2M | SOF20×80□-M10M | SOF20×80□-M14M | SOF20×80□-G2F | SOF20×80□-G3F | SOF20×80□-RA |
| SOF23×60□-□ | SOF23×60□-G2M | SOF23×60□-M10M | SOF23×60□-M14M | SOF23×60□-G2F | SOF23×60□-G3F | SOF23×60□-RA |
| SOF40×80□-□ | SOF40×80□-G2M | SOF40×80□-M10M | SOF40×80□-M14M | SOF40×80□-G2F | SOF40×80□-G3F | SOF40×80□-RA |
| SOF30×90□-□ | SOF30×90□-G2M | SOF30×90□-M10M | SOF30×90□-M14M | SOF30×90□-G2F | SOF30×90□-G3F | SOF30×90□-RA |
| SOF40×110□-□ | SOF40×110□-G2M | SOF40×110□-M10M | SOF40×110□-M14M | SOF40×110□-G2F | SOF40×110□-G3F | SOF40×110□-RA |
| SOF50×100□-□ | SOF50×100□-G2M | SOF50×100□-M10M | SOF50×100□-M14M | SOF50×100□-G2F | SOF50×100□-G3F | SOF50×100□-RA |
| SOF60×120□-□ | SOF60×120□-G2M | SOF60×120□-M10M | SOF60×120□-M14M | SOF60×120□-G2F | SOF60×120□-G3F | SOF60×120□-RA |
| SOF70×140□-□ | SOF70×140□-G2M | SOF70×140□-M10M | SOF70×140□-M14M | SOF70×140□-G2F | SOF70×140□-G3F | SOF70×140□-RA |

| Model | Connection thread | | | Model | Connection thread | | |
|---------------|-------------------|-----------------|-----------------|---------------|-------------------|-----------------|-----------------|
| | G2M | G2F | G3F | | G2M | G2F | G3F |
| SOF16×50HK-□ | SOF16×50HK-G2M | SOF16×50HK-G2F | SOF16×50HK-G3F | SOF16×50HD-□ | SOF16×50HD-G2M | SOF16×50HD-G2F | SOF16×50HD-G3F |
| SOF20×80HK-□ | SOF20×80HK-G2M | SOF20×80HK-G2F | SOF20×80HK-G3F | SOF20×80HD-□ | SOF20×80HD-G2M | SOF20×80HD-G2F | SOF20×80HD-G3F |
| SOF23×60HK-□ | SOF23×60HK-G2M | SOF23×60HK-G2F | SOF23×60HK-G3F | SOF23×60HD-□ | SOF23×60HD-G2M | SOF23×60HD-G2F | SOF23×60HD-G3F |
| SOF40×80HK-□ | SOF40×80HK-G2M | SOF40×80HK-G2F | SOF40×80HK-G3F | SOF40×80HD-□ | SOF40×80HD-G2M | SOF40×80HD-G2F | SOF40×80HD-G3F |
| SOF30×90HK-□ | SOF30×90HK-G2M | SOF30×90HK-G2F | SOF30×90HK-G3F | SOF30×90HD-□ | SOF30×90HD-G2M | SOF30×90HD-G2F | SOF30×90HD-G3F |
| SOF40×110HK-□ | SOF40×110HK-G2M | SOF40×110HK-G2F | SOF40×110HK-G3F | SOF40×110HD-□ | SOF40×110HD-G2M | SOF40×110HD-G2F | SOF40×110HD-G3F |
| SOF50×100HK-□ | SOF50×100HK-G2M | SOF50×100HK-G2F | SOF50×100HK-G3F | SOF50×100HD-□ | SOF50×100HD-G2M | SOF50×100HD-G2F | SOF50×100HD-G3F |
| SOF60×120HK-□ | SOF60×120HK-G2M | SOF60×120HK-G2F | SOF60×120HK-G3F | SOF60×120HD-□ | SOF60×120HD-G2M | SOF60×120HD-G2F | SOF60×120HD-G3F |
| SOF70×140HK-□ | SOF70×140HK-G2M | SOF70×140HK-G2F | SOF70×140HK-G3F | SOF70×140HD-□ | SOF70×140HD-G2M | SOF70×140HD-G2F | SOF70×140HD-G3F |

Technical parameters

| Model | Vertical pull-out force N | Lateral pull-out force N | Lateral pull-out force (Oily surface)N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-----------|---------------------------|--------------------------|--|------------------------------|----------------------------------|----------|--------------------------|---------|
| SOF16×50 | 33 | 24 | 12 | 2 | 8 | 17 | 4 | 1 |
| SOF20×80 | 78 | 38 | 35 | 5 | 25 | 23 | 4 | 1 |
| SOF23×60 | 57 | 37 | 33 | 3 | 20 | 29 | 4 | 1 |
| SOF30×90 | 125 | 77 | 60 | 10 | 30 | 24 | 4 | 1 |
| SOF40×80 | 141 | 110 | 100 | 11 | 50 | 43 | 6 | 1 |
| SOF40×110 | 200 | 188 | 118 | 25 | 35 | 47 | 6 | 1 |
| SOF50×100 | 217 | 181 | 121 | 20 | 75 | 56 | 6 | 1 |
| SOF60×120 | 312 | 254 | 170 | 35 | 75 | 70 | 6 | 1 |
| SOF70×140 | 445 | 344 | 230 | 52 | 90 | 77 | 8 | 1 |

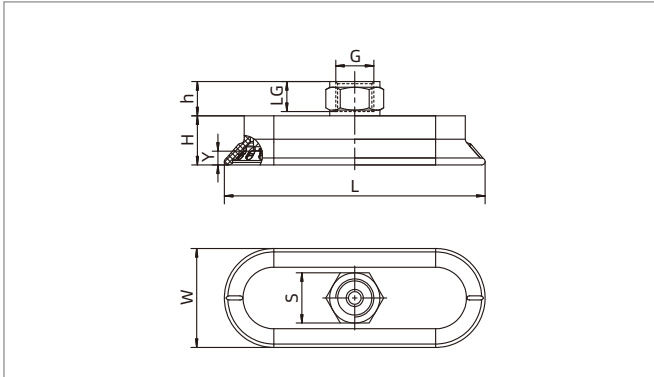
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

SOF Series

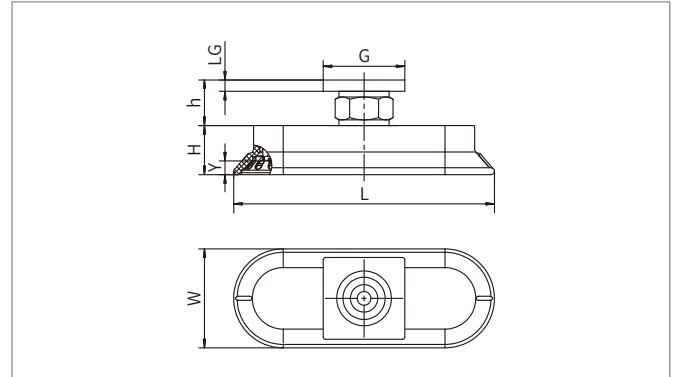


Oval Flat Suction Cup Special for Metal Sheet

Dimensions(mm)



F - Female thread connection



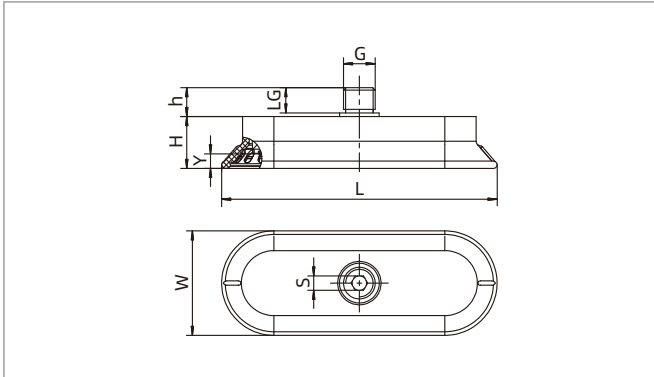
RA-Rectangular adapter

| Model/Size | L | W | H | G | LG | h | S | Y |
|----------------|------|------|------|-----------|-----|------|----|---|
| SOF16×50□-G2F | 50 | 16 | 19.5 | G1/4 | 11 | 14 | 17 | 3 |
| SOF16×50□-G3F | 50 | 16 | 19.5 | G3/8 | 11 | 14 | 22 | 3 |
| SOF16×50□-RA | 50 | 16 | 19.5 | 31.8×31.8 | 4.7 | 18.7 | - | 3 |
| SOF20×80□-G2F | 84 | 24 | 15.5 | G1/4 | 11 | 14 | 17 | 5 |
| SOF20×80□-G3F | 84 | 24 | 15.5 | G3/8 | 11 | 14 | 22 | 5 |
| SOF20×80□-RA | 84 | 24 | 15.5 | 31.8×31.8 | 4.7 | 18.7 | - | 5 |
| SOF23×60□-G2F | 61.5 | 22.5 | 12 | G1/4 | 11 | 14 | 17 | 3 |
| SOF23×60□-G3F | 61.5 | 22.5 | 12 | G3/8 | 11 | 14 | 22 | 3 |
| SOF23×60□-RA | 61.5 | 22.5 | 12 | 31.8×31.8 | 4.7 | 18.7 | - | 3 |
| SOF30×90□-G2F | 93 | 33 | 16 | G1/4 | 11 | 14 | 17 | 5 |
| SOF30×90□-G3F | 93 | 33 | 16 | G3/8 | 11 | 14 | 22 | 5 |
| SOF30×90□-RA | 93 | 33 | 16 | 31.8×31.8 | 4.7 | 18.7 | - | 5 |
| SOF40×80□-G2F | 82 | 39 | 14 | G1/4 | 11 | 14 | 17 | 4 |
| SOF40×80□-G3F | 82 | 39 | 14 | G3/8 | 11 | 14 | 22 | 4 |
| SOF40×80□-RA | 82 | 39 | 14 | 31.8×31.8 | 4.7 | 18.7 | - | 4 |
| SOF40×110□-G2F | 113 | 43 | 21.5 | G1/4 | 11 | 14 | 17 | 6 |
| SOF40×110□-G3F | 113 | 43 | 21.5 | G3/8 | 11 | 14 | 22 | 6 |
| SOF40×110□-RA | 113 | 43 | 21.5 | 31.8×31.8 | 4.7 | 18.7 | - | 6 |
| SOF50×100□-G2F | 102 | 49 | 16 | G1/4 | 11 | 14 | 17 | 5 |
| SOF50×100□-G3F | 102 | 49 | 16 | G3/8 | 11 | 14 | 22 | 5 |
| SOF50×100□-RA | 102 | 49 | 16 | 31.8×31.8 | 4.7 | 18.7 | - | 5 |
| SOF60×120□-G2F | 123 | 58 | 18 | G1/4 | 11 | 14 | 17 | 6 |
| SOF60×120□-G3F | 123 | 58 | 18 | G3/8 | 11 | 14 | 22 | 6 |
| SOF60×120□-RA | 123 | 58 | 18 | 31.8×31.8 | 4.7 | 18.7 | - | 6 |
| SOF70×140□-G2F | 141 | 67.5 | 19 | G1/4 | 11 | 14 | 17 | 7 |
| SOF70×140□-G3F | 141 | 67.5 | 19 | G3/8 | 11 | 14 | 22 | 7 |
| SOF70×140□-RA | 141 | 67.5 | 19 | 31.8×31.8 | 4.7 | 18.7 | - | 7 |

SOF Series

Oval Flat Suction Cup Special for Metal Sheet

Dimensions(mm)



M - Male thread connection

| Model/Size | L | W | H | G | LG | h | S | Y |
|-----------------|------|------|------|---------|----|------|---|---|
| SOF16×50□-G2M | 50 | 16 | 19.5 | G1/4 | 9 | 10.5 | 5 | 3 |
| SOF16×50□-M10M | 50 | 16 | 19.5 | M10×1.5 | 12 | 13.5 | 5 | 3 |
| SOF16×50□-M14M | 50 | 16 | 19.5 | M14×1.5 | 12 | 13.5 | 5 | 3 |
| SOF20×80□-G2M | 84 | 24 | 15.5 | G1/4 | 9 | 10.5 | 5 | 5 |
| SOF20×80□-M10M | 84 | 24 | 15.5 | M10×1.5 | 12 | 13.5 | 5 | 5 |
| SOF20×80□-M14M | 84 | 24 | 15.5 | M14×1.5 | 12 | 13.5 | 5 | 5 |
| SOF23×60□-G2M | 61.5 | 22.5 | 12 | G1/4 | 9 | 10.5 | 5 | 3 |
| SOF23×60□-M10M | 61.5 | 22.5 | 12 | M10×1.5 | 12 | 13.5 | 5 | 3 |
| SOF23×60□-M14M | 61.5 | 22.5 | 12 | M14×1.5 | 12 | 13.5 | 5 | 3 |
| SOF30×90□-G2M | 93 | 33 | 16 | G1/4 | 9 | 10.5 | 5 | 5 |
| SOF30×90□-M10M | 93 | 33 | 16 | M10×1.5 | 12 | 13.5 | 5 | 5 |
| SOF30×90□-M14M | 93 | 33 | 16 | M14×1.5 | 12 | 13.5 | 5 | 5 |
| SOF40×80□-G2M | 82 | 39 | 14 | G1/4 | 9 | 10.5 | 5 | 4 |
| SOF40×80□-M10M | 82 | 39 | 14 | M10×1.5 | 12 | 13.5 | 5 | 4 |
| SOF40×80□-M14M | 82 | 39 | 14 | M14×1.5 | 12 | 13.5 | 5 | 4 |
| SOF40×110□-G2M | 113 | 43 | 21.5 | G1/4 | 9 | 11 | 5 | 6 |
| SOF40×110□-M10M | 113 | 43 | 21.5 | M10×1.5 | 12 | 13.5 | 5 | 6 |
| SOF40×110□-M14M | 113 | 43 | 21.5 | M14×1.5 | 12 | 13.5 | 5 | 6 |
| SOF50×100□-G2M | 102 | 49 | 16 | G1/4 | 9 | 11 | 5 | 5 |
| SOF50×100□-M10M | 102 | 49 | 16 | M10×1.5 | 12 | 13.5 | 5 | 5 |
| SOF50×100□-M14M | 102 | 49 | 16 | M14×1.5 | 12 | 13.5 | 5 | 5 |
| SOF60×120□-G2M | 123 | 58 | 18 | G1/4 | 9 | 11 | 5 | 6 |
| SOF60×120□-M10M | 123 | 58 | 18 | M10×1.5 | 12 | 13.5 | 5 | 6 |
| SOF60×120□-M14M | 123 | 58 | 18 | M14×1.5 | 12 | 13.5 | 5 | 6 |
| SOF70×140□-G2M | 141 | 67.5 | 19 | G1/4 | 9 | 11 | 5 | 7 |
| SOF70×140□-M10M | 141 | 67.5 | 19 | M10×1.5 | 12 | 13.5 | 5 | 7 |
| SOF70×140□-M14M | 141 | 67.5 | 19 | M14×1.5 | 12 | 13.5 | 5 | 7 |

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF**
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SOG Series

AIRBEST

Oval Concave Suction Cup Special for Cylindrical Objects



CYLINDRICAL
OBJECT



BATTERY



SLIPPING
RESISTANCE

RoHS

Features

- ◇ Concave sealing lip structure
- ◇ Internal groove structure

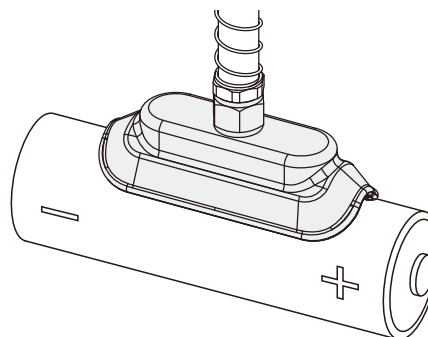
Advantages

- ◇ Suitable for handling cylindrical workpiece
- ◇ Effectively increase the friction force between suction cup and workpiece surface



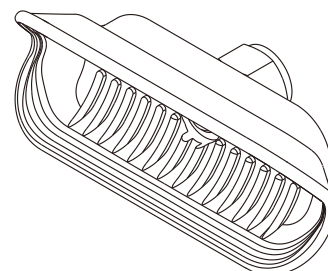
Applications

- ◇ Suitable for cylindrical workpieces, such as steel pipes, plastic round pipes, lithium batteries, etc
- ◇ Handling oily round metal pipes



Structure

- ◇ Concave oval flat structure design



How to order

SOG 35×100 N - G2F

①
②
③
④

| ① Series | ② Size | ③ Material & Hardness | ④ Connection thread |
|----------|-----------------|--|--|
| SOG | 15×40 35×100 | N - NBR 45 | M5F - M5×0.8 female thread M5M - M5×0.8 male thread G2F - G1/4 female thread G3F - G3/8 female thread G2M - G1/4 male thread M10M - M10×1.5 male thread M14M - M14×1.5 male thread RA - Rectangular adapter |

Selection

| Model | Connection thread M5M | G2M | M10M | M14M |
|--------------|-----------------------|----------------|-----------------|-----------------|
| SOG15×40N-□ | SOG15×40N-M5M | - | - | - |
| SOG35×100N-□ | - | SOG35×100N-G2M | SOG35×100N-M10M | SOG35×100N-M14M |

| Model | Connection thread M5F | G2F | G3F | RA |
|--------------|-----------------------|----------------|----------------|---------------|
| SOG15×40N-□ | SOG15×40N-M5F | - | - | - |
| SOG35×100N-□ | - | SOG35×100N-G2F | SOG35×100N-G3F | SOG35×100N-RA |

Technical parameters

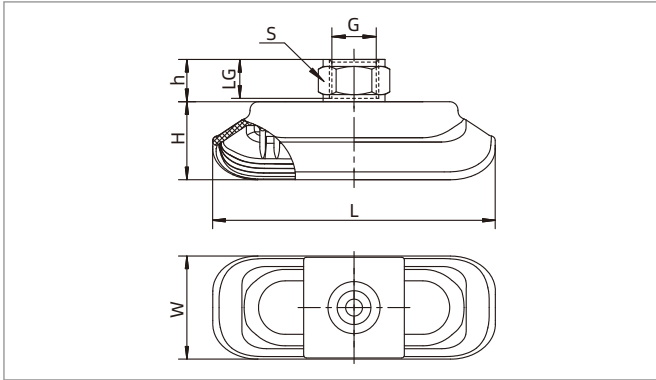
| Model | Vertical pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-----------|---------------------------|------------------------------|----------------------------------|----------|--------------------------|---------|
| SOG15×40 | 22 | 1.3 | 8 | 17 | 6 | 5 |
| SOG35×100 | 122 | 11 | 25 | 23 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

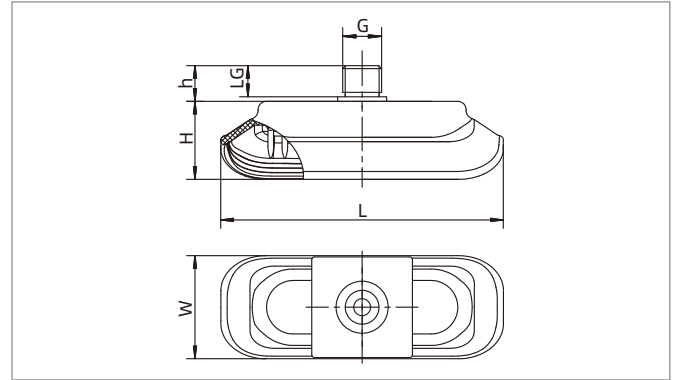
- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOE**
- SFM
- SOM
- SBF
- SDM
- SFU
- SKF
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

Oval Concave Suction Cup Special for Cylindrical Objects

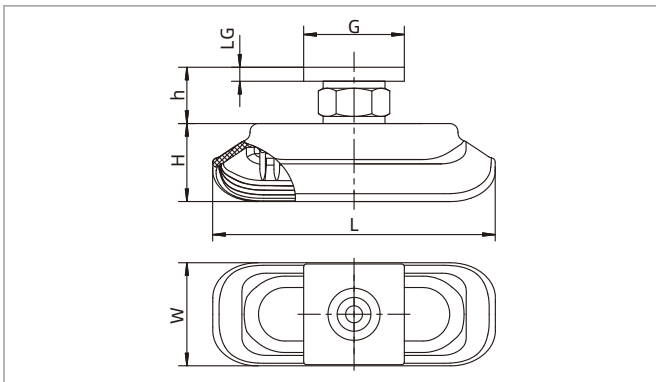
Dimensions(mm)



F - Female thread connection



M - Male thread connection



RA - Rectangular adapter

| Model/Size | L | W | H | G | LG | h | S |
|-----------------|-------|------|----|-----------|-----|------|----|
| SOG15×40N-M5F | 42 | 15.5 | 14 | M5×0.8 | - | - | - |
| SOG15×40N-M5M | 42 | 15.5 | 14 | M5×0.8 | 5 | 6.5 | 8 |
| SOG35×100N-G2F | 100.5 | 36.5 | 28 | G1/4 | 11 | 14 | 17 |
| SOG35×100N-G3F | 100.5 | 36.5 | 28 | G3/8 | 11 | 14 | 22 |
| SOG35×100N-G2M | 100.5 | 36.5 | 28 | G1/4 | 9 | 11 | 5 |
| SOG35×100N-M10M | 100.5 | 36.5 | 28 | M10×1.5 | 12 | 13.5 | 5 |
| SOG35×100N-M14M | 100.5 | 36.5 | 28 | M14×1.5 | 12 | 13.5 | 5 |
| SOG35×100N-RA | 100.5 | 36.5 | 28 | 31.8×31.8 | 4.7 | 18.7 | - |

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

SFM Series

Flat Suction Cup Special for Oily Metal Sheet

AIRBEST



METAL SHEET



SLIPPING RESISTANCE



CURVED SURFACE



OILY SURFACE



LONG LIFETIME



Suction Cup

Features

- ◇ Large compressed stroke, good flexibility
- ◇ PU material
- ◇ Internal large area support structure
- ◇ Various sizes are available

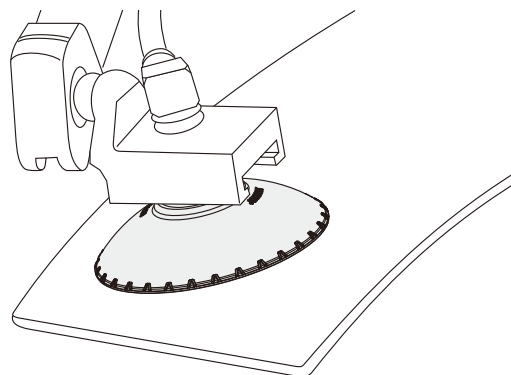
Advantages

- ◇ Easy to fit workpieces with different shapes of surfaces
- ◇ Long lifetime, and wear resistance, ozone resistance and oil resistance are excellent
- ◇ Effectively enhance friction force between suction cups and workpieces
- ◇ Suitable for workpieces with different sizes and shapes



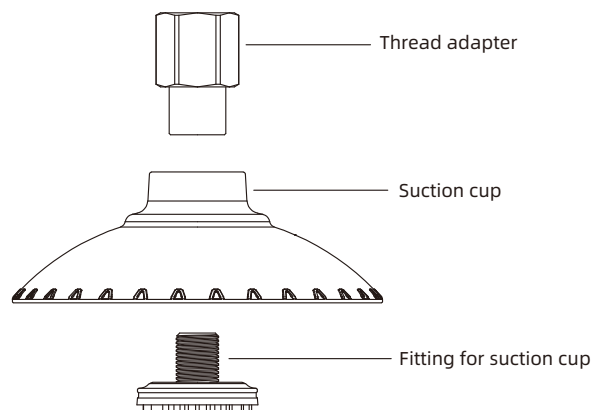
Applications

- ◇ Handling of oily metal sheet
- ◇ Handling curved metal sheet
- ◇ Handling automotive stamping metal parts



Structure

- ◇ Split structure design, wearing parts can be replaced separately



SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SFM Series

Flat Suction Cup Special for Oily Metal Sheet

How to order

SFM 50 U - G3F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------------|-----------------------|--|
| SFM | 30 - ϕ 30mm | U - PU | 70 |
| | 40 - ϕ 40mm | | |
| | 50 - ϕ 50mm | | |
| | 60 - ϕ 60mm | | |
| | 80 - ϕ 80mm | | |
| | 100 - ϕ 100mm | | |
| | 120 - ϕ 120mm | | |
| | | | Nil - Suction cup only G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread G2M - G1/4 male thread M10M - M10×1.5 male thread M14M - M14×1.5 male thread RA - Rectangular adapter |

Selection

| Model | Connection thread | | | | | | |
|---------|-------------------|--------------|--------------|------------|-------------|-------------|------------|
| | G2M | M10M | M14M | G1F | G2F | G3F | RA |
| SFM30U | - | SFM30U-M10M | - | SFM30U-G1F | - | - | SFM30U-RA |
| SFM40U | - | SFM40U-M10M | - | SFM40U-G1F | - | - | SFM40U-RA |
| SFM50U | SFM50U-G2M | SFM50U-M10M | SFM50U-M14M | - | SFM50U-G2F | SFM50U-G3F | SFM50U-RA |
| SFM60U | SFM60U-G2M | SFM60U-M10M | SFM60U-M14M | - | SFM60U-G2F | SFM60U-G3F | SFM60U-RA |
| SFM80U | SFM80U-G2M | SFM80U-M10M | SFM80U-M14M | - | SFM80U-G2F | SFM80U-G3F | SFM80U-RA |
| SFM100U | SFM100U-G2M | SFM100U-M10M | SFM100U-M14M | - | SFM100U-G2F | SFM100U-G3F | SFM100U-RA |
| SFM120U | SFM120U-G2M | SFM120U-M10M | SFM120U-M14M | - | SFM120U-G2F | SFM120U-G3F | SFM120U-RA |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|--|-------------|--------------------------------|------------|
| SFM30 | 45 | 4.5 | 25 | 3.5 | 6 | 1 |
| SFM40 | 70 | 8.5 | 30 | 5.0 | 6 | 1 |
| SFM50 | 112 | 18.6 | 35 | 8.5 | 8 | 1 |
| SFM60 | 150 | 26 | 40 | 11 | 8 | 1 |
| SFM80 | 285 | 56 | 60 | 21 | 8 | 1 |
| SFM100 | 420 | 105 | 70 | 35 | 10 | 1 |
| SFM120 | 580 | 153 | 90 | 55 | 10 | 1 |

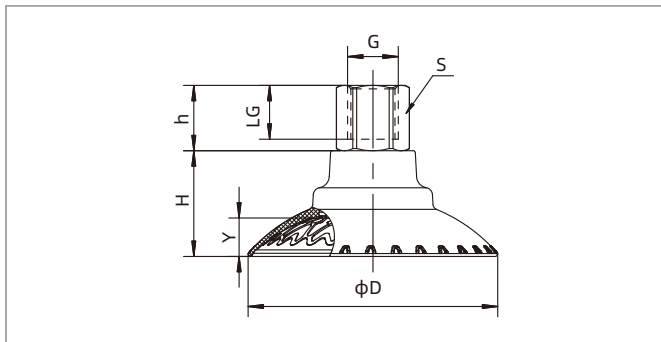
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

SFM Series

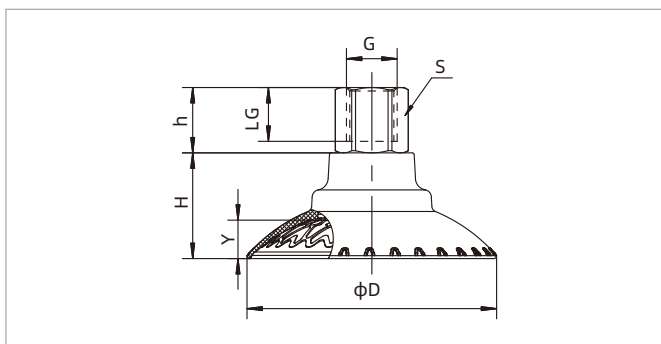
Flat Suction Cup Special for Oily Metal Sheet



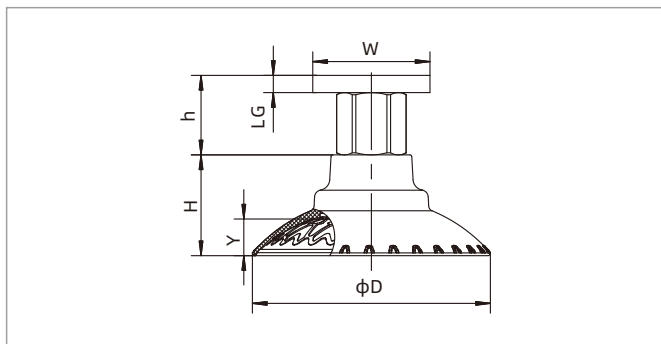
Dimensions(mm)



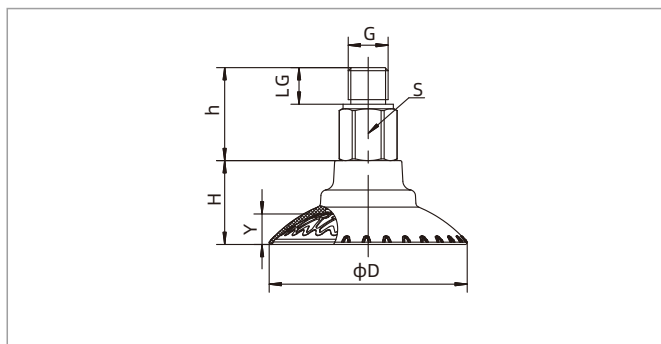
F - Female thread connection



F - Female thread connection



RA - Rectangular adapter



M - Male thread connection

| Model/Size | D | H | G | h | LG | S | Y |
|-------------|-------|------|------|----|----|----|------|
| SFM30U-G1F | 34 | 17.5 | G1/8 | 14 | 10 | 14 | 4 |
| SFM40U-G1F | 43.5 | 20 | G1/8 | 14 | 10 | 14 | 6.3 |
| SFM50U-G2F | 55 | 25 | G1/4 | 17 | 12 | 17 | 7.8 |
| SFM60U-G2F | 65 | 27.5 | G1/4 | 17 | 12 | 17 | 10 |
| SFM80U-G2F | 85 | 30 | G1/4 | 17 | 12 | 17 | 13 |
| SFM100U-G2F | 105.5 | 37 | G1/4 | 17 | 12 | 17 | 15.5 |
| SFM120U-G2F | 123 | 41 | G1/4 | 17 | 12 | 17 | 18.5 |

| Model/Size | D | H | G | h | LG | S | Y |
|-------------|-------|------|------|----|----|----|------|
| SFM50U-G3F | 55 | 25 | G3/8 | 17 | 12 | 22 | 7.8 |
| SFM60U-G3F | 65 | 27.5 | G3/8 | 17 | 12 | 22 | 10 |
| SFM80U-G3F | 85 | 30 | G3/8 | 17 | 12 | 22 | 13 |
| SFM100U-G3F | 105.5 | 37 | G3/8 | 17 | 12 | 22 | 15.5 |
| SFM120U-G3F | 123 | 41 | G3/8 | 17 | 12 | 22 | 18.5 |

| Model/Size | D | H | w | h | LG | Y |
|------------|-------|------|-----------|------|-----|------|
| SFM30U-RA | 34 | 17.5 | 31.8×31.8 | 21.7 | 4.7 | 4 |
| SFM40U-RA | 43.5 | 20 | 31.8×31.8 | 21.7 | 4.7 | 6.3 |
| SFM50U-RA | 55 | 25 | 31.8×31.8 | 21.7 | 4.7 | 7.8 |
| SFM60U-RA | 65 | 27.5 | 31.8×31.8 | 21.7 | 4.7 | 10 |
| SFM80U-RA | 85 | 30 | 31.8×31.8 | 21.7 | 4.7 | 13 |
| SFM100U-RA | 105.5 | 37 | 31.8×31.8 | 21.7 | 4.7 | 15.5 |
| SFM120U-RA | 123 | 41 | 31.8×31.8 | 21.7 | 4.7 | 18.5 |

| Model/Size | D | H | G | h | LG | S | Y |
|-------------|-------|------|------|----|----|----|------|
| SFM50U-G2M | 55 | 25 | G1/4 | 28 | 9 | 17 | 7.8 |
| SFM60U-G2M | 65 | 27.5 | G1/4 | 28 | 9 | 17 | 10 |
| SFM80U-G2M | 85 | 30 | G1/4 | 28 | 9 | 17 | 13 |
| SFM100U-G2M | 105.5 | 37 | G1/4 | 28 | 9 | 17 | 15.5 |
| SFM120U-G2M | 123 | 41 | G1/4 | 28 | 9 | 17 | 18.5 |

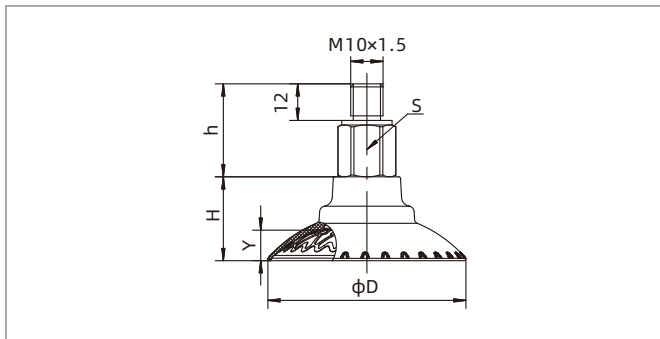
- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM**
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SFM Series



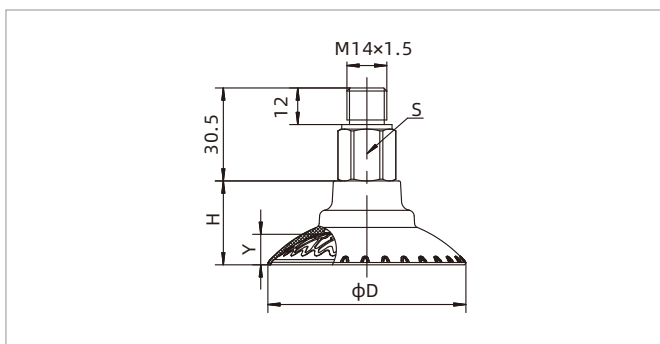
Flat Suction Cup Special for Oily Metal Sheet

Dimensions(mm)



| Model/Size | D | H | h | S | Y |
|--------------|-------|------|------|----|------|
| SFM30U-M10M | 34 | 17.5 | 27.5 | 14 | 4 |
| SFM40U-M10M | 43.5 | 20 | 27.5 | 14 | 6.3 |
| SFM50U-M10M | 55 | 25 | 30.5 | 17 | 7.8 |
| SFM60U-M10M | 65 | 27.5 | 30.5 | 17 | 10 |
| SFM80U-M10M | 85 | 30 | 30.5 | 17 | 13 |
| SFM100U-M10M | 105.5 | 37 | 30.5 | 17 | 15.5 |
| SFM120U-M10M | 123 | 41 | 30.5 | 17 | 18.5 |

M - Male thread connection

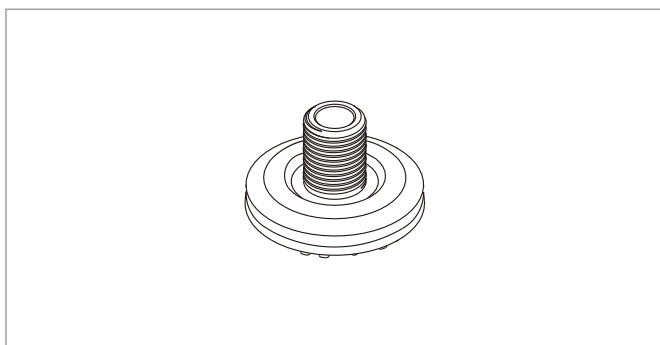


| Model/Size | D | H | h | S | Y |
|--------------|-------|------|------|----|------|
| SFM50U-M14M | 55 | 25 | 30.5 | 17 | 7.8 |
| SFM60U-M14M | 65 | 27.5 | 30.5 | 17 | 10 |
| SFM80U-M14M | 85 | 30 | 30.5 | 17 | 13 |
| SFM100U-M14M | 105.5 | 37 | 30.5 | 17 | 15.5 |
| SFM120U-M14M | 123 | 41 | 30.5 | 17 | 18.5 |

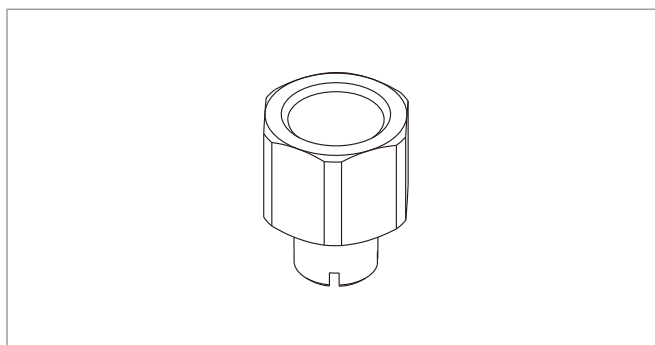
M - Male thread connection

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts



PJS - Fitting for suction cup

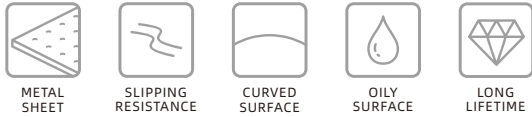


PJT - Thread adapter

| Item | Model | Applicable suction cup |
|-------------------------|----------------|------------------------|
| Fitting for suction cup | PJS-M8M-SFM40 | SFM30,40 |
| | PJS-G1M-SFM80 | SFM50,60,80 |
| | PJS-G1M-SFM120 | SFM100,120 |
| Thread adapter | PJT-M8F-G1F | SFM30,40 |
| | PJT-G1F-G2F | SFM50,60,80,100,120 |
| | PJT-G1F-G3F | SFM50,60,80,100,120 |

SOM Series

Oval Flat Suction Cup Special for Long and Narrow Objects



Features

- ◇ Large stroke and good flexibility
- ◇ PU material
- ◇ Internal large area pattern support structure
- ◇ Non-rotating structure
- ◇ Various sizes are available

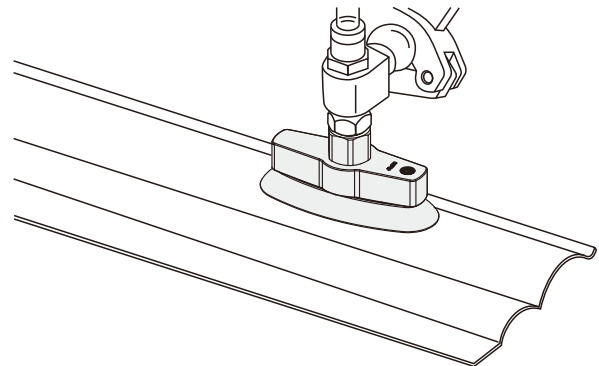
Advantages

- ◇ Easy to fit the workpieces with different shapes of surfaces
- ◇ Long lifetime, excellent wear resistance, ozone resistance, oil resistance
- ◇ Effectively increase friction force between suction cups and workpieces
- ◇ The parts can be recycled
- ◇ The direction of suction cup can be accurately positioned according to workpiece shape
- ◇ Suitable for workpieces with different sizes and shapes



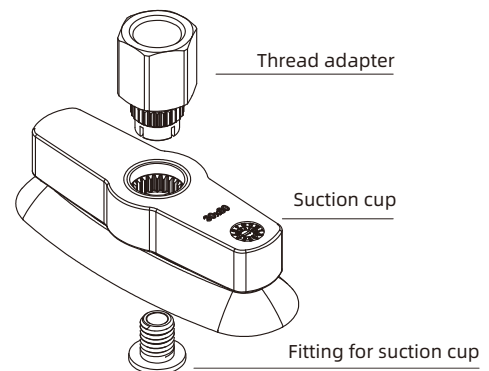
Applications

- ◇ Handling of oval workpiece with curved surface
- ◇ Handling long and narrow or cylindrical workpieces



Structure

- ◇ Split structure design, wearing parts can be replaced separately



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM**
- SOM**
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SOM Series

Oval Flat Suction Cup Special for Long and Narrow Objects

How to order

SOM 30×80 U - G2F

① ② ③ ④

| ① Series | ② Size | ③ Material & Hardness | ④ Connection thread |
|----------|--------|-----------------------|----------------------------|
| SOM | 20×60 | U - PU | 70 |
| | 30×80 | | |
| | 40×100 | | |
| | | | Nil - Suction cup only |
| | | | G2F - G1/4 female thread |
| | | | G3F - G3/8 female thread |
| | | | G2M - G1/4 male thread |
| | | | M10M - M10×1.5 male thread |
| | | | M14M - M14×1.5 male thread |
| | | | RA - Rectangular adapter |

Selection

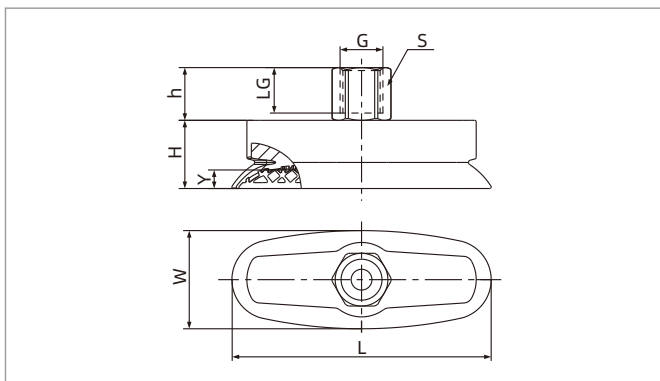
| Model | Connection thread | | | | | |
|------------|-------------------|-----------------|-----------------|---------------|----------------|---------------|
| | G2M | M10M | M14M | G2F | G3F | RA |
| SOM20×60U | SOM20×60U-G2M | SOM20×60U-M10M | SOM20×60U-M14M | SOM20×60U-G2F | - | SOM20×60U-RA |
| SOM30×80U | SOM30×80U-G2M | SOM30×80U-M10M | SOM30×80U-M14M | SOM30×80U-G2F | - | SOM30×80U-RA |
| SOM40×100U | SOM40×100U-G2M | SOM40×100U-M10M | SOM40×100U-M14M | - | SOM40×100U-G3F | SOM40×100U-RA |

Technical parameters

| Model | Vertical pull-out force N | Lateral pull-out force N | Lateral pull-out force (Oily surface)N | Inner volume cm ³ | Min curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|------------|---------------------------|--------------------------|--|------------------------------|----------------------------------|----------|--------------------------|---------|
| SOM20×60U | 61 | 44 | 44 | 5 | 10 | 14 | 8 | 1 |
| SOM30×80U | 116 | 110 | 110 | 12 | 20 | 24.4 | 8 | 1 |
| SOM40×100U | 187 | 135 | 135 | 25 | 32 | 50.6 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

Dimensions(mm)



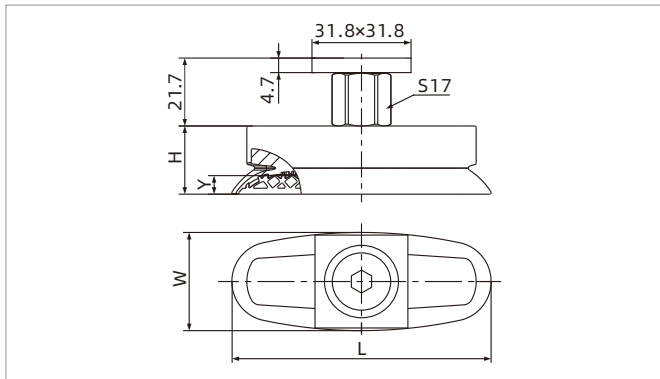
| Model/Size | L | W | H | G | h | LG | S | Y |
|----------------|-------|------|----|------|----|----|----|---|
| SOM20×60U-G2F | 63.5 | 20.5 | 22 | G1/4 | 17 | 12 | 17 | 5 |
| SOM30×80U-G2F | 83.5 | 31.5 | 22 | G1/4 | 17 | 12 | 17 | 6 |
| SOM40×100U-G3F | 103.5 | 43.5 | 29 | G3/8 | 17 | 12 | 22 | 7 |

F - Female thread connection

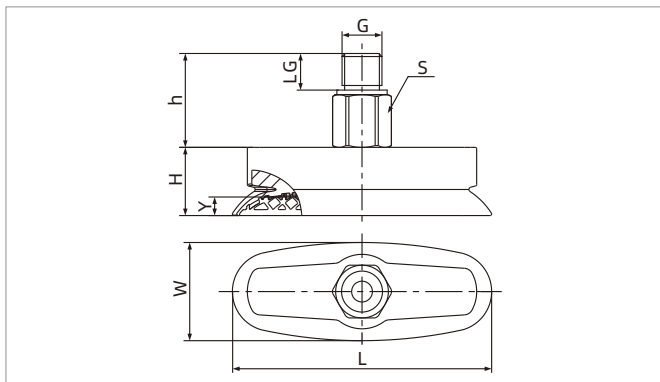
SOM Series

Oval Flat Suction Cup Special for Long and Narrow Objects

Dimensions(mm)



RA - Rectangular adapter



M - Male thread connection

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | L | W | H | Y |
|---------------|-------|------|----|---|
| SOM20×60U-RA | 63.5 | 20.5 | 22 | 5 |
| SOM30×80U-RA | 83.5 | 31.5 | 22 | 6 |
| SOM40×100U-RA | 103.5 | 43.5 | 29 | 7 |

| Model/Size | L | W | H | G | h | LG | S | Y |
|-----------------|-------|------|----|---------|------|----|----|---|
| SOM20×60U-G2M | 63.5 | 20.5 | 22 | G1/4 | 28 | 9 | 17 | 5 |
| SOM20×60U-M10M | 63.5 | 20.5 | 22 | M10×1.5 | 30.5 | 11 | 17 | 5 |
| SOM20×60U-M14M | 63.5 | 20.5 | 22 | M14×1.5 | 30.5 | 11 | 17 | 5 |
| SOM30×80U-G2M | 83.5 | 31.5 | 22 | G1/4 | 28 | 9 | 17 | 6 |
| SOM30×80U-M10M | 83.5 | 31.5 | 22 | M10×1.5 | 30.5 | 11 | 17 | 6 |
| SOM30×80U-M14M | 83.5 | 31.5 | 22 | M14×1.5 | 30.5 | 11 | 17 | 6 |
| SOM40×100U-G2M | 103.5 | 43.5 | 29 | G1/4 | 28 | 9 | 22 | 7 |
| SOM40×100U-M10M | 103.5 | 43.5 | 29 | M10×1.5 | 30.5 | 11 | 22 | 7 |
| SOM40×100U-M14M | 103.5 | 43.5 | 29 | M14×1.5 | 30.5 | 11 | 22 | 7 |

SBF Series

AIRBEST

1.5 Bellows Suction Cup Special for Metal Sheet



METAL SHEET



SLIPPING RESISTANCE



OILY SURFACE



LONG LIFETIME



Features

- ◇ 1.5 Bellows
- ◇ PU material
- ◇ Internal large area support structure
- ◇ Various sizes for option

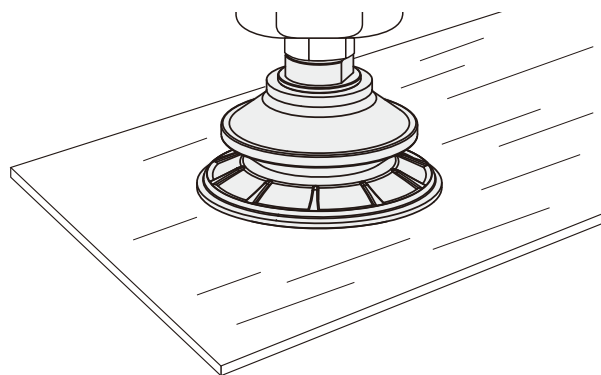
Advantages

- ◇ Easy to fit uneven surface of workpiece, and has buffer effect
- ◇ Excellent wear resistance and oil resistance, long lifetime
- ◇ Effectively increase the friction force between suction cups and workpieces
- ◇ Suitable for workpieces with different sizes and shapes



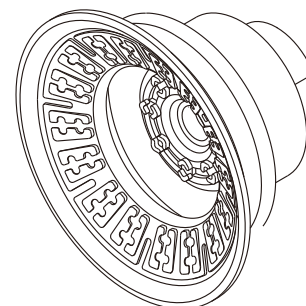
Applications

- ◇ Handling metal sheet in high speed, short cycle time
- ◇ Handling metal sheet and aluminum plate without deformation
- ◇ Special pattern slot design of suction cup prevents from slipping during handling oily sheet metal, ensuring accurate positioning
- ◇ Used in automotive stamping metal parts handling system



Structure

- ◇ 1.5 Bellows, large compressed stroke
- ◇ Suction cup and fitting are one-piece structure design



SBF Series

1.5 Bellows Suction Cup Special for Metal Sheet

How to order

SBF 50 U - G3F
 ① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------|---|----------------------------|
| SBF | 30 - φ32mm | U - PU 70 | G2F - G1/4 female thread |
| | 40 - φ42mm | | G3F - G3/8 female thread |
| | 50 - φ51.5mm | | G2M - G1/4 male thread |
| | 60 - φ64mm | | M10M - M10×1.5 male thread |
| | 80 - φ84mm | | RA - Rectangular adapter |
| | 100 - φ103mm | | |

Selection - Model(Connection thread)

| Model | Connection thread | | | | |
|-----------|-------------------|--------------|-------------|-------------|--------------------------|
| | G2M | M10M | G2F | G3F | RA - Rectangular adapter |
| SBF30U-□ | SBF30U-G2M | SBF30U-M10M | SBF30U-G2F | SBF30U-G3F | SBF30U-RA |
| SBF40U-□ | SBF40U-G2M | SBF40U-M10M | SBF40U-G2F | SBF40U-G3F | SBF40U-RA |
| SBF50U-□ | SBF50U-G2M | SBF50U-M10M | SBF50U-G2F | SBF50U-G3F | SBF50U-RA |
| SBF60U-□ | SBF60U-G2M | SBF60U-M10M | SBF60U-G2F | SBF60U-G3F | SBF60U-RA |
| SBF80U-□ | SBF80U-G2M | SBF80U-M10M | SBF80U-G2F | SBF80U-G3F | SBF80U-RA |
| SBF100U-□ | SBF100U-G2M | SBF100U-M10M | SBF100U-G2F | SBF100U-G3F | SBF100U-RA |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|------------------|------------------------------|----------------------------------|----------|--------------------------|---------|
| SBF30 | 33 | 5.5 | 30 | 18.5 | 6 | 1 |
| SBF40 | 60 | 7.0 | 45 | 20.0 | 6 | 1 |
| SBF50 | 103 | 11.5 | 50 | 40.0 | 8 | 1 |
| SBF60 | 145 | 22.0 | 55 | 45.0 | 8 | 1 |
| SBF80 | 235 | 60.0 | 72 | 75.0 | 10 | 1 |
| SBF100 | 380 | 98.0 | 97 | 118.0 | 10 | 1 |

◇ Note: Testing vacuum level -60kPa,workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

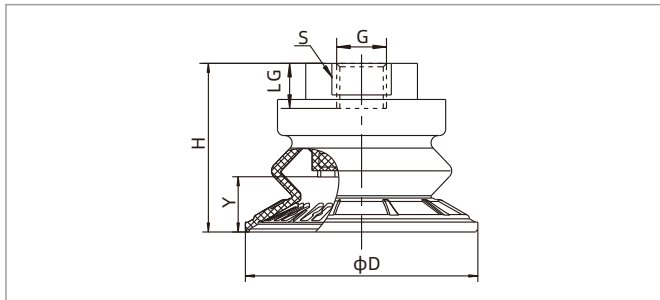
- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF**
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SBF Series



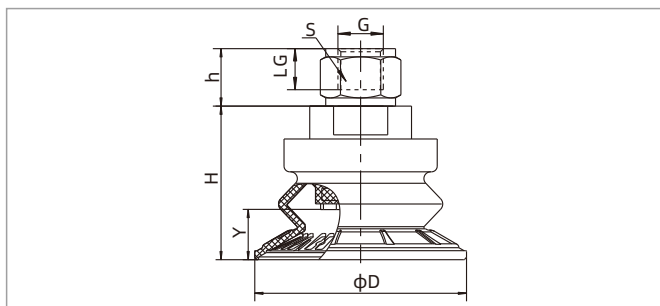
1.5 Bellows Suction Cup Special for Metal Sheet

Dimensions(mm)



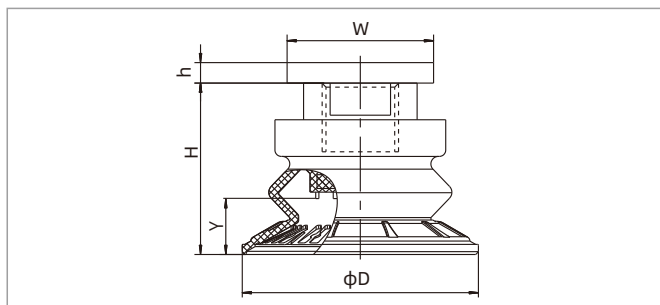
F - Female thread connection

| Model/Size | D | H | G | LG | S | Y |
|-------------|------|------|------|----|----|------|
| SBF30U-G2F | 32 | 28 | G1/4 | 10 | 17 | 7 |
| SBF40U-G2F | 42 | 29 | G1/4 | 10 | 17 | 9 |
| SBF50U-G3F | 51.5 | 37 | G3/8 | 13 | 21 | 12.5 |
| SBF60U-G3F | 64 | 41.5 | G3/8 | 13 | 21 | 15 |
| SBF80U-G3F | 84 | 49.5 | G3/8 | 13 | 21 | 23 |
| SBF100U-G3F | 103 | 55 | G3/8 | 13 | 22 | 22 |



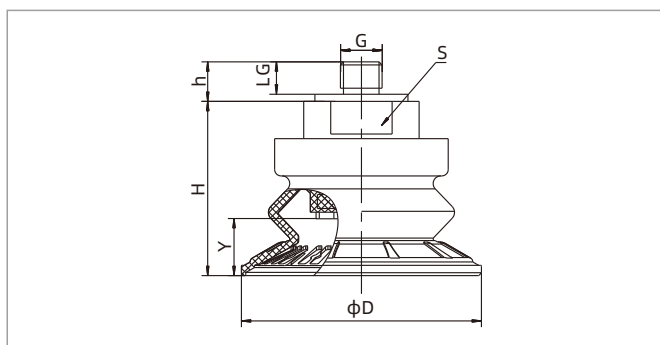
F - Female thread connection

| Model/Size | D | H | G | h | LG | S | Y |
|-------------|------|------|------|----|----|----|------|
| SBF30U-G3F | 32 | 28 | G3/8 | 14 | 11 | 22 | 7 |
| SBF40U-G3F | 42 | 29 | G3/8 | 14 | 11 | 22 | 9 |
| SBF50U-G2F | 51.5 | 37 | G1/4 | 14 | 11 | 22 | 12.5 |
| SBF60U-G2F | 64 | 41.5 | G1/4 | 14 | 11 | 22 | 15 |
| SBF80U-G2F | 84 | 49.5 | G1/4 | 14 | 11 | 22 | 23 |
| SBF100U-G2F | 103 | 55 | G1/4 | 14 | 11 | 22 | 22 |



RA - Rectangular adapter

| Model/Size | D | H | W | h | Y |
|------------|------|------|-----------|-----|------|
| SBF30U-RA | 32 | 28 | 31.8×31.8 | 4.7 | 7 |
| SBF40U-RA | 42 | 29 | 31.8×31.8 | 4.7 | 9 |
| SBF50U-RA | 51.5 | 37 | 31.8×31.8 | 4.7 | 12.5 |
| SBF60U-RA | 64 | 41.5 | 31.8×31.8 | 4.7 | 15 |
| SBF80U-RA | 84 | 49.5 | 31.8×31.8 | 4.7 | 23 |
| SBF100U-RA | 103 | 55 | 31.8×31.8 | 4.7 | 22 |



M - Male thread connection

| Model/Size | D | H | G | h | LG | S | Y |
|--------------|------|------|---------|------|----|----|------|
| SBF30U-G2M | 32 | 28 | G1/4 | 11 | 9 | 17 | 7 |
| SBF30U-M10M | 32 | 28 | M10×1.5 | 13.5 | 12 | 17 | 7 |
| SBF40U-G2M | 42 | 29 | G1/4 | 11 | 9 | 17 | 9 |
| SBF40U-M10M | 42 | 29 | M10×1.5 | 13.5 | 12 | 17 | 9 |
| SBF50U-G2M | 51.5 | 37 | G1/4 | 11 | 9 | 21 | 12.5 |
| SBF50U-M10M | 51.5 | 37 | M10×1.5 | 13.5 | 12 | 21 | 12.5 |
| SBF60U-G2M | 64 | 41.5 | G1/4 | 11 | 9 | 21 | 15 |
| SBF60U-M10M | 64 | 41.5 | M10×1.5 | 13.5 | 12 | 21 | 15 |
| SBF80U-G2M | 84 | 49.5 | G1/4 | 11 | 9 | 21 | 23 |
| SBF80U-M10M | 84 | 49.5 | M10×1.5 | 13.5 | 12 | 21 | 23 |
| SBF100U-G2M | 103 | 55 | G1/4 | 11 | 9 | 22 | 22 |
| SBF100U-M10M | 103 | 55 | M10×1.5 | 13.5 | 12 | 22 | 22 |

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

SDM Series

Flat Suction Cup Special for Metal Sheet

AIRBEST



Suction Cup

Features

- ◇ PU material
- ◇ Thicken the wall thickness, internal reinforced rib structure design

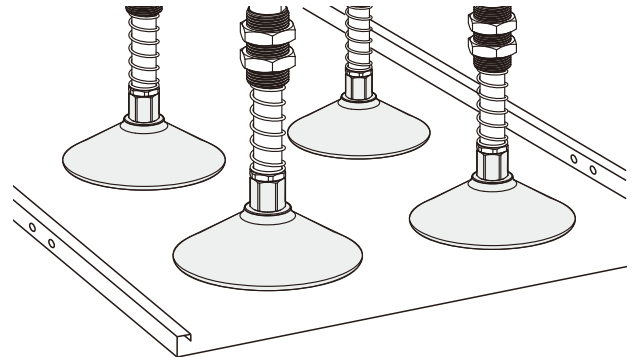
Advantages

- ◇ Long lifetime, excellent wear resistance, ozone resistance, oil resistance
- ◇ Effectively prevent deformation of metal sheet during handling



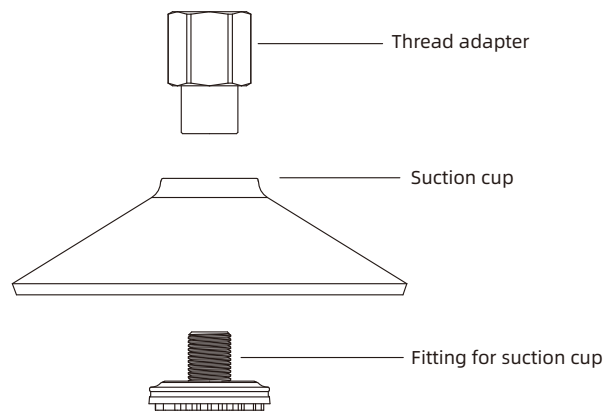
Applications

- ◇ Handling metal sheet and aluminum plate without deformation



Structure

- ◇ Split structure design, wearing parts can be replaced separately



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF**
- SDM**
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SDM Series

Flat Suction Cup Special for Metal Sheet

How to order

SDM 100 U - G3F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------------|---|--|
| SDM | 100 - ϕ 100mm | U - PU 70 | Nil - Suction cup only G2F - G1/4 female thread G3F - G3/8 female thread |

Selection

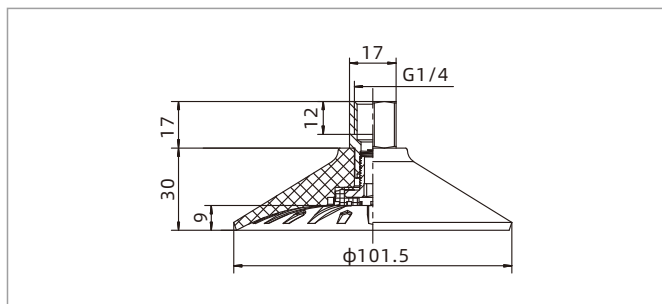
| Model | Connection thread | |
|---------|-------------------|-------------|
| | G2F | G3F |
| SDM100U | SDM100U-G2F | SDM100U-G3F |

Technical parameters

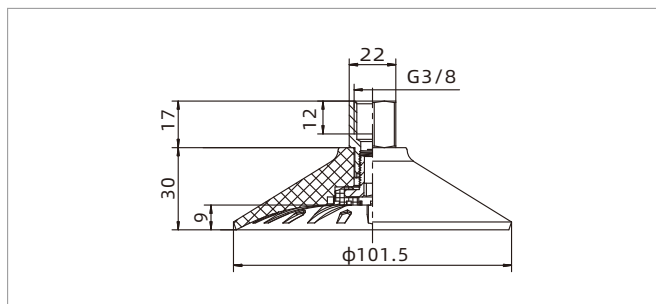
| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SDM100 | 375 | 56 | 160 | 62 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

Dimensions(mm)



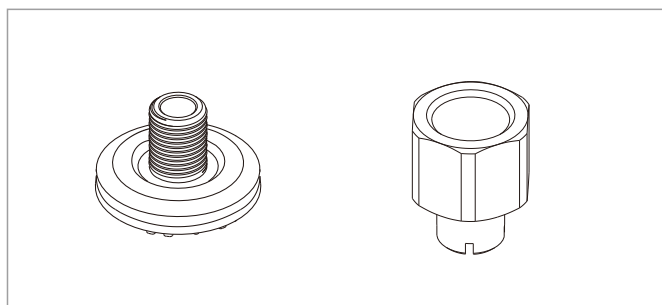
SDM100U-G2F



SDM100U-G3F

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts



PJS - Fitting for suction cup

PJT - Thread adapter

| Item | Model | Applicable suction cup |
|-------------------------|---------------|------------------------|
| Fitting for suction cup | PJS-G1M-SFM80 | SDM100 |
| Thread adapter | PJT-G1F-G2F | SDM100 |
| | PJT-G1F-G3F | SDM100 |

SFU Series

Big Flat Suction Cup



Suction Cup

Features

- ◇ Large area support structure at bottom
- ◇ Double sealing lip
- ◇ Small inner volume
- ◇ Rubber parts can be replaced separately
- ◇ Various sizes are available

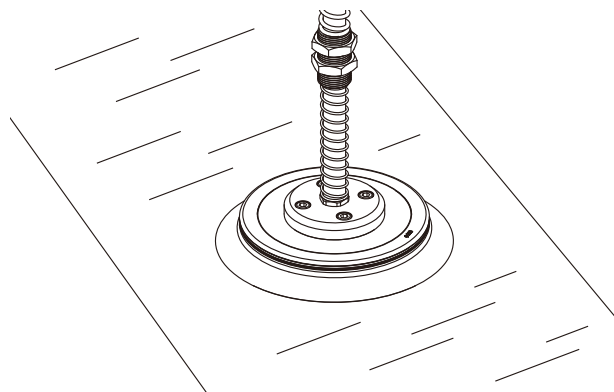
Advantages

- ◇ Prevent thin workpieces from permanent deformation
- ◇ Excellent airtightness, large suction force
- ◇ Short work cycle
- ◇ Reduce customer's cost greatly
- ◇ Suitable for workpieces with different sizes and shapes



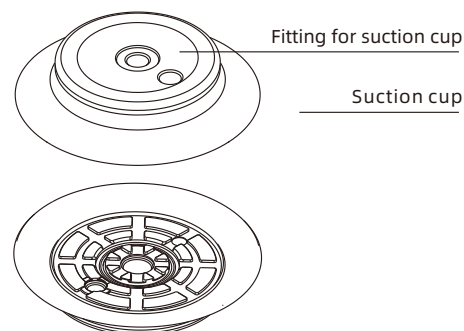
Applications

- ◇ Handling workpieces with flat or slightly deformed surfaces
- ◇ Touch valve is optional, which closes relevant vacuum circuit when it detects that there is no contact with workpiece



Structure

- ◇ Fitting for suction cup and rubber parts are split structure design, wearing parts can be replaced separately
- ◇ Separate functional port is available
- ◇ Touch valve is optional, preventing accidental vacuum leakage
- ◇ Note: The functional threaded hole is sealed with a plug when delivered. Seal the thread with thread glue or raw tape when connecting



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM**
- SFU**
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SFU Series

Big Flat Suction Cup

How to order

SFU 210 H N - G4F - V
 ① ② ③ ④ ⑤ ⑥

| ① Series | ② Diameter | ③ Stroke | ④ Material & Hardness | ⑤ Connection thread | ⑥ Special specification |
|----------|--------------|-----------------------|-----------------------|-----------------------------|-------------------------|
| SFU | 100 - φ100mm | Nil - Standard stroke | N - NBR | 55 G2F - G1/4 female thread | Nil - Standard |
| | 125 - φ125mm | H - High stroke | WS - White silicone | 60 G3F - G3/8 female thread | V - With touch valve |
| | 160 - φ160mm | | | G4F - G1/2 female thread | |
| | 210 - φ210mm | | | | |
| | 250 - φ250mm | | | | |
| | 300 - φ300mm | | | | |
| | 360 - φ360mm | | | | |
| | 400 - φ400mm | | | | |

Selection

| Model | Connection thread | Special specification |
|-----------------------|-----------------------------|-----------------------|
| SFU100□ | SFU100□-G2F | - |
| SFU125□ | SFU125□-G2F | SFU125□-G2F-V |
| SFU160□ | SFU160□-G4F | SFU160□-G4F-V |
| SFU210□ SFU210H□ | SFU210□-G4F SFU210H□-G4F | SFU210□-G4F-V |
| SFU250□ SFU250H□ | SFU250□-G4F SFU250H□-G4F | SFU250□-G4F-V |
| SFU300□ | SFU300□-G4F | - |
| - SFU360H□ | - SFU360H□-G4F | - |
| SFU400□ | SFU400□-G4F | - |

Technical parameters

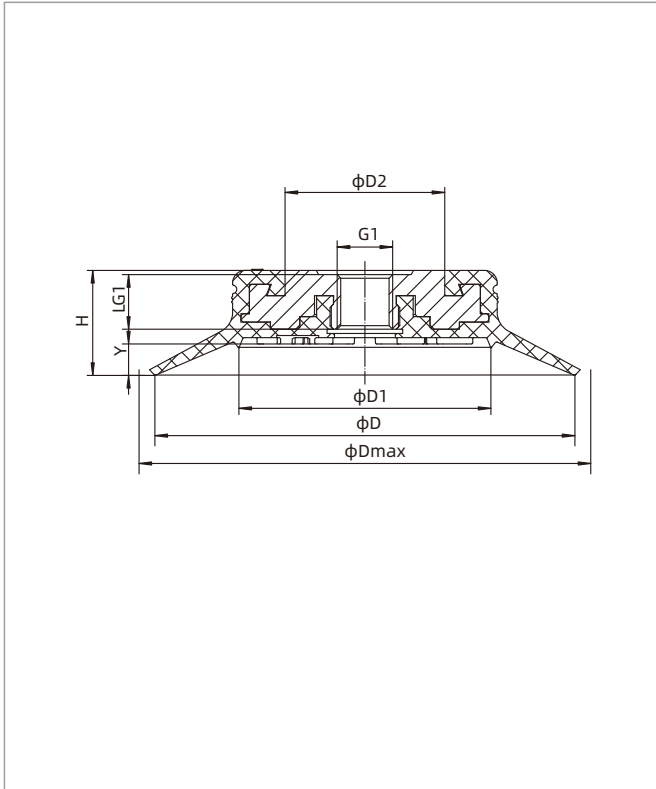
| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------------|------------------|------------------------------|----------------------------------|----------|--------------------------|---------|
| SFU100□-G2F | 400 | 45 | 175 | 108 | 12 | 1 |
| SFU125□-G2F | 670 | 78 | 275 | 215 | 12 | 1 |
| SFU160□-G4F | 1,100 | 145 | 475 | 397 | 16 | 1 |
| SFU210□-G4F | 1,900 | 190 | 1,050 | 861 | 16 | 1 |
| SFU210H□-G4F | 1,900 | 300 | 550 | 885 | 16 | 1 |
| SFU250□-G4F | 2,600 | 370 | 1,100 | 1,230 | 16 | 1 |
| SFU250H□-G4F | 2,600 | 500 | 750 | 1,332 | 16 | 1 |
| SFU300□-G4F | 4,000 | 490 | 1,800 | 1,996 | 16 | 1 |
| SFU360H□-G4F | 5,800 | 1,250 | 1,500 | 3,696 | 16 | 1 |
| SFU400□-G4F | 7,000 | 860 | 3,300 | 4,720 | 16 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

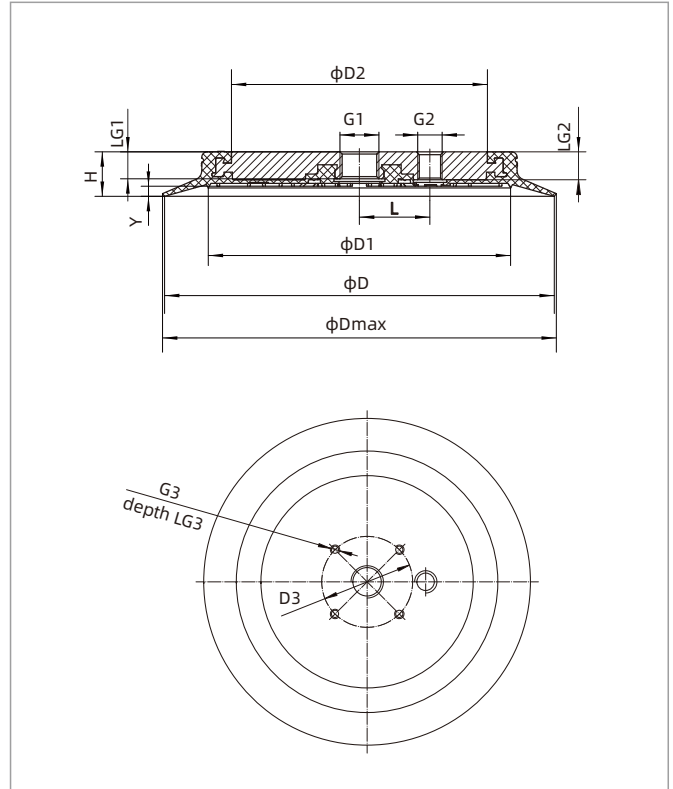
SFU Series

Big Flat Suction Cup

Dimensions(mm)



SFU100



SFU125-400

| Model/Size | D | Dmax | D1 | D2 | D3 | H | G1 | G2 | LG1 | LG2 | G3 | LG3 | L | Y |
|--------------|-----|------|-----|-------|----|------|------|------|------|-----|----|-----|----|----|
| SFU100□-G2F | 100 | 108 | 60 | 38 | - | 25 | G1/4 | - | 13 | - | - | - | - | 7 |
| SFU125□-G2F | 125 | 132 | 83 | 64 | - | 25 | G1/4 | G1/4 | 13 | 14 | - | - | 24 | 7 |
| SFU160□-G4F | 160 | 170 | 113 | 91 | - | 25 | G1/2 | G1/4 | 13 | 15 | - | - | 38 | 7 |
| SFU210□-G4F | 210 | 220 | 163 | 138 | 59 | 25 | G1/2 | G1/4 | 14.5 | 15 | M6 | 8 | 38 | 5 |
| SFU210H□-G4F | 210 | 220 | 159 | 138 | 59 | 30 | G1/2 | G1/4 | 14.5 | 15 | M6 | 8 | 38 | 10 |
| SFU250□-G4F | 250 | 265 | 203 | 178 | 59 | 26 | G1/2 | G1/2 | 14.5 | 15 | M6 | 8 | 76 | 7 |
| SFU250H□-G4F | 250 | 265 | 203 | 178 | 59 | 30 | G1/2 | G1/2 | 14.5 | 15 | M6 | 8 | 76 | 11 |
| SFU300□-G4F | 300 | 320 | 253 | 226.5 | 59 | 25.5 | G1/2 | G1/2 | 14.5 | 15 | M8 | 10 | 76 | 6 |
| SFU360H□-G4F | 360 | 385 | 309 | 275 | 59 | 35 | G1/2 | G1/2 | 17 | 17 | M8 | 10 | 86 | 12 |
| SFU400□-G4F | 400 | 430 | 349 | 315 | 59 | 29 | G1/2 | G1/2 | 17 | 17 | M8 | 10 | 86 | 6 |

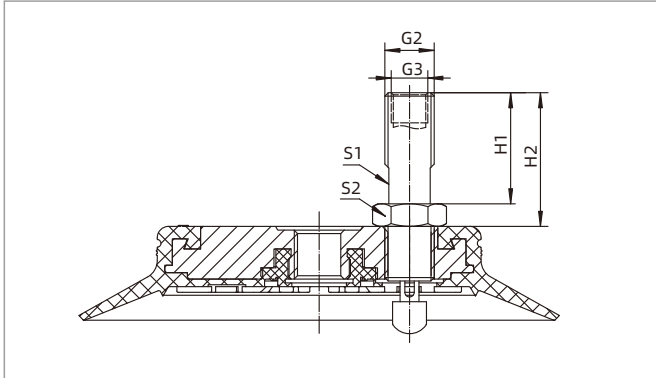
◇ Note: 1. The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard.
 2. Dmax is outer diameter of the suction cup when it is completely compressed

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SKF
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

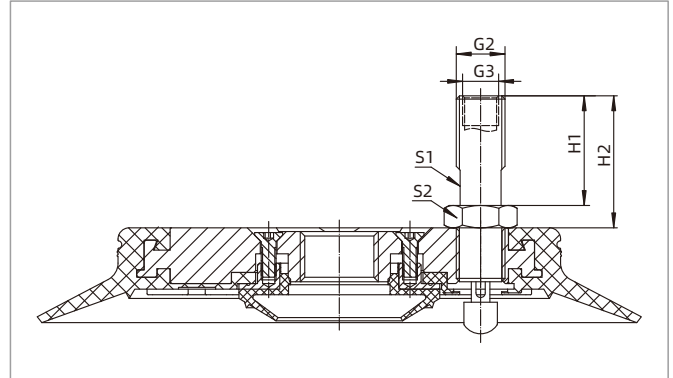
SFU Series

Big Flat Suction Cup

Dimensions(mm)



SFU125



SFU160-250

| Model/Size | G2 | G3 | H1 | H2 | S1 | S2 |
|---------------|------|------|------|------|----|----|
| SFU125□-G2F-V | G1/4 | G1/8 | 30 | 36 | 11 | 17 |
| SFU160□-G4F-V | G1/4 | G1/8 | 30 | 36 | 11 | 17 |
| SFU210□-G4F-V | G1/4 | G1/8 | 30 | 36 | 11 | 17 |
| SFU250□-G4F-V | G1/2 | G3/8 | 31.5 | 39.5 | 19 | 27 |

Mounting parts

| Item | Model | Applicable suction cup |
|-------------|---------|------------------------|
| Touch valve | ZVD-G2M | SFU125,160,210 |
| | ZVD-G4M | SFU250 |

| Item | Model | Applicable suction cup |
|------------------------------|--------------------|------------------------|
| Rubber parts for suction cup | SFU100N SFU100WS | SFU100□-G2F |
| | SFU125N SFU125WS | SFU125□-G2F |
| | SFU160N SFU160WS | SFU160□-G4F |
| | SFU210N SFU210WS | SFU210□-G4F |
| | SFU210HN SFU210HWS | SFU210H□-G4F |
| | SFU250N SFU250WS | SFU250□-G4F |
| | SFU250HN SFU250HWS | SFU250H□-G4F |
| | SFU300N SFU300WS | SFU300□-G4F |
| | SFU360HN SFU360HWS | SFU360H□-G4F |
| SFU400N SFU400WS | SFU400□-G4F | |

◇ Note: When you buy rubber parts only, pls ensure that the fitting for suction cup you buy is in good condition, and send it back to factory to replace the rubber parts

SFK Series

Flat Suction Cup Special for Objects with Rough Surface



Features

- ◇ Sealing ring is made of flexible EPDM foam rubber
- ◇ Internal large area support structure
- ◇ Small inner volume
- ◇ Various sizes are available

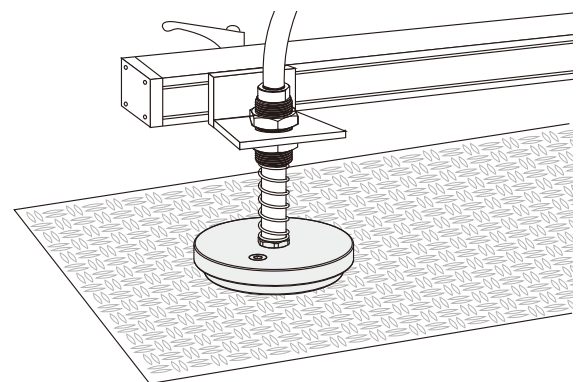
Advantages

- ◇ Suitable for workpieces with rough or uneven surfaces
- ◇ Slipping resistance. Prevent thin workpiece from permanent deformation
- ◇ Short work cycle
- ◇ Suitable for workpieces with different sizes and shapes



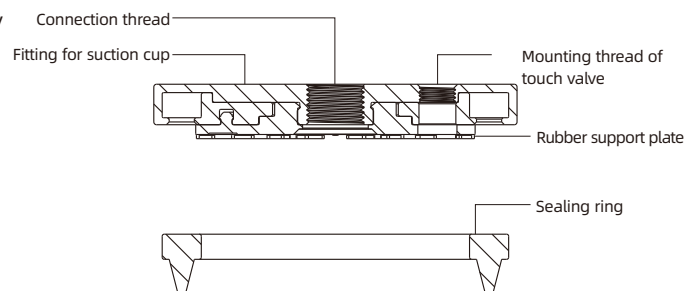
Applications

- ◇ Handling workpieces with uneven surfaces, such as embossed steel plate, decorative glass, rough slate, wooden plate, etc.
- ◇ Touch valve is optional, which will close vacuum chamber when it detects that suction cups do not contact workpieces, in order to avoid vacuum leakage



Structure

- ◇ Split structure design, wearing parts can be replaced separately
- ◇ Separate functional port is equipped



- ◇ Note: The functional threaded hole is sealed with a plug when delivered. Seal the thread with thread glue or raw tape when connecting

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU**
- SFK**
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

Flat Suction Cup Special for Objects with Rough Surface

How to order

SFK 110 E - G4F - V
 ① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Special specification |
|----------|--|-----------------------|---|--|
| SFK | 110 - ϕ 110mm 160 - ϕ 160mm 200 - ϕ 200mm 250 - ϕ 250mm | E - EPDM | 20 Nil - Sealing ring only G4F - G1/2 female thread | Nil - Standard V - With touch valve |

Selection

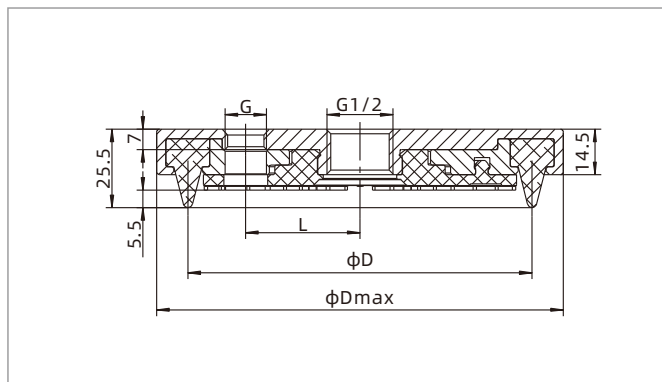
| Model | Connection thread F - Female thread | |
|---------|--|---------------|
| SFK110E | SFK110E-G4F | SFK110E-G4F-V |
| SFK160E | SFK160E-G4F | SFK160E-G4F-V |
| SFK200E | SFK200E-G4F | SFK200E-G4F-V |
| SFK250E | SFK250E-G4F | SFK250E-G4F-V |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SFK110 | 480 | 70 | 300 | 465 | 10 | 1 |
| SFK160 | 1080 | 145 | 600 | 935 | 10 | 1 |
| SFK200 | 1800 | 225 | 1000 | 1445 | 12 | 1 |
| SFK250 | 2800 | 360 | 1500 | 2225 | 12 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



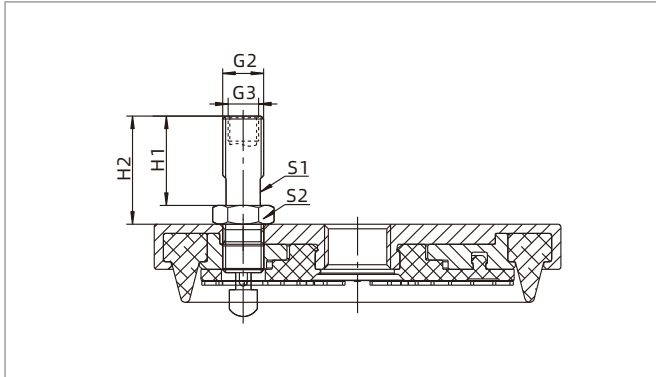
SFK110-250

| Model/Size | Dmax | D | G | L |
|-------------|------|-----|------|------|
| SFK110E-G4F | 130 | 110 | G1/4 | 36.5 |
| SFK160E-G4F | 179 | 160 | G1/4 | 36.5 |
| SFK200E-G4F | 219 | 200 | G1/2 | 76 |
| SFK250E-G4F | 269 | 250 | G1/2 | 76 |

SFK Series

Flat Suction Cup Special for Objects with Rough Surface

Dimensions(mm)



SFK110-250

| Model/Size | G2 | G3 | H1 | H2 | S1 | S2 |
|---------------|------|------|------|------|----|----|
| SFK110E-G4F-V | G1/4 | G1/8 | 27.5 | 33.5 | 11 | 17 |
| SFK160E-G4F-V | G1/4 | G1/8 | 27.5 | 33.5 | 11 | 17 |
| SFK200E-G4F-V | G1/2 | G3/8 | 29.5 | 37.5 | 19 | 27 |
| SFK250E-G4F-V | G1/2 | G3/8 | 29.5 | 37.5 | 19 | 27 |

- ◇ Note: 1. The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard
 2. The height of the touch valve contact beyond the suction cup lip can be adjusted by itself according to the actual application. Locking the nut after height position is determined. Applicable thread sealant should be applied to the thread connection of touch valve and fitting for suction cup

Accessories

| Item | Model | Applicable suction cup |
|-------------|---------|------------------------|
| Touch valve | ZVD-G2M | SFK110,160 |
| | ZVD-G4M | SFK200,250 |

SHT Series

High Temperature Suction Cup

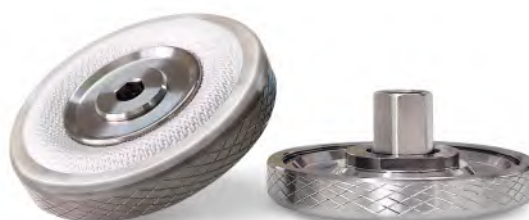


Features

- ◇ The body is made of stainless steel
- ◇ The sealing ring is made of special high temperature resistant textile material
- ◇ Long time high temperature resistance up to 600°C

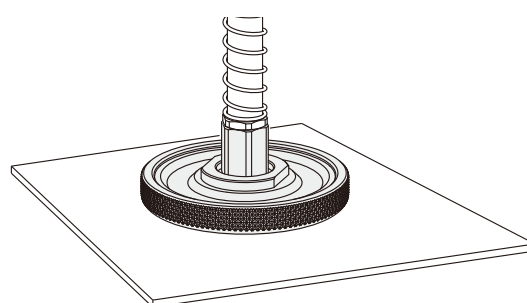
Advantages

- ◇ Strong wear resistance
- ◇ Excellent high temperature resistance, can achieve long time contact with the workpiece



Applications

- ◇ Handling workpieces with smooth and flat surfaces
- ◇ Hot forming of metal workpieces and other processes
- ◇ For float glass and tempering processes
- ◇ Note: All components in the matching vacuum circuit should be made of high temperature resistant materials



Structure

- ◇ Split structure design, wearing parts can be replaced separately

How to order

SHT 35 - G1F
 ① ② ③

| ① Series | ② Diameter | ③ Connection thread |
|----------|--|--|
| SHT | 35 - φ35mm 60 - φ60mm 90 - φ90mm | Nil - Sealing parts only G1F - G1/8 female thread G2F - G1/4 female thread |

Selection

| Model | Connection thread G1F | G2F |
|---------|-----------------------|-----------|
| SHT35-□ | SHT35-G1F | - |
| SHT60-□ | - | SHT60-G2F |
| SHT90-□ | - | SHT90-G2F |

SHT Series

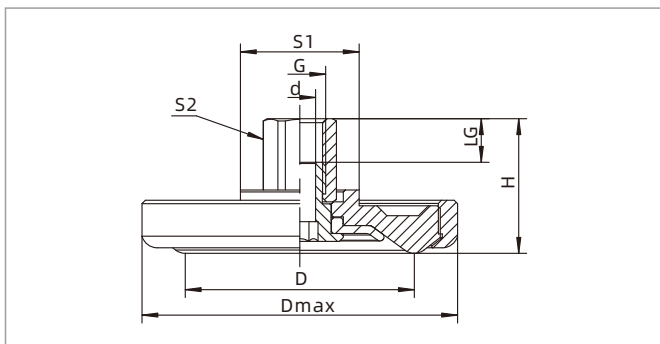
High Temperature Suction Cup

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Vacuum flow (NL/min) (Vacuum level-70kPa) | Weight g | Recommended hose dia. mm | MPQ pcs |
|-----------|---------------------|---------------------------------|--|-------------|-----------------------------|------------|
| SHT35-G1F | 60 | 4 | 20 | 195 | 6 | 1 |
| SHT60-G2F | 130 | 10 | 22 | 408 | 8 | 1 |
| SHT90-G2F | 280 | 30 | 24 | 655 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces.

Dimensions(mm)



SHT

| Model/Size | D | H | G | LG | Dmax | d | S1 | S2 |
|------------|----|----|------|----|------|---|----|----|
| SHT35-G1F | 35 | 28 | G1/8 | 9 | 53 | 6 | 30 | 14 |
| SHT60-G2F | 58 | 34 | G1/4 | 11 | 80 | 8 | 30 | 17 |
| SHT90-G2F | 90 | 33 | G1/4 | 11 | 112 | 8 | 46 | 17 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SBF
- SHT**
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SDL Series

Annular Suction Cup

AIRBEST



METAL SHEET



Features

- ◇ Closed annular structure, consisting of inner and outer sealing lips
- ◇ Larger area hollow part inside
- ◇ Circular threaded mounting holes

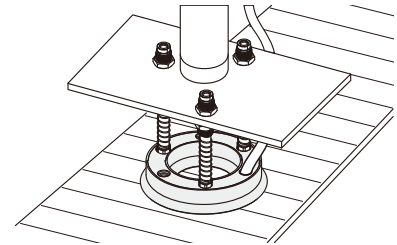
Advantages

- ◇ Good sealing
- ◇ Detection instrument can be designed in the hollow part for separation of vacuum and detection
- ◇ Firm installation



Applications

- ◇ Handling of workpieces with flat surface, such as metal sheet, steel plate, annular metal stamping parts, plywood and plastic plate



Structure

- ◇ One-piece structure of fitting and suction cup

How to order

SDL 100 N - G1F
 ① ② ③ ④

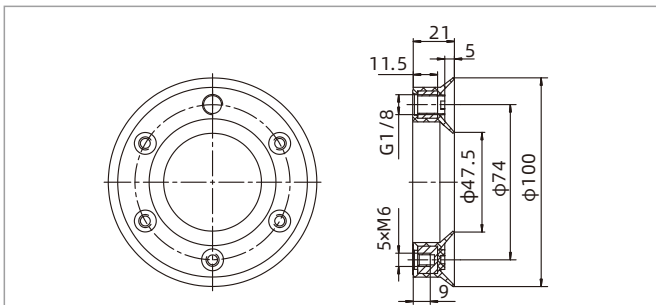
| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------------|-----------------------|--------------------------|
| SDL | 100 - ϕ 100mm | N - NBR 55 | G1F - G1/8 female thread |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SDL100N-G1F | 258 | 44 | 107 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



SDL100

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

SFG Series

Flat Suction Cup Special for Glass Industry

AIRBEST



GLASS



SLIPPING RESISTANCE



HIGH SEALING



Suction Cup

Features

- ◇ Double flat sealing lips
- ◇ Inner large area pattern support structure at the bottom
- ◇ Small inner volume, two compressed stroke
- ◇ Some specifications are split structure
- ◇ Various sizes are available

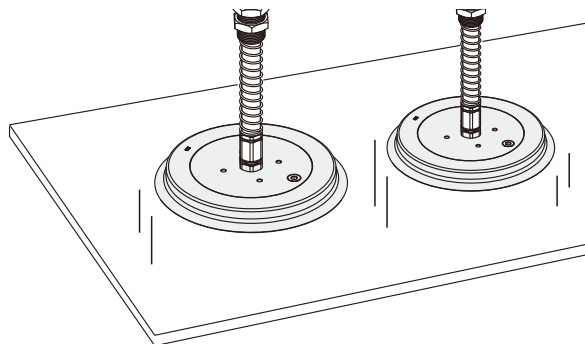
Advantages

- ◇ Excellent airtightness
- ◇ Large friction coefficients, prevent deformation of workpiece
- ◇ Short work cycle, with high stroke, it can suck glass with a certain curvature
- ◇ Metal parts can be used repeatedly, reducing customer's cost greatly
- ◇ Suitable for workpieces with different sizes and shapes



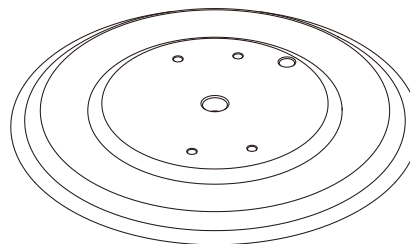
Applications

- ◇ Handling workpieces with smooth surface such as glass, plastic plate, ect. Realizing long time pressure holding
- ◇ Handling big workpieces with a certain curvature on surface, such as car windshields
- ◇ Handling thin workpieces, such as flat glass or coated glass
- ◇ Handling glass plate surfaced with separation powder or stripping powder



Structure

- ◇ Double sealing lip, special pattern structure
- ◇ For SFG200 and diameter less than 200mm, they are split structure, wearing parts can be replaced separately. For diameter more than 200mm, they are one-piece structure
- ◇ With large area aluminum fitting for suction cup, it can effectively prevent light and thin workpiece from bending when handling heavy load workpieces
- ◇ Standard stroke and high stroke are optional, with high stroke, it can suck glass with a certain curvature
- ◇ With separate functional port
- ◇ Note: The functional threaded hole is sealed with a plug when delivered. Seal the thread with thread glue or raw tape when connecting



SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SFG Series

Flat Suction Cup Special for Glass Industry

How to order

SFG 150 H E - G4F

① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Stroke | ④ Material & Hardness | ⑤ Connection thread |
|----------|--------------------|-----------------------|---------------------------------------|-----------------------------|
| SFG | 125 - ϕ 125mm | Nil - Standard stroke | E - EPDM | 55 G2F - G1/4 female thread |
| | 150 - ϕ 150mm | H - High stroke | HD - High temp/ Mark free material | 60 G3F - G3/8 female thread |
| | 200 - ϕ 200mm | | | G4F - G1/2 female thread |
| | 250 - ϕ 250mm | | | |
| | 300 - ϕ 300mm | | | |
| | 350 - ϕ 350mm | | | |
| | 400 - ϕ 400mm | | | |

Selection

| Model/ Stroke | H - High stroke |
|----------------------------|-----------------|
| SFG125□-G2F SFG125□-G3F | - |
| SFG150□-G4F | SFG150H□-G4F |
| SFG200□-G4F | - |
| - | SFG250H□-G4F |
| - | SFG300H□-G4F |
| - | SFG350H□-G4F |
| SFG400□-G4F | - |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|---------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SFG125 | 740 | 44 | 1,500 | 290 | 8 | 1 |
| SFG150 | 1,100 | 65 | 2,000 | 490 | 8 | 1 |
| SFG150H | 1,100 | 119 | 370 | 490 | 8 | 1 |
| SFG200 | 1,950 | 144 | 3,500 | 1,040 | 10 | 1 |
| SFG250H | 2,950 | 372 | 1,600 | 950 | 10 | 1 |
| SFG300H | 4,300 | 550 | 2,400 | 1,510 | 12 | 1 |
| SFG350H | 5,780 | 779 | 3,000 | 2,040 | 12 | 1 |
| SFG400 | 7,600 | 560 | 13,500 | 2,635 | 12 | 1 |

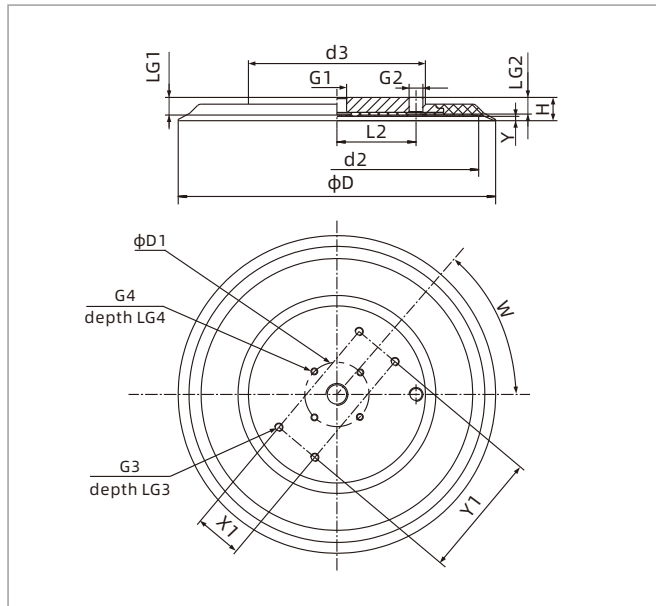
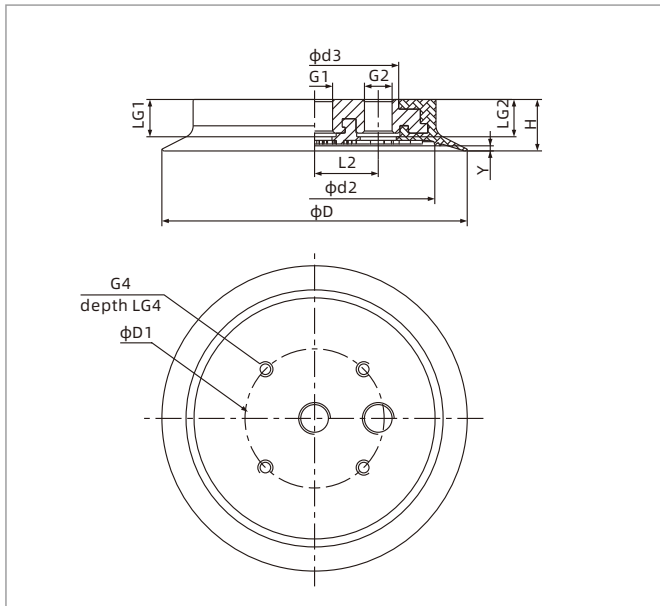
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

SFG Series

Flat Suction Cup Special for Glass Industry



Dimensions(mm)



SFG125-200

SFG250-400

| Model/Size | D | d2 | d3 | G1 | G2 | G3 | G4 | D1 | H | L2 | LG1 | LG2 | LG3 | LG4 | W | X1 | Y1 | Y |
|--------------|-----|-----|-----|------|------|------|------|----|------|------|------|------|-----|-----|----|----|-----|-----|
| SFG125□-G2F | 125 | 100 | 70 | G1/4 | G1/4 | - | 4-M6 | 59 | 21.5 | 26.5 | 14 | 14 | - | 8 | - | - | - | 3 |
| SFG125□-G3F | 125 | 100 | 70 | G3/8 | G1/4 | - | 4-M6 | 59 | 21.5 | 26.5 | 14 | 14 | - | 8 | - | - | - | 3 |
| SFG150□-G4F | 150 | 125 | 93 | G1/2 | G1/4 | - | 4-M6 | 59 | 21.5 | 36.5 | 14 | 14 | - | 8 | - | - | - | 3.3 |
| SFG150H□-G4F | 150 | 126 | 70 | G1/2 | G1/4 | - | 4-M6 | 59 | 26 | 26.5 | 14 | 14 | - | 8 | - | - | - | 7.5 |
| SFG200□-G4F | 200 | 185 | 134 | G1/2 | G1/4 | - | 4-M6 | 59 | 22 | 52.8 | 14 | 14 | - | 8 | - | - | - | 3.6 |
| SFG250H□-G4F | 250 | 217 | 140 | G1/2 | G1/4 | 4-M8 | 4-M6 | 59 | 27 | 52.5 | 14.5 | 14.5 | 12 | 8 | 70 | 45 | 100 | 9 |
| SFG300H□-G4F | 300 | 272 | 170 | G1/2 | G1/4 | 4-M8 | 4-M8 | 59 | 27 | 76 | 14.5 | 14.5 | 12 | 10 | 50 | 45 | 120 | 9 |
| SFG350H□-G4F | 350 | 317 | 170 | G1/2 | G1/4 | 4-M8 | 4-M8 | 59 | 27 | 76 | 14.5 | 14.5 | 12 | 10 | 50 | 45 | 120 | 9 |
| SFG400□-G4F | 400 | 372 | 170 | G1/2 | G1/4 | 4-M8 | 4-M8 | 59 | 22.5 | 76 | 14.5 | 14.5 | 12 | 10 | 50 | 45 | 120 | 4.5 |

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model | Applicable suction cup |
|------------------------------|--------------------|-------------------------|
| Rubber parts for suction cup | SFG125E SFG125HD | SFG125□-G2F SFG125□-G3F |
| | SFG150E SFG150HD | SFG150□-G4F |
| | SFG150HE SFG150HHD | SFG150H□-G4F |
| | SFG200E SFG200HD | SFG200□-G4F |

◇ Note: When you buy rubber parts only, pls ensure that the fitting for suction cup you buy is in good condition, and send it back to factory to replace the rubber parts

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SFGT Series

Big Flat Suction Cup

AIRBEST



METAL SHEET



GLASS

RoHS

Features

- ◇ Multilayer sealing lip
- ◇ Small inner volume
- ◇ Internal multipoint support structure

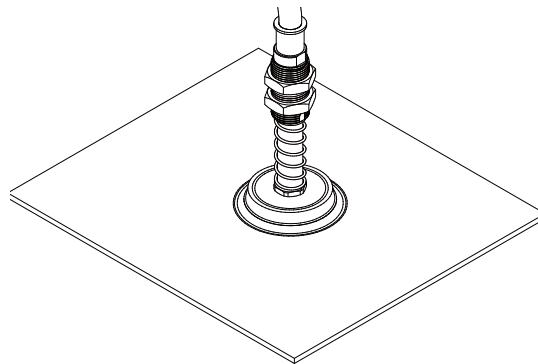
Advantages

- ◇ Excellent airtightness, large suction force
- ◇ Short work cycle
- ◇ Prevent workpieces from side slipping
- ◇ Rubber parts can be replaced separately, reduce customer's cost greatly



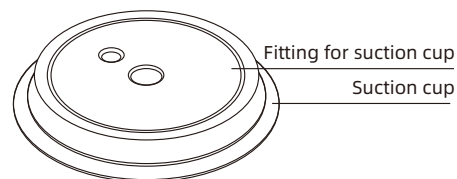
Applications

- ◇ Flat workpiece with smooth or slightly rough surface
- ◇ Metal sheet
- ◇ Glass

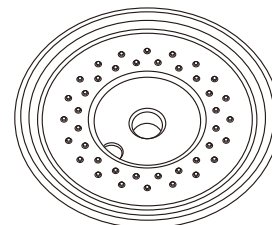


Structure

- ◇ Fitting for suction cup and rubber parts are split structure design, wearing parts can be replaced separately



- ◇ Note: The functional threaded hole is sealed with a plug when delivered. Seal the thread with thread glue or raw tape when connecting



SFGT Series

Big Flat Suction Cup

How to order

SFGT 120 WS - G3F

① ② ③ ④

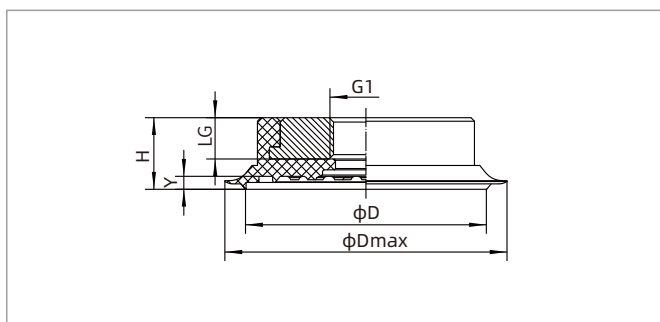
| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--|--|--|
| SFGT | 65 - ϕ 65mm 90 - ϕ 90mm 120 - ϕ 120mm 160 - ϕ 160mm | WS - White silicone 50 | Nil - Suction cup only G3F - G3/8 female thread G4F - G1/2 female thread |

Technical parameters

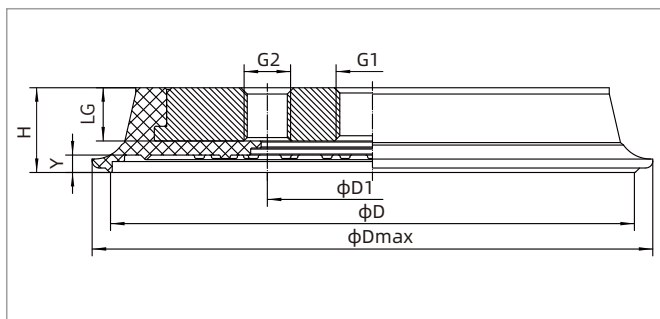
| Model | Pull-out force N | Inner volume cm ³ | Recommended hose Dia. mm | Weight g | MPQ pcs |
|-------------|------------------|------------------------------|--------------------------|----------|---------|
| SFGT65-G3F | 110 | 3.5 | 8 | 48 | 1 |
| SFGT90-G3F | 320 | 11 | 8 | 110 | 1 |
| SFGT120-G3F | 550 | 25 | 10 | 226 | 1 |
| SFGT160-G4F | 1010 | 81 | 10 | 584 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions mm



SFGT65-SFGT90



SFGT120-SFGT160

| Model/Size | ϕ Dmax | ϕ D | G1 | H | Y | LG |
|------------|-------------|----------|------|------|-----|-----|
| SFGT65-G3F | 65 | 55 | G3/8 | 16.5 | 3 | 9.5 |
| SFGT90-G3F | 90 | 79.5 | G3/8 | 17 | 2.5 | 11 |

| Model/Size | ϕ Dmax | ϕ D | ϕ D1 | G1 | G2 | H | Y | LG |
|-------------|-------------|----------|-----------|------|------|------|-----|------|
| SFGT120-G3F | 120 | 108 | 52 | G3/8 | G1/4 | 17.4 | 2.9 | 11 |
| SFGT160-G4F | 160 | 150 | 60 | G1/2 | G1/4 | 24.4 | 5.2 | 15.2 |

◇ Note: 1. The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard.
2. Dmax is outer diameter of the suction cup when it is completely compressed

SFD Series

Flat Suction Cup Special for Wood Industry

AIRBEST



WOOD

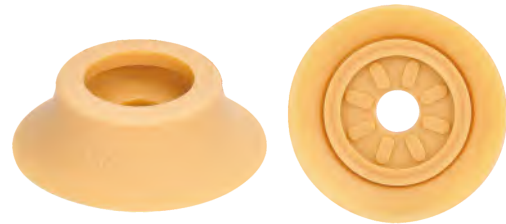


Features

- ◇ Double sealing lip
- ◇ With large area support structure at the bottom

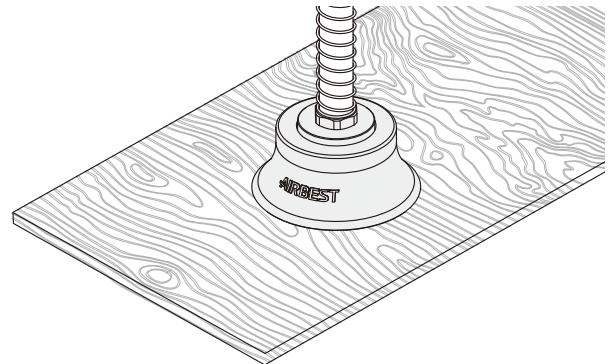
Advantages

- ◇ Excellent airtightness for workpieces with rough or smooth surfaces
- ◇ Prevent thin workpiece from permanent deformation



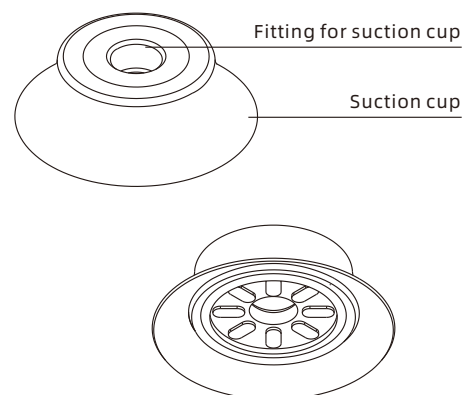
Applications

- ◇ Suitable for even workpiece with slightly rough surface, such as wooden plate, wooden floor, wooden doors, etc



Structure

- ◇ Double sealing lip
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately



SFD Series

Flat Suction Cup Special for Wood Industry



How to order

SFD 40 NR - G1F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|--|--------------------------|
| SFD | 40 - ϕ 40mm | N - NBR 55 | Nil - Suction cup only |
| | 70 - ϕ 70mm | WS - White silicone 50 | G1F - G1/8 female thread |
| | | NR - Natural rubber 40 | G2F - G1/4 female thread |

Selection

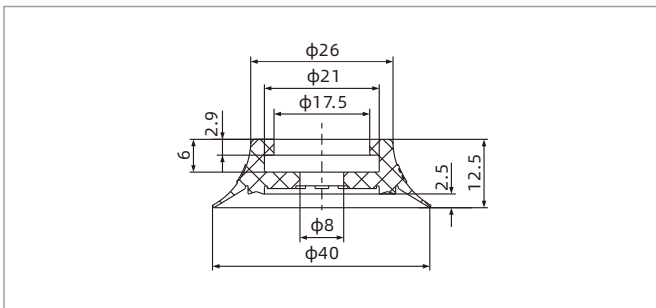
| Model | Connection thread F - Female thread |
|--------|--|
| SFD40□ | SFD40□-G1F |
| SFD70□ | SFD70□-G2F |

Technical parameters

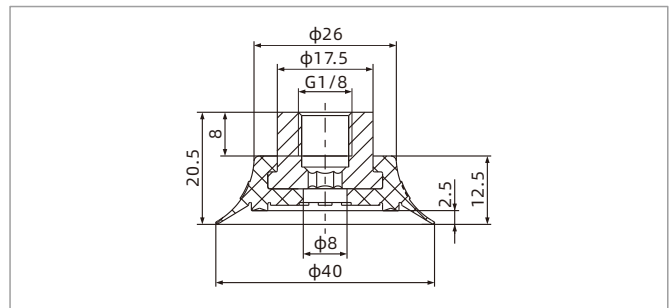
| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------------------------------|-------------|-----------------------------|------------|
| SFD40 | 60 | 3.8 | 48 | 4.8 | 8 | 1 |
| SFD70 | 185 | 25 | 85 | 32.2 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

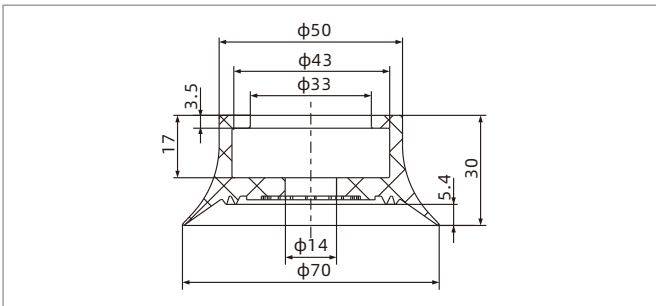
Dimensions(mm)



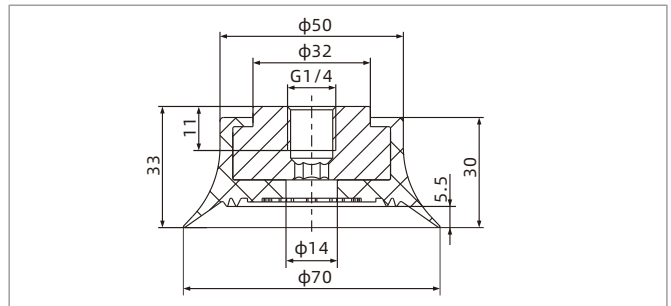
SFD40



SFD40□-G1F



SFD70



SFD70□-G2F

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

SB Series

Universal Bellows Suction Cup



UNIVERSAL



Features

- ◇ 1.5 Bellows
- ◇ Support structure at the bottom
- ◇ Various sizes for option

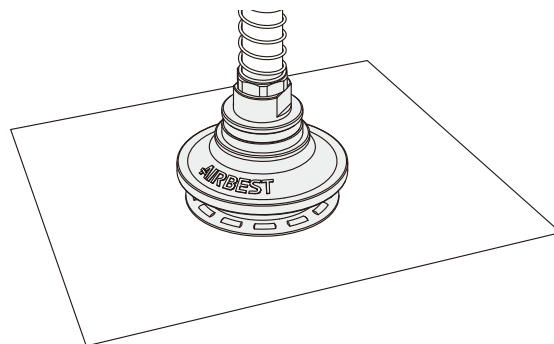
Advantages

- ◇ Easy to fit uneven surface of workpiece, and has buffer effect
- ◇ Handling thin workpiece without permanent deformation
- ◇ Suitable for workpieces with different sizes and shapes



Applications

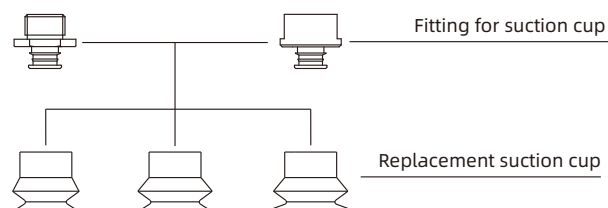
- ◇ Handling of workpieces with uneven surface, such as carton, cardboard, cambered workpiece, pipe, etc
- ◇ Handling fragile workpieces, such as electronic components, plastic injection parts, etc
- ◇ Handling smooth wood plate, smooth steel plate and so on



Structure

- ◇ 1.5 Bellows, large compressed stroke.
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately.

In same series, replacement suction cup and fitting can be combined on request.



SB Series

Universal Bellows Suction Cup

How to order

SB 30 N - G1M - EW

① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Special specification | |
|----------|------------|-----------------------|--------------------------|-----------------------------|--------------------------|
| SB | 5 - φ5mm | 20 - φ20mm | N - NBR | 55 Nil - Suction cup only | Nil - Standard |
| | 6 - φ6mm | 30 - φ30mm | S - Silicone | 50 M5M - M5×0.8 male thread | EW - With mesh filter |
| | 8 - φ8mm | 40 - φ40mm | WS - White silicone | 50 G1M - G1/8 male thread | EH - With throttle valve |
| | 10 - φ10mm | 50 - φ50mm | CS - Conductive silicone | 55 G2M - G1/4 male thread | |
| | 12 - φ12mm | 75 - φ75mm | | G3M - G3/8 male thread | |
| | 15 - φ15mm | 110 - φ110mm | | G1F - G1/8 female thread | |
| | 17 - φ17mm | 150 - φ150mm | | G2F - G1/4 female thread | |
| | | | | G3F - G3/8 female thread | |
| | | | G4F - G1/2 female thread | | |

Selection

| Model | Connection thread | |
|--------|--|--|
| | M - Male thread | F - Female thread |
| SB5□ | SB5□-M5M | - |
| SB6□ | SB6□-M5M | - |
| SB8□ | SB8□-M5M | - |
| SB10□ | SB10□-M5M | - |
| SB12□ | SB12□-M5M | - |
| SB15□ | SB15□-M5M | - |
| SB17□ | SB17□-G1M(-EW/EH) | SB17□-G1F(-EW/EH) |
| SB20□ | SB20□-G1M(-EW/EH) | SB20□-G1F(-EW/EH) |
| SB30□ | SB30□-G1M(-EW/EH) | SB30□-G1F(-EW/EH) |
| SB40□ | SB40□-G1M(-EW/EH) | SB40□-G1F(-EW/EH) |
| SB50□ | SB50□-G2M(-EW/EH) SB50□-G3M(-EW/EH) | SB50□-G2F(-EW/EH) SB50□-G3F(-EW/EH) |
| SB75□ | - | SB75□-G2F |
| SB110□ | - | SB110□-G4F |
| SB150□ | - | SB150□-G4F |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB**
- SBA
- SF
- SU
- SP2F
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- SOP
- SNP

SB Series

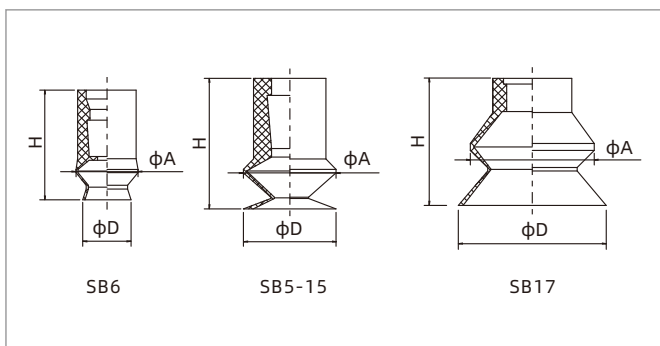
Universal Bellows Suction Cup

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|------------------|------------------------------|----------------------------------|----------|--------------------------|---------|
| SB5 | 0.8 | <0.1 | 8 | 0.3 | 4 | 10 |
| SB6 | 1.2 | <0.1 | 8 | 0.5 | 4 | 10 |
| SB8 | 2.1 | <0.1 | 10 | 0.4 | 4 | 10 |
| SB10 | 3.2 | 0.4 | 12 | 0.9 | 4 | 10 |
| SB12 | 4.7 | 0.5 | 15 | 1.5 | 6 | 10 |
| SB15 | 7.4 | 0.8 | 20 | 1.5 | 6 | 10 |
| SB17 | 9.5 | 1.1 | 25 | 1 | 6 | 10 |
| SB20 | 18 | 1.2 | 30 | 3 | 6 | 5 |
| SB30 | 33 | 14 | 35 | 7.5 | 6 | 5 |
| SB40 | 60 | 18 | 50 | 13 | 6 | 5 |
| SB50 | 92 | 26 | 80 | 24 | 8 | 1 |
| SB75 | 210 | 96 | 60 | 68 | 8 | 1 |
| SB110 | 412 | 314 | 120 | 178 | 12 | 1 |
| SB150 | 740 | 798 | 160 | 439.5 | 12 | 1 |

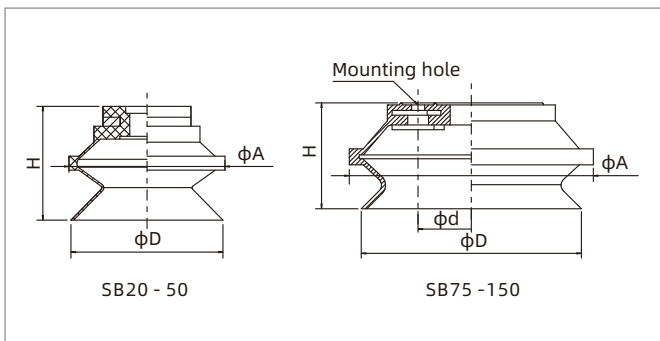
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm) - Suction cup only



| Model/Size | D | A | H |
|------------|------|------|------|
| SB5□ | 5.8 | 6.2 | 9.2 |
| SB6□ | 7 | 9 | 13.5 |
| SB8□ | 8.8 | 9.6 | 11.9 |
| SB10□ | 11 | 12 | 16 |
| SB12□ | 12 | 14 | 16.5 |
| SB15□ | 17.5 | 17.5 | 19.5 |
| SB17□ | 18.5 | 16.6 | 15.6 |

SB



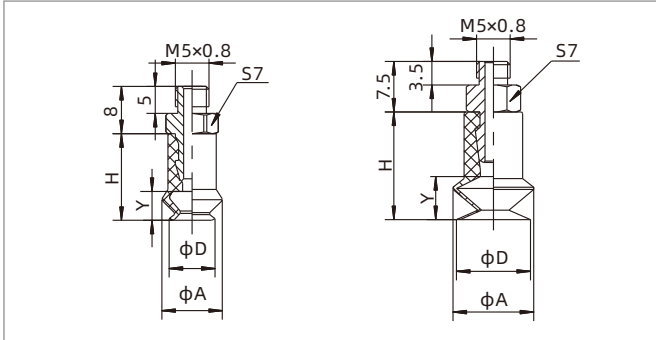
| Model/Size | D | A | H | d | Mounting hole |
|------------|-----|-----|----|------|---------------|
| SB20□ | 22 | 24 | 19 | - | - |
| SB30□ | 34 | 36 | 26 | - | - |
| SB40□ | 43 | 46 | 28 | - | - |
| SB50□ | 53 | 58 | 35 | - | - |
| SB75□ | 78 | 83 | 37 | 35 | 4-φ6 |
| SB110□ | 115 | 124 | 54 | 55 | 8-φ6 |
| SB150□ | 155 | 166 | 71 | 70.5 | 8-φ6 |

SB

SB Series

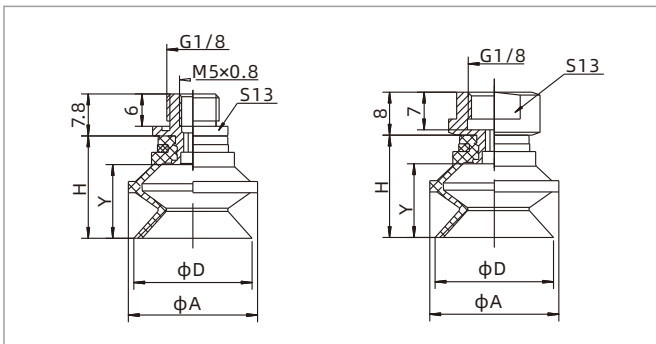
Universal Bellows Suction Cup

Dimensions(mm) - Suction cup with fitting



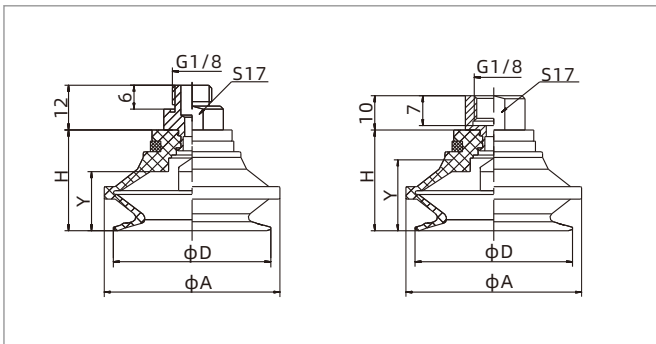
SB6□-M5M

SB□□-M5M



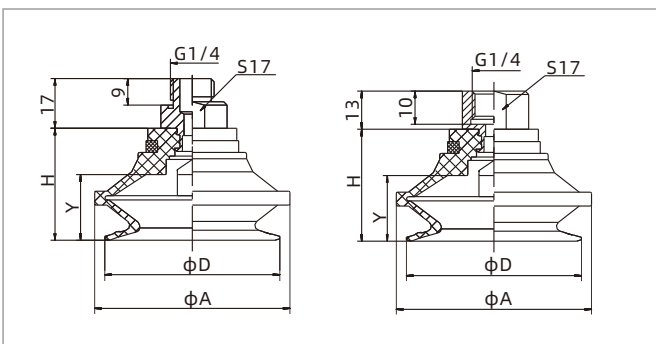
SB□□-G1M

SB□□-G1F



SB□□-G1M

SB□□-G1F



SB50□-G2M

SB50□-G2F

| Model/Size | D | A | H | Y |
|------------|------|------|------|-----|
| SB5□-M5M | 5.8 | 6.2 | 9.2 | 3.6 |
| SB6□-M5M | 7 | 9 | 13.5 | 4.5 |
| SB8□-M5M | 8.8 | 9.6 | 11.9 | 6.5 |
| SB10□-M5M | 11 | 12 | 16 | 7 |
| SB12□-M5M | 12 | 14 | 16.5 | 5.5 |
| SB15□-M5M | 15.5 | 17.5 | 19.5 | 10 |

| Model/Size | D | A | H | Y |
|------------|------|------|------|------|
| SB17□-G1M | 18.5 | 16.6 | 15.6 | 10.5 |
| SB17□-G1F | 18.5 | 16.6 | 15.6 | 10.5 |
| SB20□-G1M | 22 | 24 | 19 | 9 |
| SB20□-G1F | 22 | 24 | 19 | 9 |

| Model/Size | D | A | H | Y |
|------------|----|----|----|----|
| SB30□-G1M | 34 | 36 | 26 | 19 |
| SB30□-G1F | 34 | 36 | 26 | 19 |
| SB40□-G1M | 43 | 46 | 28 | 20 |
| SB40□-G1F | 43 | 46 | 28 | 20 |

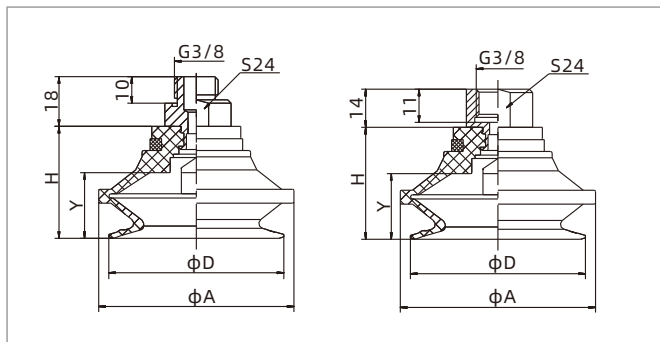
| Model/Size | D | A | H | Y |
|------------|----|----|----|----|
| SB50□-G2M | 53 | 58 | 35 | 20 |
| SB50□-G2F | 53 | 58 | 35 | 20 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB**
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SB Series

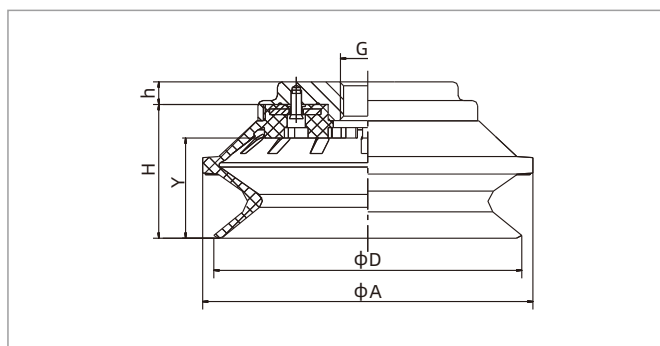
Universal Bellows Suction Cup

Dimensions(mm) - Suction cup with fitting



SB50□-G3M

SB50□-G3F



SB75-150

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | A | H | Y |
|------------|----|----|----|----|
| SB50□-G3M | 53 | 58 | 35 | 20 |
| SB50□-G3F | 53 | 58 | 35 | 20 |

| Model/Size | D | A | H | h | G | Y |
|------------|-----|-----|----|----|------|------|
| SB75□-G2F | 78 | 83 | 37 | 13 | G1/4 | 27 |
| SB110□-G4F | 115 | 124 | 54 | 9 | G1/2 | 38.5 |
| SB150□-G4F | 155 | 166 | 71 | 10 | G1/2 | 44.5 |

Mounting parts

| Item | Model | F - Female thread | Applicable suction cup |
|-------------------------|-----------------|-------------------|------------------------|
| | M - Male thread | | |
| Fitting for suction cup | PJS-M5M-SC1 | - | SB6 |
| | PJS-M5M-SC2 | - | SB5,8 |
| | PJS-M5M-SC3 | - | SB10,12,15 |
| | PJS-G1M-SF1 | PJS-G1F-SF1 | SB17,20 |
| | PJS-G1M-SF2 | PJS-G1F-SF2 | SB30,40 |
| | PJS-G2M-SF3 | PJS-G2F-SF3 | SB50 |
| | PJS-G3M-SF3 | PJS-G3F-SF3 | SB50 |
| | - | PJS-G2F-SF75 | SB75 |
| | - | PJS-G4F-SF110 | SB110 |
| | - | PJS-G4F-SF150 | SB150 |

SBA Series

1.5 Bellows Suction Cup

AIRBEST



Suction Cup

Features

- ◇ 1.5 Bellows
- ◇ Special material with high temperature resistance is optional
- ◇ Various sizes for option

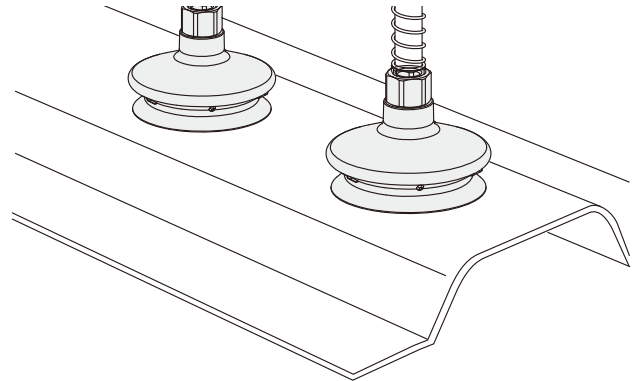
Advantages

- ◇ Easy to fit uneven surface of workpiece, has buffer effect
- ◇ Can handle workpiece with high temperature
- ◇ Fitting can be used repeatedly, greatly reducing customer's cost
- ◇ Suitable for workpieces with different sizes and shapes



Applications

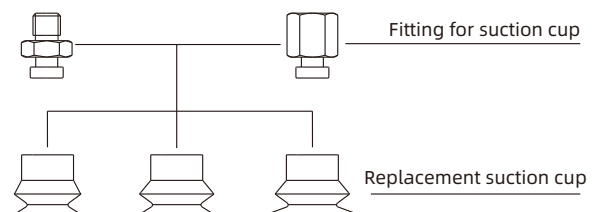
- ◇ Handling of workpieces with uneven surface, such as carton, cardboard, cambered workpiece, pipe, etc.
- ◇ Handling high temperature plastic injection parts, metal sheet, glass, etc.
- ◇ Handling smooth wood plate, smooth steel plate and so on



Structure

- ◇ 1.5 Bellows, large compressed stroke
- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately
- ◇ Mark free plug is optional, for grasping without any mark

In same series, replacement suction cup and fitting can be combined on request.



SZ
SP3
SUF
SAN
SAO
SOFA
STP
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SFA
SBT
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SBLP
SBS
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SGP
SBOF
STC
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SOB
SOF
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SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SBA Series

1.5 Bellows Suction Cup

How to order

SBA 33 N - G2M - PK

① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Special specification | |
|----------|------------|-----------------------|--------------------------|-----------------------------|--------------------------|
| SBA | 6 - φ6mm | 27 - φ27mm | N - NBR | 55 Nil - Suction cup only | Nil - Standard type |
| | 11 - φ11mm | 33 - φ33mm | WS - White silicone | 50 M5M - M5×0.8 male thread | PK - With mark free plug |
| | 14 - φ14mm | 43 - φ43mm | HD - High temp/Mark free | 60 G1M - G1/8 male thread | |
| | 16 - φ16mm | 53 - φ53mm | NR - Natural rubber | 40 G2M - G1/4 male thread | |
| | 20 - φ20mm | 63 - φ63mm | | M5F - M5×0.8 female thread | |
| | 22 - φ22mm | 78 - φ78mm | | G1F - G1/8 female thread | |
| | 25 - φ25mm | | | G2F - G1/4 female thread | |

Selection

| Model | Connection thread M - Male thread | F - Female thread |
|--------|--------------------------------------|--------------------------|
| SBA6□ | SBA6□-M5M | SBA6□-M5F |
| SBA11□ | SBA11□-M5M SBA11□-G1M | SBA11□-M5F SBA11□-G1F |
| SBA14□ | SBA14□-M5M SBA14□-G1M | SBA14□-M5F SBA14□-G1F |
| SBA16□ | SBA16□-M5M SBA16□-G1M | SBA16□-M5F SBA16□-G1F |
| SBA20□ | SBA20□-M5M SBA20□-G1M | SBA20□-M5F SBA20□-G1F |
| SBA22□ | SBA22□-M5M SBA22□-G1M | SBA22□-M5F SBA22□-G1F |
| SBA25□ | SBA25□-M5M SBA25□-G1M | SBA25□-M5F SBA25□-G1F |
| SBA27□ | SBA27□-G2M | SBA27□-G2F |
| SBA33□ | SBA33□-G2M | SBA33□-G2F |
| SBA43□ | SBA43□-G2M | SBA43□-G2F |
| SBA53□ | SBA53□-G2M | SBA53□-G2F |
| SBA63□ | SBA63□-G2M | SBA63□-G2F |
| SBA78□ | SBA78□-G2M | SBA78□-G2F |

SBA Series

1.5 Bellows Suction Cup

Selection - With mark free plug

| Model | M - Male thread | | F - Female thread | |
|-----------|-----------------|---------------|-------------------|---------------|
| SBA11□-PK | SBA11□-M5M-PK | SBA11□-G1M-PK | SBA11□-M5F-PK | SBA11□-G1F-PK |
| SBA14□-PK | SBA14□-M5M-PK | SBA14□-G1M-PK | SBA14□-M5F-PK | SBA14□-G1F-PK |
| SBA16□-PK | SBA16□-M5M-PK | SBA16□-G1M-PK | SBA16□-M5F-PK | SBA16□-G1F-PK |
| SBA20□-PK | SBA20□-M5M-PK | SBA20□-G1M-PK | SBA20□-M5F-PK | SBA20□-G1F-PK |
| SBA22□-PK | SBA22□-M5M-PK | SBA22□-G1M-PK | SBA22□-M5F-PK | SBA22□-G1F-PK |
| SBA25□-PK | SBA25□-M5M-PK | SBA25□-G1M-PK | SBA25□-M5F-PK | SBA25□-G1F-PK |
| SBA27□-PK | SBA27□-G2M-PK | | SBA27□-G2F-PK | |
| SBA33□-PK | SBA33□-G2M-PK | | SBA33□-G2F-PK | |
| SBA43□-PK | SBA43□-G2M-PK | | SBA43□-G2F-PK | |
| SBA53□-PK | SBA53□-G2M-PK | | SBA53□-G2F-PK | |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min. curved radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|--|-------------|-----------------------------|------------|
| SBA6 | 1.4 | 0.1 | 2 | 0.2 | 4 | 10 |
| SBA11 | 3.8 | 0.2 | 10 | 1.0 | 6 | 10 |
| SBA14 | 5.0 | 0.4 | 13 | 1.1 | 6 | 10 |
| SBA16 | 6.7 | 0.8 | 20 | 1.4 | 6 | 10 |
| SBA20 | 10.7 | 1.2 | 30 | 1.5 | 6 | 5 |
| SBA22 | 15.2 | 1.4 | 25 | 2.2 | 6 | 5 |
| SBA25 | 17.3 | 3.2 | 20 | 3.1 | 6 | 5 |
| SBA27 | 24.0 | 3.4 | 23 | 4.7 | 6 | 5 |
| SBA33 | 39.6 | 4.8 | 40 | 7.2 | 6 | 5 |
| SBA43 | 64.5 | 11.4 | 60 | 11.9 | 6 | 5 |
| SBA53 | 95.0 | 26.0 | 75 | 20.2 | 8 | 1 |
| SBA63 | 135.0 | 44.0 | 75 | 25.5 | 8 | 1 |
| SBA78 | 218.0 | 76.0 | 70 | 52.6 | 8 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

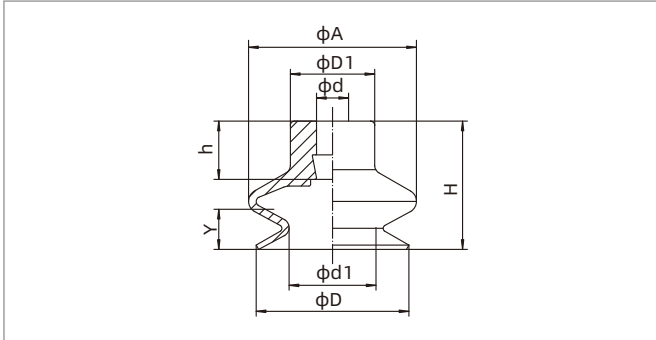
- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
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- SBT
- SBL
- SBLP
- SBS
- SFP
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- SXP
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- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA**
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SBA Series

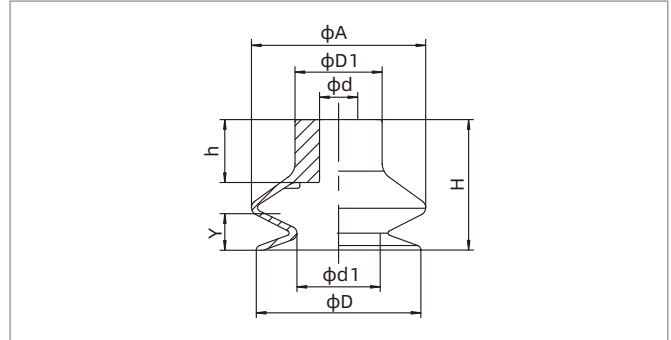
1.5 Bellows Suction Cup



Dimensions(mm) - Suction cup only



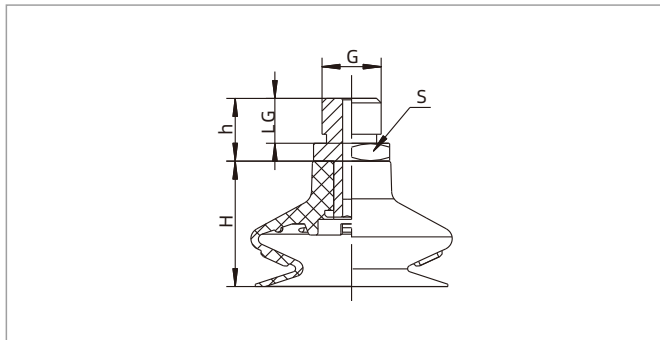
SBA6-25



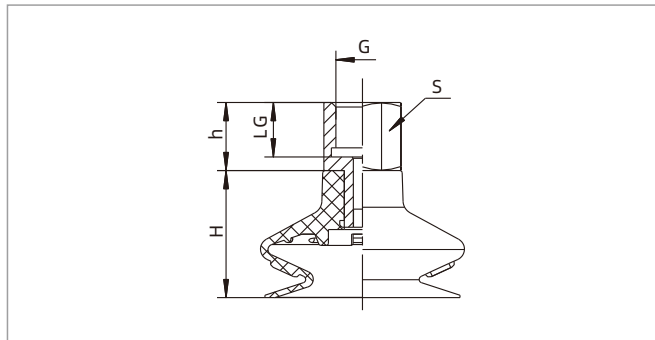
SBA27-78

| Model/Size | D | H | A | D1 | d | d1 | h | Y |
|------------|------|------|------|----|-----|------|----|------|
| SBA6□ | 5.5 | 9 | 6 | 7 | 3.7 | 2.7 | 5 | 3 |
| SBA11□ | 10.5 | 16 | 12 | 10 | 4 | 5 | 7 | 4 |
| SBA14□ | 13 | 15.5 | 13.5 | 10 | 4 | 5 | 7 | 6 |
| SBA16□ | 15.5 | 19 | 17 | 10 | 4 | 8 | 7 | 7 |
| SBA20□ | 18 | 15 | 20 | 10 | 4 | 11 | 7 | 8 |
| SBA22□ | 22 | 19 | 24 | 10 | 4 | 11 | 9 | 9 |
| SBA25□ | 24 | 23 | 25 | 10 | 4 | 9.5 | 9 | 11.5 |
| SBA27□ | 26 | 25 | 27.5 | 16 | 8 | 14 | 13 | 9 |
| SBA33□ | 35 | 27 | 36 | 18 | 8 | 17 | 13 | 10 |
| SBA43□ | 43 | 28 | 45 | 18 | 8 | 21.5 | 13 | 11.5 |
| SBA53□ | 53 | 34 | 58 | 18 | 8 | 32 | 13 | 15.5 |
| SBA63□ | 63 | 33.5 | 66 | 18 | 8 | 43.5 | 13 | 15 |
| SBA78□ | 78 | 46.5 | 83 | 25 | 12 | 54.5 | 20 | 14.5 |

Dimensions(mm) - Suction cup with fitting



SBA - Male thread connection



SBA - Female thread connection

| Model/Size | H | h | G | LG | S |
|------------|------|------|----------|-----|----|
| SBA6□-M5M | 9 | 7.5 | M5 × 0.8 | 3.5 | 7 |
| SBA11□-M5M | 16 | 7.5 | M5 × 0.8 | 3.5 | 7 |
| SBA11□-G1M | 16 | 13.5 | G1/8 | 7.5 | 14 |
| SBA14□-M5M | 15.5 | 7.5 | M5 × 0.8 | 3.5 | 7 |
| SBA14□-G1M | 15.5 | 13.5 | G1/8 | 7.5 | 14 |
| SBA16□-M5M | 19 | 7.5 | M5 × 0.8 | 3.5 | 7 |
| SBA16□-G1M | 19 | 13.5 | G1/8 | 7.5 | 14 |
| SBA20□-M5M | 15 | 7.5 | M5 × 0.8 | 3.5 | 7 |
| SBA20□-G1M | 15 | 13.5 | G1/8 | 7.5 | 14 |
| SBA22□-M5M | 19 | 7.5 | M5 × 0.8 | 3.5 | 7 |
| SBA22□-G1M | 19 | 13.5 | G1/8 | 7.5 | 14 |
| SBA25□-M5M | 23 | 7.5 | M5 × 0.8 | 3.5 | 7 |
| SBA25□-G1M | 23 | 13.5 | G1/8 | 7.5 | 14 |
| SBA27□-G2M | 25 | 15 | G1/4 | 11 | 17 |
| SBA33□-G2M | 27 | 15 | G1/4 | 11 | 17 |
| SBA43□-G2M | 28 | 15 | G1/4 | 11 | 17 |
| SBA53□-G2M | 34 | 15 | G1/4 | 11 | 17 |
| SBA63□-G2M | 33.5 | 15 | G1/4 | 11 | 17 |
| SBA78□-G2M | 46.5 | 15 | G1/4 | 11 | 21 |

| Model/Size | H | h | G | LG | S |
|------------|------|----|----------|-----|----|
| SBA6□-M5F | 9 | 10 | M5 × 0.8 | 5.5 | 7 |
| SBA11□-M5F | 16 | 10 | M5 × 0.8 | 5.5 | 8 |
| SBA11□-G1F | 16 | 12 | G1/8 | 8 | 14 |
| SBA14□-M5F | 15.5 | 10 | M5 × 0.8 | 5.5 | 8 |
| SBA14□-G1F | 15.5 | 12 | G1/8 | 8 | 14 |
| SBA16□-M5F | 19 | 10 | M5 × 0.8 | 5.5 | 8 |
| SBA16□-G1F | 19 | 12 | G1/8 | 8 | 14 |
| SBA20□-M5F | 15 | 10 | M5 × 0.8 | 5.5 | 8 |
| SBA20□-G1F | 15 | 12 | G1/8 | 8 | 14 |
| SBA22□-M5F | 19 | 10 | M5 × 0.8 | 5.5 | 8 |
| SBA22□-G1F | 19 | 12 | G1/8 | 8 | 14 |
| SBA25□-M5F | 23 | 10 | M5 × 0.8 | 5.5 | 8 |
| SBA25□-G1F | 23 | 12 | G1/8 | 8 | 14 |
| SBA27□-G2F | 25 | 15 | G1/4 | 12 | 17 |
| SBA33□-G2F | 27 | 15 | G1/4 | 12 | 17 |
| SBA43□-G2F | 28 | 15 | G1/4 | 12 | 17 |
| SBA53□-G2F | 34 | 15 | G1/4 | 12 | 17 |
| SBA63□-G2F | 33.5 | 15 | G1/4 | 12 | 17 |
| SBA78□-G2F | 46.5 | 15 | G1/4 | 12 | 21 |

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-M5M-SBA6 | PJS-M5F-SBA6 | SBA6 |
| | PJS-M5M-SC3 | PJS-M5F-SC3 | SBA11,14,16,20,22,25 |
| | PJS-G1M-SC3 | PJS-G1F-SC3 | SBA11,14,16,20,22,25 |
| | PJS-G2M-ST5 | PJS-G2F-ST5 | SBA27,33,43,53,63 |
| | PJS-G2M-ST8 | PJS-G2F-ST8 | SBA78 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SF Series

Universal Flat Suction Cup

AIRBEST



Features

- ◇ Support structure at the bottom
- ◇ Small inner volume
- ◇ Various sizes are available

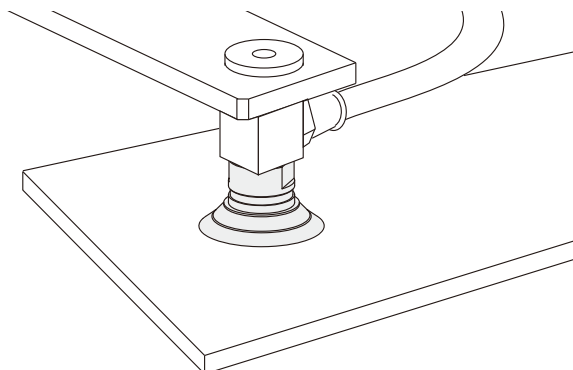
Advantages

- ◇ Handling thin workpiece without permanent deformation
- ◇ Short work cycle
- ◇ Suitable for workpieces with different sizes and shapes



Applications

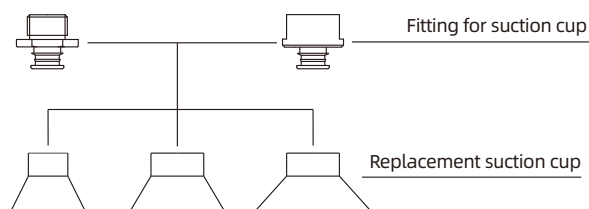
- ◇ Suitable for flat workpiece with smooth or slightly rough surfaces, such as smooth wood plate, smooth steel plate, plywood, plastic plate, etc.
- ◇ Suitable for handling electronic components, anti-static material can effectively prevent electrostatic damage to electronic products



Structure

- ◇ Suction cup and fitting are split structure design, wearing parts can be replaced separately
- ◇ Contact inductive valve is optional for suction cup with diameter $\phi 50-150\text{mm}$, in order to avoid accidental vacuum leakage
- ◇ Note: The functional threaded hole is sealed with a plug when delivered. Seal the thread with thread glue or raw tape when connecting

In same series, replacement suction cup and fitting can be combined on request.



SF Series

Universal Flat Suction Cup

How to order

SF 50 N - G2F - EB
 ① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Special specification |
|--------------|--------------|--------------------------|-----------------------------|-----------------------------------|
| SF | 15 - φ15mm | N - NBR | 55 Nil - Suction cup only | Nil - Standard |
| | 20 - φ20mm | S - Silicone | 50 M5M - M5×0.8 male thread | EB - With contact inductive valve |
| | 25 - φ25mm | WS - White silicone | 50 G1M - G1/8 male thread | EW - With mesh filter |
| | 30 - φ30mm | CS - Conductive silicone | 55 G2M - G1/4 male thread | EH - With throttle valve |
| | 40 - φ40mm | | G3M - G3/8 male thread | |
| | 50 - φ50mm | | G1F - G1/8 female thread | |
| | 75 - φ75mm | | G2F - G1/4 female thread | |
| | 110 - φ110mm | | G3F - G3/8 female thread | |
| | 150 - φ150mm | | G4F - G1/2 female thread | |
| | 200 - φ200mm | | G6F - G3/4 female thread | |
| 300 - φ300mm | | | | |

Selection

| Model | Connection thread | |
|--------|-------------------------------------|--|
| | M - Male thread | F - Female thread |
| SF15□ | SF15□-M5M | - |
| SF20□ | SF20□-G1M(-EW/EH) | SF20□-G1F(-EW/EH) |
| SF25□ | SF25□-G1M(-EW/EH) | SF25□-G1F(-EW/EH) |
| SF30□ | SF30□-G1M(-EW/EH) | SF30□-G1F(-EW/EH) |
| SF40□ | SF40□-G1M(-EW/EH) | SF40□-G1F(-EW/EH) |
| SF50□ | SF50□-G2M(-EW/EH) SF50□-G3M(-EW/EH) | SF50□-G2F(-EW/EH/EB) SF50□-G3F(-EW/EH) |
| SF75□ | - | SF75□-G2F SF75□-G2F-EB |
| SF110□ | - | SF110□-G4F SF110□-G4F-EB |
| SF150□ | - | SF150□-G4F SF150□-G4F-EB |
| SF200□ | - | SF200□-G4F |
| SF300□ | - | SF300□-G6F |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SF Series

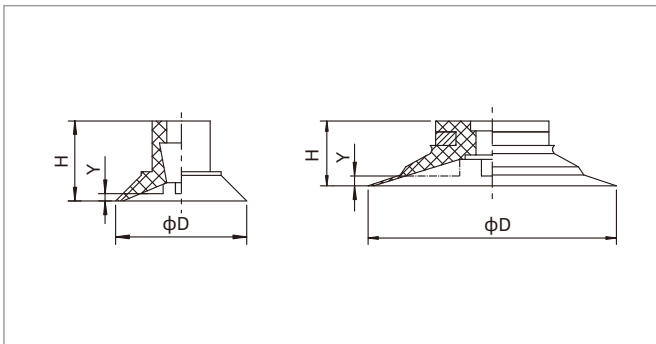
Universal Flat Suction Cup

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SF15 | 8 | 0.5 | 0.7 | 6 | 10 |
| SF20 | 14.5 | 0.8 | 1.4 | 6 | 5 |
| SF25 | 22 | 1.2 | 1.8 | 6 | 5 |
| SF30 | 32 | 1.5 | 2.6 | 6 | 5 |
| SF40 | 60 | 3 | 5.2 | 6 | 5 |
| SF50 | 88 | 7 | 11.5 | 6 | 1 |
| SF75 | 200 | 20 | 47.2 | 8 | 1 |
| SF110 | 430 | 60 | 116 | 10 | 1 |
| SF150 | 795 | 160 | 344.2 | 10 | 1 |
| SF200 | 1,500 | 550 | 732.2 | 12 | 1 |
| SF300 | 3,200 | 730 | 2,700 | 12 | 1 |

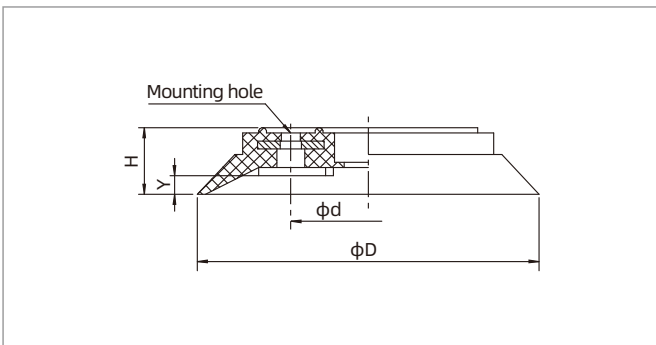
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm) - Suction cup only



SF15

SF20-50



SF75-200

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

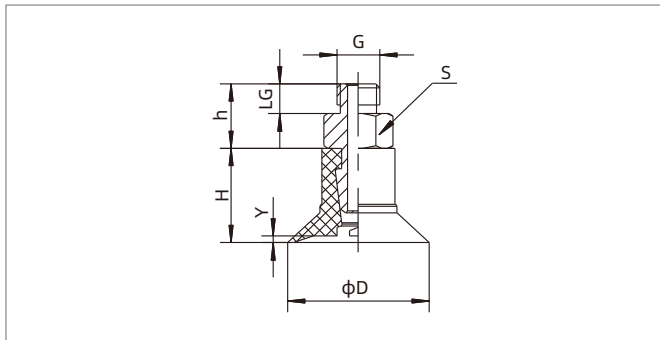
| Model/Size | D | H | Y |
|------------|------|------|-----|
| SF15□ | 16.5 | 11 | 0.8 |
| SF20□ | 22 | 8 | 1 |
| SF25□ | 27 | 9 | 1 |
| SF30□ | 32 | 10 | 1.2 |
| SF40□ | 42 | 13 | 1.2 |
| SF50□ | 53 | 17.5 | 3.2 |

| Model/Size | D | H | d | Y | Mounting hole |
|------------|-----|----|----|----|---------------|
| SF75□ | 77 | 13 | 35 | 4 | 4-φ6 |
| SF110□ | 112 | 20 | 55 | 6 | 8-φ6 |
| SF150□ | 152 | 26 | 70 | 8 | 8-φ6 |
| SF200□ | 200 | 45 | 40 | 20 | 4-φ9 |

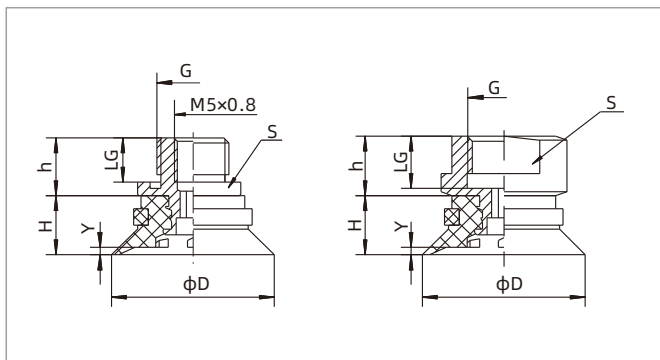
SF Series

Universal Flat Suction Cup

Dimensions(mm) - Suction cup with fitting

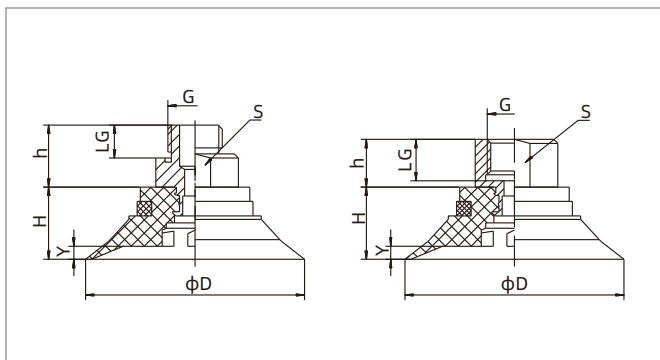


SF15□-M5M Male thread connection



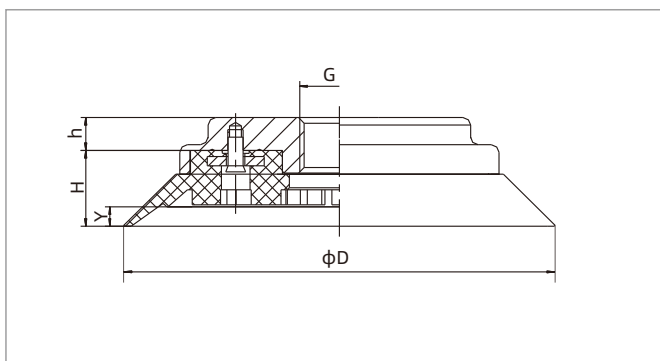
SF20-30 Male thread connection

SF20-30 Female thread connection



SF40-50 Male thread connection

SF40-50 Female thread connection



SF75-150 Female thread connection

| Model/Size | D | H | G | LG | h | S | Y |
|------------|------|----|--------|-----|-----|---|-----|
| SF15□-M5M | 16.5 | 11 | M5×0.8 | 3.5 | 7.5 | 7 | 0.8 |

| Model/Size | D | H | G | LG | h | S | Y |
|------------|----|----|------|----|-----|----|-----|
| SF20□-G1M | 22 | 8 | G1/8 | 6 | 7.8 | 13 | 1 |
| SF20□-G1F | 22 | 8 | G1/8 | 7 | 8 | 13 | 1 |
| SF25□-G1M | 27 | 9 | G1/8 | 6 | 7.8 | 13 | 1 |
| SF25□-G1F | 27 | 9 | G1/8 | 7 | 8 | 13 | 1 |
| SF30□-G1M | 32 | 10 | G1/8 | 6 | 7.8 | 13 | 1.2 |
| SF30□-G1F | 32 | 10 | G1/8 | 7 | 8 | 13 | 1.2 |

| Model/Size | D | H | G | LG | h | S | Y |
|------------|----|------|------|----|----|----|-----|
| SF40□-G1M | 42 | 13 | G1/8 | 6 | 12 | 17 | 1.2 |
| SF40□-G1F | 42 | 13 | G1/8 | 7 | 10 | 17 | 1.2 |
| SF50□-G2M | 53 | 17.5 | G1/4 | 9 | 17 | 24 | 3.2 |
| SF50□-G2F | 53 | 17.5 | G1/4 | 10 | 13 | 24 | 3.2 |
| SF50□-G3M | 53 | 17.5 | G3/8 | 10 | 18 | 24 | 3.2 |
| SF50□-G3F | 53 | 17.5 | G3/8 | 11 | 13 | 24 | 3.2 |

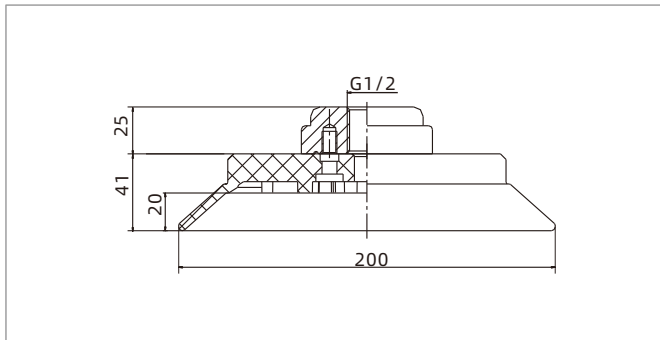
| Model/Size | D | H | G | h | Y |
|------------|-----|----|------|----|---|
| SF75□-G2F | 77 | 13 | G1/4 | 13 | 4 |
| SF110□-G4F | 112 | 20 | G1/2 | 9 | 6 |
| SF150□-G4F | 152 | 26 | G1/2 | 10 | 8 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

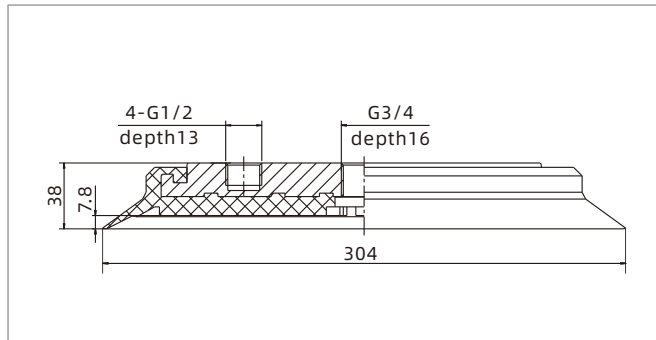
SF Series

Universal Flat Suction Cup

Dimensions(mm) - Suction cup with fitting

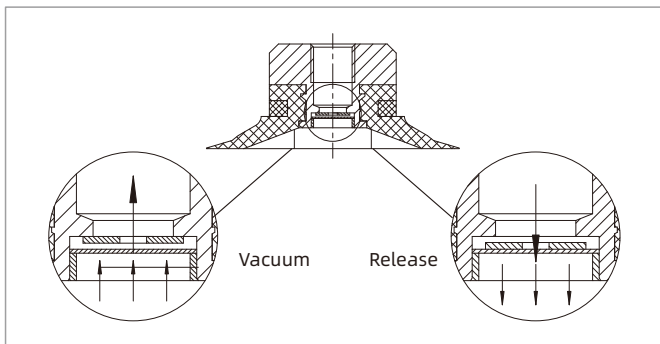


SF200 Female thread connection



SF300 Female thread connection

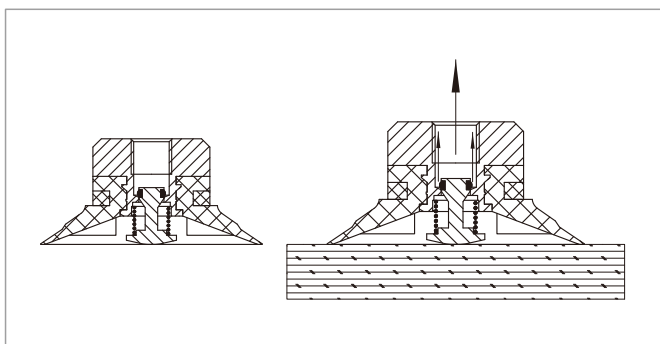
Accessories



EH - Throttle valve

EH - Throttle valve

- ◇ The flow through the vacuum port increases when the suction cup doesn't contact the workpiece, the valve plate fits the vacuum port, just little vacuum flow leaks from the small hole
- ◇ The flow through the vacuum port reduces when the suction cup sucks the workpiece, the valve plate leaves the vacuum port, suction cup works normally. (Suction cup must work vertically when it is equipped with throttle valve)



EB - Contact inductive valve

EB - Contact inductive valve

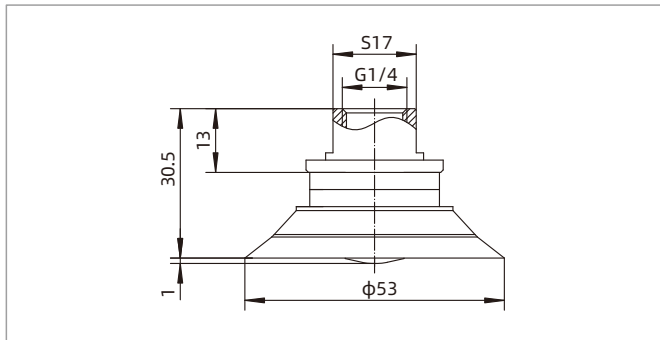
- ◇ When the suction cup doesn't contact the workpiece, the inductive valve closes the vacuum port to prevent the vacuum flow leakage
- ◇ When the suction cup contacts the workpiece, compresses the valve rod of the inductive valve, the vacuum port opens and the suction cup works normally

◇ Note: The contact inductive valve should be used with PSPT-H, PSPH and PSPD series level compensators. Otherwise, the spring force of inductive valve is higher than that of the level compensator, which results in the failure to open the valve. Please contact us for more details.

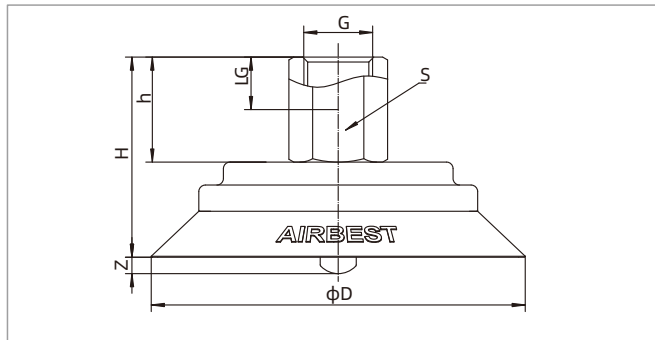
SF Series

Universal Flat Suction Cup

Dimensions(mm) - With contact inductive valve



SF50□-G2F-EB



SF75-150

| Model/Size | D | H | h | G | LG | S | Z | Spring force N |
|--------------|-----|----|----|------|----|----|---|-------------------|
| SF75-G2F-EB | 77 | 58 | 32 | G1/4 | 10 | 27 | 5 | 13 |
| SF75-G4F-EB | 77 | 58 | 32 | G1/2 | 15 | 27 | 5 | 13 |
| SF110-G4F-EB | 112 | 61 | 32 | G1/2 | 15 | 27 | 5 | 15 |
| SF150-G4F-EB | 152 | 69 | 32 | G1/2 | 15 | 27 | 5 | 16 |

◇ Note: The spring force is the min. pressure required when the suction cup is attached to the surface of the workpiece and the inductive valve is fully opened. The spring force (50% stroke) of the level compensator should be higher than that of the inductive valve.

Mounting parts

| Item | Model M - Male thread | F - Female thread | Applicable suction cup |
|-------------------------|--------------------------|-------------------|------------------------|
| Fitting for suction cup | PJS-M5M-SC3 | - | SF15 |
| | PJS-G1M-SF1 | PJS-G1F-SF1 | SF20, 25, 30 |
| | PJS-G1M-SF2 | PJS-G1F-SF2 | SF40 |
| | PJS-G2M-SF3 | PJS-G2F-SF3 | SF50 |
| | PJS-G3M-SF3 | PJS-G3F-SF3 | SF50 |
| | - | PJS-G2F-SF75 | SF75 |
| | - | PJS-G4F-SF110 | SF110 |
| - | PJS-G4F-SF150 | SF150 | |
| - | PJS-G4F-SF200 | SF200 | |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SU Series

Universal Flat Suction Cup

AIRBEST



Features

- ◇ Standard flat lip
- ◇ Small inner volume
- ◇ Various sizes are available

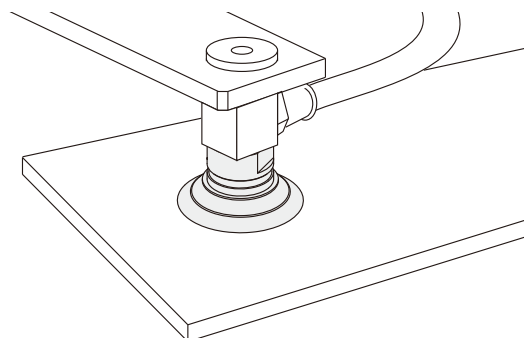
Advantages

- ◇ Suitable for handling most of workpieces with smooth and flat surface or slightly curved surface
- ◇ Short work cycle
- ◇ Suitable for workpieces with different sizes and shapes



Applications

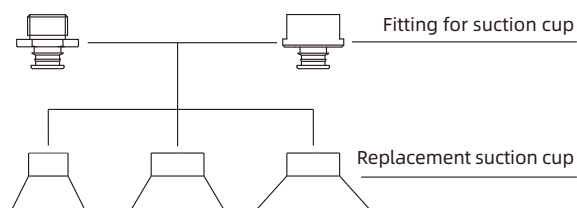
- ◇ Suitable for handling workpiece with smooth and flat surface or slightly curved surface, such as glass, wood plate, metal sheet, plastic plate, etc
- ◇ Suitable for handling automotive body parts



Structure

- ◇ Suction cup with diameter $\phi 6$ - $\phi 50$ mm and fitting are split structure design, wearing parts can be replaced separately
- ◇ For SU80, suction cup and fitting are one-piece structure

In same series, replacement suction cup and fitting can be combined on request



SU Series

Universal Flat Suction Cup

How to order

SU 20 N - G1F - EW

① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Special specification |
|----------|------------|-------------------------------------|---|--------------------------|
| SU | 6 - φ6mm | 25 - φ25mm N - NBR | 55 Nil - Suction cup only M5M - M5×0.8 male thread | Nil - Standard |
| | 8 - φ8mm | 30 - φ30mm S - Silicone | 50 G1F - G1/8 female thread G1M - G1/8 male thread | EW - With mesh filter |
| | 10 - φ10mm | 40 - φ40mm WS - White silicone | 50 G2F - G1/4 female thread G2M - G1/4 male thread | EH - With throttle valve |
| | 15 - φ15mm | 50 - φ50mm CS - Conductive silicone | 55 G3F - G3/8 female thread G3M - G3/8 male thread | |
| | 20 - φ20mm | 80 - φ80mm | | |

Selection

| Model | Connection thread | |
|-------|-------------------------------------|-------------------------------------|
| | M - Male thread | F - Female thread |
| SU6□ | SU6□-M5M | - |
| SU8□ | SU8□-M5M | - |
| SU10□ | SU10□-M5M | - |
| SU15□ | SU15□-M5M | - |
| SU20□ | SU20□-G1M(-EW/EH) | SU20□-G1F(-EW/EH) |
| SU25□ | SU25□-G1M(-EW/EH) | SU25□-G1F(-EW/EH) |
| SU30□ | SU30□-G1M(-EW/EH) | SU30□-G1F(-EW/EH) |
| SU40□ | SU40□-G1M(-EW/EH) | SU40□-G1F(-EW/EH) |
| SU50□ | SU50□-G2M(-EW/EH) SU50□-G3M(-EW/EH) | SU50□-G2F(-EW/EH) SU50□-G3F(-EW/EH) |
| SU80□ | - | SU80□-G1F |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min.curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|------------------|------------------------------|----------------------------------|----------|--------------------------|---------|
| SU6 | 2.1 | <0.1 | 7.5 | 0.1 | 4 | 10 |
| SU8 | 3.2 | <0.1 | 10 | 0.2 | 4 | 10 |
| SU10 | 4.7 | <0.1 | 12 | 0.6 | 6 | 10 |
| SU15 | 7.4 | 0.5 | 20 | 0.6 | 6 | 10 |
| SU20 | 9.5 | 0.8 | 30 | 1.2 | 6 | 5 |
| SU25 | 18 | 1.2 | 45 | 1.5 | 6 | 5 |
| SU30 | 33 | 1.5 | 45 | 2.4 | 6 | 5 |
| SU40 | 60 | 3 | 65 | 5.2 | 6 | 5 |
| SU50 | 92 | 7 | 80 | 10.6 | 6 | 1 |
| SU80 | 210 | 24 | 120 | 31 | 8 | 1 |

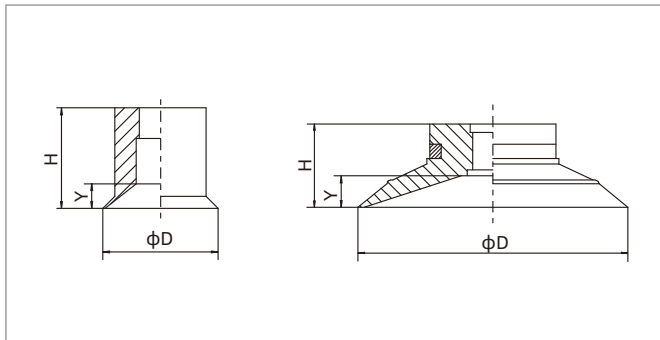
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SU Series

Universal Flat Suction Cup

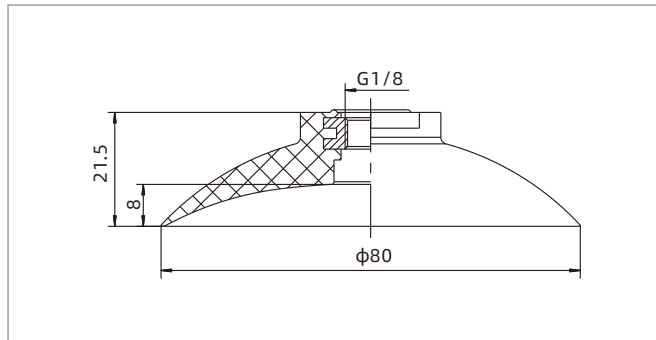
Dimensions(mm) - Suction cup only



SU6-15

SU20-50

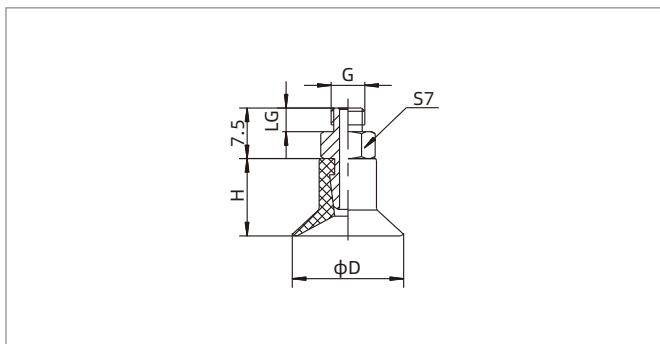
| Model/Size | D | H | Y (Stroke) |
|------------|------|------|------------|
| SU6□ | 7 | 6.5 | 1.5 |
| SU8□ | 9 | 7 | 2 |
| SU10□ | 11 | 10.5 | 2 |
| SF15□ | 16.5 | 11 | 3 |



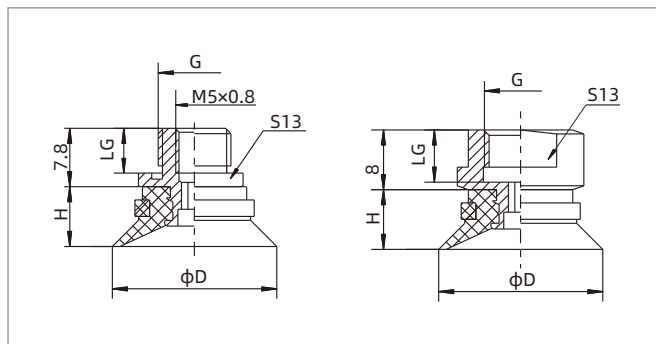
SU80

| Model/Size | D | H | Y (Stroke) |
|------------|----|------|------------|
| SU20□ | 22 | 8 | 2.2 |
| SU25□ | 27 | 9 | 2.9 |
| SU30□ | 32 | 9.5 | 4.5 |
| SU40□ | 42 | 13 | 5.2 |
| SU50□ | 53 | 17.5 | 7 |

Dimensions(mm) - Suction cup with fitting



SU6-15 Male thread connection



SU20-30 Male thread connection

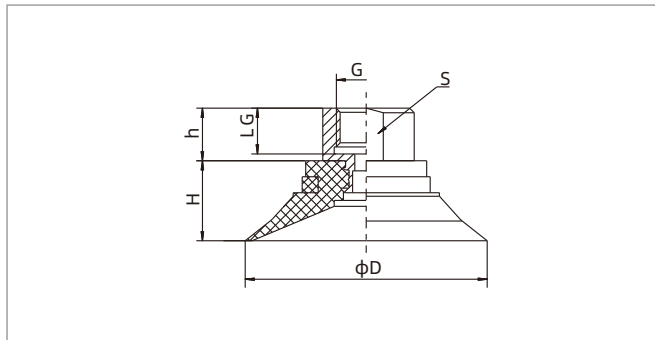
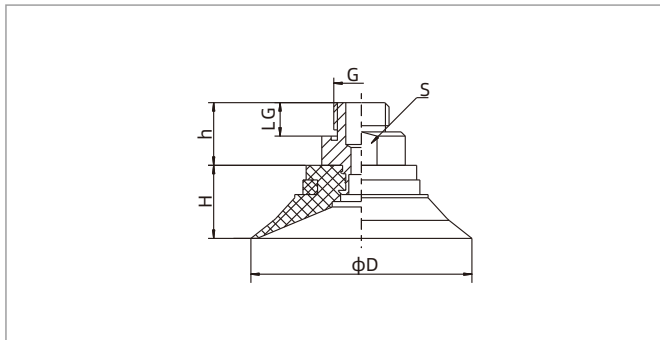
SU20-30 Female thread connection

| Model/Size | D | H | G | LG | h | S |
|------------|------|------|----------|-----|-----|----|
| SU6□-M5M | 7 | 6.5 | M5 × 0.8 | 3.5 | 7.5 | 7 |
| SU8□-M5M | 9 | 7 | M5 × 0.8 | 3.5 | 7.5 | 7 |
| SU10□-M5M | 11 | 10.5 | M5 × 0.8 | 3.5 | 7.5 | 7 |
| SU15□-M5M | 16.5 | 11 | M5 × 0.8 | 3.5 | 7.5 | 7 |
| SU20□-G1M | 22 | 8 | G1/8 | 6 | 7.8 | 13 |
| SU20□-G1F | 22 | 8 | G1/8 | 7 | 8 | 13 |
| SU25□-G1M | 27 | 9 | G1/8 | 6 | 7.8 | 13 |
| SU25□-G1F | 27 | 9 | G1/8 | 7 | 8 | 13 |
| SU30□-G1M | 32 | 9.5 | G1/8 | 6 | 7.8 | 13 |
| SU30□-G1F | 32 | 9.5 | G1/8 | 7 | 8 | 13 |

SU Series

Universal Flat Suction Cup

Dimensions(mm) - Suction cup with fitting



SU40-50 Male thread connection

SU40-50 Female thread connection

| Model/Size | D | H | G | LG | h | S |
|------------|----|------|------|----|----|----|
| SU40□-G1M | 42 | 13 | G1/8 | 6 | 12 | 17 |
| SU40□-G1F | 42 | 13 | G1/8 | 7 | 10 | 17 |
| SU50□-G2M | 53 | 17.5 | G1/4 | 9 | 17 | 24 |
| SU50□-G2F | 53 | 17.5 | G1/4 | 10 | 13 | 24 |
| SU50□-G3M | 53 | 17.5 | G3/8 | 10 | 18 | 24 |
| SU50□-G3F | 53 | 17.5 | G3/8 | 11 | 13 | 24 |

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model | | Applicable suction cup |
|-------------------------|-----------------|-------------------|------------------------|
| | M - Male thread | F - Female thread | |
| Fitting for suction cup | PJS-M5M-SC2 | - | SU6,8 |
| | PJS-M5M-SC3 | - | SU10,15 |
| | PJS-G1M-SF1 | PJS-G1F-SF1 | SU20,25,30 |
| | PJS-G1M-SF2 | PJS-G1F-SF2 | SU40 |
| | PJS-G2M-SF3 | PJS-G2F-SF3 | SU50 |
| | PJS-G3M-SF3 | PJS-G3F-SF3 | SU50 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU**
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SP2F Series

Thin Lip Flat Suction Cup

AIRBEST



PAPER ANTI-DEFORMATION



Features

- ◇ Thin lip, flat and short stroke
- ◇ With support structure at the bottom

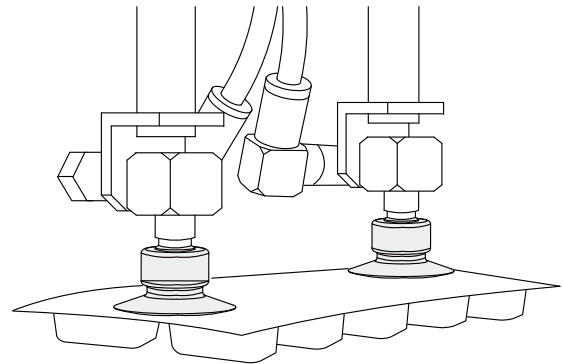
Advantages

- ◇ Good sealing for handling of thin and flat workpieces
- ◇ Prevents fold during handling of paper and thin film



Applications

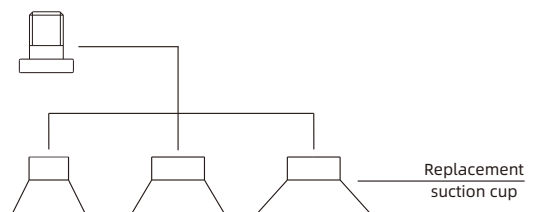
- ◇ Suitable for occasions that has high requirements for mark on product surface during handling, such as paper, plastic film, aluminum foil and copper foil



Structure

- ◇ Split structure for easy replacement of wearing parts

In the same series, replacement suction cup and fitting can be combined as required



SP2F Series

Thin Lip Flat Suction Cup

How to order

SP2F 10 N - M5M
 ① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|--------------------------|--------------------------|
| SP2F | 10 - ϕ 10mm | N - NBR | Nil - Suction cup only |
| | 15 - ϕ 15mm | WS - White silicone | M5M - M5x0.8 male thread |
| | | CN - Conductive NBR | |
| | | CS - Conductive silicone | |

Selection

| Model | Connection thread |
|---------|-------------------|
| SP2F10□ | SP2F10□-M5M |
| SP2F15□ | SP2F15□-M5M |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SP2F10 | 3.2 | <0.1 | 0.3 | 4 | 10 |
| SP2F15 | 7.5 | <0.1 | 0.36 | 4 | 10 |

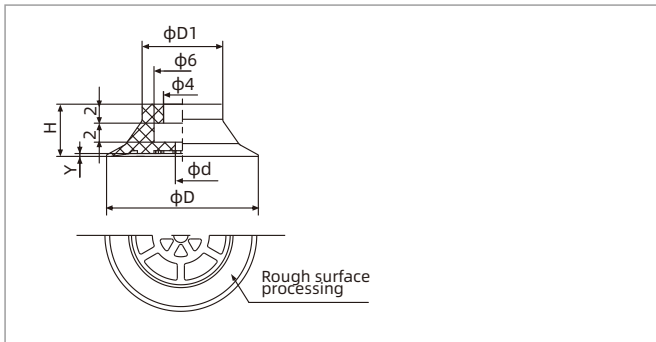
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SP2F Series

Thin Lip Flat Suction Cup

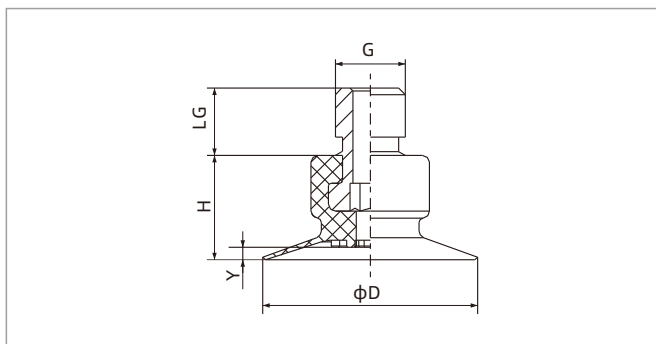
Dimensions(mm) - Suction cup only



SP2F10-15

| Model/Size | D | D1 | H | d | Y |
|------------|----|-----|-----|-----|-----|
| SP2F10□ | 11 | 8.5 | 5.5 | 1.5 | 0.3 |
| SP2F15□ | 16 | 8.5 | 5.5 | 1.5 | 0.3 |

Dimensions(mm) - Suction cup with fitting



SP2F10-15 Male thread connection

| Model/Size | D | H | G | LG | Y |
|-------------|----|-----|--------|----|-----|
| SP2F10□-M5M | 11 | 5.5 | M5×0.8 | 5 | 0.3 |
| SP2F15□-M5M | 16 | 5.5 | M5×0.8 | 5 | 0.3 |

Mounting parts

| Item | Model M - Male thread | Applicable suction cup |
|-------------------------|--------------------------|------------------------|
| Fitting for suction cup | PJS-M5M-ST2 | SP2F10、SP2F15 |

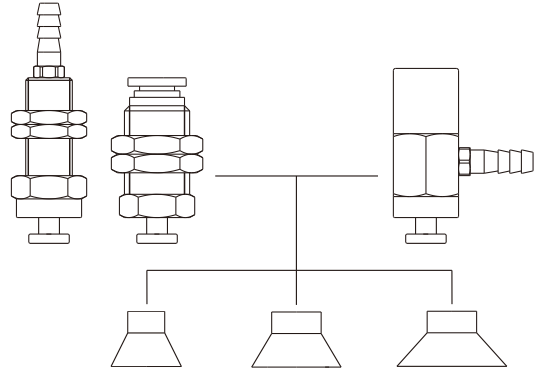
SP2F Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of replacement suction cup and locking fitting
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port, Pagoda fitting or one-touch fitting for connection, male thread for mounting
- ◇ Lateral vacuum port, Pagoda fitting for connection, female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SP2F L B6 - M5M
 ① ② ③ ④

| ① Model | ② Vacuum port direction | ③ Vacuum port connection | ④ Mounting thread |
|----------------|--------------------------|--------------------------------|----------------------------|
| SP2F10N | Nil - Vertical direction | A4 - One-touch fitting φ4 hose | M4F - M4×0.7 female thread |
| | L - Lateral direction | A6 - One-touch fitting φ6 hose | M8M - M8×1 male thread |
| | | B6 - Pagoda fitting φ6 hose | M12M - M12×1 male thread |

◇ Please refer to page 287 for suction cup selection

Selection

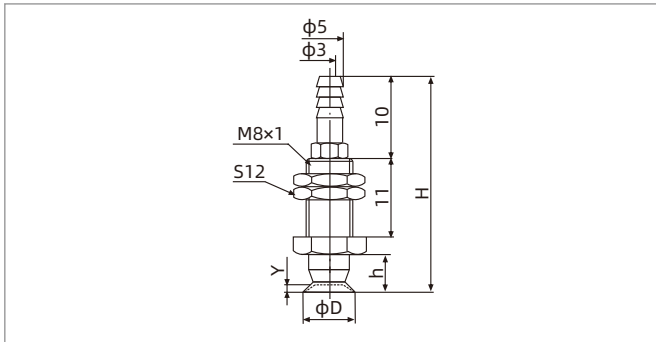
| Model | Vacuum port direction Vertical - Pagoda fitting | Vertical - One-touch fitting | Lateral - Pagoda fitting |
|----------------|--|------------------------------|--------------------------|
| | SP2F10□ | SP2F10□-B6-M8M | SP2F10□-A4-M12M |
| SP2F15□ | SP2F15□-B6-M8M | SP2F15□-A4-M12M | SP2F15□-LB6-M4F |

- SZ
- SP3
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- SOFA
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- SBOF
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- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F**
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SP2F Series

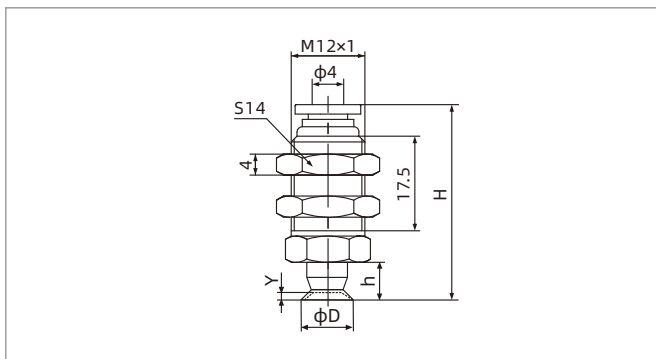
Suction Cup with Locking Fitting

Dimensions(mm)



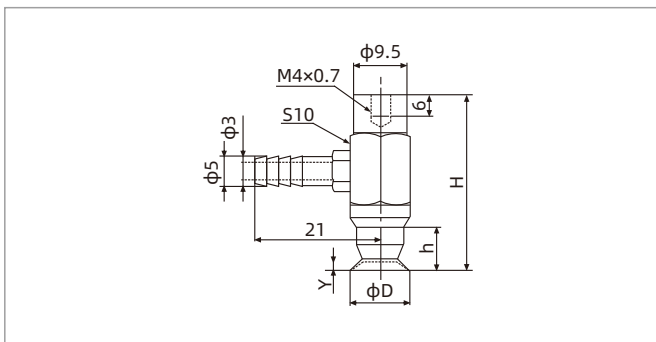
SP2F10-15 Vertical-Pagoda fitting

| Model/Size | D | H | h | Y |
|----------------|----|------|-----|-----|
| SP2F10□-B6-M8M | 11 | 29.5 | 5.5 | 0.3 |
| SP2F15□-B6-M8M | 16 | 29.5 | 5.5 | 0.3 |



SP2F10-15 Vertical - One-touch fitting

| Model/Size | D | H | h | Y |
|-----------------|----|----|-----|-----|
| SP2F10□-A4-M12M | 11 | 33 | 5.5 | 0.3 |
| SP2F15□-A4-M12M | 16 | 33 | 5.5 | 0.3 |



SP2F10-15 Lateral-Pagoda fitting

| Model/Size | D | H | h | Y |
|-----------------|----|----|-----|-----|
| SP2F10□-LB6-M4F | 11 | 28 | 5.5 | 0.3 |
| SP2F15□-LB6-M4F | 16 | 28 | 5.5 | 0.3 |

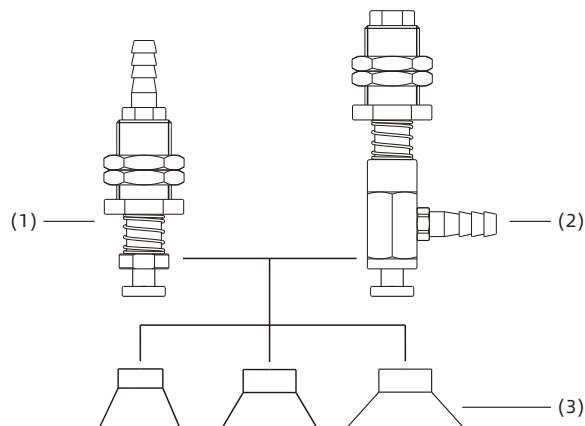
SP2F Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and level compensator can be combined as required



How to order

SP2F10N - F E 10 LB6 - M11

① ② ③ ④ ⑤ ⑥

| ① Model | ② Level compensator type | ③ Buffer type | ④ Buffer stroke | ⑤ Vacuum port connection | ⑥ Mounting thread |
|---------|--------------------------|---------------------|-----------------|--|-------------------|
| SP2F10N | F - PSPF Series | E - External spring | 4 10 | B6 - Vertical, pagoda fitting φ6 hose LB6 - Lateral, pagoda fitting φ6 hose | M11 - M11×1 |

Selection

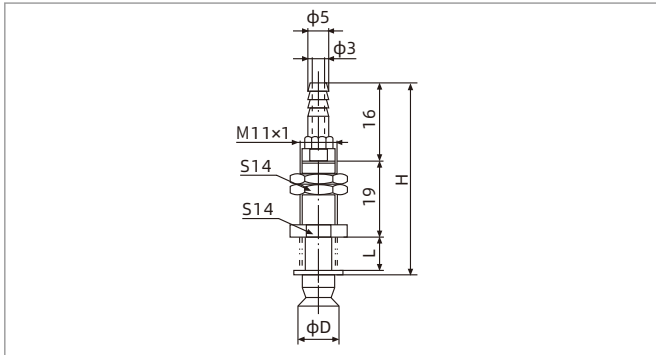
| Model | Vacuum port direction Vertical - Pagoda fitting | | Lateral - Pagoda fitting | |
|---------|--|--------------------|--------------------------|---------------------|
| | SP2F10□ | SP2F10□-FE4B6-M11 | SP2F10□-FE10B6-M11 | SP2F10□-FE4LB6-M11 |
| SP2F15□ | SP2F15□-FE4B6-M11 | SP2F15□-FE10B6-M11 | SP2F15□-FE4LB6-M11 | SP2F15□-FE10LB6-M11 |

- SZ
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- SBOF
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- SFM
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- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
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- SOP
- SNP

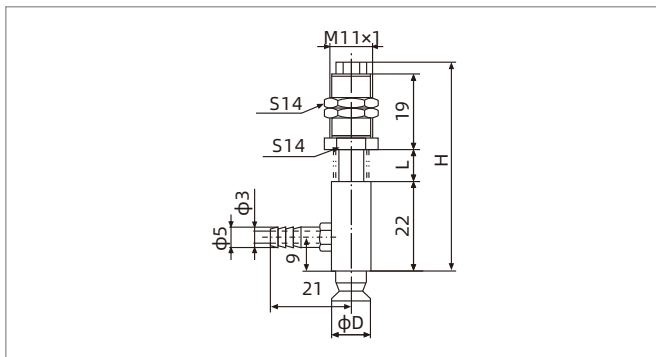
SP2F Series

Suction Cup with Level Compensator

Dimensions(mm)



SP2F10-15 Vertical-Pagoda fitting



SP2F10-15 Lateral-Pagoda fitting

| Model/Size | D | H | L | Buffer stroke |
|--------------------|----|----|----|---------------|
| SP2F10□-FE4B6-M11 | 11 | 46 | 8 | 4 |
| SP2F10□-FE10B6-M11 | 11 | 58 | 20 | 10 |
| SP2F15□-FE4B6-M11 | 16 | 46 | 8 | 4 |
| SP2F15□-FE10B6-M11 | 16 | 58 | 20 | 10 |

| Model/Size | D | H | L | Buffer stroke |
|---------------------|----|----|----|---------------|
| SP2F10□-FE4LB6-M11 | 11 | 52 | 8 | 4 |
| SP2F10□-FE10LB6-M11 | 11 | 64 | 20 | 10 |
| SP2F15□-FE4LB6-M11 | 16 | 52 | 8 | 4 |
| SP2F15□-FE10LB6-M11 | 16 | 64 | 20 | 10 |

SPA Series

Thin Lip Flat Suction Cup

AIRBEST



PAPER ANTI-DEFORMATION



Suction Cup

Features

- ◇ Thin lip, flat and short stroke
- ◇ With support structure at the bottom
- ◇ Available in various sizes

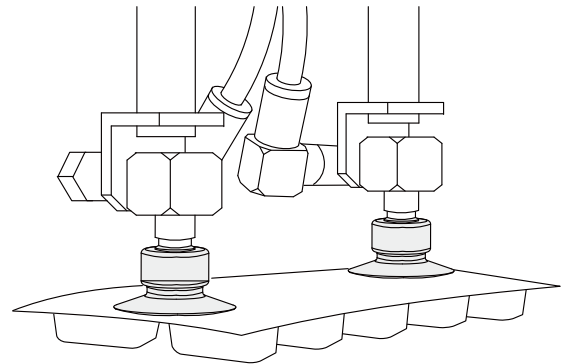
Advantages

- ◇ Good sealing for handling of thin and flat workpieces
- ◇ Prevents fold during handling of paper and thin film
- ◇ Suitable for workpieces of various sizes and shapes



Applications

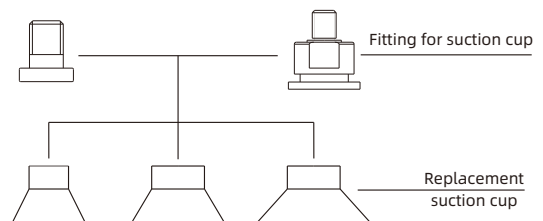
- ◇ Suitable for occasions that has high requirements for mark on product surface during handling, such as paper, plastic film, aluminum foil and copper foil
- ◇ B type suction cup is flat and with thin lip, which is more suitable for handling thin workpieces that are easy to wrinkle, such as aluminum foil, copper foil



Structure

- ◇ Split structure for easy replacement of wearing parts

In the same series, replacement suction cup and fitting can be combined as required



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STC
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SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

SPA Series

Thin Lip Flat Suction Cup

How to order

SPA 15 A N - M5M

① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Stroke | ④ Material & Hardness | ⑤ Connection thread |
|----------|------------------|----------|---|--|
| SPA | 10 - ϕ 10mm | A | N - NBR 50 | Nil - Suction cup only M5M - M5×0.8 male thread M6M - M6×1 male thread M8M - M8×1 male thread |
| | 15 - ϕ 15mm | B | WS - White silicone 50 | |
| | 20 - ϕ 20mm | D | CN - Conductive NBR 55 | |
| | 30 - ϕ 30mm | | CS - Conductive silicone 55 | |
| | 40 - ϕ 40mm | | | |
| | 50 - ϕ 50mm | | | |

Selection

| Model | Connection thread M - Male thread | Model | Connection thread M - Male thread |
|---------|--------------------------------------|---------|--------------------------------------|
| SPA10A□ | SPA10A□-M5M | SPA20B□ | SPA20B□-M5M |
| SPA10B□ | SPA10B□-M5M | SPA25A□ | SPA25A□-M6M SPA25A□-M8M |
| SPA15A□ | SPA15A□-M5M | SPA30A□ | SPA30A□-M6M SPA30A□-M8M |
| SPA15B□ | SPA15B□-M5M | SPA30B□ | SPA30B□-M5M |
| SPA15D□ | SPA15D□-M5M | SPA40A□ | SPA40A□-M6M SPA40A□-M8M |
| SPA20A□ | SPA20A□-M5M | SPA50A□ | SPA50A□-M6M SPA50A□-M8M |

Technical parameters

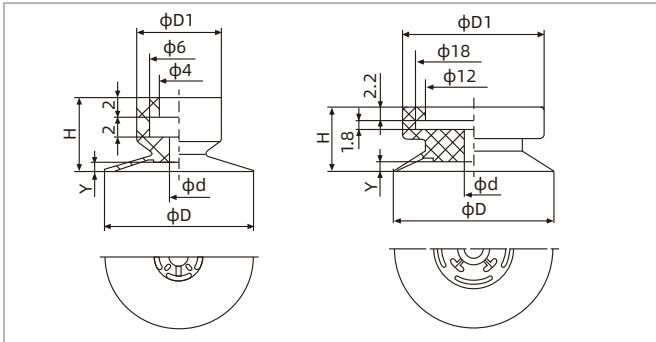
| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SPA10A | 3.5 | <0.1 | 0.3 | 4 | 10 |
| SPA10B | 3.5 | <0.1 | 0.56 | 4 | 10 |
| SPA15A | 8 | <0.1 | 0.28 | 4 | 10 |
| SPA15B | 8 | <0.1 | 0.4 | 4 | 10 |
| SPA15D | 8 | <0.1 | 0.28 | 4 | 10 |
| SPA20A | 15 | 0.3 | 0.8 | 4 | 5 |
| SPA20B | 15 | <0.1 | 0.7 | 4 | 5 |
| SPA25A | 22 | 0.6 | 2.0 | 4 | 5 |
| SPA30A | 32 | 1.1 | 2.6 | 4 | 5 |
| SPA30B | 32 | 0.2 | 3.4 | 4 | 5 |
| SPA40A | 56 | 2.6 | 2.6 | 6 | 5 |
| SPA50A | 88 | 5.8 | 4.3 | 6 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

SPA Series

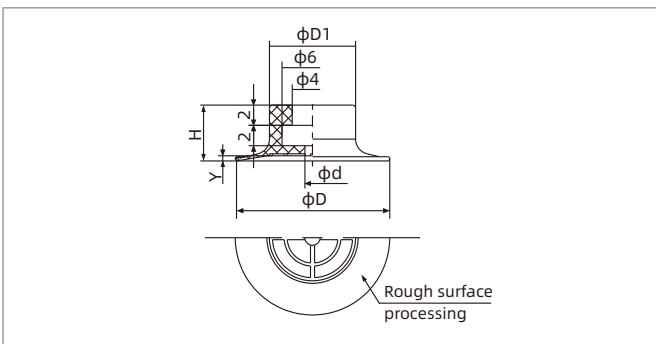
Thin Lip Flat Suction Cup

Dimensions(mm) - Suction cup only

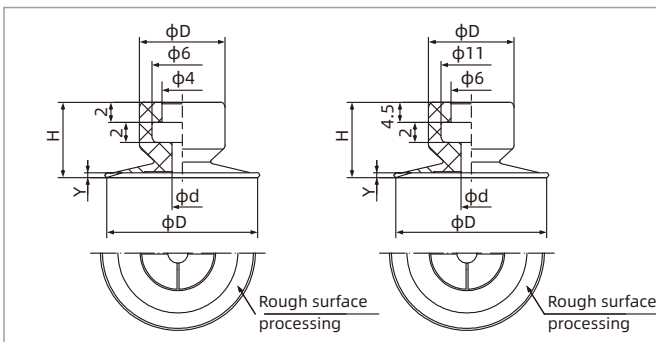


SPA10A-20A

SPA25A-50A



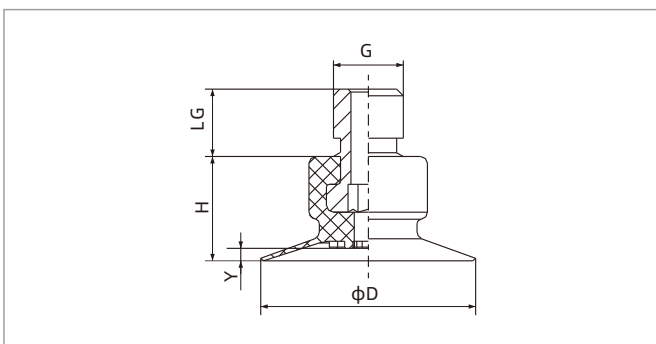
SPA15D



SPA10B-20B

SPA30B

Dimensions(mm) - Suction cup with fitting



SPA10-30 Male thread connection

| Model/Size | D | D1 | H | d | Y |
|------------|----|-----|-----|---|-----|
| SPA10A□ | 10 | 8.5 | 7.5 | 2 | 0.6 |
| SPA15A□ | 15 | 8.5 | 7.5 | 2 | 0.9 |
| SPA20A□ | 20 | 9 | 10 | 2 | 1.2 |
| SPA25A□ | 25 | 22 | 10 | 3 | 1.5 |
| SPA30A□ | 30 | 22 | 10 | 3 | 1.8 |
| SPA40A□ | 40 | 22 | 10 | 3 | 2.4 |
| SPA50A□ | 50 | 22 | 10 | 3 | 3 |

| Model/Size | D | D1 | H | d | Y |
|------------|----|-----|-----|-----|-----|
| SPA15D□ | 15 | 8.5 | 5.5 | 1.5 | 0.5 |

| Model/Size | D | D1 | H | d | Y |
|------------|----|-----|-----|---|-----|
| SPA10B□ | 10 | 8.5 | 7.5 | 2 | 0.3 |
| SPA15B□ | 15 | 8.5 | 7.5 | 2 | 0.5 |
| SPA20B□ | 20 | 8.5 | 10 | 2 | 0.8 |
| SPA30B□ | 30 | 15 | 11 | 3 | 0.3 |

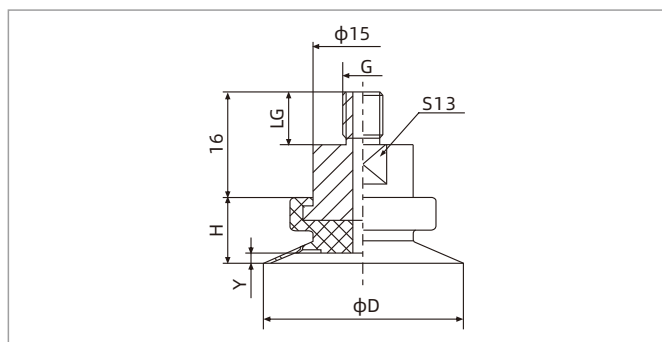
| Model/Size | D | H | G | LG | Y |
|-------------|----|-----|--------|----|-----|
| SPA10A□-M5M | 10 | 7.5 | M5×0.8 | 5 | 0.6 |
| SPA10B□-M5M | 10 | 7.5 | M5×0.8 | 5 | 0.3 |
| SPA15A□-M5M | 15 | 7.5 | M5×0.8 | 5 | 0.9 |
| SPA15B□-M5M | 15 | 7.5 | M5×0.8 | 5 | 0.5 |
| SPA15D□-M5M | 15 | 5.5 | M5×0.8 | 5 | 0.5 |
| SPA20A□-M5M | 20 | 10 | M5×0.8 | 5 | 1.2 |
| SPA20B□-M5M | 20 | 10 | M5×0.8 | 5 | 0.8 |
| SPA30B□-M5M | 30 | 11 | M5×0.8 | 5 | 0.3 |

- SZ
- SP3
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- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SPA Series

Thin Lip Flat Suction Cup

Dimensions(mm) - Suction cup with fitting



| Model/size | D | H | G | LG | Y |
|-------------|----|----|---------|----|-----|
| SPA25A□-M6M | 25 | 10 | M6×1 | 8 | 1.5 |
| SPA25A□-M8M | 25 | 10 | M8×1.25 | 8 | 1.5 |
| SPA30A□-M6M | 30 | 10 | M6×1 | 8 | 1.8 |
| SPA30A□-M8M | 30 | 10 | M8×1.25 | 8 | 1.8 |
| SPA40A□-M6M | 40 | 10 | M6×1 | 8 | 2.4 |
| SPA40A□-M8M | 40 | 10 | M8×1.25 | 8 | 2.4 |
| SPA50A□-M6M | 50 | 10 | M6×1 | 8 | 3 |
| SPA50A□-M8M | 50 | 10 | M8×1.25 | 8 | 3 |

SPA25A-50A

◇ Note: The dimensional tolerance conforms to the GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | Applicable suction cup |
|-------------------------|--------------------------|--------------------------------------|
| Fitting for suction cup | PJS-M5M-ST2 | SPA10A, 10B, 15A, 15B, 15D, 20A, 20B |
| | PJS-M5M-ST3 | SPA30B |
| | PJS-M6M-ST7 | SPA25A, 30A, 40A, 50A |
| | PJS-M8M-ST7 | SPA25A, 30A, 40A, 50A |

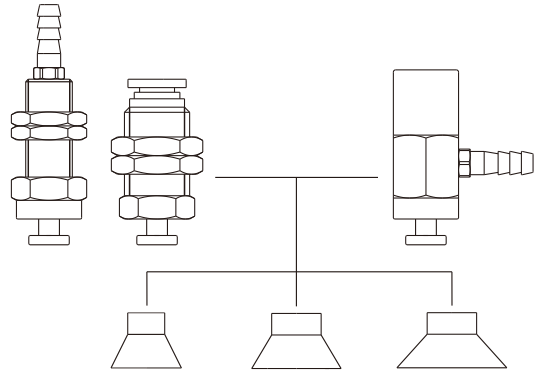
SPA Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of replacement suction cup and locking fitting
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port, Pagoda fitting or one-touch fitting for connection, male thread for mounting
- ◇ Lateral vacuum port, Pagoda fitting for connection, female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SPA10AN - L B6 - M4F

① ② ③ ④

| ① Model | ② Vacuum port direction | ③ Vacuum port connection | ④ Mounting thread |
|----------------|---|---|--|
| SPA10AN | Nil - Vertical direction L - Lateral direction | A4 - One-touch fitting ϕ 4 hose A6 - One-touch fitting ϕ 6 hose B6 - Pagoda fitting ϕ 6 hose | M4F - M4x0.7 female thread M6F - M6x1 female thread M8M - M8x1 male thread M10M - M10x1 male thread M12M - M12x1 male thread M14M - M14x1 male thread |

◇ Please refer to page 294 for suction cup selection

Selection

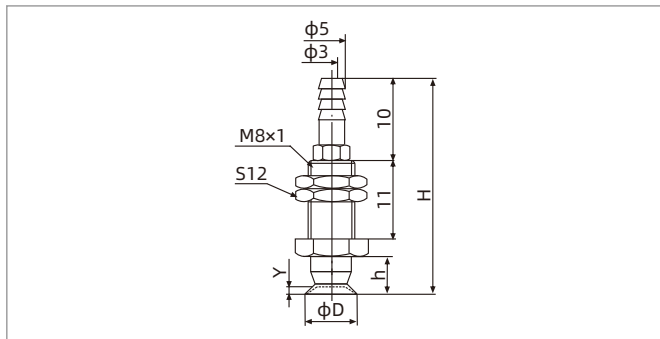
| Model | Vacuum port direction Vertical-Pagoda fitting | Vertical-One-touch fitting | Lateral-Pagoda fitting |
|---------|--|----------------------------|------------------------|
| SPA10A□ | SPA10A□-B6-M8M | SPA10A□-A4-M12M | SPA10A□-LB6-M4F |
| SPA10B□ | SPA10B□-B6-M8M | SPA10B□-A4-M12M | SPA10B□-LB6-M4F |
| SPA15A□ | SPA15A□-B6-M8M | SPA15A□-A4-M12M | SPA15A□-LB6-M4F |
| SPA15B□ | SPA15B□-B6-M8M | SPA15B□-A4-M12M | SPA15B□-LB6-M4F |
| SPA15D□ | SPA15D□-B6-M8M | SPA15D□-A4-M12M | SPA15D□-LB6-M4F |
| SPA20A□ | SPA20A□-B6-M8M | SPA20A□-A4-M12M | SPA20A□-LB6-M4F |
| SPA20B□ | SPA20B□-B6-M8M | SPA20B□-A4-M12M | SPA20B□-LB6-M4F |
| SPA25A□ | SPA25A□-B6-M10M | SPA25A□-A6-M14M | SPA25A□-LB6-M6F |
| SPA30A□ | SPA30A□-B6-M10M | SPA30A□-A6-M14M | SPA30A□-LB6-M6F |
| SPA30B□ | SPA30B□-B6-M10M | SPA30B□-A6-M14M | SPA30B□-LB6-M6F |
| SPA40A□ | SPA40A□-B6-M10M | SPA40A□-A6-M14M | SPA40A□-LB6-M6F |
| SPA50A□ | SPA50A□-B6-M10M | SPA50A□-A6-M14M | SPA50A□-LB6-M6F |

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- SFM
- SOM
- SBF
- SDM
- SFU
- SKF
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA**
- SPD
- SPF
- SPC
- SPJ
- SPU
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- SHB
- SBB
- SOP
- SNP

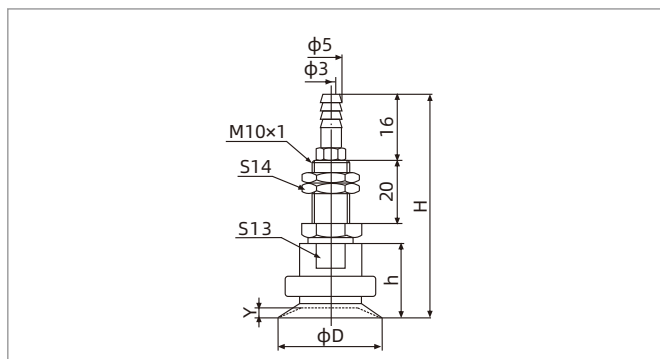
SPA Series

Suction Cup with Locking Fitting

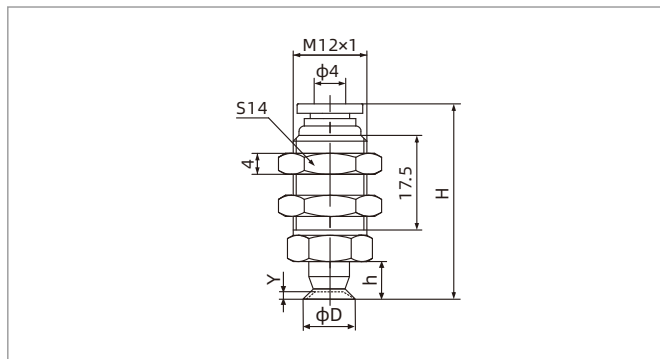
Dimensions(mm)



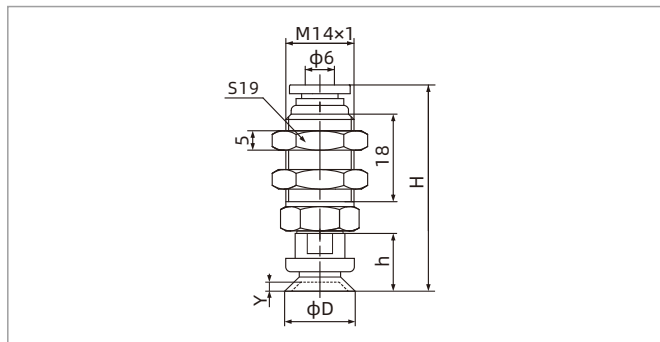
SPA10-20 Vertical-Pagoda fitting



SPA25-50 Vertical-Pagoda fitting



SPA10-20 Vertical-One-touch fitting



SPA25-50 Vertical-One-touch fitting

| Model/Size | D | H | h | Y |
|----------------|----|------|-----|-----|
| SPA10A□-B6-M8M | 10 | 31.5 | 7.5 | 0.6 |
| SPA10B□-B6-M8M | 10 | 31.5 | 7.5 | 0.3 |
| SPA15A□-B6-M8M | 15 | 31.5 | 7.5 | 0.9 |
| SPA15B□-B6-M8M | 15 | 31.5 | 7.5 | 0.5 |
| SPA15D□-B6-M8M | 15 | 29.5 | 5.5 | 0.5 |
| SPA20A□-B6-M8M | 20 | 34 | 10 | 12 |
| SPA20B□-B6-M8M | 20 | 34 | 10 | 0.8 |

| Model/Size | D | H | h | Y |
|-----------------|----|----|----|-----|
| SPA25A□-B6-M10M | 25 | 66 | 18 | 1.5 |
| SPA30A□-B6-M10M | 30 | 66 | 18 | 1.8 |
| SPA30B□-B6-M10M | 30 | 59 | 11 | 1.5 |
| SPA40A□-B6-M10M | 40 | 66 | 18 | 2.4 |
| SPA50A□-B6-M10M | 50 | 66 | 18 | 3 |

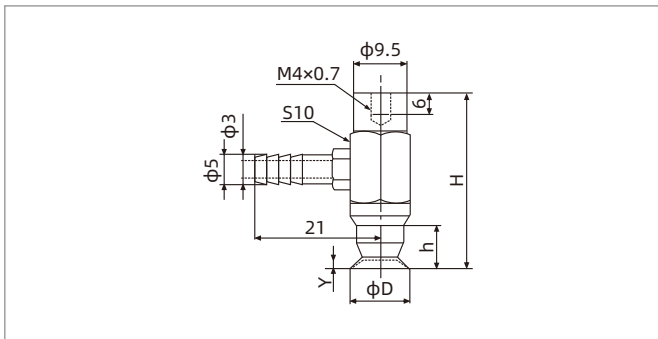
| Model/Size | D | H | h | Y |
|-----------------|----|------|-----|-----|
| SPA10A□-A4-M12M | 10 | 35 | 7.5 | 0.6 |
| SPA10B□-A4-M12M | 10 | 35 | 7.5 | 0.3 |
| SPA15A□-A4-M12M | 15 | 35 | 7.5 | 0.9 |
| SPA15B□-A4-M12M | 15 | 35 | 7.5 | 0.5 |
| SPA15D□-A4-M12M | 15 | 33 | 5.5 | 0.5 |
| SPA20A□-A4-M12M | 20 | 37.5 | 10 | 12 |
| SPA20B□-A4-M12M | 20 | 37.5 | 10 | 0.8 |

| Model/Size | D | H | h | Y |
|-----------------|----|----|----|-----|
| SPA25A□-A6-M14M | 25 | 48 | 18 | 1.5 |
| SPA30A□-A6-M14M | 30 | 48 | 18 | 1.8 |
| SPA30B□-A6-M14M | 30 | 40 | 11 | 1.5 |
| SPA40A□-A6-M14M | 40 | 48 | 18 | 2.4 |
| SPA50A□-A6-M14M | 50 | 48 | 18 | 3 |

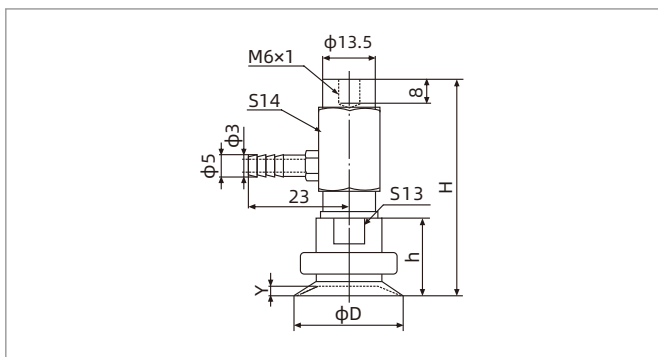
SPA Series

Suction Cup with Locking Fitting

Dimensions(mm)



SPA10-20 Lateral-Pagoda fitting



SPA25-50 Lateral-Pagoda fitting

| Model/Size | D | H | h | Y |
|-----------------|----|------|-----|-----|
| SPA10A□-LB6-M4F | 10 | 30 | 7.5 | 0.6 |
| SPA10B□-LB6-M4F | 10 | 30 | 7.5 | 0.3 |
| SPA15A□-LB6-M4F | 15 | 30 | 7.5 | 0.9 |
| SPA15B□-LB6-M4F | 15 | 30 | 7.5 | 0.5 |
| SPA15D□-LB6-M4F | 15 | 28 | 5.5 | 0.5 |
| SPA20A□-LB6-M4F | 20 | 32.5 | 10 | 12 |
| SPA20B□-LB6-M4F | 20 | 32.5 | 10 | 0.8 |

| Model/Size | D | H | h | Y |
|-----------------|----|------|----|-----|
| SPA25A□-LB6-M6F | 25 | 51.5 | 18 | 1.5 |
| SPA30A□-LB6-M6F | 30 | 51.5 | 18 | 1.8 |
| SPA30B□-LB6-M6F | 30 | 44.5 | 11 | 1.5 |
| SPA40A□-LB6-M6F | 40 | 51.5 | 18 | 2.4 |
| SPA50A□-LB6-M6F | 50 | 51.5 | 18 | 3 |

- SZ
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- SAO
- SOFA
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- SBL
- SBLP
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- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA**
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

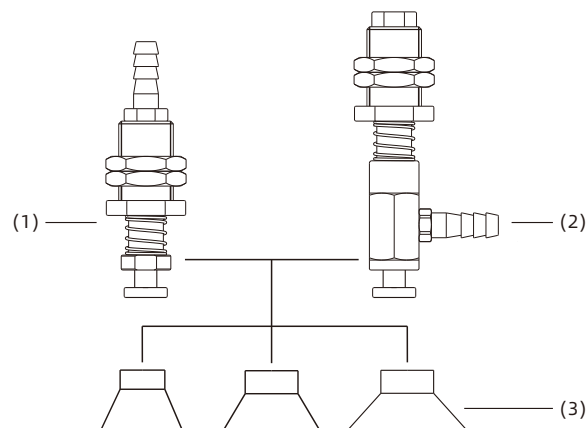
SPA Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and level compensator can be combined as required



How to order

SPA10AN - F E 10 LB6 - M11

① ② ③ ④ ⑤ ⑥

| ① Model | ② Level compensator type | ③ Buffer type | ④ Buffer stroke | ⑤ Vacuum port connection | ⑥ Mounting thread |
|---------|--------------------------|---------------------|-----------------|---------------------------------------|-------------------|
| SPA10AN | F - PSPF Series | E - External spring | 4 6 | B6 - Vertical, pagoda fitting φ6 hose | M11 - M11×1 |
| | | | 10 15 | LB6 - Lateral, pagoda fitting φ6 hose | M14 - M14×1 |

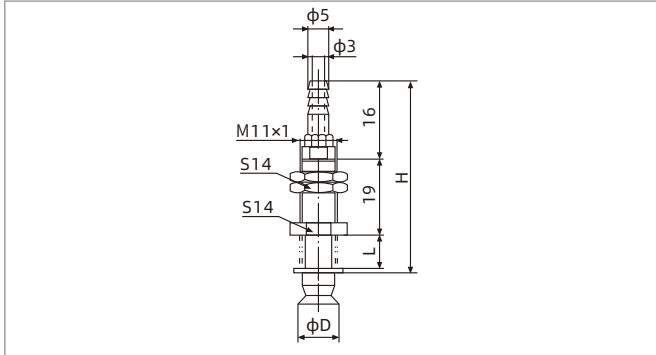
Selection

| Model | Vacuum port direction Vertical - Pagoda fitting | | Lateral - Pagoda fitting | |
|---------|--|--------------------|--------------------------|---------------------|
| | | | | |
| SPA10A□ | SPA10A□-FE4B6-M11 | SPA10A□-FE10B6-M11 | SPA10A□-FE4LB6-M11 | SPA10A□-FE10LB6-M11 |
| SPA10B□ | SPA10B□-FE4B6-M11 | SPA10B□-FE10B6-M11 | SPA10B□-FE4LB6-M11 | SPA10B□-FE10LB6-M11 |
| SPA15A□ | SPA15A□-FE4B6-M11 | SPA15A□-FE10B6-M11 | SPA15A□-FE4LB6-M11 | SPA15A□-FE10LB6-M11 |
| SPA15B□ | SPA15B□-FE4B6-M11 | SPA15B□-FE10B6-M11 | SPA15B□-FE4LB6-M11 | SPA15B□-FE10LB6-M11 |
| SPA15D□ | SPA15D□-FE4B6-M11 | SPA15D□-FE10B6-M11 | SPA15D□-FE4LB6-M11 | SPA15D□-FE10LB6-M11 |
| SPA20A□ | SPA20A□-FE4B6-M11 | SPA20A□-FE10B6-M11 | SPA20A□-FE4LB6-M11 | SPA20A□-FE10LB6-M11 |
| SPA20B□ | SPA20B□-FE4B6-M11 | SPA20B□-FE10B6-M11 | SPA20B□-FE4LB6-M11 | SPA20B□-FE10LB6-M11 |
| SPA25A□ | SPA25A□-FE6B6-M14 | SPA25A□-FE15B6-M14 | SPA25A□-FE6LB6-M14 | SPA25A□-FE15LB6-M14 |
| SPA30A□ | SPA30A□-FE6B6-M14 | SPA30A□-FE15B6-M14 | SPA30A□-FE6LB6-M14 | SPA30A□-FE15LB6-M14 |
| SPA30B□ | SPA30B□-FE6B6-M14 | SPA30B□-FE15B6-M14 | SPA30B□-FE6LB6-M14 | SPA30B□-FE15LB6-M14 |
| SPA40A□ | SPA40A□-FE6B6-M14 | SPA40A□-FE15B6-M14 | SPA40A□-FE6LB6-M14 | SPA40A□-FE15LB6-M14 |
| SPA50A□ | SPA50A□-FE6B6-M14 | SPA50A□-FE15B6-M14 | SPA50A□-FE6LB6-M14 | SPA50A□-FE15LB6-M14 |

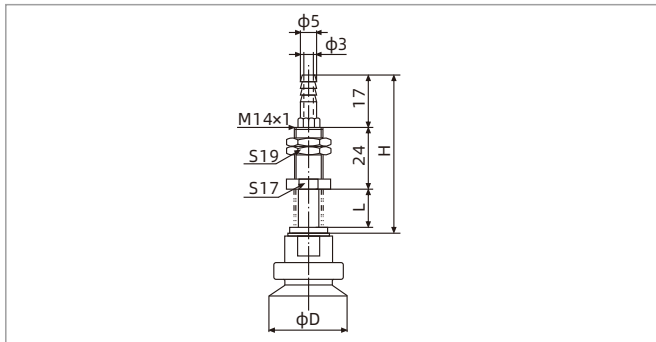
SPA Series

Suction Cup with Level Compensator

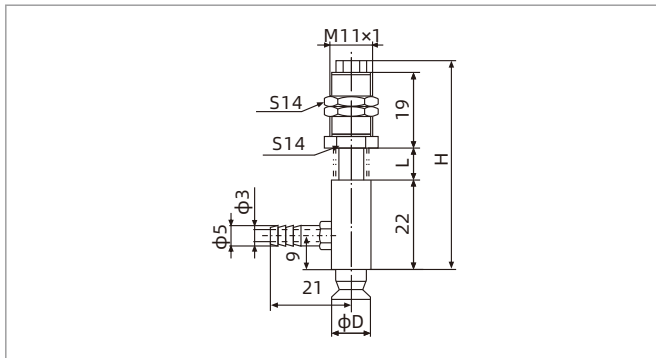
Dimensions(mm)



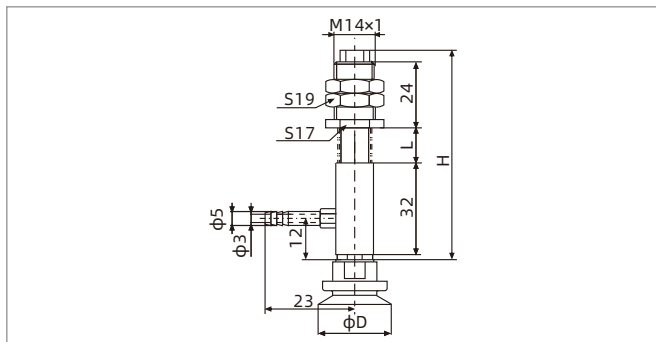
SPA10-20 Vertical-Pagoda fitting



SPA25-50 Vertical-Pagoda fitting



SPA10-20 Lateral-Pagoda fitting



SPA25-50 Lateral-Pagoda fitting

| Model/Size | D | H | L | Buffer stroke |
|--------------------|----|----|----|---------------|
| SPA10□□-FE4B6-M11 | 10 | 46 | 8 | 4 |
| SPA10□□-FE10B6-M11 | 10 | 58 | 20 | 10 |
| SPA15□□-FE4B6-M11 | 15 | 46 | 8 | 4 |
| SPA15□□-FE10B6-M11 | 15 | 58 | 20 | 10 |
| SPA20□□-FE4B6-M11 | 20 | 46 | 8 | 4 |
| SPA20□□-FE10B6-M11 | 20 | 58 | 20 | 10 |

| Model/Size | D | H | L | Buffer stroke |
|--------------------|----|----|----|---------------|
| SPA25□□-FE6B6-M14 | 25 | 57 | 13 | 6 |
| SPA25□□-FE15B6-M14 | 25 | 74 | 30 | 15 |
| SPA30□□-FE6B6-M14 | 30 | 57 | 13 | 6 |
| SPA30□□-FE15B6-M14 | 30 | 74 | 30 | 15 |
| SPA40□□-FE6B6-M14 | 40 | 57 | 13 | 6 |
| SPA40□□-FE15B6-M14 | 40 | 74 | 30 | 15 |
| SPA50□□-FE6B6-M14 | 50 | 57 | 13 | 6 |
| SPA50□□-FE15B6-M14 | 50 | 74 | 30 | 15 |

| Model/Size | D | H | L | Buffer stroke |
|---------------------|----|----|----|---------------|
| SPA10□□-FE4LB6-M11 | 10 | 52 | 8 | 4 |
| SPA10□□-FE10LB6-M11 | 10 | 64 | 20 | 10 |
| SPA15□□-FE4LB6-M11 | 15 | 52 | 8 | 4 |
| SPA15□□-FE10LB6-M11 | 15 | 64 | 20 | 10 |
| SPA20□□-FE4LB6-M11 | 20 | 52 | 8 | 4 |
| SPA20□□-FE10LB6-M11 | 20 | 64 | 20 | 10 |

| Model/Size | D | H | L | Buffer stroke |
|---------------------|----|----|----|---------------|
| SPA25□□-FE6LB6-M14 | 25 | 73 | 13 | 6 |
| SPA25□□-FE15LB6-M14 | 25 | 90 | 30 | 15 |
| SPA30□□-FE6LB6-M14 | 30 | 73 | 13 | 6 |
| SPA30□□-FE15LB6-M14 | 30 | 90 | 30 | 15 |
| SPA40□□-FE6LB6-M14 | 40 | 73 | 13 | 6 |
| SPA40□□-FE15LB6-M14 | 40 | 90 | 30 | 15 |
| SPA50□□-FE6LB6-M14 | 50 | 73 | 13 | 6 |
| SPA50□□-FE15LB6-M14 | 50 | 90 | 30 | 15 |

- SZ
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- SAO
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- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SPD Series

Thin Lip Flat Suction Cup

AIRBEST



Features

- ◇ Thin lip

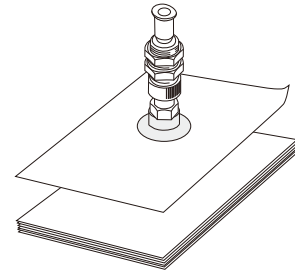
Advantages

- ◇ Fits thin film workpieces closely



Applications

- ◇ Most suitable for the handling of copy paper, PVC and other film materials



How to order

SPD 15 N - M5M
① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--------------------------------------|--|--|
| SPD | 10 - ϕ 10mm 15 - ϕ 15mm | N - NBR 50 WS - White silicone 50 | Nil - Suction cup only M5M - M5x0.8 male thread |

Selection

| Model | M5M |
|-------|------------|
| SPD10 | SPD10□-M5M |
| SPD15 | SPD15□-M5M |

Technical parameters

| Model | Pull-out force (N) | Inner volume cm^3 | Weight g | Recommended hose Dia. mm | MPQ pcs |
|-------|--------------------|----------------------------|----------|--------------------------|---------|
| SPD10 | 3.5 | < 0.1 | 0.2 | 4 | 10 |
| SPD15 | 7.5 | < 0.1 | 0.3 | 4 | 10 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different working condition

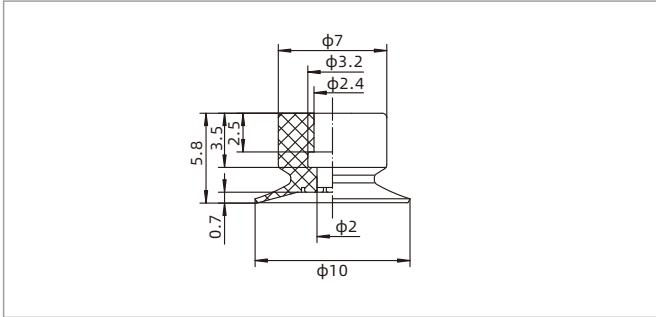
SPD Series

Thin Lip Flat Suction Cup

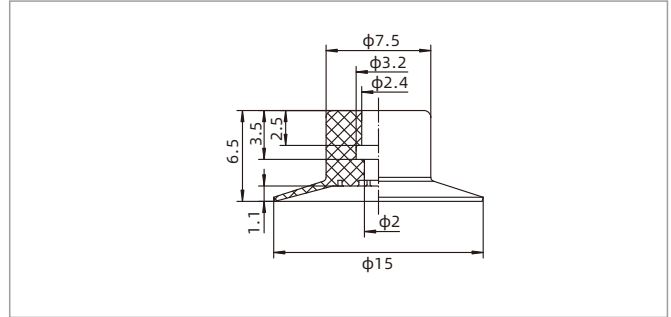


Suction Cup

Dimensions (mm) - Suction cup only

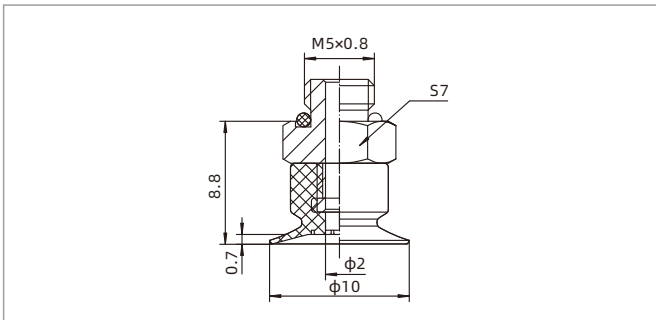


SPD10

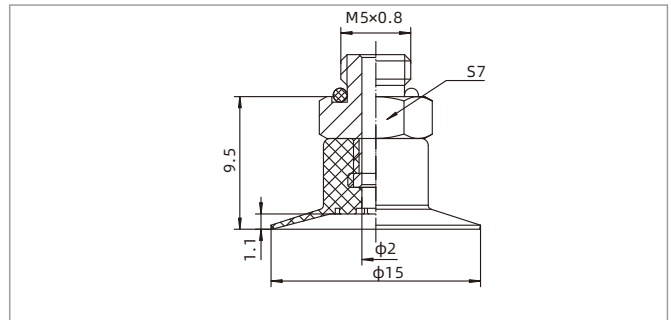


SPD15

Dimensions mm - Male thread fitting



SPD10-M5M



SPD15-M5M

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
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- SBT
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- SFP
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- SXP
- SGP
- SBOF
- STC
- SFF
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- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD**
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SPF Series

Flat Suction Cup

AIRBEST



UNIVERSAL



Features

- ◇ With support structure at the bottom
- ◇ Optimal design
- ◇ Small inner volume
- ◇ Available in various sizes

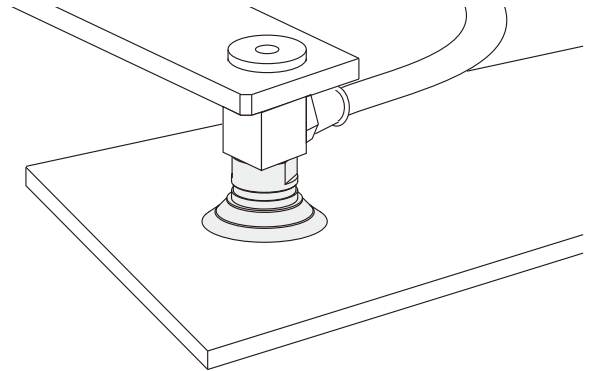
Advantages

- ◇ Be able to prevent permanent deformation of workpieces
- ◇ Small size, large suction force
- ◇ Short working cycle
- ◇ Suitable for workpieces of various sizes and shapes



Applications

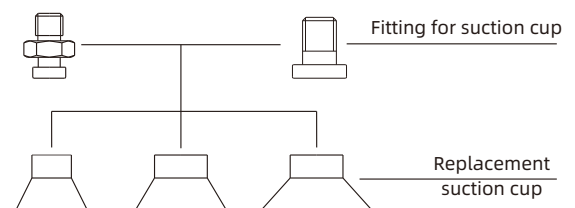
- ◇ Handling of flat workpieces with smooth or slightly rough surface such as wood, metal plate, plywood and plastic plate
- ◇ Suitable for handling electronic components, conductive material can effectively prevent electrostatic damage to electronic components



Structure

- ◇ Suction cups with diameter less than 50mm adopt split structure for easy replacement of wearing parts
- ◇ One-piece structure for suction cup with diameter 60mm-200mm

In the same series, replacement suction cup and fitting can be combined as required



SPF Series

Flat Suction Cup

How to order

SPF 15 N - M5M

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | |
|----------|--------------|-----------------------|---|-------------------------------|
| SPF | 2 - φ2mm | 35 - φ35mm | N - NBR 55 | Nil - Suction cup only |
| | 3.5 - φ3.5mm | 40 - φ40mm | WS - White silicone 50 | M3M - M3×0.5 male thread |
| | 5 - φ5mm | 50 - φ50mm | CN - Conductive NBR 55 | M5M - M5×0.8 male thread |
| | 6 - φ6mm | 60 - φ60mm | CS - Conductive silicone 55 | M8M - M8×1.25 male thread |
| | 8 - φ8mm | 80 - φ80mm | | M10F - M10×1.25 female thread |
| | 10 - φ10mm | 95 - φ95mm | | |
| | 15 - φ15mm | 120 - φ120mm | | |
| | 20 - φ20mm | 150 - φ150mm | | |
| | 25 - φ25mm | 200 - φ200mm | | |
| | 30 - φ30mm | | | |

Selection

| Model | Connection thread M - Male thread | Model | Connection thread M - Male thread |
|---------|--------------------------------------|-------------|--------------------------------------|
| SPF2□ | SPF2□-M3M | SPF25□ | SPF25□-M5M |
| SPF3.5□ | SPF3.5□-M3M | SPF30□ | SPF30□-M5M |
| SPF5□ | SPF5□-M5M | SPF35□ | SPF35□-M5M |
| SPF6□ | SPF6□-M5M | SPF40□ | SPF40□-M5M |
| SPF8□ | SPF8□-M5M | SPF50□ | SPF50□-M8M |
| SPF10□ | SPF10□-M5M | SPF60□-M10F | - |
| SPF15□ | SPF15□-M5M | SPF80□-M10F | - |
| SPF20□ | SPF20□-M5M | SPF95□-M10F | - |

Technical parameters

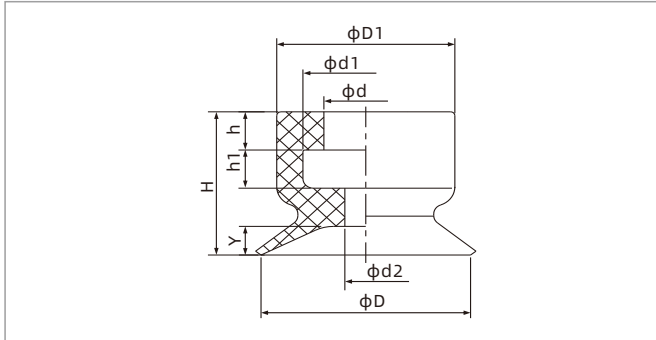
| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs | Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|-------------|-----------------------------|------------|--------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SPF2 | 0.15 | <0.1 | 0.1 | 4 | 10 | SPF35 | 43 | 2.4 | 6.6 | 6 | 5 |
| SPF3.5 | 0.4 | <0.1 | 0.1 | 4 | 10 | SPF40 | 60 | 3.4 | 8.4 | 6 | 5 |
| SPF5 | 0.9 | <0.1 | 0.2 | 4 | 10 | SPF50 | 92 | 5.7 | 10.4 | 8 | 1 |
| SPF6 | 1.2 | <0.1 | 0.2 | 4 | 10 | SPF60 | 127 | 11 | 23.2 | 8 | 1 |
| SPF8 | 2.2 | <0.1 | 0.2 | 4 | 10 | SPF80 | 226 | 25.3 | 48.2 | 8 | 1 |
| SPF10 | 3.5 | <0.1 | 0.3 | 4 | 10 | SPF95 | 319 | 38 | 70.3 | 10 | 1 |
| SPF15 | 8 | 0.2 | 0.4 | 6 | 10 | SPF120 | 510 | 81 | 159.5 | 10 | 1 |
| SPF20 | 15 | 0.5 | 1.6 | 6 | 5 | SPF150 | 800 | 171 | 322.4 | 12 | 1 |
| SPF25 | 24 | 1.1 | 2.5 | 6 | 5 | SPF200 | 1,410 | 364 | 521.5 | 12 | 1 |
| SPF30 | 32 | 1 | 3.3 | 6 | 5 | | | | | | |

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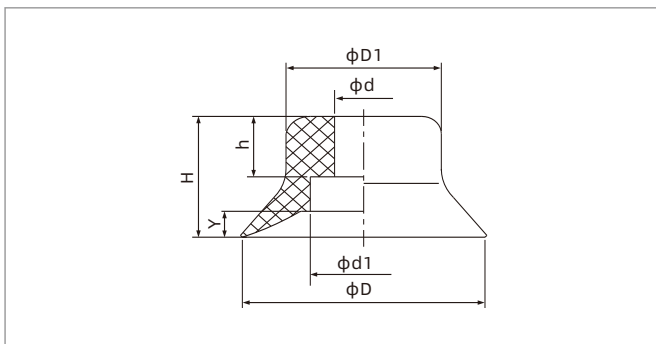
SPF Series

Flat Suction Cup

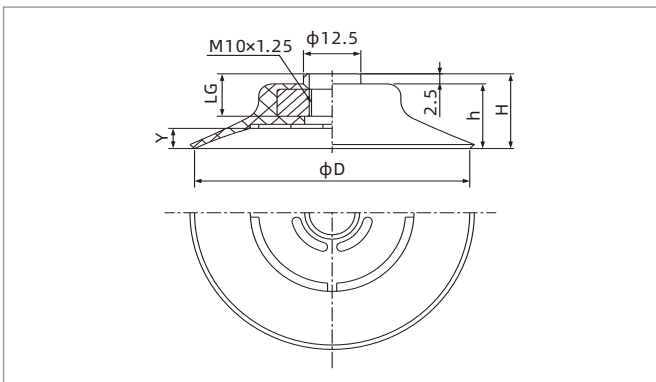
Dimensions(mm) - Suction cup only



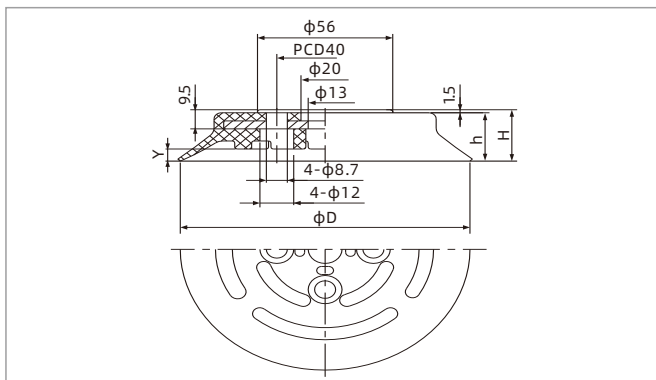
SPF2-15



SPF20-50



SPF60-95



SPF120-200

| Model/Size | D | H | D1 | d | h | d1 | h1 | d2 | Y |
|------------|-----|-----|-----|---|-----|----|----|-----|-----|
| SPF2□ | 2 | 4 | 4 | 2 | 1.5 | 3 | 1 | 1.2 | 0.5 |
| SPF3.5□ | 3.5 | 4 | 4 | 2 | 1.5 | 3 | 1 | 1.2 | 0.5 |
| SPF5□ | 5 | 6.5 | 7.5 | 4 | 2 | 6 | 2 | 1.4 | 0.8 |
| SPF6□ | 6 | 6.5 | 7.5 | 4 | 2 | 6 | 2 | 2 | 0.8 |
| SPF8□ | 8 | 7 | 8 | 4 | 2 | 6 | 2 | 2 | 1.2 |
| SPF10□ | 10 | 7.5 | 8.5 | 4 | 2 | 6 | 2 | 2 | 1.5 |
| SPF15□ | 15 | 8 | 9 | 4 | 2 | 6 | 2 | 2 | 1.9 |

| Model/Size | D | H | D1 | d | h | d1 | Y |
|------------|----|----|----|---|-----|------|-----|
| SPF20□ | 20 | 10 | 15 | 6 | 4.5 | 10.8 | 2.3 |
| SPF25□ | 25 | 14 | 16 | 6 | 7 | 11 | 3 |
| SPF30□ | 29 | 12 | 14 | 6 | 7 | 11 | 2 |
| SPF35□ | 35 | 14 | 21 | 6 | 7 | 11 | 3 |
| SPF40□ | 40 | 14 | 24 | 6 | 7 | 11 | 3.5 |
| SPF50□ | 50 | 15 | 27 | 8 | 7 | 20 | 4 |

| Model/Size | D | H | h | LG | Y |
|-------------|----|------|------|------|---|
| SPF60□-M10F | 60 | 18.5 | 16 | 10.5 | 5 |
| SPF80□-M10F | 80 | 20.5 | 18 | 11.5 | 6 |
| SPF95□-M10F | 95 | 21 | 18.5 | 11 | 6 |

| Model/size | D | H | h | Y |
|------------|-----|------|----|----|
| SPF120□ | 120 | 25.5 | 24 | 6 |
| SPF150□ | 150 | 32.5 | 31 | 9 |
| SPF200□ | 200 | 37.5 | 36 | 13 |

◇ Note: The dimensional tolerance conforms to GB/T 3672.1-2002-1 M3 rubber product dimensional tolerance standard

SPF Series

Flat Suction Cup

Mounting parts

| Item | Model M - Male thread | Applicable suction cup |
|-------------------------|--------------------------|------------------------|
| Fitting for suction cup | PJS-M3M-ST1 | SPF2, 3.5 |
| | PJS-M5M-ST2 | SPF5, 6, 8, 10, 15 |
| | PJS-M5M-ST3 | SPF20 |
| | PJS-M5M-ST4 | SPF25, 30, 35, 40 |
| | PJS-M8M-ST6 | SPF50 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF**
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

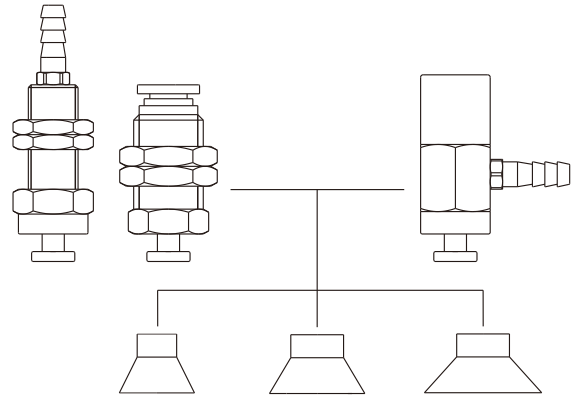
SPF Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of replacement suction cup and locking fitting
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port, Pagoda fitting or one-touch fitting for connection, male thread for mounting
- ◇ Lateral vacuum port, Pagoda fitting for connection, female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SPF10N - L B6 - M4F

① ② ③ ④

| ① Model | ② Vacuum port direction | ③ Vacuum port connection | ④ Mounting thread |
|---------------|--------------------------|--------------------------------------|---|
| SPF10N | Nil - Vertical direction | A4 - One-touch fitting ϕ 4 hose | M3F - M3 \times 0.5 female thread M5M - M5 \times 0.5 male thread |
| | L - Lateral direction | A6 - One-touch fitting ϕ 6 hose | M4F - M4 \times 0.7 female thread M8M - M8 \times 1 male thread |
| | | B4 - Pagoda fitting ϕ 4 hose | M6F - M6 \times 1 female thread M10M - M10 \times 1 male thread |
| | | B6 - Pagoda fitting ϕ 6 hose | M8F - M8 \times 1.25 female thread M12M - M12 \times 1 male thread |
| | | R1 - Rc1/8 female thread | M16F - M16 \times 2 female thread M14M - M14 \times 1 male thread M16M - M16 \times 1.5 male thread |

◇ Please refer to page 305 for suction cup selection

Selection

| Model | Vacuum port direction Vertical-Pagoda fitting | Vertical-One-touch fitting | Lateral-Pagoda fitting |
|---------|--|----------------------------|------------------------|
| SPF2□ | SPF2□-B4-M5M | - | SPF2□-LB4-M3F |
| SPF3.5□ | SPF3.5□-B4-M5M | - | SPF3.5□-LB4-M3F |
| SPF5□ | SPF5□-B6-M8M | SPF5□-A4-M12M | SPF5□-LB6-M4F |
| SPF6□ | SPF6□-B6-M8M | SPF6□-A4-M12M | SPF6□-LB6-M4F |
| SPF8□ | SPF8□-B6-M8M | SPF8□-A4-M12M | SPF8□-LB6-M4F |
| SPF10□ | SPF10□-B6-M8M | SPF10□-A4-M12M | SPF10□-LB6-M4F |
| SPF15□ | SPF15□-B6-M8M | SPF15□-A4-M12M | SPF15□-LB6-M4F |
| SPF20□ | SPF20□-B6-M10M | SPF20□-A6-M14M | SPF20□-LB6-M4F |
| SPF25□ | SPF25□-B6-M10M | SPF25□-A6-M14M | SPF25□-LB6-M6F |
| SPF30□ | SPF30□-B6-M10M | SPF30□-A6-M14M | SPF30□-LB6-M6F |
| SPF35□ | SPF35□-B6-M10M | SPF35□-A6-M14M | SPF35□-LB6-M6F |
| SPF40□ | SPF40□-B6-M10M | SPF40□-A6-M14M | SPF40□-LB6-M6F |
| SPF50□ | SPF50□-B6-M10M | SPF50□-A6-M14M | SPF50□-LB6-M6F |

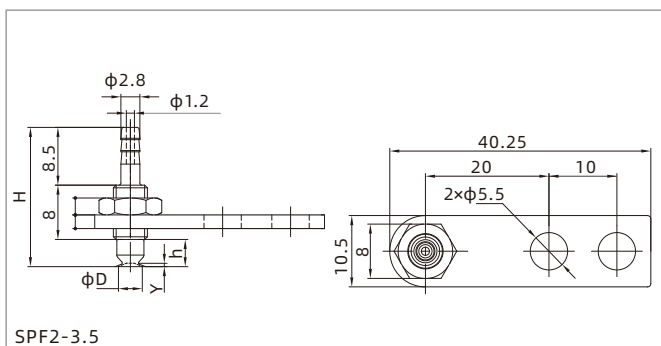
SPF Series

Suction Cup with Locking Fitting

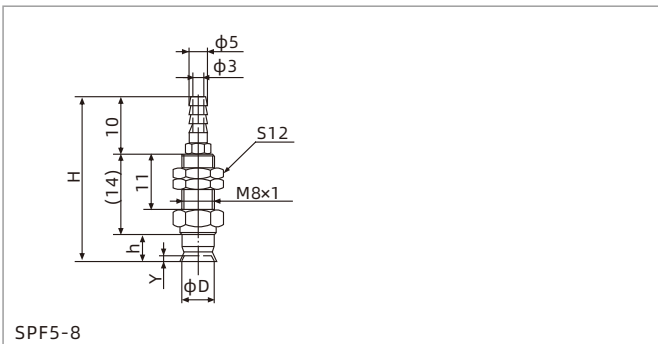
Selection

| Model | Vacuum port direction Vertical-Pagoda fitting | Lateral-Pagoda fitting |
|---------|--|------------------------|
| SPF60□ | SPF60□-R1-M16M | SPF60□-LR1-M8F |
| SPF80□ | SPF80□-R1-M16M | SPF80□-LR1-M8F |
| SPF95□ | SPF95□-R1-M16M | SPF95□-LR1-M8F |
| SPF120□ | - | SPF120□-LR1-M16F |
| SPF150□ | - | SPF150□-LR1-M16F |
| SPF200□ | - | SPF200□-LR1-M16F |

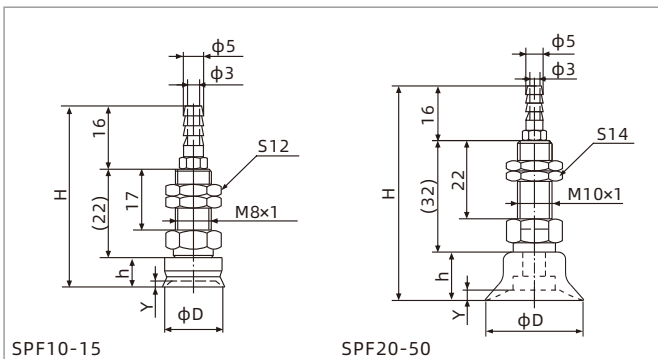
Dimensions(mm)



Vertical-Pagoda fitting



Vertical-Pagoda fitting



Vertical-Pagoda fitting

| Model/Size | D | H | h | Y |
|----------------|-----|------|---|-----|
| SPF2□-B4-M5M | 2 | 20.5 | 4 | 0.5 |
| SPF3.5□-B4-M5M | 3.5 | 20.5 | 4 | 0.5 |

| Model/Size | D | H | h | Y |
|--------------|---|------|-----|-----|
| SPF5□-B6-M8M | 5 | 30.5 | 6.5 | 0.8 |
| SPF6□-B6-M8M | 6 | 30.5 | 6.5 | 0.8 |
| SPF8□-B6-M8M | 8 | 31 | 7 | 1.2 |

| Model/Size | D | H | h | Y |
|----------------|----|------|-----|-----|
| SPF10□-B6-M8M | 10 | 45.5 | 7.5 | 1.5 |
| SPF15□-B6-M8M | 15 | 46 | 8 | 1.9 |
| SPF20□-B6-M10M | 20 | 58 | 10 | 2.3 |
| SPF25□-B6-M10M | 25 | 62 | 14 | 3 |
| SPF30□-B6-M10M | 30 | 60 | 12 | 2 |
| SPF35□-B6-M10M | 35 | 62 | 14 | 3 |
| SPF40□-B6-M10M | 40 | 62 | 14 | 3.5 |
| SPF50□-B6-M10M | 50 | 63 | 15 | 4 |

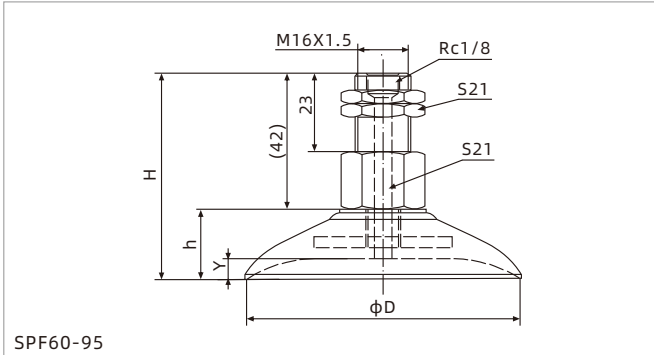
- SZ
- SP3
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- SAO
- SOFA
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- SDM
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- SBA
- SF
- SU
- SP2F
- SPA
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- SBB
- SOP
- SNP

SPF Series

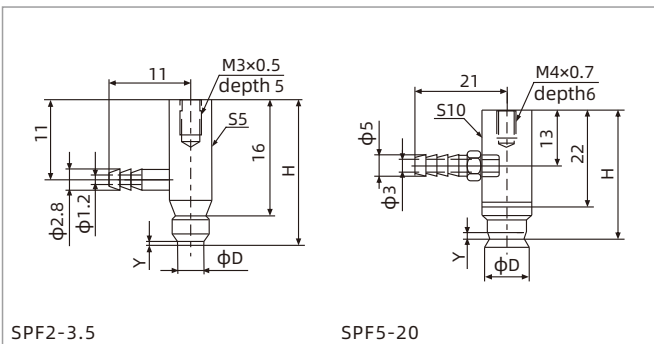
Suction Cup with Locking Fitting



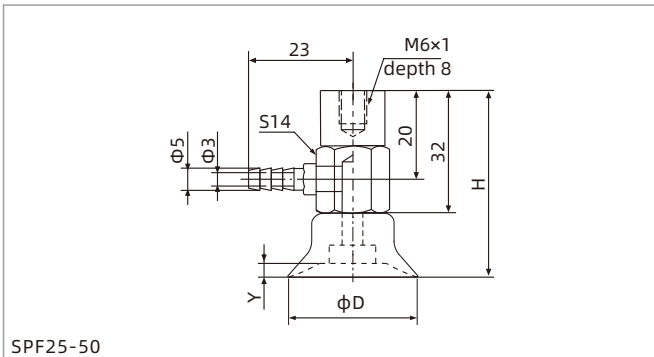
Dimensions(mm)



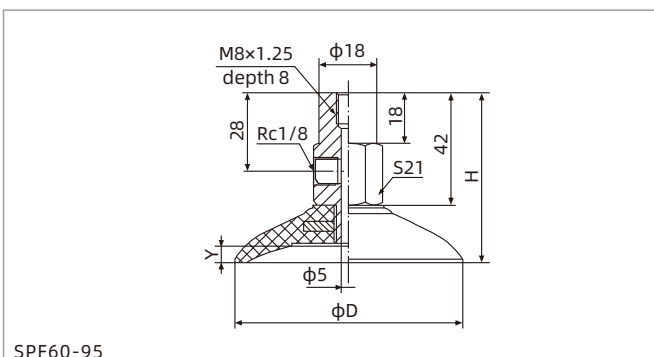
Vertical-Female thread connection



Lateral-Pagoda fitting



Lateral-Pagoda fitting



Lateral-Female thread connection

| Model/Size | D | H | h | Y |
|----------------|----|------|------|---|
| SPF60□-R1-M16M | 60 | 58 | 16 | 5 |
| SPF80□-R1-M16M | 80 | 60 | 18 | 6 |
| SPF95□-R1-M16M | 95 | 60.5 | 18.5 | 6 |

| Model/Size | D | H | Y |
|-----------------|-----|------|-----|
| SPF2□-LB4-M3F | 2 | 20 | 0.5 |
| SPF3.5□-LB4-M3F | 3.5 | 20 | 0.5 |
| SPF5□-LB6-M4F | 5 | 28.5 | 0.8 |
| SPF6□-LB6-M4F | 6 | 28.5 | 0.8 |
| SPF8□-LB6-M4F | 8 | 29 | 1.2 |
| SPF10□-LB6-M4F | 10 | 29.5 | 1.5 |
| SPF15□-LB6-M4F | 15 | 30 | 1.9 |
| SPF20□-LB6-M4F | 20 | 32 | 2.3 |

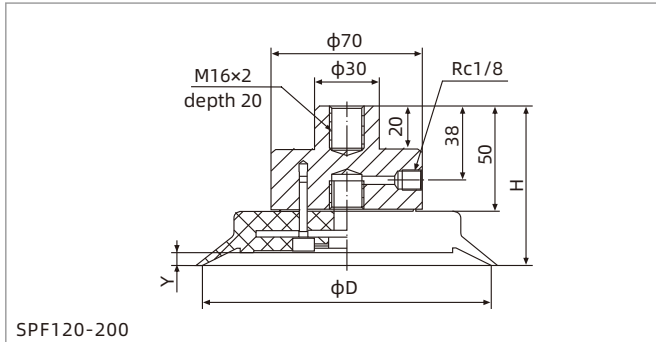
| Model/Size | D | H | Y |
|----------------|----|----|-----|
| SPF25□-LB6-M6F | 25 | 46 | 3 |
| SPF30□-LB6-M6F | 30 | 44 | 2 |
| SPF35□-LB6-M6F | 35 | 46 | 3 |
| SPF40□-LB6-M6F | 40 | 46 | 3.5 |
| SPF50□-LB6-M6F | 50 | 47 | 4 |

| Model/Size | D | H | Y |
|----------------|----|------|---|
| SPF60□-LR1-M8F | 60 | 58 | 5 |
| SPF80□-LR1-M8F | 80 | 58.5 | 6 |
| SPF95□-LR1-M8F | 95 | 59 | 6 |

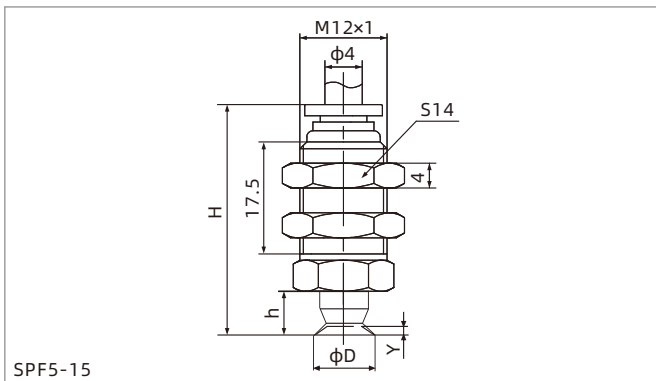
SPF Series

Suction Cup with Locking Fitting

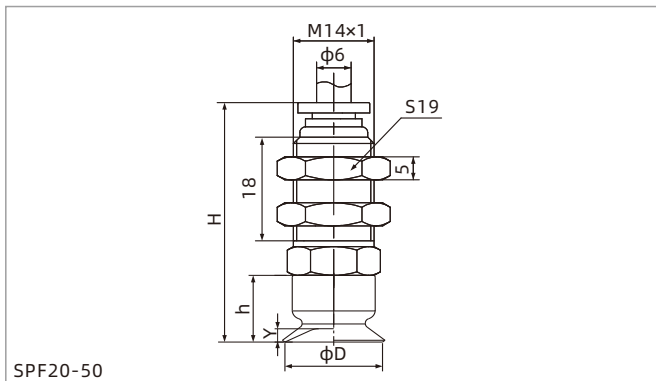
Dimensions(mm)



Lateral-Female thread connection



Vertical-One-touch fitting



Vertical-One-touch fitting

| Model/Size | D | H | Y |
|------------------|-----|------|----|
| SPF120□-LR1-M16F | 120 | 75.5 | 6 |
| SPF150□-LR1-M16F | 150 | 82.5 | 9 |
| SPF200□-LR1-M16F | 200 | 87.5 | 13 |

| Model/Size | D | H | Y |
|----------------|----|------|-----|
| SPF5□-A4-M12M | 5 | 34 | 0.8 |
| SPF6□-A4-M12M | 6 | 34 | 0.8 |
| SPF8□-A4-M12M | 8 | 34.5 | 1.2 |
| SPF10□-A4-M12M | 10 | 35 | 1.5 |
| SPF15□-A4-M12M | 15 | 35.5 | 1.9 |

| Model/Size | D | H | Y |
|----------------|----|----|-----|
| SPF20□-A6-M14M | 20 | 39 | 2.3 |
| SPF25□-A6-M14M | 25 | 43 | 3 |
| SPF30□-A6-M14M | 30 | 41 | 2 |
| SPF35□-A6-M14M | 35 | 43 | 3 |
| SPF40□-A6-M14M | 40 | 43 | 3.5 |
| SPF50□-A6-M14M | 50 | 44 | 4 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
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- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
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- SOP
- SNP

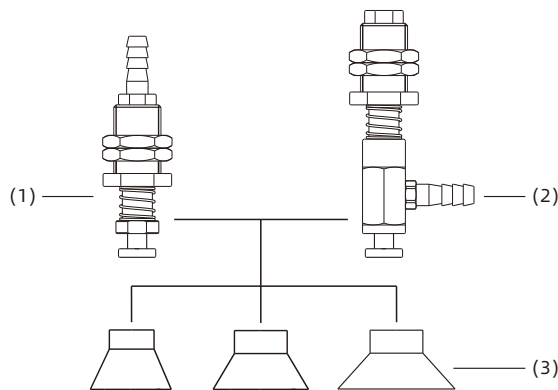
SPF Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and level compensator can be combined as required



How to order

SPF10N - F E 10 LB6 - M11

① ② ③ ④ ⑤ ⑥

| ① Model | ② Level compensator type | ③ Buffer type | ④ Buffer stroke | ⑤ Vacuum port connection | ⑥ Mounting thread |
|---------|--------------------------|---------------------|-----------------|---|-------------------|
| SPF10N | F - PSPF Series | E - External spring | 2 5 | B4 - Vertical, Pagoda fitting ϕ 4 hose | M5 - M5x0.5 |
| | | | 3 10 | B6 - Vertical, Pagoda fitting ϕ 6 hose | M9 - M9x1 |
| | | | 4 15 | LB4 - Lateral, Pagoda fitting ϕ 4 hose | M11 - M11x1 |
| | | | 6 30 | LB6 - Lateral, Pagoda fitting ϕ 6 hose | M14 - M14x1 |
| | | | | LR1 - Lateral, Rc1/8 female thread | M16 - M16x1.5 |
| | | | | | |

Selection

| Model | Vacuum port direction Vertical-Pagoda fitting | | Lateral-Pagoda fitting | |
|---------|--|-------------------|------------------------|--------------------|
| | | | | |
| SPF2□ | SPF2□-FE2B4-M5 | SPF2□-FE5B4-M5 | SPF2□-FE2LB4-M5 | SPF2□-FE5B4-M5 |
| SPF3.5□ | SPF3.5□-FE2B4-M5 | SPF3.5□-FE5B4-M5 | SPF3.5□-FE2LB4-M5 | SPF3.5□-FE5LB4-M5 |
| SPF5□ | SPF5□-FE3B6-M9 | SPF5□-FE10B6-M9 | SPF5□-FE3LB6-M9 | SPF5□-FE10LB6-M9 |
| SPF6□ | SPF6□-FE3B6-M9 | SPF6□-FE10B6-M9 | SPF6□-FE3LB6-M9 | SPF6□-FE10LB6-M9 |
| SPF8□ | SPF8□-FE3B6-M9 | SPF8□-FE10B6-M9 | SPF8□-FE3LB6-M9 | SPF8□-FE10LB6-M9 |
| SPF10□ | SPF10□-FE4B6-M11 | SPF10□-FE10B6-M11 | SPF10□-FE4LB6-M11 | SPF10□-FE10LB6-M11 |
| SPF15□ | SPF15□-FE4B6-M11 | SPF15□-FE10B6-M11 | SPF15□-FE4LB6-M11 | SPF15□-FE10LB6-M11 |
| SPF20□ | SPF20□-FE4B6-M11 | SPF20□-FE10B6-M11 | SPF20□-FE4LB6-M11 | SPF20□-FE10LB6-M11 |
| SPF25□ | SPF25□-FE6B6-M14 | SPF25□-FE15B6-M14 | SPF25□-FE6LB6-M14 | SPF25□-FE15LB6-M14 |
| SPF30□ | SPF30□-FE6B6-M14 | SPF30□-FE15B6-M14 | SPF30□-FE6LB6-M14 | SPF30□-FE15LB6-M14 |
| SPF35□ | SPF35□-FE6B6-M14 | SPF35□-FE15B6-M14 | SPF35□-FE6LB6-M14 | SPF35□-FE15LB6-M14 |
| SPF40□ | SPF40□-FE6B6-M14 | SPF40□-FE15B6-M14 | SPF40□-FE6LB6-M14 | SPF40□-FE15LB6-M14 |
| SPF50□ | SPF50□-FE6B6-M14 | SPF50□-FE15B6-M14 | SPF50□-FE6LB6-M14 | SPF50□-FE15LB6-M14 |

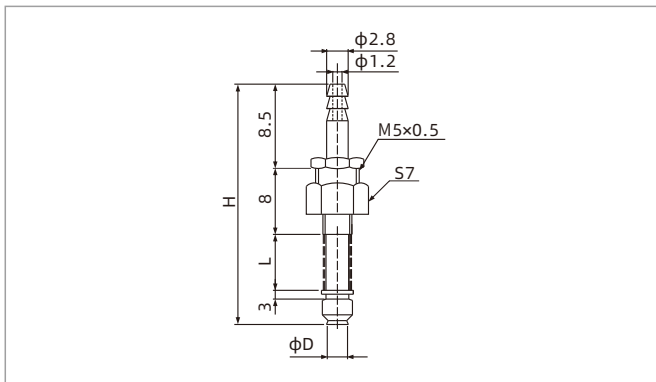
SPF Series

Suction Cup with Level Compensator

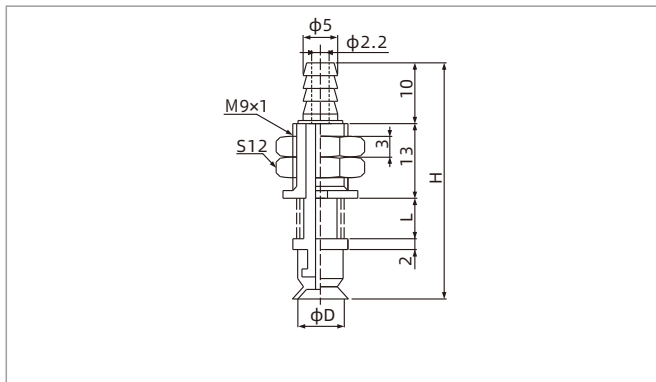
Selection

| Model | Vacuum port direction Vertical-Pagoda fitting | Lateral-Pagoda fitting | |
|--------|--|------------------------|--------------------|
| | | SPF60□-FE10LR1-M16 | SPF60□-FE30LR1-M16 |
| SPF60□ | - | SPF60□-FE10LR1-M16 | SPF60□-FE30LR1-M16 |
| SPF80□ | - | SPF80□-FE10LR1-M16 | SPF80□-FE30LR1-M16 |
| SPF95□ | - | SPF95□-FE10LR1-M16 | SPF95□-FE30LR1-M16 |

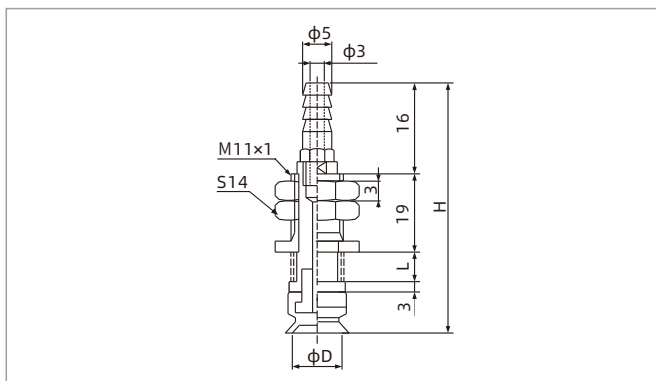
Dimensions(mm)



SPF2-3.5 Vertical-Pagoda fitting



SPF5-8 Vertical-Pagoda fitting



SPF10-20 Vertical-Pagoda fitting

| Model/Size | D | H | L | Buffer stroke |
|------------------|-----|------|----|---------------|
| SPF2□-FE2B4-M5 | 2 | 28.5 | 5 | 2.5 |
| SPF2□-FE5B4-M5 | 2 | 33.5 | 10 | 5 |
| SPF3.5□-FE2B4-M5 | 3.5 | 28.5 | 5 | 2.5 |
| SPF3.5□-FE5B4-M5 | 3.5 | 33.5 | 10 | 5 |

| Model/Size | D | H | L | Buffer stroke |
|-----------------|---|------|----|---------------|
| SPF5□-FE3B6-M9 | 5 | 37.5 | 6 | 3 |
| SPF5□-FE10B6-M9 | 5 | 51.5 | 20 | 10 |
| SPF6□-FE3B6-M9 | 6 | 37.5 | 6 | 3 |
| SPF6□-FE10B6-M9 | 6 | 51.5 | 20 | 10 |
| SPF8□-FE3B6-M9 | 8 | 38 | 6 | 3 |
| SPF8□-FE10B6-M9 | 8 | 52 | 20 | 10 |

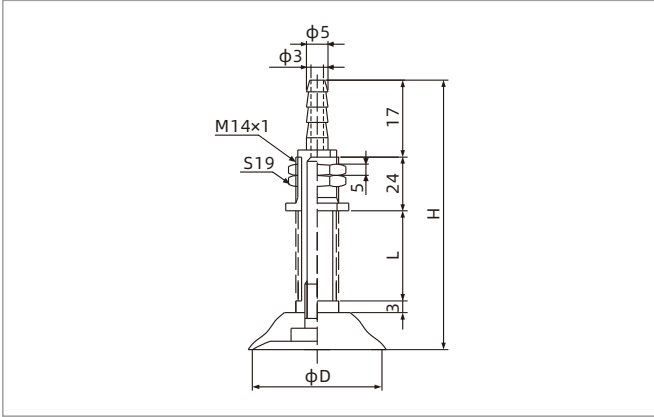
| Model/Size | D | H | L | Buffer stroke |
|-------------------|----|------|----|---------------|
| SPF10□-FE4B6-M11 | 10 | 53.5 | 8 | 4 |
| SPF10□-FE10B6-M11 | 10 | 65.5 | 20 | 10 |
| SPF15□-FE4B6-M11 | 15 | 54 | 8 | 4 |
| SPF15□-FE10B6-M11 | 15 | 66 | 20 | 10 |
| SPF20□-FE4B6-M11 | 20 | 56 | 8 | 4 |
| SPF20□-FE10B6-M11 | 20 | 68 | 20 | 10 |

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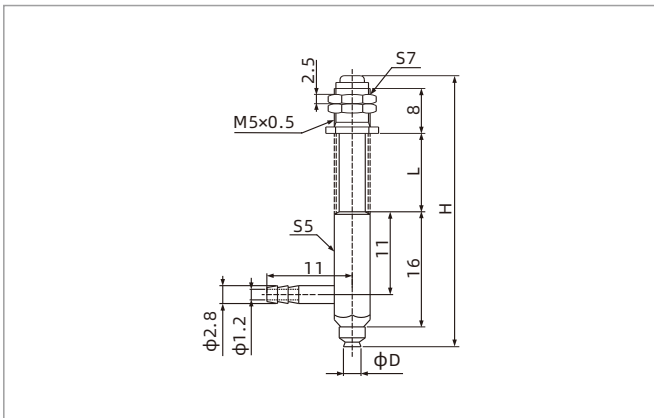
SPF Series

Suction Cup with Level Compensator

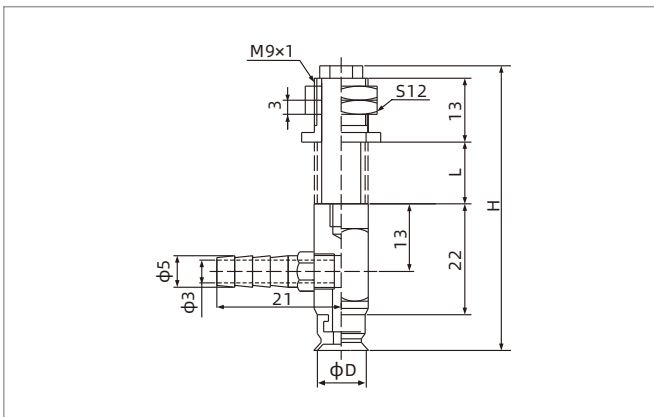
Dimensions(mm)



SPF25-50 Vertical-Pagoda fitting



SPF2-3.5 Lateral-Pagoda fitting



SPF5-8 Lateral-Pagoda fitting

| Model/Size | D | H | L | Buffer stroke |
|-------------------|----|----|----|---------------|
| SPF25□-FE6B6-M14 | 25 | 71 | 13 | 6 |
| SPF25□-FE15B6-M14 | 25 | 88 | 30 | 15 |
| SPF30□-FE6B6-M14 | 30 | 69 | 13 | 6 |
| SPF30□-FE15B6-M14 | 30 | 86 | 30 | 15 |
| SPF35□-FE6B6-M14 | 35 | 71 | 13 | 6 |
| SPF35□-FE15B6-M14 | 35 | 88 | 30 | 15 |
| SPF40□-FE6B6-M14 | 40 | 71 | 13 | 6 |
| SPF40□-FE15B6-M14 | 40 | 88 | 30 | 15 |
| SPF50□-FE6B6-M14 | 50 | 72 | 13 | 6 |
| SPF50□-FE15B6-M14 | 50 | 89 | 30 | 15 |

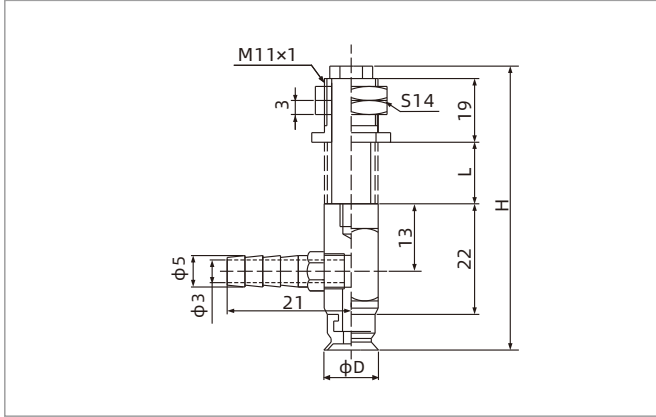
| Model/Size | D | H | L | Buffer stroke |
|-------------------|-----|------|----|---------------|
| SPF2□-FE2LB4-M5 | 2 | 35.5 | 5 | 2.5 |
| SPF2□-FE5LB4-M5 | 2 | 40.5 | 10 | 5 |
| SPF3.5□-FE2LB4-M5 | 3.5 | 35.5 | 5 | 2.5 |
| SPF3.5□-FE5LB4-M5 | 3.5 | 40.5 | 10 | 5 |

| Model/Size | D | H | L | Buffer stroke |
|------------------|---|------|----|---------------|
| SPF5□-FE3LB6-M9 | 5 | 50.5 | 6 | 3 |
| SPF5□-FE10LB6-M9 | 5 | 64.5 | 20 | 10 |
| SPF6□-FE3LB6-M9 | 6 | 50.5 | 6 | 3 |
| SPF6□-FE10LB6-M9 | 6 | 64.5 | 20 | 10 |
| SPF8□-FE3LB6-M9 | 8 | 51 | 6 | 3 |
| SPF8□-FE10LB6-M9 | 8 | 65 | 20 | 10 |

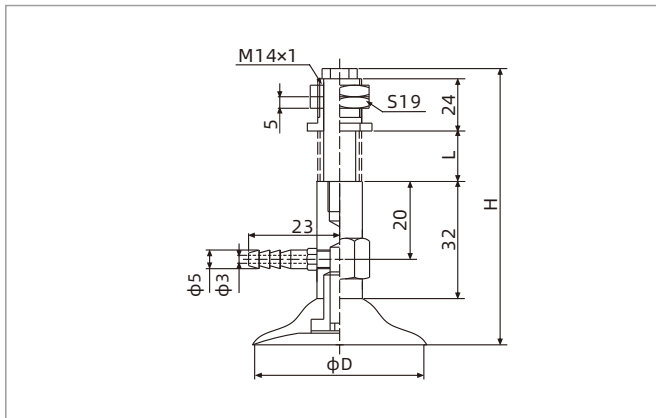
SPF Series

Suction Cup with Level Compensator

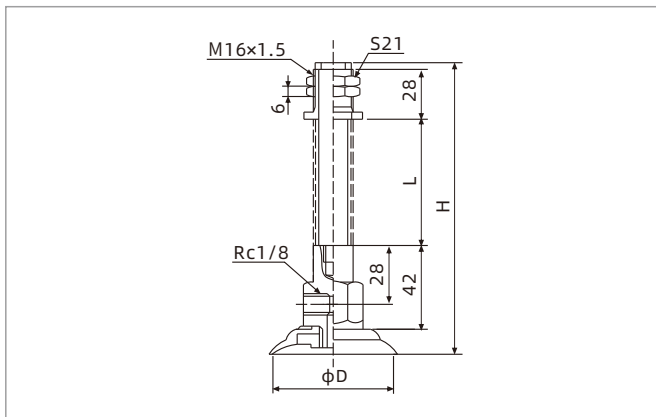
Dimensions(mm)



SPF10-20 Lateral-Pagoda fitting



SPF25-50 Lateral-Pagoda fitting



SPF60-95 Lateral-Female thread connection

| Model/Size | D | H | L | Buffer stroke |
|--------------------|----|------|----|---------------|
| SPF10□-FE4LB6-M11 | 10 | 59.5 | 8 | 4 |
| SPF10□-FE10LB6-M11 | 10 | 71.5 | 20 | 10 |
| SPF15□-FE4LB6-M11 | 15 | 60 | 8 | 4 |
| SPF15□-FE10LB6-M11 | 15 | 72 | 20 | 10 |
| SPF20□-FE4LB6-M11 | 20 | 62 | 8 | 4 |
| SPF20□-FE10LB6-M11 | 20 | 74 | 20 | 10 |

| Model/Size | D | H | L | Buffer stroke |
|--------------------|----|-----|----|---------------|
| SPF25□-FE6LB6-M14 | 25 | 87 | 13 | 6 |
| SPF25□-FE15LB6-M14 | 25 | 104 | 30 | 15 |
| SPF30□-FE6LB6-M14 | 30 | 85 | 13 | 6 |
| SPF30□-FE15LB6-M14 | 30 | 102 | 30 | 15 |
| SPF35□-FE6LB6-M14 | 35 | 87 | 13 | 6 |
| SPF35□-FE15LB6-M14 | 35 | 104 | 30 | 15 |
| SPF40□-FE6LB6-M14 | 40 | 87 | 13 | 6 |
| SPF40□-FE15LB6-M14 | 40 | 104 | 30 | 15 |
| SPF50□-FE6LB6-M14 | 50 | 88 | 13 | 6 |
| SPF50□-FE15LB6-M14 | 50 | 105 | 30 | 15 |

| Model/Size | D | H | L | Buffer stroke |
|--------------------|----|-------|----|---------------|
| SPF60□-FE10LR1-M16 | 60 | 110 | 20 | 10 |
| SPF60□-FE30LR1-M16 | 60 | 150 | 60 | 30 |
| SPF80□-FE10LR1-M16 | 80 | 112 | 20 | 10 |
| SPF80□-FE30LR1-M16 | 80 | 152 | 60 | 30 |
| SPF95□-FE10LR1-M16 | 95 | 112.5 | 20 | 10 |
| SPF95□-FE30LR1-M16 | 95 | 152.5 | 60 | 30 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SBK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF**
- SPC
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SPC Series

Bellows Suction Cup



PACKAGING



PLASTIC



ELECTRONICS



Features

- ◇ 2.5 bellows
- ◇ Soft and tapered lips
- ◇ Available in various sizes

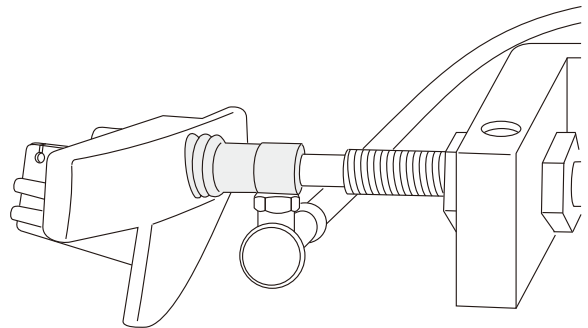
Advantages

- ◇ Large suction force, and have good buffer effect when suck workpiece with uneven surface
- ◇ Good sealing and long compressed stroke, suitable for handling workpieces with uneven surface
- ◇ Suitable for workpieces of various sizes and shapes



Applications

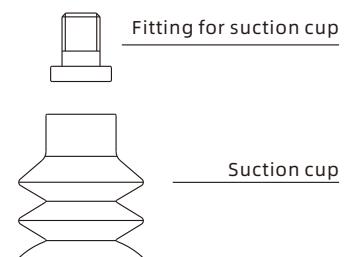
- ◇ Handling of fragile workpieces such as electronic components and injection molding parts
- ◇ Handling of workpieces with uneven surface such as paper and pipes



Structure

- ◇ 2.5 bellows, long compressed stroke
- ◇ Split structure for easy replacement of wearing parts

In the same series, suction cup and fitting can be combined as required



SPC Series

Bellows Suction Cup

How to order

SPC 15 N - M5M

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|------------------|-----------------------|---|
| SPC | 3 - ϕ 3mm | 20 - ϕ 20mm | N - NBR 55 |
| | 5 - ϕ 5mm | 25 - ϕ 25mm | WS - White silicone 50 |
| | 7 - ϕ 7mm | 30 - ϕ 30mm | CN - Conductive NBR 55 |
| | 10 - ϕ 10mm | 40 - ϕ 40mm | CS - Conductive silicone 55 |
| | 12 - ϕ 12mm | 60 - ϕ 60mm | |
| | 15 - ϕ 15mm | 90 - ϕ 90mm | |
| | 18 - ϕ 18mm | | |
| | | | Nil - Suction cup only |
| | | | M5M - M5×0.8 male thread |
| | | | M8M - M8×1.25 male thread |
| | | | G1M - G1/8 male thread |
| | | | M3M - M3×0.5 male thread |

Selection

| Model | Connection thread M - Male thread | Model | Connection thread M - Male thread |
|--------|--------------------------------------|--------|--------------------------------------|
| SPC3□ | SPC3□-M3M | SPC20□ | SPC20□-M5M |
| SPC5□ | SPC5□-M5M | SPC25□ | SPC25□-M5M |
| SPC7□ | SPC7□-M5M | SPC30□ | SPC30□-M8M |
| SPC10□ | SPC10□-M5M | SPC40□ | SPC40□-M8M |
| SPC12□ | SPC12□-M5M | SPC60□ | SPC60□-M8M |
| SPC15□ | SPC15□-M5M | SPC90□ | SPC90□-G1M |
| SPC18□ | SPC18□-M5M | | |

◇ Note: CN and CS material are not available for cup diameter 60mm and 90mm.

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min. Curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|--------------------------------------|-------------|-----------------------------|------------|
| SPC3 | 0.5 | <0.1 | 4 | 0.2 | 4 | 10 |
| SPC5 | 0.9 | <0.1 | 7.5 | 0.2 | 4 | 10 |
| SPC7 | 1.7 | <0.1 | 12 | 0.3 | 4 | 10 |
| SPC10 | 3.5 | 0.2 | 13 | 0.8 | 6 | 10 |
| SPC12 | 5 | 0.4 | 13 | 1.3 | 6 | 10 |
| SPC15 | 8 | 0.9 | 15 | 1.7 | 6 | 10 |
| SPC18 | 11.5 | 1.5 | 20 | 1.8 | 6 | 10 |
| SPC20 | 14 | 2 | 27 | 2.8 | 6 | 5 |
| SPC25 | 22 | 5 | 30 | 4 | 6 | 5 |
| SPC30 | 32 | 8.3 | 35 | 10.5 | 6 | 5 |
| SPC40 | 56 | 16.5 | 60 | 22.5 | 8 | 5 |
| SPC60 | 127 | 52 | 75 | 52.4 | 8 | 1 |
| SPC90 | 286 | 135 | 85 | 152.8 | 8 | 1 |

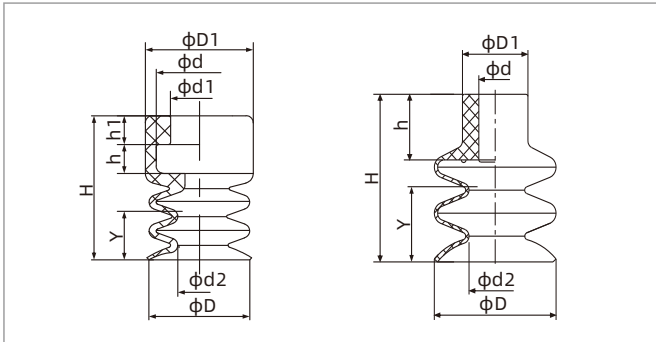
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC**
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SPC Series

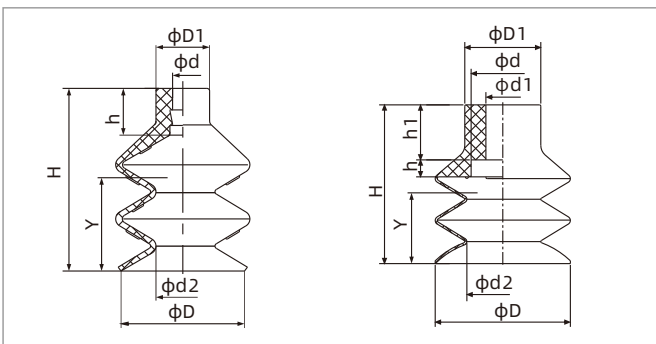
Bellows Suction Cup

Dimensions(mm) - Suction cup only



SPC3-7

SPC10-20



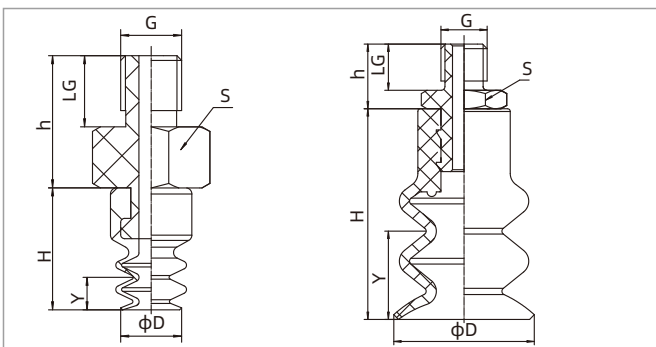
SPC12 SPC25

SPC30-90

| Model/Size | D | H | D1 | d | h | d1 | h1 | d2 | Y |
|------------|------|------|-----|---|---|----|-----|-----|------|
| SPC3□ | 3 | 6 | 4 | 3 | 1 | 2 | 1.5 | 1.2 | 4 |
| SPC5□ | 5 | 9.5 | 7.5 | 6 | 2 | 4 | 2 | 2 | 5.5 |
| SPC7□ | 7 | 10 | 7.5 | 6 | 2 | 4 | 2 | 3 | 6 |
| SPC10□ | 9 | 15 | 9 | 5 | 7 | - | - | 4 | 11.5 |
| SPC15□ | 15.2 | 22.8 | 10 | 5 | 9 | - | - | 6 | 13.6 |
| SPC18□ | 18.6 | 23 | 10 | 5 | 9 | - | - | 8 | 14 |
| SPC20□ | 20.6 | 23 | 10 | 5 | 9 | - | - | 9.5 | 14 |

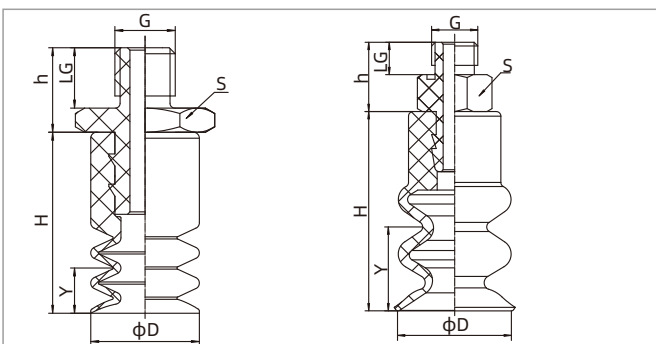
| Model/Size | D | H | D1 | d | h | d1 | h1 | d2 | Y |
|------------|----|------|------|-----|-----|----|----|----|------|
| SPC12□ | 13 | 21.6 | 10 | 3.8 | 8.5 | - | - | 5 | 13.5 |
| SPC25□ | 24 | 34 | 10 | 3.8 | 8.5 | - | - | 10 | 18.5 |
| SPC30□ | 32 | 37.5 | 18 | 15 | 4 | 8 | 13 | 17 | 24.8 |
| SPC40□ | 42 | 46 | 20 | 15 | 4 | 8 | 13 | 16 | 28 |
| SPC60□ | 62 | 55 | 21.5 | 15 | 5 | 8 | 13 | 29 | 30 |
| SPC90□ | 88 | 87.5 | 25 | 25 | 6 | 12 | 20 | 32 | 54 |

Dimensions(mm) - Suction cup with fitting



SPC3

SPC15-20



SPC10

SPC12-25

| Model/Size | D | H | G | LG | h | s | Y |
|------------|------|------|--------|-----|-----|---|------|
| SPC3□-M3M | 3 | 6 | M3×0.5 | 3.5 | 6.5 | 5 | 4 |
| SPC15□-M5M | 15.2 | 22.8 | M5×0.8 | 5 | 7 | 8 | 13.6 |
| SPC18□-M5M | 18.6 | 23 | M5×0.8 | 5 | 7 | 8 | 14 |
| SPC20□-M5M | 20.6 | 23 | M5×0.8 | 5 | 7 | 8 | 14 |

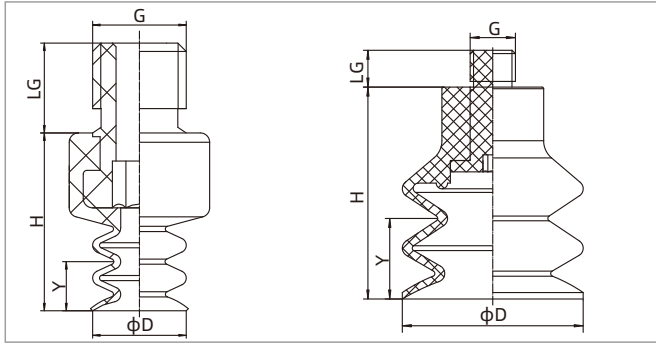
| Model/Size | D | H | G | LG | h | S | Y |
|------------|----|------|--------|-----|-----|----|------|
| SPC10□-M5M | 9 | 15 | M5×0.8 | 5 | 7 | 10 | 11.5 |
| SPC12□-M5M | 13 | 21.6 | M5×0.8 | 3.5 | 7.5 | 7 | 13.5 |
| SPC25□-M5M | 24 | 34 | M5×0.8 | 3.5 | 7.5 | 7 | 18.5 |

◇ Note: "Y" is the height of suction cup after fully compressed

SPC Series

Bellows Suction Cup

Dimensions(mm) - Suction cup with fitting



SPC5-7

SPC30-60

◇ Note: The dimensional tolerance conforms to GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | H | G | LG | Y |
|------------|----|------|---------|-----|------|
| SPC5□-M5M | 5 | 9.5 | M5×0.8 | 5 | 5.5 |
| SPC7□-M5M | 7 | 10 | M5×0.8 | 5 | 6 |
| SPC30□-M8M | 32 | 37.5 | M8×1.25 | 6.5 | 24.8 |
| SPC40□-M8M | 42 | 46 | M8×1.25 | 6.5 | 28 |
| SPC60□-M8M | 62 | 55 | M8×1.25 | 6.5 | 30 |
| SPC90□-G1M | 88 | 87.5 | G1/8 | 7 | 54 |

Mounting parts

| Item | Model M - Male thread | Applicable suction cup |
|-------------------------|--------------------------|------------------------|
| Fitting for suction cup | PJS-M3M-ST1 | SPC3 |
| | PJS-M5M-ST2 | SPC5, 7 |
| | PJS-M5M-SPC10 | SPC10 |
| | PJS-M5M-SPC15 | SPC15, 18, 20 |
| | PJS-M5M-SC3 | SPC12, 25 |
| | PJS-M8M-ST5 | SPC30, 40, 60 |
| | PJS-G1M-ST8 | SPC90 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC**
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

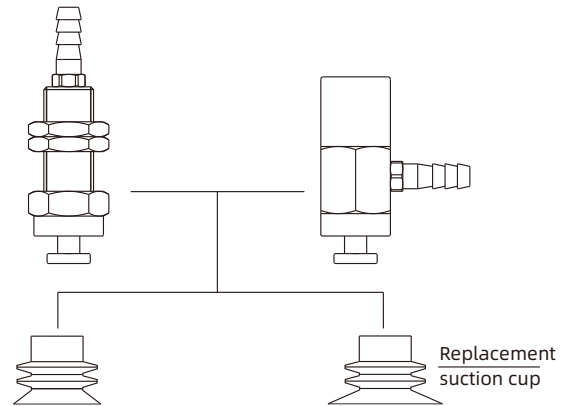
SPC Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of replacement suction cup and locking fitting
- ◇ Plug-in fitting for suction cups of diameter 5mm-25mm
- ◇ Fitting with hexagon socket mounting hole for suction cups of diameter 30mm-60mm
- ◇ Vertical vacuum port, pagoda fitting for connection, male thread for mounting
- ◇ Lateral vacuum port, pagoda fitting for connection, female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SPC10N - L B6 - M4F
 ① ② ③ ④

| ① Model | ② Vacuum port direction | ③ Vacuum port connection | ④ Mounting thread |
|---------------|---|-----------------------------------|--|
| SPC10N | Nil - Vertical direction L - Lateral direction | B6 - Pagoda fitting $\phi 6$ hose | M4F - M4×0.7 female thread M6F - M6×1 female thread M8M - M8×1 male thread M10M - M10×1 male thread |

◇ Please refer to page 317 for suction cup selection

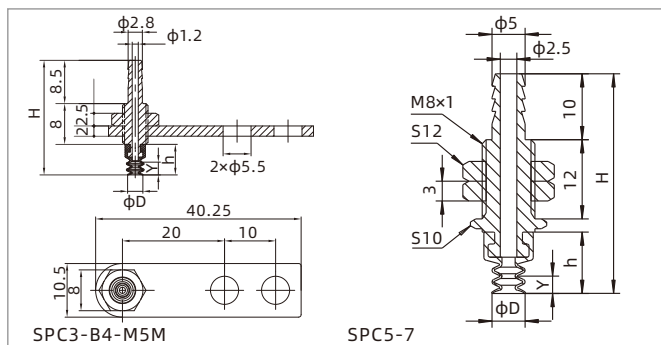
Selection

| Model | Vacuum port direction Vertical-Pagoda fitting | Lateral-Pagoda fitting |
|--------|--|------------------------|
| SPC3□ | SPC3□-B6-M8M | SPC3□-LB6-M4F |
| SPC5□ | SPC5□-B6-M8M | SPC5□-LB6-M4F |
| SPC7□ | SPC7□-B6-M8M | SPC7□-LB6-M4F |
| SPC10□ | SPC10□-B6-M8M | SPC10□-LB6-M4F |
| SPC12□ | SPC12□-B6-M8M | SPC12□-LB6-M4F |
| SPC15□ | SPC15□-B6-M8M | SPC15□-LB6-M4F |
| SPC18□ | SPC18□-B6-M8M | SPC18□-LB6-M4F |
| SPC20□ | SPC20□-B6-M8M | SPC20□-LB6-M4F |
| SPC25□ | SPC25□-B6-M8M | SPC25□-LB6-M4F |
| SPC30□ | SPC30□-B6-M10M | SPC30□-LB6-M6F |
| SPC40□ | SPC40□-B6-M10M | SPC40□-LB6-M6F |
| SPC60□ | SPC60□-B6-M10M | SPC60□-LB6-M6F |

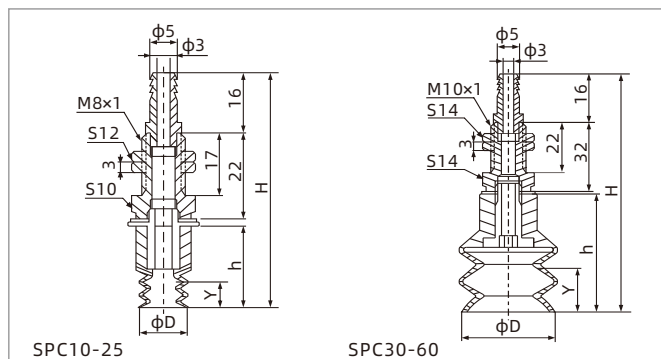
SPC Series

Suction Cup with Locking Fitting

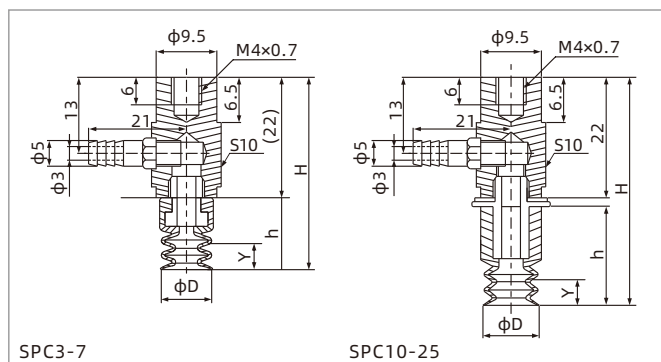
Dimensions(mm)



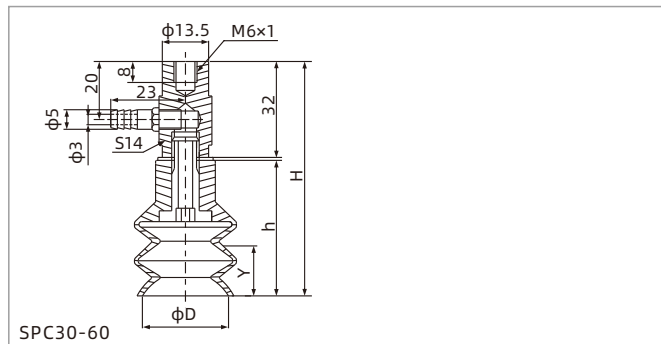
Vertical-Pagoda fitting



Vertical-Pagoda fitting



Lateral-Pagoda fitting



Lateral-Pagoda fitting

| Model/Size | D | H | h | Y |
|---------------|------|------|------|------|
| SPC3□-B4-M5M | 3 | 22.5 | 6 | 4 |
| SPC5□-B6-M8M | 5 | 33.5 | 9.5 | 5.5 |
| SPC7□-B6-M8M | 7 | 34 | 10 | 6 |
| SPC10□-B6-M8M | 10 | 55 | 15 | 11.5 |
| SPC12□-B6-M8M | 13 | 63.6 | 21.6 | 13.5 |
| SPC15□-B6-M8M | 15.2 | 62.8 | 22.8 | 13.6 |
| SPC18□-B6-M8M | 18.6 | 63 | 23 | 14 |
| SPC20□-B6-M8M | 20.6 | 63 | 23 | 14 |
| SPC25□-B6-M8M | 24 | 76 | 34 | 18.5 |

| Model/Size | D | H | h | Y |
|----------------|----|------|------|------|
| SPC30□-B6-M10M | 32 | 85.5 | 37.5 | 24.5 |
| SPC40□-B6-M10M | 42 | 94 | 46 | 28 |
| SPC60□-B6-M10M | 62 | 103 | 55 | 30 |

| Model/Size | D | H | h | Y |
|----------------|------|------|------|------|
| SPC3□-LB6-M4F | 3 | 28 | 6 | 4 |
| SPC5□-LB6-M4F | 5 | 31.5 | 9.5 | 5.5 |
| SPC7□-LB6-M4F | 7 | 32 | 10 | 6 |
| SPC10□-LB6-M4F | 10 | 39 | 15 | 11.5 |
| SPC12□-LB6-M4F | 13 | 47.6 | 21.6 | 13.5 |
| SPC15□-LB6-M4F | 15.2 | 46.8 | 22.8 | 13.6 |
| SPC18□-LB6-M4F | 18.6 | 47 | 23 | 14 |
| SPC20□-LB6-M4F | 20.6 | 47 | 23 | 14 |
| SPC25□-LB6-M4F | 24 | 60 | 34 | 18.5 |

| Model/Size | D | H | h | Y |
|----------------|----|------|------|------|
| SPC30□-LB6-M6F | 32 | 69.5 | 37.5 | 24.5 |
| SPC40□-LB6-M6F | 42 | 78 | 46 | 28 |
| SPC60□-LB6-M6F | 62 | 87 | 55 | 30 |

◇ Note: The dimensional tolerance conforms to GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC**
- SPJ
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SPJ Series

Bellows Suction Cup



PACKAGING



PLASTIC



Features

- ◇ 1.5 bellows
- ◇ Soft and tapered lips
- ◇ Mark free plug optional
- ◇ Available in various sizes

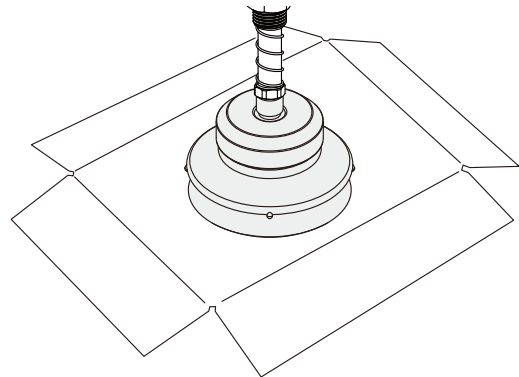
Advantages

- ◇ Compensate the height difference and good buffer when have contact with workpieces
- ◇ Good sealing for handling of workpieces with uneven surface
- ◇ Available in various sizes



Applications

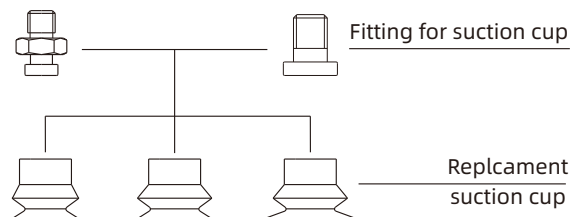
- ◇ Handling workpieces with uneven surface such as cartons, paper board and sheet, workpieces with curved surface
- ◇ Handling fragile workpieces such as electronic components and injection molding parts
- ◇ Suction cup with mark free plug is suitable for handling sensitive electronic material or display screen. It is suitable for occasions with high requirements for mark on adsorption surface



Structure

- ◇ 1.5 bellows, long compressed stroke
- ◇ Suction cups with diameter less than 50mm adopt split structure for easy replacement
- ◇ One-piece structure for suction cup with diameter 60mm-80mm

In the same series, replacement suction cup and fitting can be combined as required



SPJ Series

Bellows Suction Cup

How to order

SPJ 15 N - M5M - PK

① ② ③ ④ ⑤

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread | ⑤ Plug | |
|----------|------------|-----------------------|--------------------------|----------------------------------|------------------------------|
| SPJ | 4 - φ4mm | 30 - φ30mm | N - NBR | 55 Nil - Suction cup only | Nil - Without Mark free plug |
| | 6 - φ6mm | 35 - φ35mm | WS - White silicone | 50 M3M - M3×0.5 male thread | PK - With mark free plug |
| | 8 - φ8mm | 40 - φ40mm | CN - Conductive NBR | 55 M5M - M5×0.8 male thread | |
| | 10 - φ10mm | 50 - φ50mm | CS - Conductive silicone | 55 M8M - M8×1.25 male thread | |
| | 15 - φ15mm | 60 - φ60mm | HP - Mark free rubber | 55 M10F - M10×1.25 female thread | |
| | 20 - φ20mm | 70 - φ70mm | | | |
| | 25 - φ25mm | 80 - φ80mm | | | |

◇ Note: HP material is not for all sizes. Please contact AIRBEST if need

Selection

| Model | Connection thread M - Male thread | Model | Connection thread M - Male thread | Connection thread F - Female thread |
|------------------|--------------------------------------|------------------|--------------------------------------|--|
| SPJ4□ | SPJ4□-M3M | SPJ30□ SPJ30□-PK | SPJ30□-M5M SPJ30□-M5M-PK | - |
| SPJ6□ | SPJ6□-M5M | SPJ35□ SPJ35□-PK | SPJ35□-M5M SPJ35□-M5M-PK | - |
| SPJ8□ SPJ8□-PK | SPJ8□-M5M SPJ8□-M5M-PK | SPJ40□ SPJ40□-PK | SPJ40□-M5M SPJ40□-M5M-PK | - |
| SPJ10□ SPJ10□-PK | SPJ10□-M5M SPJ10□-M5M-PK | SPJ50□ SPJ50□-PK | SPJ50□-M8M SPJ50□-M8M-PK | - |
| SPJ15□ SPJ15□-PK | SPJ15□-M5M SPJ15□-M5M-PK | SPJ60□ | - | SPJ60□-M10F |
| SPJ20□ SPJ20□-PK | SPJ20□-M5M SPJ20□-M5M-PK | SPJ70□ | - | SPJ70□-M10F |
| SPJ25□ SPJ25□-PK | SPJ25□-M5M SPJ25□-M5M-PK | SPJ80□ | - | SPJ80□-M10F |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Min. Curve radius of workpiece mm | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|--------------------------------------|-------------|-----------------------------|------------|
| SPJ4 | 0.6 | <0.1 | 4 | 0.1 | 4 | 10 |
| SPJ6 | 1.2 | <0.1 | 6 | 0.2 | 4 | 10 |
| SPJ8 | 2.2 | <0.1 | 8 | 0.3 | 4 | 10 |
| SPJ10 | 3.5 | 0.2 | 12 | 0.8 | 4 | 10 |
| SPJ15 | 8 | 0.5 | 20 | 1.0 | 6 | 10 |
| SPJ20 | 15 | 1.1 | 27 | 1.8 | 6 | 5 |
| SPJ25 | 24 | 2.2 | 40 | 3.0 | 6 | 5 |
| SPJ30 | 32 | 3 | 55 | 5.3 | 6 | 5 |
| SPJ35 | 43 | 4.5 | 65 | 8.0 | 6 | 5 |
| SPJ40 | 60 | 6 | 80 | 10.5 | 6 | 1 |
| SPJ50 | 92 | 11.7 | 95 | 21.0 | 8 | 1 |
| SPJ60 | 127 | 20 | 125 | 35.6 | 8 | 1 |
| SPJ70 | 173 | 30 | 150 | 52.5 | 8 | 1 |
| SPJ80 | 226 | 40 | 140 | 63.0 | 8 | 1 |

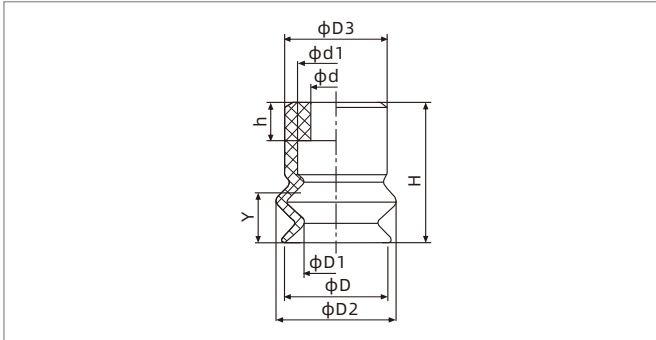
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

- SZ
- SP3
- SUF
- SAN
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- SOFA
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- SFP
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- SGP
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- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ**
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

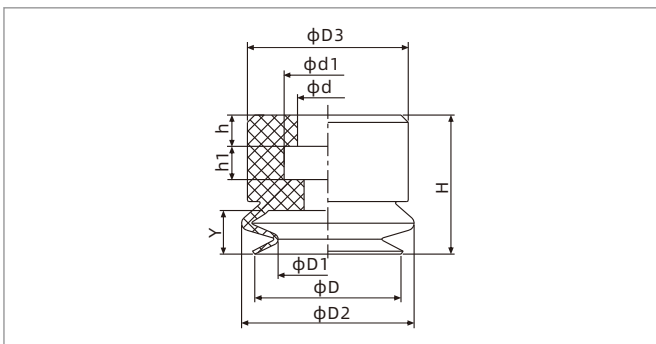
SPJ Series

Bellows Suction Cup

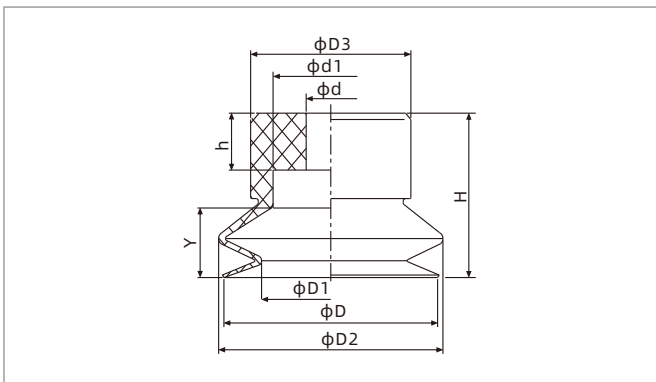
Dimensions(mm) - Suction cup only



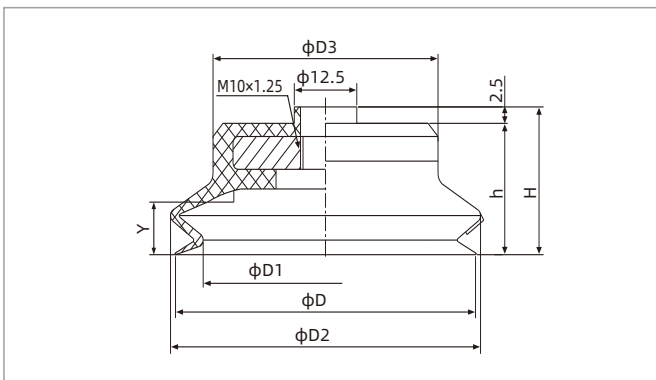
SPJ4-8



SPJ10-15



SPJ20-50



SPJ60-80

| Model/Size | D | H | D1 | D2 | D3 | d | h | d1 | Y |
|------------|---|-----|-----|-----|-----|---|-----|----|-----|
| SPJ4□ | 4 | 5.5 | 2.5 | 4.6 | 4 | 2 | 1.5 | 3 | 2.3 |
| SPJ6□ | 6 | 9 | 3.3 | 7.8 | 7.5 | 4 | 2 | 6 | 4.2 |
| SPJ8□ | 8 | 9 | 5.3 | 9.8 | 8 | 4 | 2 | 6 | 4 |

| Model/Size | D | H | D1 | D2 | D3 | d | h | d1 | h1 | Y |
|------------|----|-----|-----|------|----|---|---|----|----|-----|
| SPJ10□ | 10 | 9.5 | 6.8 | 11.8 | 11 | 4 | 2 | 6 | 2 | 3 |
| SPJ15□ | 15 | 11 | 9.7 | 15.8 | 12 | 4 | 2 | 6 | 2 | 3.3 |

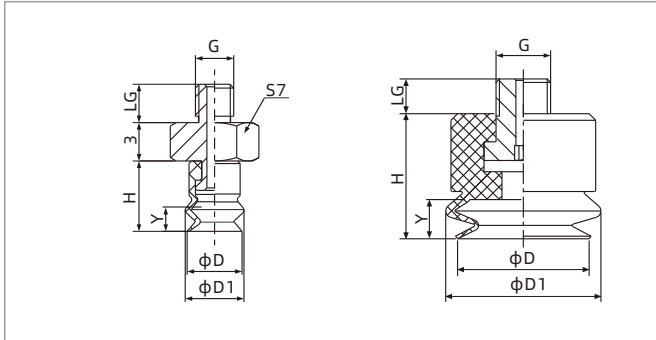
| Model/Size | D | H | D1 | D2 | D3 | d | h | d1 | Y |
|------------|----|------|------|----|------|-----|-----|------|-----|
| SPJ20□ | 20 | 13 | 13 | 21 | 15 | 4.6 | 4.5 | 10.8 | 5.5 |
| SPJ25□ | 25 | 15.5 | 14.5 | 26 | 17.5 | 4.6 | 4.5 | 10.8 | 6.5 |
| SPJ30□ | 30 | 18 | 16 | 31 | 20 | 5.8 | 7 | 10.8 | 7 |
| SPJ35□ | 35 | 18 | 20.5 | 36 | 25 | 5.8 | 7 | 10.8 | 7 |
| SPJ40□ | 40 | 18 | 25 | 40 | 30 | 5.8 | 7 | 10.8 | 7.2 |
| SPJ50□ | 50 | 20 | 32 | 53 | 40 | 7.8 | 7 | 19.8 | 9 |

| Model/Size | D | H | h | D1 | D2 | D3 | Y |
|-------------|----|------|----|----|----|----|-----|
| SPJ60□-M10F | 60 | 22.5 | 20 | 45 | 62 | 45 | 8 |
| SPJ70□-M10F | 70 | 23.5 | 21 | 52 | 74 | 55 | 9.5 |
| SPJ80□-M10F | 80 | 23.5 | 21 | 61 | 82 | 68 | 9.5 |

SPJ Series

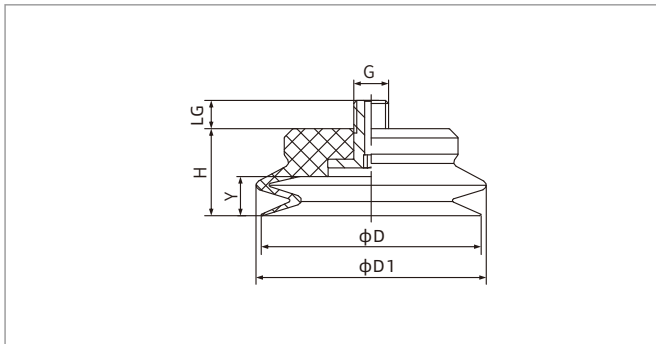
Bellows Suction Cup

Dimensions(mm)



SPJ4

SPJ6-15



SPJ20-50

| Model/Size | D | H | D1 | G | LG | Y |
|------------|----|-----|------|--------|-----|-----|
| SPJ4□-M3M | 4 | 5.5 | 4.6 | M3×0.5 | 3.5 | 2.3 |
| SPJ6□-M5M | 6 | 9 | 7.8 | M5×0.8 | 4.5 | 4.2 |
| SPJ8□-M5M | 8 | 9 | 9.8 | M5×0.8 | 4.5 | 4 |
| SPJ10□-M5M | 10 | 9.5 | 11.8 | M5×0.8 | 4.5 | 3 |
| SPJ15□-M5M | 15 | 11 | 15.8 | M5×0.8 | 4.5 | 3.3 |

| Model/Size | D | H | D1 | G | LG | Y |
|------------|----|------|----|---------|-----|-----|
| SPJ20□-M5M | 20 | 13 | 21 | M5×0.8 | 5 | 5.5 |
| SPJ25□-M5M | 25 | 15.5 | 26 | M5×0.8 | 5 | 6.5 |
| SPJ30□-M5M | 30 | 18 | 31 | M5×0.8 | 5 | 7 |
| SPJ35□-M5M | 35 | 18 | 36 | M5×0.8 | 5 | 7 |
| SPJ40□-M5M | 40 | 18 | 40 | M5×0.8 | 5 | 7.2 |
| SPJ50□-M8M | 50 | 20 | 53 | M8×1.25 | 6.5 | 9 |

◇ Note: The dimensional tolerance conforms to GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

Mounting parts

| Item | Model M - Male thread | Applicable suction cup |
|-------------------------|--------------------------|------------------------|
| Fitting for suction cup | PJS-M3M-ST1 | SPJ4 |
| | PJS-M5M-ST2 | SPJ6, 8, 10, 15 |
| | PJS-M5M-ST3 | SPJ20, 25 |
| | PJS-M5M-ST4 | SPJ30, 35, 40 |
| | PJS-M8M-ST6 | SPJ50 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ**
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

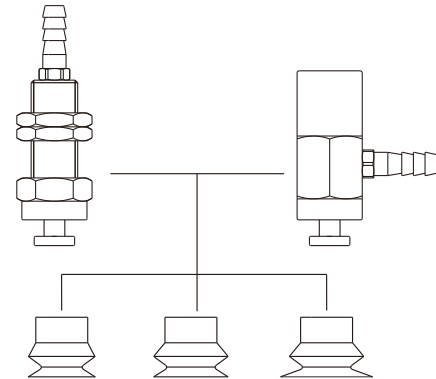
SPJ Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of replacement suction cup and locking fitting
- ◇ Plug-in fitting for suction cups
- ◇ Vertical vacuum port, pagoda fitting or one-touch fitting for connection, male thread for mounting
- ◇ Lateral vacuum port, pagoda fitting for connection, female thread for mounting

In the same series, replacement suction cup and locking fitting can be combined as required



How to order

SPJ10N - L B6 - M4F
① ② ③ ④

| ① Series | ② Vacuum port direction | ③ Vacuum port connection | ④ Mounting thread | |
|---------------|-------------------------|-----------------------------|-----------------------------|----------------------------|
| SPJ10N | Nil - Vertical | B6 - Pagoda fitting φ6 hose | M4F - M4x0.7 female thread | M8M - M8x1 male thread |
| | L - Lateral | R1 - Rc1/8 female thread | M6F - M6x1 female thread | M10M - M10x1 male thread |
| | | | M8F - M8x1.25 female thread | M16M - M16x1.5 male thread |

◇ Please refer to page 323 for suction cup selection

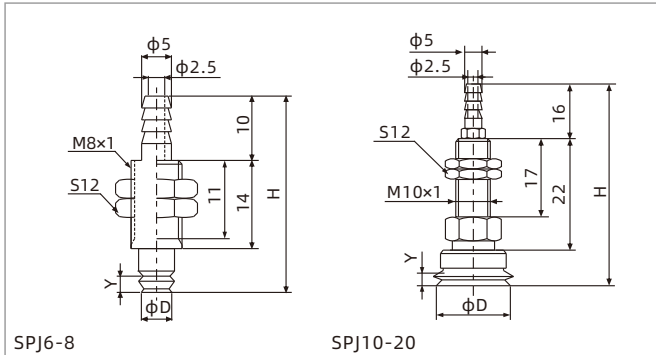
Selection

| Model | Vacuum port direction Vertical-Pagoda fitting | Lateral-Pagoda fitting |
|--------|--|------------------------|
| SPJ6□ | SPJ6□-B6-M8M | SPJ6□-LB6-M4F |
| SPJ8□ | SPJ8□-B6-M8M | SPJ8□-LB6-M4F |
| SPJ10□ | SPJ10□-B6-M8M | SPJ10□-LB6-M4F |
| SPJ15□ | SPJ15□-B6-M8M | SPJ15□-LB6-M4F |
| SPJ20□ | SPJ20□-B6-M8M | SPJ20□-LB6-M4F |
| SPJ25□ | SPJ25□-B6-M10M | SPJ25□-LB6-M6F |
| SPJ30□ | SPJ30□-B6-M10M | SPJ30□-LB6-M6F |
| SPJ35□ | SPJ35□-B6-M10M | SPJ35□-LB6-M6F |
| SPJ40□ | SPJ40□-B6-M10M | SPJ40□-LB6-M6F |
| SPJ50□ | SPJ50□-B6-M10M | SPJ50□-LB6-M6F |
| SPJ60□ | SPJ60□-R1-M16M | SPJ60□-LR1-M8F |
| SPJ70□ | SPJ70□-R1-M16M | SPJ70□-LR1-M8F |
| SPJ80□ | SPJ80□-R1-M16M | SPJ80□-LR1-M8F |

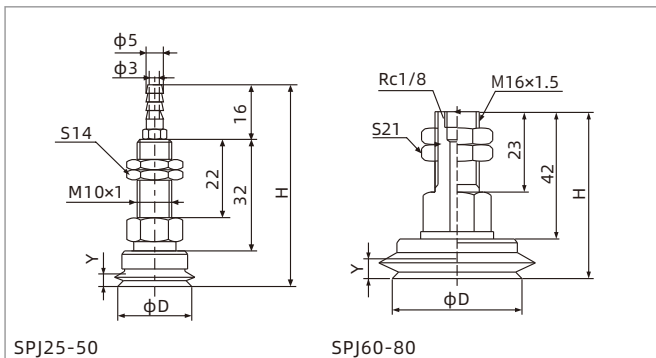
SPJ Series

Suction Cup with Locking Fitting

Dimensions(mm)

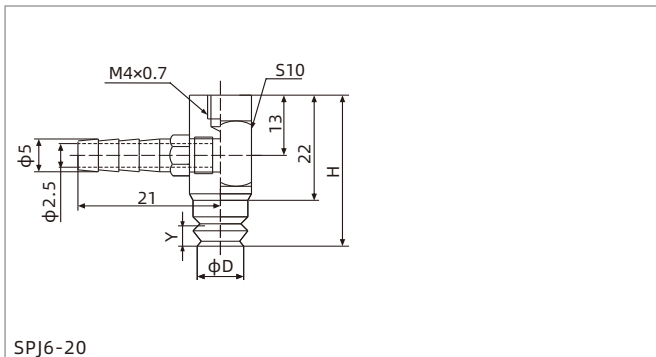


Vertical-Pagoda fitting

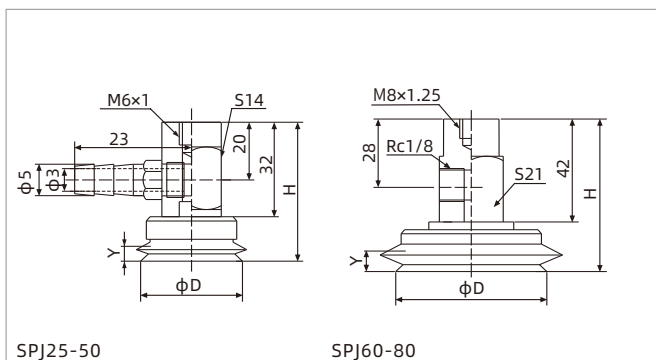


Vertical-Pagoda fitting

Vertical-Female thread connection



Lateral-Pagoda fitting



Lateral-Pagoda fitting

Lateral-Female thread connection

| Model/Size | D | H | Y |
|---------------|----|------|-----|
| SPJ6□-B6-M8M | 6 | 33 | 4.2 |
| SPJ8□-B6-M8M | 8 | 33 | 4 |
| SPJ10□-B6-M8M | 10 | 47.5 | 3 |
| SPJ15□-B6-M8M | 15 | 49 | 3.3 |
| SPJ20□-B6-M8M | 20 | 51 | 5.5 |

| Model/Size | D | H | Y |
|----------------|----|------|-----|
| SPJ25□-B6-M10M | 25 | 63.5 | 6.5 |
| SPJ30□-B6-M10M | 30 | 66 | 7 |
| SPJ35□-B6-M10M | 35 | 66 | 7 |
| SPJ40□-B6-M10M | 40 | 66 | 7.2 |
| SPJ50□-B6-M10M | 50 | 68 | 9 |
| SPJ60□-R1-M16M | 60 | 62 | 8 |
| SPJ70□-R1-M16M | 70 | 63 | 9.5 |
| SPJ80□-R1-M16M | 80 | 63 | 9.5 |

| Model/Size | D | H | Y |
|----------------|----|------|-----|
| SPJ6□-LB6-M4F | 6 | 31 | 4.2 |
| SPJ8□-LB6-M4F | 8 | 31 | 4 |
| SPJ10□-LB6-M4F | 10 | 31.5 | 3 |
| SPJ15□-LB6-M4F | 15 | 33 | 3.3 |
| SPJ20□-LB6-M4F | 20 | 35 | 5.5 |

| Model/Size | D | H | Y |
|----------------|----|------|-----|
| SPJ25□-LB6-M6F | 25 | 47.5 | 6.5 |
| SPJ30□-LB6-M6F | 30 | 50 | 7 |
| SPJ35□-LB6-M6F | 35 | 50 | 7 |
| SPJ40□-LB6-M6F | 40 | 50 | 7.2 |
| SPJ50□-LB6-M6F | 50 | 52 | 9 |
| SPJ60□-LR1-M8F | 60 | 62 | 8 |
| SPJ70□-LR1-M8F | 70 | 63 | 9.5 |
| SPJ80□-LR1-M8F | 80 | 63 | 9.5 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
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- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
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- SPD
- SPF
- SPC
- SPJ**
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- SBB
- SOP
- SNP

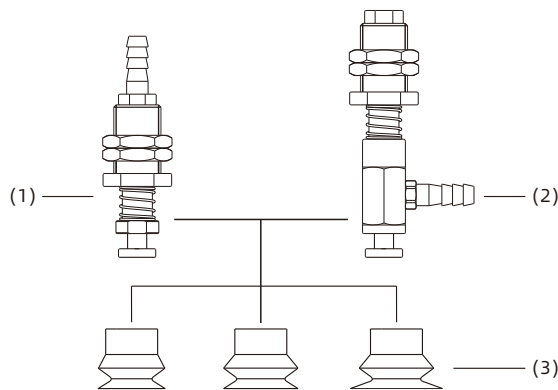
SPJ Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of replacement suction cup(3) and level compensator
- ◇ Plug-in fitting for suction cup
- ◇ Vertical vacuum port(1), male thread for mounting
- ◇ Lateral vacuum port(2), male thread for mounting

In the same series, replacement suction cup and level compensator can be combined as required



How to order

SPJ10N - F E 10 LB6 - M11

①
②
③
④
⑤
⑥

| ① Model | ② Level compensator type | ③ Buffer type | ④ Buffer stroke | ⑤ Vacuum port connection | ⑥ Mounting thread | |
|---------|--------------------------|---------------------|-----------------|--------------------------|---------------------------------------|---------------|
| SPJ10N | F - PSPF Series | E - External spring | 3 | 10 | B6 - Vertical, Pagoda fitting φ6 hose | M9 - M9×1 |
| | | | 4 | 15 | LB6 - Lateral, Pagoda fitting φ6 hose | M11 - M11×1 |
| | | | 6 | 30 | LR1 - Lateral, Rc1/8 Female thread | M14 - M14×1 |
| | | | | | | M16 - M16×1.5 |

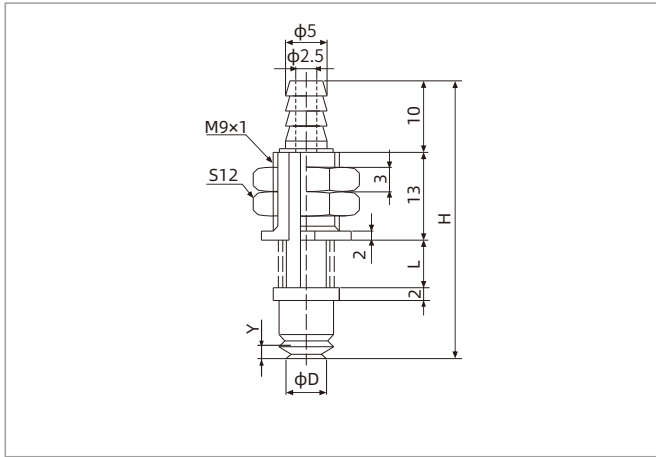
Selection

| Model | Vacuum port direction Vertical-Pagoda fitting | | Lateral-Pagoda fitting | |
|--------|--|-------------------|------------------------|--------------------|
| | | | | |
| SPJ6□ | SPJ6□-FE3B6-M9 | SPJ6□-FE10B6-M9 | SPJ6□-FE3LB6-M9 | SPJ6□-FE10LB6-M9 |
| SPJ8□ | SPJ8□-FE3B6-M9 | SPJ8□-FE10B6-M9 | SPJ8□-FE3LB6-M9 | SPJ8□-FE10LB6-M9 |
| SPJ10□ | SPJ10□-FE4B6-M11 | SPJ10□-FE10B6-M11 | SPJ10□-FE4LB6-M11 | SPJ10□-FE10LB6-M11 |
| SPJ15□ | SPJ15□-FE4B6-M11 | SPJ15□-FE10B6-M11 | SPJ15□-FE4LB6-M11 | SPJ15□-FE10LB6-M11 |
| SPJ20□ | SPJ20□-FE4B6-M11 | SPJ20□-FE10B6-M11 | SPJ20□-FE4LB6-M11 | SPJ20□-FE10LB6-M11 |
| SPJ25□ | SPJ25□-FE6B6-M14 | SPJ25□-FE15B6-M14 | SPJ25□-FE6LB6-M14 | SPJ25□-FE15LB6-M14 |
| SPJ30□ | SPJ30□-FE6B6-M14 | SPJ30□-FE15B6-M14 | SPJ30□-FE6LB6-M14 | SPJ30□-FE15LB6-M14 |
| SPJ35□ | SPJ35□-FE6B6-M14 | SPJ35□-FE15B6-M14 | SPJ35□-FE6LB6-M14 | SPJ35□-FE15LB6-M14 |
| SPJ40□ | SPJ40□-FE6B6-M14 | SPJ40□-FE15B6-M14 | SPJ40□-FE6LB6-M14 | SPJ40□-FE15LB6-M14 |
| SPJ50□ | SPJ50□-FE6B6-M14 | SPJ50□-FE15B6-M14 | SPJ50□-FE6LB6-M14 | SPJ50□-FE15LB6-M14 |
| SPJ60□ | - | | SPJ60□-FE10LR1-M16 | SPJ60□-FE30LB6-M16 |
| SPJ70□ | - | | SPJ70□-FE10LR1-M16 | SPJ70□-FE30LB6-M16 |
| SPJ80□ | - | | SPJ80□-FE10LR1-M16 | SPJ80□-FE30LB6-M16 |

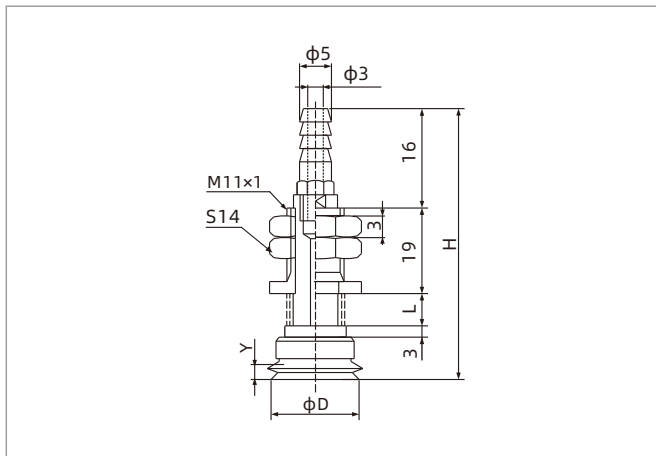
SPJ Series

Suction Cup with Level Compensator

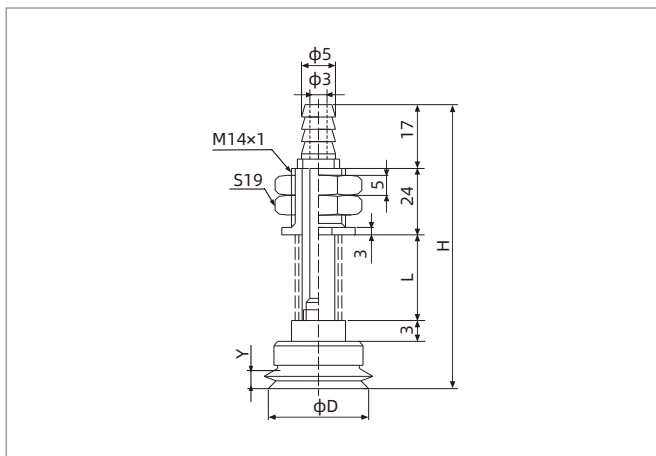
Dimensions(mm)



SPJ6-8 Vertical-Pagoda fitting



SPJ10-20 Vertical-Pagoda fitting



SPJ25-50 Vertical-Pagoda fitting

| Model/Size | D | H | L | Y | Buffer stroke |
|-----------------|---|----|----|-----|---------------|
| SPJ6□-FE3B6-M9 | 6 | 40 | 6 | 4.2 | 3 |
| SPJ6□-FE10B6-M9 | 6 | 54 | 20 | 4.2 | 10 |
| SPJ8□-FE3B6-M9 | 8 | 40 | 6 | 4 | 3 |
| SPJ8□-FE10B6-M9 | 8 | 54 | 20 | 4 | 10 |

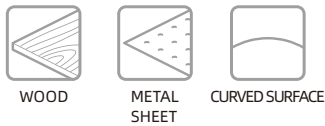
| Model/Size | D | H | L | Y | Buffer stroke |
|-------------------|----|------|----|-----|---------------|
| SPJ10□-FE4B6-M11 | 10 | 55.5 | 8 | 3 | 4 |
| SPJ10□-FE10B6-M11 | 10 | 67.5 | 20 | 3 | 10 |
| SPJ15□-FE4B6-M11 | 15 | 57 | 8 | 3.3 | 4 |
| SPJ15□-FE10B6-M11 | 15 | 69 | 20 | 3.3 | 10 |
| SPJ20□-FE4B6-M11 | 20 | 59 | 8 | 5.5 | 4 |
| SPJ20□-FE10B6-M11 | 20 | 71 | 20 | 5.5 | 10 |

| Model/Size | D | H | L | Y | Buffer stroke |
|-------------------|----|------|----|-----|---------------|
| SPJ25□-FE6B6-M14 | 25 | 72.5 | 13 | 6.5 | 6 |
| SPJ25□-FE15B6-M14 | 25 | 89.5 | 30 | 6.5 | 15 |
| SPJ30□-FE6B6-M14 | 30 | 75 | 13 | 7 | 6 |
| SPJ30□-FE15B6-M14 | 30 | 92 | 30 | 7 | 15 |
| SPJ35□-FE6B6-M14 | 35 | 75 | 13 | 7 | 6 |
| SPJ35□-FE15B6-M14 | 35 | 92 | 30 | 7 | 15 |
| SPJ40□-FE6B6-M14 | 40 | 75 | 13 | 7.2 | 6 |
| SPJ40□-FE15B6-M14 | 40 | 92 | 30 | 7.2 | 15 |
| SPJ50□-FE6B6-M14 | 50 | 77 | 13 | 9 | 6 |
| SPJ50□-FE15B6-M14 | 50 | 94 | 30 | 9 | 15 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ**
- SPU
- SH
- SHB
- SBB
- SOP
- SNP

SPU Series

Swivel Flat Suction Cup



Features

- ◇ With support structure at the bottom
- ◇ Small inner volume
- ◇ Available in various sizes

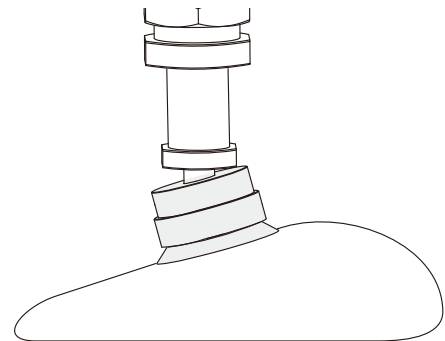
Advantages

- ◇ Be able to prevent thin walled workpieces from permanent deformation
- ◇ Suitable for workpieces of various sizes and shapes



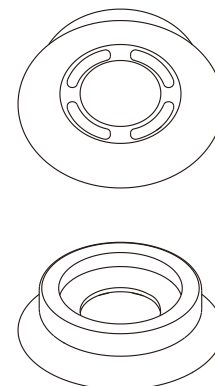
Applications

- ◇ Suitable for handling of workpieces with inclined surface. Its mounting inner cavity is large and it can be connected with swivel joint
- ◇ Suitable for handling sheet metal or wood plate. During handling process, when it is depressed in the middle or dooping at both ends, suction cup with swivel joint can have good contact with workpiece and prevent workpiece from falling off



Structure

- ◇ Split structure design for easy replacement of wearing parts



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ**
- SPU**
- SH
- SHB
- SBB
- SOP
- SNP

SPU Series

Swivel Flat Suction Cup

How to order

SPU 30 N

① ② ③

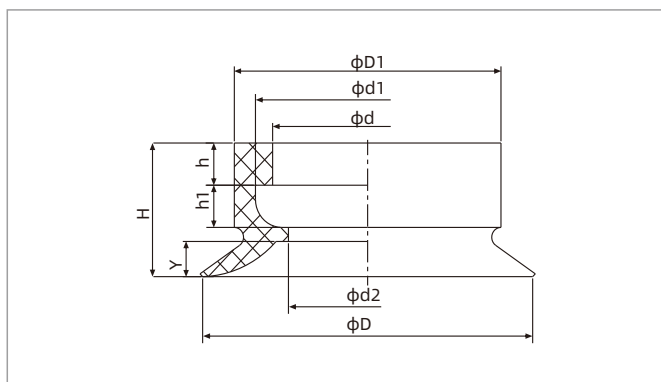
| ① Series | ② Diameter | ③ Material & Hardness |
|----------|------------------|--|
| SPU | 10 - ϕ 10mm | 40 - ϕ 40mm |
| | 15 - ϕ 15mm | 50 - ϕ 50mm |
| | 20 - ϕ 20mm | 60 - ϕ 60mm |
| | 25 - ϕ 25mm | 80 - ϕ 80mm |
| | 30 - ϕ 30mm | 100 - ϕ 100mm |
| | 35 - ϕ 35mm | |
| | | N - NBR 55 |
| | | WS - White silicone 50 |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SPU10 | 3.5 | < 0.1 | 0.2 | 4 | 10 |
| SPU15 | 8 | 0.2 | 0.3 | 6 | 10 |
| SPU20 | 15 | 0.5 | 1.3 | 6 | 5 |
| SPU25 | 24 | 1.1 | 1.5 | 6 | 5 |
| SPU30 | 32 | 1 | 1.9 | 6 | 5 |
| SPU35 | 43 | 2.4 | 2.5 | 6 | 5 |
| SPU40 | 60 | 3.4 | 3.8 | 6 | 1 |
| SPU50 | 92 | 5.7 | 5.1 | 8 | 1 |
| SPU60 | 127 | 11 | 12.4 | 8 | 1 |
| SPU80 | 226 | 25.3 | 24.2 | 8 | 1 |
| SPU100 | 355 | 38 | 40.2 | 10 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



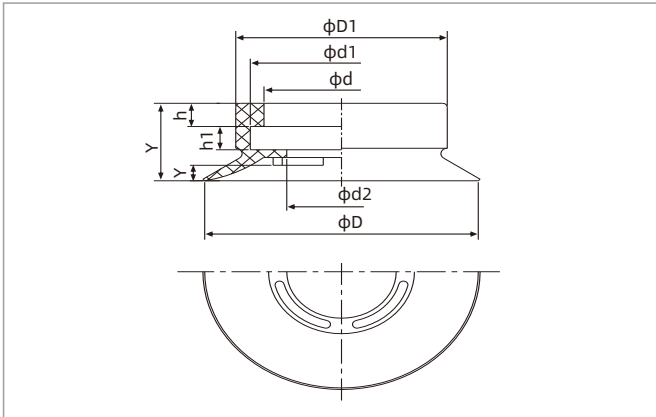
SPU10-25

| Model/Size | D | H | D1 | d | h | d1 | h1 | d2 | Y |
|------------|----|-----|------|------|-----|----|-----|----|-----|
| SPU10□ | 10 | 3.5 | 10.5 | 6.5 | 1.5 | 8 | 0.5 | 4 | 1 |
| SPU15□ | 15 | 4.5 | 10.5 | 6.5 | 1.5 | 8 | 0.5 | 4 | 1.4 |
| SPU20□ | 20 | 9 | 20.2 | 14.4 | 3 | 17 | 3 | 12 | 2 |
| SPU25□ | 25 | 9.5 | 20.2 | 14.4 | 3 | 17 | 3 | 12 | 2.5 |

SPU Series

Swivel Flat Suction Cup

Dimensions(mm)



SPU30-100

◇ Note: The dimensional tolerance conforms to GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

| Model/Size | D | H | D1 | d | h | d1 | h1 | d2 | Y |
|------------|-----|------|------|------|-----|----|----|----|---|
| SPU30□ | 30 | 10 | 23.2 | 17 | 3 | 20 | 3 | 12 | 2 |
| SPU35□ | 35 | 11 | 23.2 | 17 | 3 | 20 | 3 | 12 | 3 |
| SPU40□ | 40 | 10.5 | 32.2 | 24.5 | 3.5 | 28 | 2 | 16 | 3 |
| SPU50□ | 50 | 11.5 | 32.2 | 24.5 | 3.5 | 28 | 2 | 16 | 4 |
| SPU60□ | 60 | 16.2 | 46.2 | 38.5 | 5.2 | 42 | 3 | 10 | 5 |
| SPU80□ | 80 | 18.2 | 60.2 | 49 | 5.2 | 54 | 3 | 10 | 6 |
| SPU100□ | 100 | 18.2 | 78.2 | 66 | 5.2 | 72 | 3 | 10 | 6 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU**
- SH
- SHB
- SBB
- SOP
- SNP

SH Series

Heavy Load Flat Suction Cup



METAL SHEET



WOOD



HEAVY LOAD



Features

- ◇ Large area support structure at the bottom
- ◇ Flat and short compressed stroke
- ◇ Split structure design
- ◇ Available in various sizes

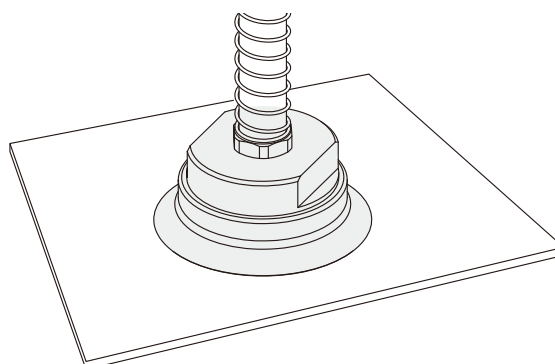
Advantages

- ◇ Be able to prevent permanent deformation of workpieces
- ◇ Handling of workpieces with flat surface and short working cycle
- ◇ Wearing parts can be replaced, and suction cup can be recycled to highly reduce cost
- ◇ Suitable for various workpieces

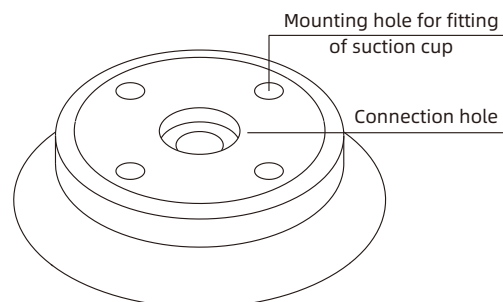


Applications

- ◇ Handling of large workpieces with flat or slightly rough surface, such as wood boards, steel plates and heavy workpieces



Structure



SH Series

Heavy Load Flat Suction Cup

How to order

SH 40 N
① ② ③

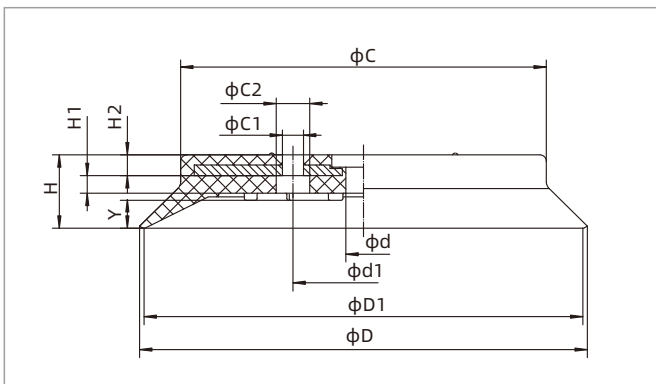
| ① Series | ② Diameter | | ③ Material & Hardness | |
|----------|------------------|--------------------|-----------------------|-----------|
| SH | 40 - ϕ 40mm | 80 - ϕ 80mm | N - NBR | 55 |
| | 50 - ϕ 50mm | 100 - ϕ 100mm | WS - White silicone | 50 |
| | 63 - ϕ 63mm | 125 - ϕ 125mm | | |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|-------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SH40 | 56 | 4 | 13.5 | 8 | 1 |
| SH50 | 88 | 6.9 | 25.1 | 8 | 1 |
| SH63 | 140 | 11.5 | 47.9 | 8 | 1 |
| SH80 | 226 | 24 | 75.4 | 8 | 1 |
| SH100 | 353 | 55 | 149.7 | 10 | 1 |
| SH125 | 552 | 85 | 263.6 | 10 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



SH40-125

| Model/Size | D | D1 | d | d1 | H | H1 | H2 | C | C1 | C2 | Y |
|------------|-----|-----|----|----|------|-----|-----|-----|-------------|---------------|-----|
| SH40□ | 42 | 40 | 6 | 18 | 11.5 | 3.5 | 3.5 | 32 | 3- ϕ 4 | 3- ϕ 6.5 | 3.5 |
| SH50□ | 52 | 50 | 6 | 18 | 11.5 | 3.5 | 3.5 | 42 | 3- ϕ 4 | 3- ϕ 6.5 | 3.5 |
| SH63□ | 65 | 63 | 8 | 34 | 14.5 | 4.5 | 4.5 | 51 | 4- ϕ 5 | 4- ϕ 8 | 3.5 |
| SH80□ | 82 | 80 | 8 | 34 | 16.5 | 4.5 | 4.5 | 68 | 4- ϕ 5 | 4- ϕ 8 | 4.5 |
| SH100□ | 103 | 100 | 10 | 40 | 21 | 5 | 6 | 80 | 4- ϕ 6 | 4- ϕ 9.5 | 7.5 |
| SH125□ | 127 | 125 | 10 | 40 | 21 | 5 | 6 | 104 | 4- ϕ 6 | 4- ϕ 9.5 | 7.5 |

◇ Note: The dimensional tolerance conforms to GBT3672.1-2002-1 M3 rubber product dimensional tolerance standard

SH Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of suction cup and locking fitting, 3 types of connection
- ◇ FIG.1: Vertical vacuum port, female thread connection
- ◇ FIG.2: Vertical vacuum port, male thread connection
- ◇ FIG.3: Lateral vacuum port, female thread connection



How to order

SH50N - LR1 - M10F
① ② ③

| ① Model | ② Vacuum port direction | ③ Connection thread |
|---------|--|---|
| SH50N | Nil - Vertical, female thread connection R1 - Vertical, male thread connection LR1 - Lateral, female thread connection | M10F - M10×1.5 female thread M12F - M12×1.75 female thread G2F - G1/4 female thread G3F - G3/8 female thread M14M - M14×1 male thread M16M - M16×1.5 male thread |

◇ Please refer to page 335 for suction cup selection

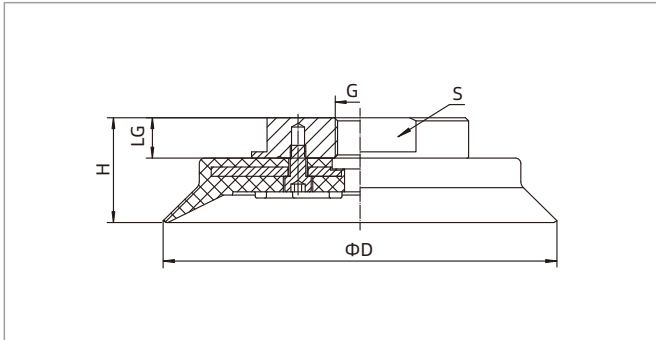
Selection

| Model | Vacuum port direction | | | |
|--------|-----------------------|------------|----------------|-----------------|
| | Nil | | R1 | LR1 |
| SH40□ | SH40□-M10F | SH40□-G2F | SH40□-R1-M14M | SH40□-LR1-M10F |
| SH50□ | SH50□-M10F | SH50□-G2F | SH50□-R1-M14M | SH50□-LR1-M10F |
| SH63□ | SH63□-M10F | SH63□-G2F | SH63□-R1-M16M | SH63□-LR1-M10F |
| SH80□ | SH80□-M10F | SH80□-G2F | SH80□-R1-M16M | SH80□-LR1-M10F |
| SH100□ | SH100□-M12F | SH100□-G3F | SH100□-R1-M16M | SH100□-LR1-M10F |
| SH125□ | SH125□-M12F | SH125□-G3F | SH125□-R1-M16M | SH125□-LR1-M10F |

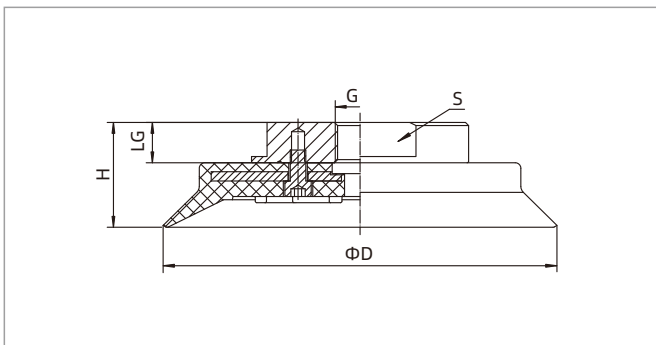
SH Series

Suction Cup with Locking Fitting

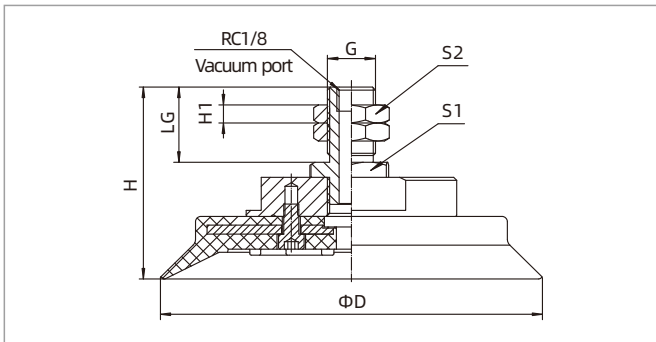
Dimensions(mm)



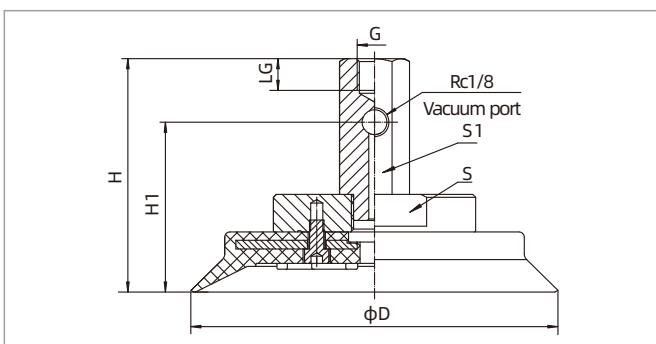
SH40-125 Vertical, female thread connection



SH40-125 Vertical, female thread connection



SH40-125 Vertical, male thread connection



SH40-125 Lateral, female thread connection

| Model/Size | D | H | G | LG | S |
|------------|-----|----|------|------|----|
| SH40□-G2F | 42 | 23 | G1/4 | 11.5 | 24 |
| SH50□-G2F | 52 | 23 | G1/4 | 11.5 | 24 |
| SH63□-G2F | 65 | 26 | G1/4 | 11.5 | 37 |
| SH80□-G2F | 82 | 28 | G1/4 | 11.5 | 37 |
| SH100□-G3F | 103 | 34 | G3/8 | 13 | 60 |
| SH125□-G3F | 127 | 34 | G3/8 | 13 | 60 |

| Model/Size | D | H | G | LG | S |
|-------------|-----|----|----------|------|----|
| SH40□-M10F | 42 | 23 | M10×1.5 | 11.5 | 24 |
| SH50□-M10F | 52 | 23 | M10×1.5 | 11.5 | 24 |
| SH63□-M10F | 65 | 26 | M10×1.5 | 11.5 | 37 |
| SH80□-M10F | 82 | 28 | M10×1.5 | 11.5 | 37 |
| SH100□-M12F | 103 | 34 | M12×1.75 | 13 | 60 |
| SH125□-M12F | 127 | 34 | M12×1.75 | 13 | 60 |

| Model/Size | D | H | H1 | G | LG | S1 | S2 |
|----------------|-----|----|----|---------|----|----|----|
| SH40□-R1-M14M | 42 | 53 | 5 | M14×1 | 25 | 19 | 19 |
| SH50□-R1-M14M | 52 | 53 | 5 | M14×1 | 25 | 19 | 19 |
| SH63□-R1-M16M | 65 | 56 | 6 | M16×1.5 | 25 | 24 | 22 |
| SH80□-R1-M16M | 82 | 58 | 6 | M16×1.5 | 25 | 24 | 22 |
| SH100□-R1-M16M | 103 | 64 | 6 | M16×1.5 | 25 | 24 | 22 |
| SH125□-R1-M16M | 127 | 64 | 6 | M16×1.5 | 25 | 24 | 22 |

| Model/Size | D | H | H1 | G | LG | S1 | S2 |
|-----------------|-----|----|----|---------|----|----|----|
| SH40□-LR1-M10F | 42 | 60 | 38 | M10×1.5 | 11 | 24 | 21 |
| SH50□-LR1-M10F | 52 | 60 | 38 | M10×1.5 | 11 | 24 | 21 |
| SH63□-LR1-M10F | 65 | 63 | 41 | M10×1.5 | 11 | 37 | 21 |
| SH80□-LR1-M10F | 82 | 65 | 43 | M10×1.5 | 11 | 37 | 21 |
| SH100□-LR1-M10F | 103 | 71 | 49 | M10×1.5 | 11 | 60 | 21 |
| SH125□-LR1-M10F | 127 | 71 | 49 | M10×1.5 | 11 | 60 | 21 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH**
- SHB
- SBB
- SOP
- SNP

SH Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of suction cup and level compensator, 2 types of vacuum connection
- ◇ External spring and 2pcs mounting nuts
- ◇ Vacuum port connection: Rc1/8 female thread
- ◇ FIG.1 vertical vacuum port, FIG.2 lateral vacuum port



FIG.1

FIG.2

How to order

SH50N - E 25 LR1 - M18

① ② ③ ④ ⑤

| ① Model | ② Buffer type | ③ Buffer stroke | ④ Vacuum port direction | ⑤ Mounting thread |
|---------|---------------------|-----------------|-------------------------|-------------------|
| SH50N | E - External spring | 25 | Nil - Vertical | M18 - M18×1.5 |
| | | 50 | LR1 - Lateral | M22 - M22×1.5 |
| | | 75 | | |
| | | 100 | | |

◇ Please refer to page 335 for suction cup selection

Selection-Vertical direction

| Model | Buffer stroke | | | |
|--------|----------------|----------------|----------------|-----------------|
| | 25 | 50 | 75 | 100 |
| SH40□ | SH40□-E25-M18 | SH40□-E50-M18 | SH40□-E75-M18 | - |
| SH50□ | SH50□-E25-M18 | SH50□-E50-M18 | SH50□-E75-M18 | - |
| SH63□ | SH63□-E25-M18 | SH63□-E50-M18 | SH63□-E75-M18 | - |
| SH80□ | SH80□-E25-M18 | SH80□-E50-M18 | SH80□-E75-M18 | - |
| SH100□ | SH100□-E25-M22 | SH100□-E50-M22 | SH100□-E75-M22 | SH100□-E100-M22 |
| SH125□ | SH125□-E25-M22 | SH125□-E50-M22 | SH125□-E75-M22 | SH125□-E100-M22 |

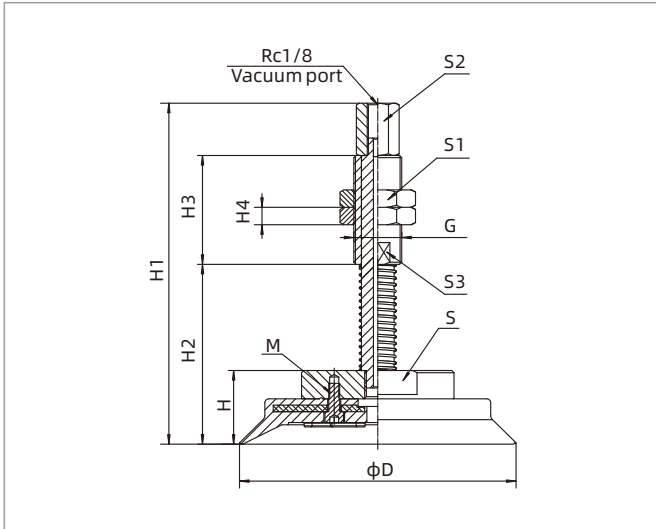
Selection-Lateral direction

| Model | Buffer stroke | | | |
|--------|-------------------|-------------------|-------------------|--------------------|
| | 25 | 50 | 75 | 100 |
| SH40□ | SH40□-E25LR1-M18 | SH40□-E50LR1-M18 | SH40□-E75LR1-M18 | - |
| SH50□ | SH50□-E25LR1-M18 | SH50□-E50LR1-M18 | SH50□-E75LR1-M18 | - |
| SH63□ | SH63□-E25LR1-M18 | SH63□-E50LR1-M18 | SH63□-E75LR1-M18 | - |
| SH80□ | SH80□-E25LR1-M18 | SH80□-E50LR1-M18 | SH80□-E75LR1-M18 | - |
| SH100□ | SH100□-E25LR1-M22 | SH100□-E50LR1-M22 | SH100□-E75LR1-M22 | SH100□-E100LR1-M22 |
| SH125□ | SH125□-E25LR1-M22 | SH125□-E50LR1-M22 | SH125□-E75LR1-M22 | SH125□-E100LR1-M22 |

SH Series

Suction Cup with Level Compensator

Dimensions(mm)



SH40-125 Vertical direction

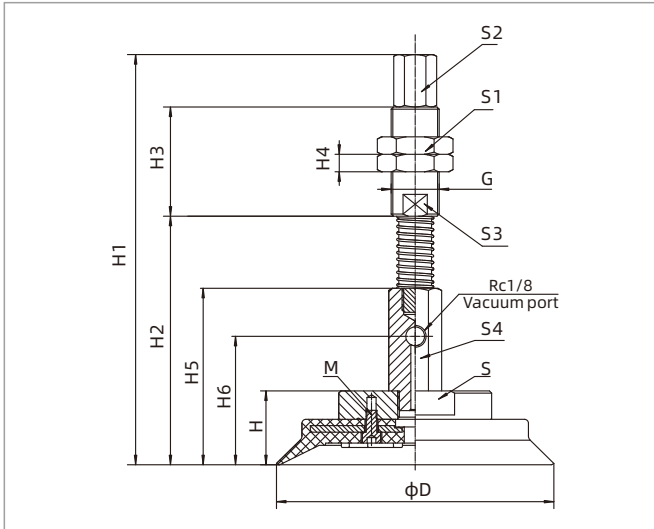
| Model/Size | D | H | H1 | H2 | H3 | H4 | G | M | S | S1 | S2 | S3 |
|-----------------|-----|----|-------|-----|----|----|---------|------|----|----|----|----|
| SH40□-E25-M18 | 42 | 23 | 118.5 | 63 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SH40□-E50-M18 | 42 | 23 | 153.5 | 98 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SH40□-E75-M18 | 42 | 23 | 189.5 | 134 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SH50□-E25-M18 | 52 | 23 | 118.5 | 63 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SH50□-E50-M18 | 52 | 23 | 153.5 | 98 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SH50□-E75-M18 | 52 | 23 | 189.5 | 134 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SH63□-E25-M18 | 65 | 26 | 121.5 | 66 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SH63□-E50-M18 | 65 | 26 | 156.5 | 101 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SH63□-E75-M18 | 65 | 26 | 192.5 | 137 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SH80□-E25-M18 | 82 | 28 | 123.5 | 68 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SH80□-E50-M18 | 82 | 28 | 158.5 | 103 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SH80□-E75-M18 | 82 | 28 | 194.5 | 139 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SH100□-E25-M22 | 103 | 34 | 152 | 78 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SH100□-E50-M22 | 103 | 34 | 188 | 114 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SH100□-E75-M22 | 103 | 34 | 228 | 154 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SH100□-E100-M22 | 103 | 34 | 263 | 189 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SH125□-E25-M22 | 127 | 34 | 152 | 78 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SH125□-E50-M22 | 127 | 34 | 188 | 114 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SH125□-E75-M22 | 127 | 34 | 228 | 154 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SH125□-E100-M22 | 127 | 34 | 263 | 189 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
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- SBT
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- SFP
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- SXP
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- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH**
- SHB
- SBB
- SOP
- SNP

SH Series

Suction Cup with Level Compensator

Dimensions(mm)



SH40-125 Lateral direction

| Model/Size | D | H | H1 | H2 | H3 | H4 | H5 | H6 | G | M | S | S1 | S2 | S3 | S4 |
|--------------------|-----|----|-----|-----|----|----|----|----|---------|------|----|----|----|----|----|
| SH40□-E25LR1-M18 | 42 | 23 | 151 | 100 | 35 | 6 | 60 | 38 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SH40□-E50LR1-M18 | 42 | 23 | 186 | 135 | 35 | 6 | 60 | 38 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SH40□-E75LR1-M18 | 42 | 23 | 222 | 171 | 35 | 6 | 60 | 38 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SH50□-E25LR1-M18 | 52 | 23 | 151 | 100 | 35 | 6 | 60 | 38 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SH50□-E50LR1-M18 | 52 | 23 | 186 | 135 | 35 | 6 | 60 | 38 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SH50□-E75LR1-M18 | 52 | 23 | 222 | 171 | 35 | 6 | 60 | 38 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SH63□-E25LR1-M18 | 65 | 26 | 154 | 103 | 35 | 6 | 63 | 41 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SH63□-E50LR1-M18 | 65 | 26 | 189 | 136 | 35 | 6 | 63 | 41 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SH63□-E75LR1-M18 | 65 | 26 | 225 | 172 | 35 | 6 | 63 | 41 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SH80□-E25LR1-M18 | 82 | 28 | 156 | 105 | 35 | 6 | 63 | 41 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SH80□-E50LR1-M18 | 82 | 28 | 191 | 138 | 35 | 6 | 63 | 41 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SH80□-E75LR1-M18 | 82 | 28 | 227 | 174 | 35 | 6 | 63 | 41 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SH100□-E25LR1-M22 | 103 | 34 | 186 | 115 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SH100□-E50LR1-M22 | 103 | 34 | 222 | 151 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SH100□-E75LR1-M22 | 103 | 34 | 262 | 191 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SH100□-E100LR1-M22 | 103 | 34 | 297 | 226 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SH125□-E25LR1-M22 | 127 | 34 | 186 | 115 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SH125□-E50LR1-M22 | 127 | 34 | 222 | 151 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SH125□-E75LR1-M22 | 127 | 34 | 262 | 191 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SH125□-E100LR1-M22 | 127 | 34 | 297 | 226 | 50 | 8 | 71 | 49 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |

SHB Series

Heavy Load Bellows Suction Cup



METAL SHEET



WOOD



HEAVY LOAD



CURVED SURFACE



Features

- ◇ 1.5 bellows
- ◇ Split structure design
- ◇ Available in various sizes

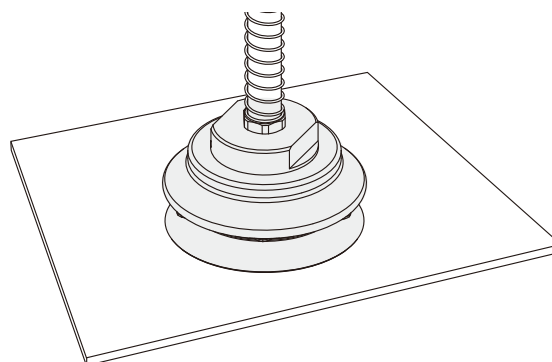
Advantages

- ◇ Contacting perfectly with unven surface of workpieces and good buffering
- ◇ Wearing parts can be replaced, and suction cup can be recycled to highly reduce cost
- ◇ Suitable for workpieces of various sizes and shapes

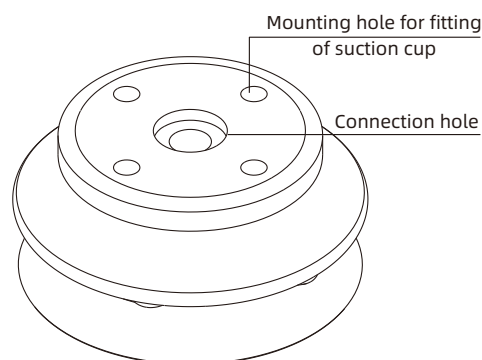


Applications

- ◇ Handling of large workpieces with unven and irregular surface, such as wood boards, steel plates and heavy workpieces



Structure



- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH**
- SHB**
- SBB
- SOP
- SNP

SHB Series

Heavy Load Bellows Suction Cup



How to order

SHB 40 N

① ② ③

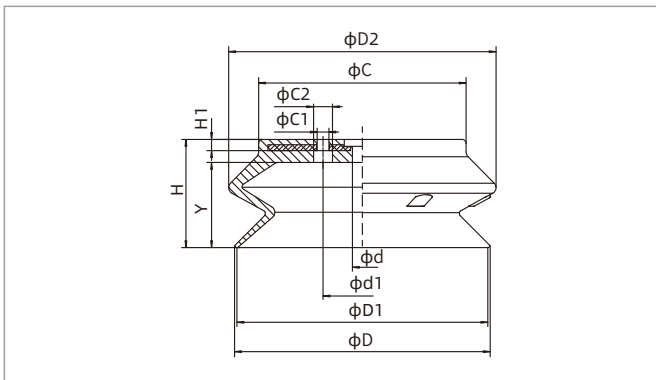
| ① Series | ② Diameter | | ③ Material & Hardness |
|----------|------------------|--------------------|--|
| SHB | 40 - ϕ 40mm | 80 - ϕ 80mm | N - NBR 55 |
| | 50 - ϕ 50mm | 100 - ϕ 100mm | WS - White silicone 50 |
| | 63 - ϕ 63mm | 125 - ϕ 125mm | |

Technical parameters

| Model | Pull-out force N | Inner volume cm ³ | Weight g | Recommended hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|-------------|-----------------------------|------------|
| SHB40 | 56 | 15 | 16.1 | 8 | 1 |
| SHB50 | 88 | 27 | 30 | 8 | 1 |
| SHB63 | 140 | 45 | 57.9 | 8 | 1 |
| SHB80 | 226 | 98 | 75.3 | 8 | 1 |
| SHB100 | 353 | 240 | 197.9 | 10 | 1 |
| SHB125 | 552 | 384 | 379.6 | 10 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



SHB40-125

| Model/Size | D | D1 | D2 | d | d1 | H | H1 | C | C1 | C2 | Y |
|------------|-------|-----|-------|----|----|------|-----|------|-------------|---------------|------|
| SHB40□ | 41.5 | 40 | 43.2 | 6 | 18 | 20.5 | 3.5 | 30 | 3- ϕ 4 | 3- ϕ 6.5 | 13 |
| SHB50□ | 52 | 50 | 54 | 6 | 18 | 24 | 3.5 | 40.5 | 3- ϕ 4 | 3- ϕ 6.5 | 16.5 |
| SHB63□ | 65 | 63 | 67.5 | 8 | 34 | 31.5 | 4.5 | 50 | 4- ϕ 5 | 4- ϕ 8 | 21.5 |
| SHB80□ | 83 | 80 | 85 | 8 | 34 | 37 | 5 | 64 | 4- ϕ 5 | 4- ϕ 8 | 27.5 |
| SHB100□ | 103 | 100 | 106.5 | 10 | 40 | 47.5 | 6 | 80 | 4- ϕ 6 | 4- ϕ 9.5 | 35.5 |
| SHB125□ | 128.5 | 125 | 135 | 10 | 40 | 56 | 6 | 105 | 4- ϕ 6 | 4- ϕ 9.5 | 44 |

◇ Note: The dimensional tolerance conforms to the GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

SHB Series

Suction Cup with Locking Fitting

Structure

- ◇ Consisting of suction cup and locking fitting, 3 types of connection
- ◇ FIG.1: Vertical vacuum port, female thread connection
- ◇ FIG.2: Vertical vacuum port, male thread connection
- ◇ FIG.3: Lateral vacuum port, female thread connection



SZ
SP3
SUF
SAN
SAO
SOFA
STP
SFT
SFA
SBT
SBL
SBLP
SBS
SFP
SBP
SXP
SGP
SBOF
STC
SFF
SOB
SOF
SOG
SFM
SOM
SBF
SDM
SFU
SFK
SHT
SDL
SFG
SFGT
SFD
SB
SBA
SF
SU
SP2F
SPA
SPD
SPF
SPC
SPJ
SPU
SH
SHB
SBB
SOP
SNP

How to order

SHB50N - LR1 - M10F
 ① ② ③

| ① Model | ② Vacuum port direction | ③ Connection thread |
|---------|--|---|
| SHB50N | Nil - Vertical, female thread connection R1 - Vertical, male thread connection LR1 - Lateral, female thread connection | M10F - M10×1.5 female thread M12F - M12×1.75 female thread G2F - G1/4 female thread G3F - G3/8 female thread M14M - M14×1 male thread M16M - M16×1.5 male thread |

◇ Please refer to page 342 for suction cup selection

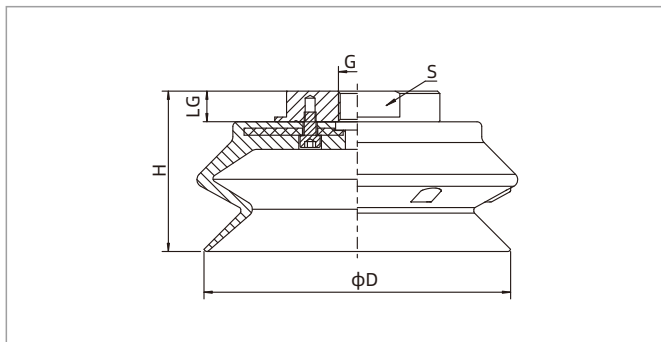
Selection

| Model | Vacuum port direction | | | |
|---------|-----------------------|-------------|-----------------|------------------|
| | Nil | | R1 | LR1 |
| SHB40□ | SHB40□-M10F | SHB40□-G2F | SHB40□-R1-M14M | SHB40□-LR1-M10F |
| SHB50□ | SHB50□-M10F | SHB50□-G2F | SHB50□-R1-M14M | SHB50□-LR1-M10F |
| SHB63□ | SHB63□-M10F | SHB63□-G2F | SHB63□-R1-M16M | SHB63□-LR1-M10F |
| SHB80□ | SHB80□-M10F | SHB80□-G2F | SHB80□-R1-M16M | SHB80□-LR1-M10F |
| SHB100□ | SHB100□-M12F | SHB100□-G3F | SHB100□-R1-M16M | SHB100□-LR1-M10F |
| SHB125□ | SHB125□-M12F | SHB125□-G3F | SHB125□-R1-M16M | SHB125□-LR1-M10F |

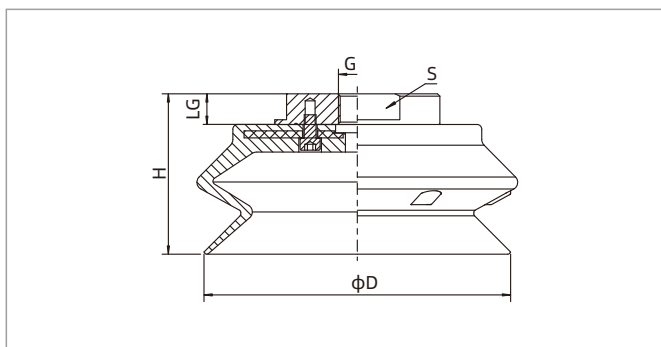
SHB Series

Suction Cup with Locking Fitting

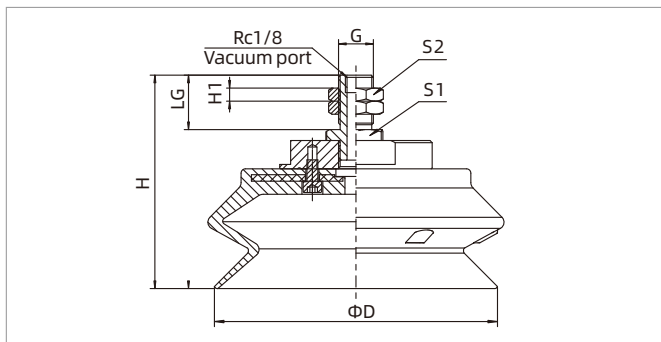
Dimensions(mm)



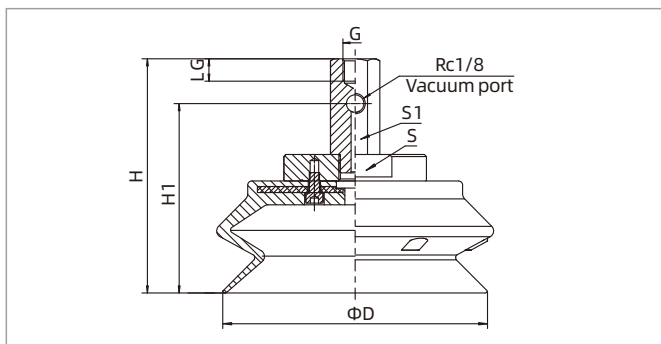
SHB40-125 Vertical, female thread connection



SHB40-125 Vertical, female thread connection



SHB40-125 Vertical, male thread connection



SHB40-125 Lateral, female thread connection

| Model/Size | D | H | G | LG | S |
|-------------|-------|------|------|------|----|
| SHB40□-G2F | 41.5 | 32 | G1/4 | 11.5 | 24 |
| SHB50□-G2F | 52 | 35.5 | G1/4 | 11.5 | 24 |
| SHB63□-G2F | 65 | 43 | G1/4 | 11.5 | 37 |
| SHB80□-G2F | 83 | 48.5 | G1/4 | 11.5 | 37 |
| SHB100□-G3F | 103 | 60.5 | G3/8 | 13 | 60 |
| SHB125□-G3F | 128.5 | 69 | G3/8 | 13 | 60 |

| Model/Size | D | H | G | LG | S |
|--------------|-------|------|----------|------|----|
| SHB40□-M10F | 41.5 | 32 | M10×1.5 | 11.5 | 24 |
| SHB50□-M10F | 52 | 35.5 | M10×1.5 | 11.5 | 24 |
| SHB63□-M10F | 65 | 43 | M10×1.5 | 11.5 | 37 |
| SHB80□-M10F | 83 | 48.5 | M10×1.5 | 11.5 | 37 |
| SHB100□-M12F | 103 | 60.5 | M12×1.75 | 13 | 60 |
| SHB125□-M12F | 128.5 | 69 | M12×1.75 | 13 | 60 |

| Model/Size | D | H | H1 | G | LG | S1 | S2 |
|-----------------|-------|------|----|---------|----|----|----|
| SHB40□-R1-M14M | 41.5 | 62 | 5 | M14×1 | 25 | 19 | 19 |
| SHB50□-R1-M14M | 52 | 65.5 | 5 | M14×1 | 25 | 19 | 19 |
| SHB63□-R1-M16M | 65 | 73 | 6 | M16×1.5 | 25 | 24 | 22 |
| SHB80□-R1-M16M | 83 | 78.5 | 6 | M16×1.5 | 25 | 24 | 22 |
| SHB100□-R1-M16M | 103 | 90.5 | 6 | M16×1.5 | 25 | 24 | 22 |
| SHB125□-R1-M16M | 128.5 | 99 | 6 | M16×1.5 | 25 | 24 | 22 |

| Model/Size | D | H | H1 | G | LG | S | S1 |
|------------------|-------|------|------|---------|----|----|----|
| SHB40□-LR1-M10F | 41.5 | 69 | 47 | M10×1.5 | 11 | 24 | 21 |
| SHB50□-LR1-M10F | 52 | 72.5 | 50.5 | M10×1.5 | 11 | 24 | 21 |
| SHB63□-LR1-M10F | 65 | 80 | 58 | M10×1.5 | 11 | 37 | 21 |
| SHB80□-LR1-M10F | 83 | 85.5 | 63.5 | M10×1.5 | 11 | 37 | 21 |
| SHB100□-LR1-M10F | 103 | 97.5 | 75.5 | M10×1.5 | 11 | 60 | 21 |
| SHB125□-LR1-M10F | 128.5 | 106 | 84 | M10×1.5 | 11 | 60 | 21 |

SHB Series

Suction Cup with Level Compensator

Structure

- ◇ Consisting of suction cup and level compensator, 2 types of vacuum connection
- ◇ External spring and 2pcs mounting nuts
- ◇ Vacuum port connection: Rc1/8 female thread
- ◇ FIG.1 vertical vacuum port, FIG.2 lateral vacuum port



FIG.1

FIG.2

How to order

SHB50N - E 25 LR1 - M18

① ② ③ ④ ⑤

| ① Model | ② Buffer type | ③ Buffer stroke | ④ Vacuum port direction | ⑤ Mounting thread |
|---------|---------------------|-----------------|-------------------------|-------------------|
| SHB50N | E - External spring | 25 | Nil - Vertical | M18 - M18×1.5 |
| | | 50 | LR1 - Lateral | M22 - M22×1.5 |
| | | 75 | | |
| | | 100 | | |

◇ Please refer to page 342 for suction cup selection

Selection - Vertical direction

| Model | Buffer stroke | | | |
|---------|-----------------|-----------------|-----------------|------------------|
| | 25 | 50 | 75 | 100 |
| SHB40□ | SHB40□-E25-M18 | SHB40□-E50-M18 | SHB40□-E75-M18 | - |
| SHB50□ | SHB50□-E25-M18 | SHB50□-E50-M18 | SHB50□-E75-M18 | - |
| SHB63□ | SHB63□-E25-M18 | SHB63□-E50-M18 | SHB63□-E75-M18 | - |
| SHB80□ | SHB80□-E25-M18 | SHB80□-E50-M18 | SHB80□-E75-M18 | - |
| SHB100□ | SHB100□-E25-M22 | SHB100□-E50-M22 | SHB100□-E75-M22 | SHB100□-E100-M22 |
| SHB125□ | SHB125□-E25-M22 | SHB125□-E50-M22 | SHB125□-E75-M22 | SHB125□-E100-M22 |

Selection - Lateral direction

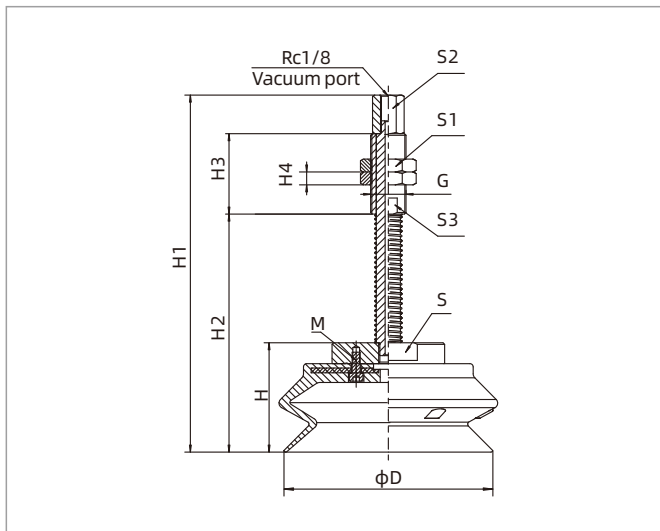
| Model | Buffer stroke | | | |
|---------|--------------------|--------------------|--------------------|---------------------|
| | 25 | 50 | 75 | 100 |
| SHB40□ | SHB40□-E25LR1-M18 | SHB40□-E50LR1-M18 | SHB40□-E75LR1-M18 | - |
| SHB50□ | SHB50□-E25LR1-M18 | SHB50□-E50LR1-M18 | SHB50□-E75LR1-M18 | - |
| SHB63□ | SHB63□-E25LR1-M18 | SHB63□-E50LR1-M18 | SHB63□-E75LR1-M18 | - |
| SHB80□ | SHB80□-E25LR1-M18 | SHB80□-E50LR1-M18 | SHB80□-E75LR1-M18 | - |
| SHB100□ | SHB100□-E25LR1-M22 | SHB100□-E50LR1-M22 | SHB100□-E75LR1-M22 | SHB100□-E100LR1-M22 |
| SHB125□ | SHB125□-E25LR1-M22 | SHB125□-E50LR1-M22 | SHB125□-E75LR1-M22 | SHB125□-E100LR1-M22 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOE
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB**
- SBB
- SOP
- SNP

SHB Series

Suction Cup with Level Compensator

Dimensions(mm)



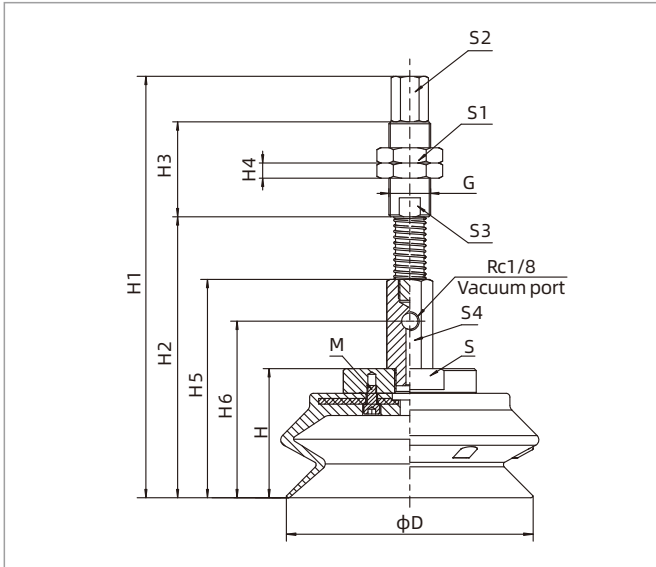
SHB40-125 Vertical direction

| Model/Size | D | H | H1 | H2 | H3 | H4 | G | M | S | S1 | S2 | S3 |
|------------------|-------|------|-------|-------|----|----|---------|------|----|----|----|----|
| SHB40□-E25-M18 | 41.5 | 32 | 127.5 | 70 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SHB40□-E50-M18 | 41.5 | 32 | 162.5 | 107 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SHB40□-E75-M18 | 41.5 | 32 | 198.5 | 143 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SHB50□-E25-M18 | 52 | 35.5 | 131 | 75.5 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SHB50□-E50-M18 | 52 | 35.5 | 166 | 110.5 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SHB50□-E75-M18 | 52 | 35.5 | 202 | 146.5 | 35 | 6 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 |
| SHB63□-E25-M18 | 65 | 43 | 138.5 | 83 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SHB63□-E50-M18 | 65 | 43 | 173.5 | 118 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SHB63□-E75-M18 | 65 | 43 | 209.5 | 154 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SHB80□-E25-M18 | 83 | 48.5 | 144 | 88.5 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SHB80□-E50-M18 | 83 | 48.5 | 179 | 123.5 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SHB80□-E75-M18 | 83 | 48.5 | 215 | 159.5 | 35 | 6 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 |
| SHB100□-E25-M22 | 103 | 60.5 | 178.5 | 104.5 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SHB100□-E50-M22 | 103 | 60.5 | 214.5 | 140.5 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SHB100□-E75-M22 | 103 | 60.5 | 254.5 | 180.5 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SHB100□-E100-M22 | 103 | 60.5 | 289.5 | 215.5 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SHB125□-E25-M22 | 128.5 | 69 | 187 | 113 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SHB125□-E50-M22 | 128.5 | 69 | 223 | 149 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SHB125□-E75-M22 | 128.5 | 69 | 263 | 189 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |
| SHB125□-E100-M22 | 128.5 | 69 | 298 | 224 | 50 | 8 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 |

SHB Series

Suction Cup with Level Compensator

Dimensions(mm)



SHB40-125 Lateral direction

| Model/Size | D | H | H1 | H2 | H3 | H4 | H5 | H6 | G | M | S | S1 | S2 | S3 | S4 |
|---------------------|-------|------|-------|-------|----|----|------|------|---------|------|----|----|----|----|----|
| SHB40□-E25LR1-M18 | 41.5 | 32 | 160 | 109 | 35 | 6 | 69 | 47 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SHB40□-E50LR1-M18 | 41.5 | 32 | 195 | 144 | 35 | 6 | 69 | 47 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SHB40□-E75LR1-M18 | 41.5 | 32 | 231 | 180 | 35 | 6 | 69 | 47 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SHB50□-E25LR1-M18 | 52 | 35.5 | 163.5 | 112.5 | 35 | 6 | 72.5 | 50.5 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SHB50□-E50LR1-M18 | 52 | 35.5 | 198.5 | 147.5 | 35 | 6 | 72.5 | 50.5 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SHB50□-E75LR1-M18 | 52 | 35.5 | 234.5 | 183.5 | 35 | 6 | 72.5 | 50.5 | M18×1.5 | 3-M3 | 24 | 27 | 14 | 16 | 21 |
| SHB63□-E25LR1-M18 | 65 | 43 | 171 | 120 | 35 | 6 | 80 | 58 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SHB63□-E50LR1-M18 | 65 | 43 | 206 | 155 | 35 | 6 | 80 | 58 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SHB63□-E75LR1-M18 | 65 | 43 | 242 | 191 | 35 | 6 | 80 | 58 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SHB80□-E25LR1-M18 | 83 | 48.5 | 176.5 | 125.5 | 35 | 6 | 85.5 | 63.5 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SHB80□-E50LR1-M18 | 83 | 48.5 | 211.5 | 160.5 | 35 | 6 | 85.5 | 63.5 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SHB80□-E75LR1-M18 | 83 | 48.5 | 247.5 | 196.5 | 35 | 6 | 85.5 | 63.5 | M18×1.5 | 4-M4 | 37 | 27 | 14 | 16 | 21 |
| SHB100□-E25LR1-M22 | 103 | 60.5 | 212.5 | 141.5 | 50 | 8 | 97.5 | 75.5 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SHB100□-E50LR1-M22 | 103 | 60.5 | 248.5 | 177.5 | 50 | 8 | 97.5 | 75.5 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SHB100□-E75LR1-M22 | 103 | 60.5 | 288.5 | 217.5 | 50 | 8 | 97.5 | 75.5 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SHB100□-E100LR1-M22 | 103 | 60.5 | 323.5 | 252.5 | 50 | 8 | 97.5 | 75.5 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SHB125□-E25LR1-M22 | 128.5 | 69 | 221 | 150 | 50 | 8 | 106 | 84 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SHB125□-E50LR1-M22 | 128.5 | 69 | 257 | 186 | 50 | 8 | 106 | 84 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SHB125□-E75LR1-M22 | 128.5 | 69 | 297 | 226 | 50 | 8 | 106 | 84 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |
| SHB125□-E100LR1-M22 | 128.5 | 69 | 332 | 261 | 50 | 8 | 106 | 84 | M22×1.5 | 4-M5 | 60 | 30 | 17 | 19 | 21 |

- SZ
- SP3
- SUF
- SAN
- SAO
- SOFA
- STP
- SFT
- SFA
- SBT
- SBL
- SBLP
- SBS
- SFP
- SBP
- SXP
- SGP
- SBOF
- STC
- SFF
- SOB
- SOF
- SOG
- SFM
- SOM
- SBF
- SDM
- SFU
- SFK
- SHT
- SDL
- SFG
- SFGT
- SFD
- SB
- SBA
- SF
- SU
- SP2F
- SPA
- SPD
- SPF
- SPC
- SPJ
- SPU
- SH
- SHB**
- SBB
- SOP
- SNP

SBB Series

1.5 Bellows Big Suction Cup



HEAVY LOAD



Features

- ◇ 1.5 Bellows
- ◇ Large area pattern support structure at bottom
- ◇ Rubber parts and metal connection plate are one-piece structure
- ◇ Suction cups with large diameter

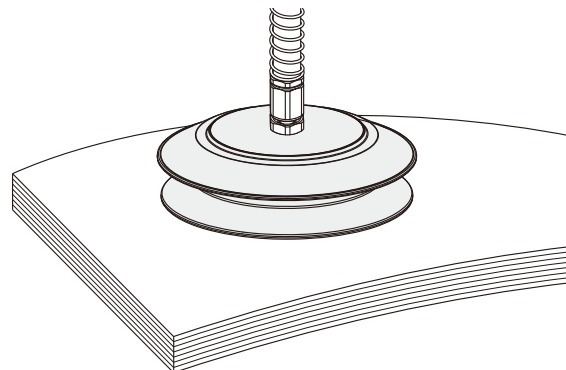
Advantages

- ◇ Easy to fit uneven surface of workpiece, and had buffer effect
- ◇ Handling thin workpiece without permanent deformation
- ◇ It will be more reliable and stable during heavy load handling
- ◇ Suitable for handling large, heavy and vulnerable workpieces



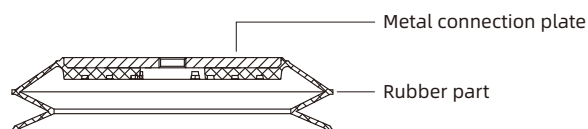
Applications

- ◇ Handling paper, metal sheet, wood plate, ceramic, etc.
- ◇ Handling workpieces with uneven surface



Structure

- ◇ One-piece structure design of suction cup and fitting
- ◇ Metal connection plate of SBB200 is with G1/2 female thread connection port
- ◇ Metal connection plate of SBB250-SBB300 is without thread hole, and it is flange plate connection structure



SBB Series

1.5 Bellows Big Suction Cup

How to order

SBB 200 N - G4F

① ② ③ ④

| ① Series | ② Diameter | ③ Material & Hardness | ④ Connection thread |
|----------|--|-----------------------|---|
| SBB | 200 - ϕ 200mm 250 - ϕ 250mm 300 - ϕ 300mm | N - NBR 60 | Nil - 4- ϕ 7 flange hole G4F - G1/2 female thread |

Selection

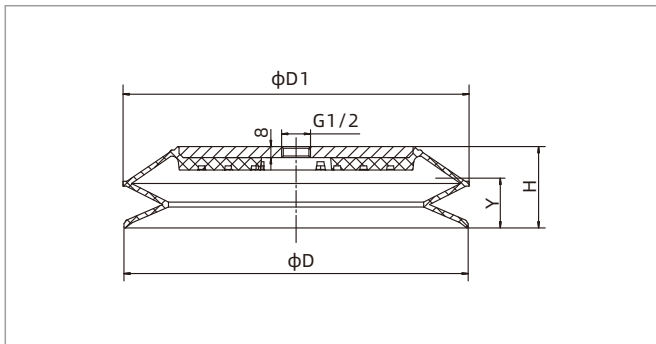
| Model/Connection thread Nil - 4- ϕ 7 flange hole | F - Female thread |
|--|-------------------|
| - | SBB200N-G4F |
| SBB250N | - |
| SBB300N | - |

Technical parameters

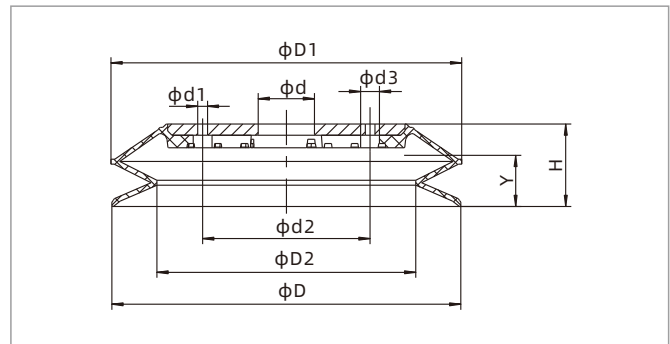
| Model | Pull-out force N | Inner volume cm ³ | Min. curve radius of workpiece mm | Weight g | Recommend hose dia. mm | MPQ pcs |
|--------|---------------------|---------------------------------|--------------------------------------|-------------|---------------------------|------------|
| SBB200 | 850 | 790 | 350 | 860 | 12 | 1 |
| SBB250 | 1,620 | 1,677 | 480 | 1,012 | 12 | 1 |
| SBB300 | 2,390 | 2,950 | 580 | 1,650 | 12 | 1 |

◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.

Dimensions(mm)



SBB200N-G4F



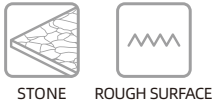
SBB□N

| Model/Size | D | D1 | H | d | d1 | d2 | d3 | Y |
|-------------|-----|-----|----|----|-----|-----|--------|----|
| SBB200□-G4F | 200 | 206 | 57 | - | - | - | - | 40 |
| SBB250□ | 250 | 251 | 60 | 40 | 4-7 | 120 | 4-13.5 | 43 |
| SBB300□ | 300 | 306 | 77 | 40 | 4-7 | 120 | 4-15.5 | 57 |

◇ Note: The dimensional tolerance conforms to GB/T3672.1-2002-1 M3 rubber product dimensional tolerance standard

SOP Series

Circular Foam Rubber Suction Cup



Features

- ◇ Annular foam rubber
- ◇ Metal support plate
- ◇ NF(black) for Neoprene foam rubber, OF(orange) for Geranium foam rubber
- ◇ Available in various sizes

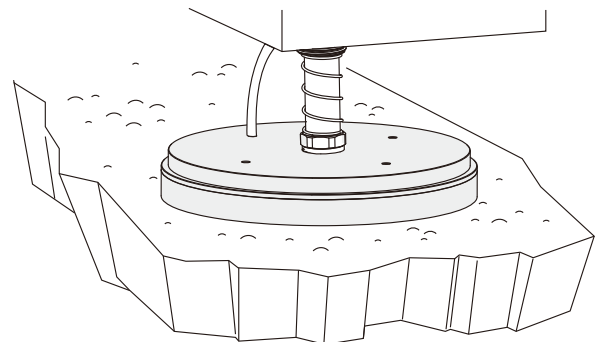
Advantages

- ◇ Long lifetime, good sealing and large suction force
- ◇ Large area support plate, light weight and high load
- ◇ NF and OF material optional for different working conditions
- ◇ Suitable for workpieces of various sizes and shapes



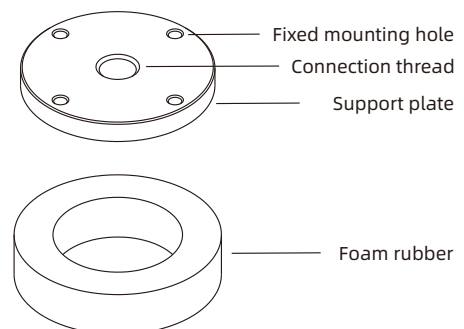
Applications

- ◇ Handling of workpieces with very rough or uneven surface such as buckle plate, embossed plate, marble, tile, cement board and grid metal plate
- ◇ NF for workpieces with rough surface and outdoor use. Good weather and ozone resistance, but poor in yield elasticity and not suitable for food industry.
- ◇ OF for workpieces with very rough surface. Good yield elasticity, wear resistance, tear resistance, high cut resistance and good ductility, but poor in oil resistance, heat resistance and aging resistance, not suitable for food industry.
- ◇ Pay attention to the use of water and oil environment
- ◇ It is recommended to use large flow vacuum generator
- ◇ For the use of the sponge suction cup, please refer to General Precautions on Page 24



Structure

- ◇ Consisting of metal support plate and foam rubber. Foam rubber is with gum, which can stick to the support plate directly. Foam rubber is consumable, which can be ordered separately for replacement



SOP Series

Circular Foam Rubber Suction Cup

How to order

SOP 64 NF - G2F

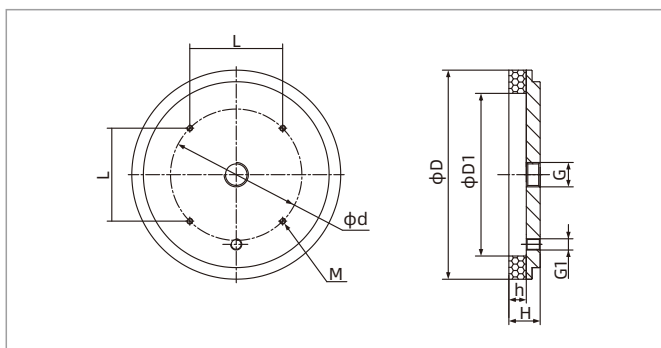
① ② ③ ④

| ① Series | ② Diameter | ③ Material | ④ Connection thread |
|----------|------------------|--------------------|---|
| SOP | 40 - ϕ 40mm | 127 - ϕ 127mm | NF - Neoprene foam rubber |
| | 64 - ϕ 64mm | 180 - ϕ 180mm | OF - Geranium foam rubber |
| | 92 - ϕ 92mm | 220 - ϕ 220mm | |
| | | | Nil - Foam rubber only G2F - G1/4 female thread G3F - G3/8 female thread G4F - G1/2 female thread |

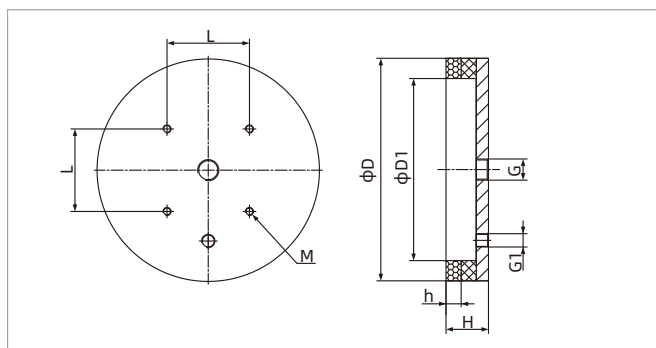
Selection

| Model | Connection thread G2F | G3F | G4F | MPQ pcs |
|---------|--------------------------|------------|-------------|------------|
| SOP40□ | SOP40□-G2F | - | - | 1 |
| SOP64□ | SOP64□-G2F | - | - | 1 |
| SOP92□ | - | SOP92□-G3F | - | 1 |
| SOP127□ | - | - | SOP127□-G4F | 1 |
| SOP180□ | - | - | SOP180□-G4F | 1 |
| SOP220□ | - | - | SOP220□-G4F | 1 |

Dimensions(mm)



SOP40-180



SOP220

| Model/Size | D | D1 | H | h | G | G1 | d | L | M | Weight g | Pull-out force N |
|-------------|-----|-----|----|----|------|------|----|----|-----------------|-------------|---------------------|
| SOP40□-G2F | 40 | 20 | 25 | 15 | G1/4 | - | - | - | - | 34.9 | 7.8 |
| SOP64□-G2F | 64 | 40 | 25 | 15 | G1/4 | - | 40 | - | - | 82.1 | 35 |
| SOP92□-G3F | 92 | 64 | 26 | 15 | G3/8 | - | 70 | - | 4-M5×0.8depth6 | 191.1 | 85 |
| SOP127□-G4F | 127 | 92 | 30 | 15 | G1/2 | G1/8 | - | 70 | 4-M5×0.8depth6 | 482.1 | 175 |
| SOP180□-G4F | 180 | 127 | 27 | 15 | G1/2 | G1/8 | - | 80 | 4-M5×0.8depth6 | 754.1 | 385 |
| SOP220□-G4F | 220 | 180 | 42 | 15 | G1/2 | G1/4 | - | 85 | 4-M8×1.25depth6 | 1570.9 | 635 |

◇ Note: 1. Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.
2. The dimensional tolerance conforms to GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

SNP Series

Rectangular Foam Rubber Suction Cup



STONE



ROUGH SURFACE

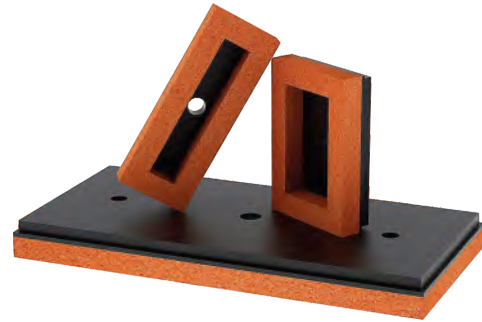


Features

- ◇ Annular foam rubber
- ◇ Metal support plate
- ◇ NF(black) for Neoprene foam rubber, OF(orange) for Geranium foam rubber
- ◇ Available in various sizes

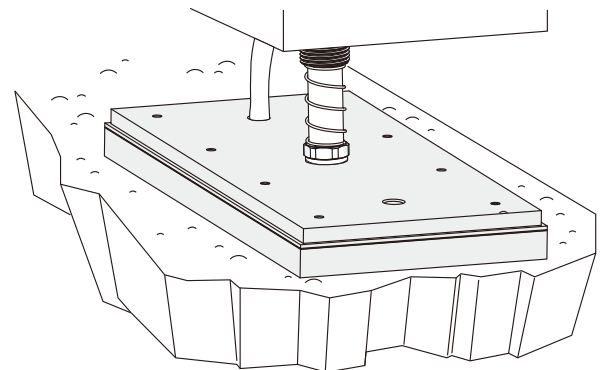
Advantages

- ◇ Long lifetime, good sealing and large suction force
- ◇ Large area support plate with light weight and high load
- ◇ NF and OF material optional for different working conditions
- ◇ Suitable for workpieces of various sizes and shapes



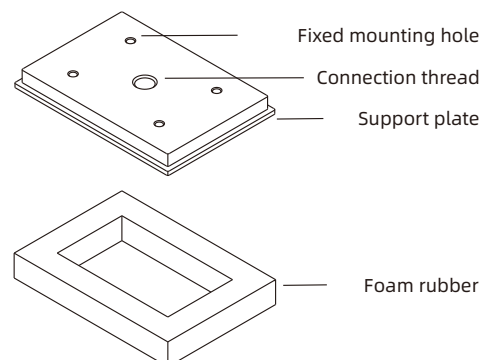
Applications

- ◇ Handling of workpieces with very rough or uneven surface such as buckle plate, embossed plate, marble, tile, cement board and grid metal plate
- ◇ NF for workpieces with rough surface and outdoor use. Good weather and ozone resistance, but poor in yield elasticity and storage stability, not suitable for food industry
- ◇ OF for workpieces with very rough surface. Good yield elasticity, wear resistance, tear resistance, high cut resistance and good ductility, but poor in oil resistance, heat resistance and aging resistance, not suitable for food industry
- ◇ Pay attention to the use of water and oil environment
- ◇ It is recommended to use large flow vacuum generator
- ◇ For the use of the sponge suction cup, please refer to General Precautions on Page 24



Structure

- ◇ Consisting of metal support plate and foam rubber. Foam rubber is with gum, which can stick to the support plate directly. Foam rubber is consumable, which can be ordered separately for replacement



SNP Series

Rectangular Foam Rubber Suction Cup



How to order

SNP 50×135 NF - G2F

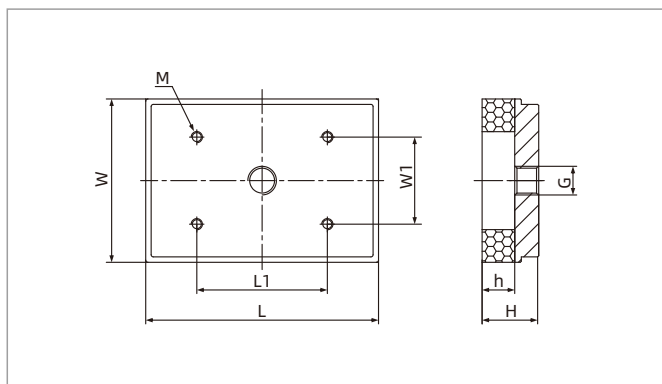
① ② ③ ④

| ① Series | ② Size | ③ Material | ④ Connection thread |
|----------|---------|---|--------------------------|
| SNP | 50×135 | NF - Neoprene foam rubber | Nil - Foam rubber only |
| | 60×135 | OF - Geranium foam rubber | G2F - G1/4 female thread |
| | 75×107 | | G3F - G3/8 female thread |
| | 68×290 | | G4F - G1/2 female thread |
| | 140×290 | | |

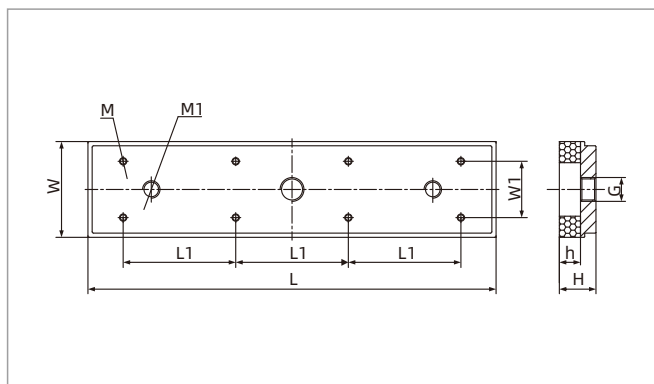
Selection

| Model | Connection thread G2F | G3F | G4F | MPQ pcs |
|-------------|--------------------------|----------------|-----------------|------------|
| SNP50×135□ | SNP50×135□-G2F | - | - | 1 |
| SNP60×135□ | SNP60×135□-G2F | - | - | 1 |
| SNP75×107□ | SNP75×107□-G2F | - | - | 1 |
| SNP68×290□ | - | SNP68×290□-G3F | - | 1 |
| SNP140×290□ | - | - | SNP140×290□-G4F | 1 |

Dimensions(mm)



SNP50×135 SNP60×135 SNP75×107



SNP68×290 SNP140×290

| Model/Size | L | W | L1 | W1 | G | H | h | M | M1 | Weight g | Pull-out force N |
|-----------------|-----|-----|----|-----|------|----|----|----------------|------------|-------------|---------------------|
| SNP50×135□-G2F | 135 | 50 | 80 | 30 | G1/4 | 26 | 15 | 4-M5×0.8depth7 | - | 202 | 60 |
| SNP60×135□-G2F | 135 | 60 | 80 | 40 | G1/4 | 26 | 15 | 4-M5×0.8depth7 | - | 246 | 80 |
| SNP75×107□-G2F | 107 | 75 | 60 | 40 | G1/4 | 26 | 15 | 4-M5×0.8depth7 | - | 234 | 90 |
| SNP68×290□-G3F | 290 | 68 | 80 | 40 | G3/8 | 26 | 15 | 8-M5×0.8depth7 | 2-M12×1.75 | 587 | 250 |
| SNP140×290□-G4F | 290 | 140 | 80 | 100 | G1/2 | 26 | 15 | 8-M5×0.8depth7 | 2-M12×1.75 | 1,235 | 720 |

◇ Note: 1. Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max 2m.
2. The dimensional tolerance conforms to GBT 3672.1-2002-1 M3 rubber product dimensional tolerance standard

D Special Vacuum Grippers

Special Vacuum Grippers

Products Overview

Special Vacuum Grippers

354 SLG Series

Magnetic Gripper

- ◇ Dia.: 20~50mm
- ◇ Air supply pressure range: 3.5~6.0bar



METAL SHEET



364 SLB Series

Thin Lip Flow Gripper

- ◇ Vacuum level: 4.5~16kPa
- ◇ Vacuum flow: 680~1,315NL/min



ELECTRONICS



NEW ENERGY



POROUS



RoHS

357 SNC Series

Needle Gripper

- ◇ QTY of Needle: 4 10
- ◇ Air consumption: 55~65bar



COMPOSITE MATERIAL



FABRIC MATERIAL



368 SLW Series

Wafer Gripper

- ◇ Vacuum level: 4.5~11kPa
- ◇ Vacuum flow: 330~490NL/min



NEW ENERGY



COMPOSITE MATERIAL



POROUS



RoHS

359 SNT Series

Non-contact Suction Cup

- ◇ Dia.: 20~100mm
- ◇ Suction force: 2~46N



COMPOSITE MATERIAL



POROUS



372 SLF Series

Matrix Gripper

- ◇ Size: 140×140 180×180
- ◇ Vacuum source: external blower, external vacuum generator, built-in vacuum generator



ELECTRONICS



POROUS



361 SLP Series

Flow Gripper

- ◇ Vacuum level: 4.5~11kPa
- ◇ Vacuum flow: 320~1,195NL/min



NEW ENERGY



BATTERY



COMPOSITE MATERIAL



POROUS



RoHS

SLG Series

Magnetic Gripper



METAL SHEET

Features

- ◇ Gripping by magnetic force
- ◇ Permanent magnet for safe gripping
- ◇ Different connection thread for option
- ◇ No need of electric power

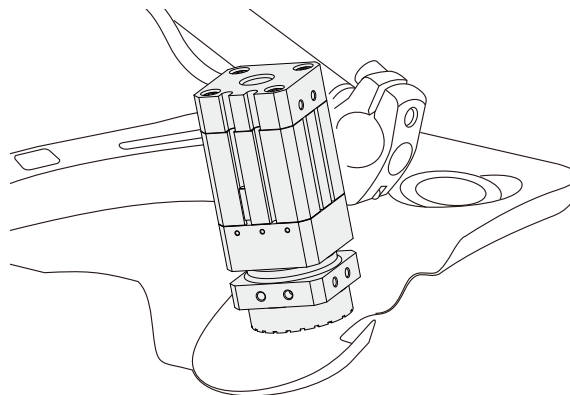
Advantages

- ◇ Compact size, light weight, easy to install
- ◇ Solid and durable
- ◇ Anti-skid ring could be easily replaced



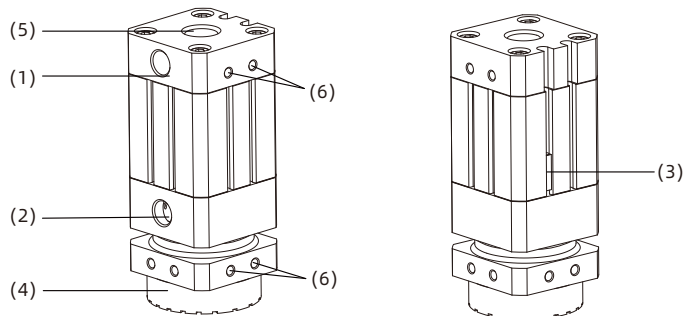
Application

- ◇ Suitable for handling ferromagnetic workpieces
- ◇ Suitable for handling perforated sheet metal, complex laser cutting workpieces



Structure

- ◇ (1) Air supply port (grip)
- ◇ (2) Air supply port (release)
- ◇ (3) The magnetic switch
- ◇ (4) Anti-skid ring
- ◇ (5) Center threaded mounting hole
- ◇ (6) Side threaded mounting hole



SLG Series

Magnetic Gripper

How to order

SLG 40 - G1F

① ② ③

| ① Series | ② Dimension | ③ Connection thread |
|----------|--|--|
| SLG | 20 - φ20mm 30 - φ30mm 40 - φ40mm 50 - φ50mm | G1F - G1/8 female thread G2F - G1/4 female thread |

Selection

| Model | Dia.of suction cup | Connection thread | |
|-------|--------------------|-------------------|-----|
| | | G1F | G2F |
| SLG | 20 | ● | - |
| | 30 | ● | - |
| | 40 | - | ● |
| | 50 | - | ● |

◇ Note: H (high temp. resistance type) cannot select magnetic switch

Technical parameters

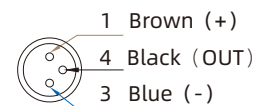
| Model | Air supply pressure range bar | Working temperature °C | Contact temperature °C | Max. holding force N | Lateral force | | Weight g |
|-------|-------------------------------|------------------------|------------------------|----------------------|---------------|--------|----------|
| | | | | | Non oily N | Oily N | |
| SLG20 | 3.5~6.0 | 5~70 | ≤70 | 17 | 8 | 8 | 90 |
| SLG30 | 3.5~6.0 | 5~70 | ≤70 | 85 | 32 | 23 | 223 |
| SLG40 | 3.5~6.0 | 5~70 | ≤70 | 220 | 81 | 56 | 427 |
| SLG50 | 3.5~6.0 | 5~70 | ≤70 | 380 | 105 | 65 | 795 |

[SLG](#)
[SNC](#)
[SNT](#)
[SLP](#)
[SLB](#)
[SLW](#)
[SLF](#)

| Model | ZPDM-N | ZPDM-P |
|---------------------|--------------------------------------|------------------|
| Wiring diagram | | |
| Wiring | 3 wires | |
| Switch | Electronic type contactless, NO type | |
| Output contact type | Contactless, NPN | Contactless, PNP |
| Voltage range | 5~30V DC | |
| Max. switch current | 80mA max. | |



M8 male connection type

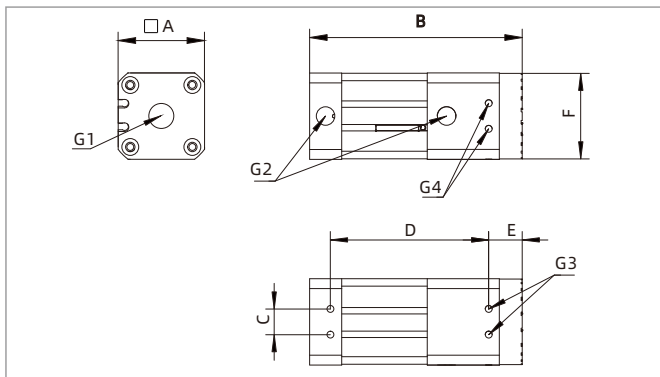


| Model | Output mode | Connection type |
|-----------|-------------|------------------------|
| ZPDM-N | 1NPN | Outlet wire connection |
| ZPDM-P | 1PNP | Outlet wire connection |
| ZPDM-N-M8 | 1NPN | M8 male connection |
| ZPDM-P-M8 | 1PNP | M8 male connection |

SLG Series

Magnetic Gripper

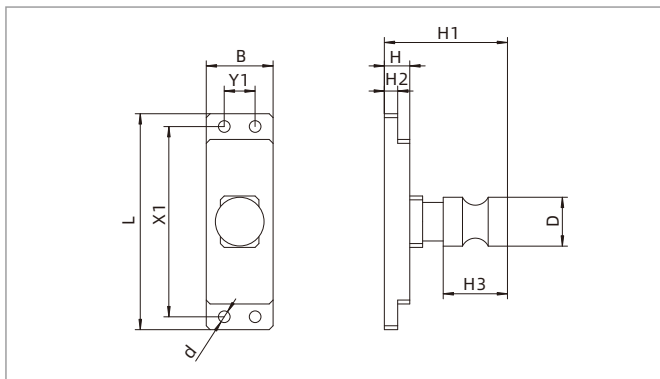
Dimensions(mm)



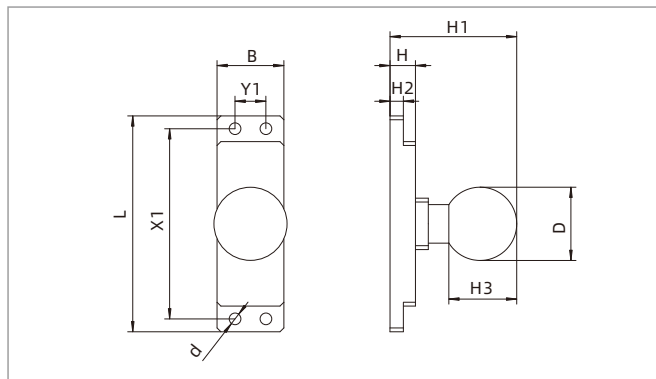
SLG Normal type

| Model/Size | A | B | C | D | E | F | G1 | G2 | G3 | G4 |
|------------|----|-------|-----|-----|------|----|------|--------|--------|--------|
| SLG20 | 20 | 78.2 | 6.5 | 55 | 13.2 | 20 | G1/8 | M5×0.8 | M3×0.5 | M3×0.5 |
| SLG30 | 30 | 99.4 | 12 | 74 | 15.7 | 30 | G1/8 | G1/8 | M4×0.7 | M4×0.7 |
| SLG40 | 40 | 99.4 | 12 | 74 | 15.7 | 40 | G1/4 | G1/8 | M4×0.7 | M4×0.7 |
| SLG50 | 50 | 123.4 | 15 | 100 | 15.7 | 50 | G1/4 | G1/8 | M5×0.8 | M5×0.8 |

Mounting brackets(mm)



A-Columnar bracket



B-Spherical bracket

| Model/Size | L | B | H1 | D | H3 | H2 | H | X1 | Y1 | d |
|------------|-----|----|------|------|------|-----|-----|-----|-----|-----|
| SLG20-A | 63 | 15 | 50 | 19 | 25 | 5.2 | 9.9 | 55 | 6.5 | 3.4 |
| SLG20-B | 63 | 15 | 49.3 | 28.5 | 26.4 | 5.2 | 9.9 | 55 | 6.5 | 3.4 |
| SLG30/40-A | 84 | 26 | 50 | 19 | 25 | 5.2 | 9.9 | 74 | 12 | 4.6 |
| SLG30/40-B | 84 | 26 | 49.3 | 28.5 | 26.4 | 5.2 | 9.9 | 74 | 12 | 4.6 |
| SLG50-A | 110 | 30 | 50 | 19 | 25 | 5.2 | 9.9 | 100 | 15 | 5.5 |
| SLG50-B | 110 | 29 | 49.3 | 28.5 | 26.4 | 5.2 | 9.9 | 100 | 15 | 5.5 |

SNC Series Needle Gripper



COMPOSITE MATERIAL



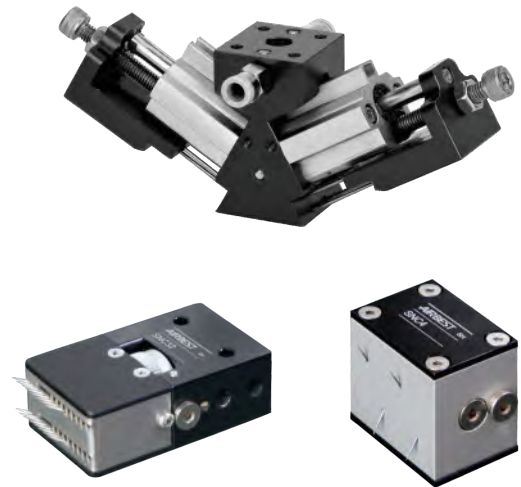
FABRIC

Features

- ◇ Handling the workpieces by needles
- ◇ Needles controlled by spring or double-acting pneumatic cylinder
- ◇ Designed with intersecting needles
- ◇ Adjustable needle stroke
- ◇ Reduce the effective contact area

Advantages

- ◇ Suitable for handling small size workpieces
- ◇ Simple pneumatic valve, easy to control
- ◇ Short work cycle, speed up the process
- ◇ For handling narrow and long or irregular workpieces
- ◇ The workpiece can be prevented from falling even in the case of power failure
- ◇ Preset separately according to the thickness, size and shape of workpieces
- ◇ Reliable handling of high porous workpieces

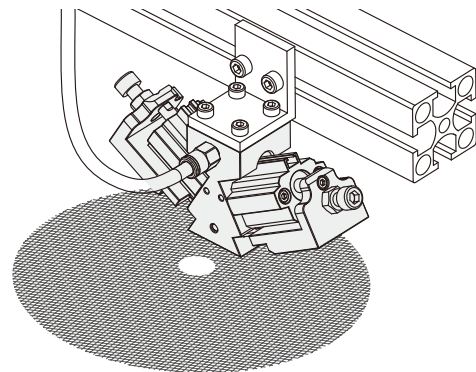


Application

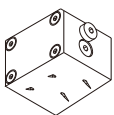
- ◇ Needles with different dimensions, fixed or adjustable needle stroke is optional, to handle non-rigid or high porous material, which is hardly gripped by vacuum, such as composite material, fluffy fabric, filter material, woven FRP, carbon fiber, insulation and foam material, etc.

Notice

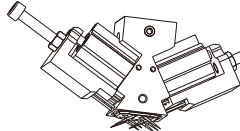
- ◇ Be careful when taking the needle gripper, there are needles at the bottom
- ◇ The exhaust function must be reserved when the solenoid valve controls the air circuit in order to prevent abnormal temperature during high frequency action



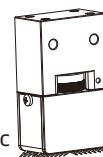
Structure



- ◇ Solid aluminum housing
- ◇ 4pcs needles, insertion angle 30°
- ◇ Needles are controlled by compressed air



- ◇ Solid aluminum housing
- ◇ 10pcs needles, insertion angle 30°
- ◇ Double-acting pneumatic cylinder drive
- ◇ Continuous variable stroke adjustment



- ◇ Solid aluminum housing
- ◇ 32pcs needles, insertion angle 30°
- ◇ Compressed air drives plunger to control needle movement
- ◇ Continuous variable stroke adjustment

SNC Series

Needle Gripper

How to order

SNC 10

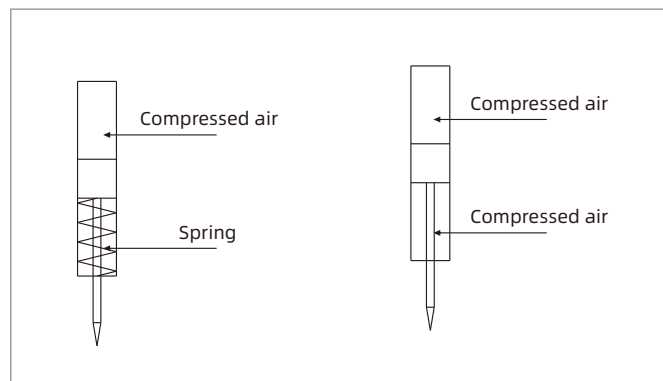
① ②

| ① Series | ② Needle specification |
|----------|------------------------|
| SNC | 4 - 4×φ0.8mm |
| | 10 - 10×φ1.2mm |
| | 32 - 32×φ0.8mm |

Technical parameters

| Model | QTY of Needle PCS | Needle dia. mm | Air supply pressure range bar | Rated air supply pressure bar | Stroke mm | Working temperature °C | Weight g |
|-------|-------------------|----------------|-------------------------------|-------------------------------|-----------|------------------------|----------|
| SNC4 | 4 | φ0.8 | 4.0~6.0 | 4.0 | 3 | 5~60 | 85 |
| SNC10 | 10 | φ1.2 | 3.0~7.0 | 4.0 | 7 | 5~60 | 310 |
| SNC32 | 32 | φ0.8 | 4.0~6.0 | 4.0 | 5 | 5~60 | 125 |

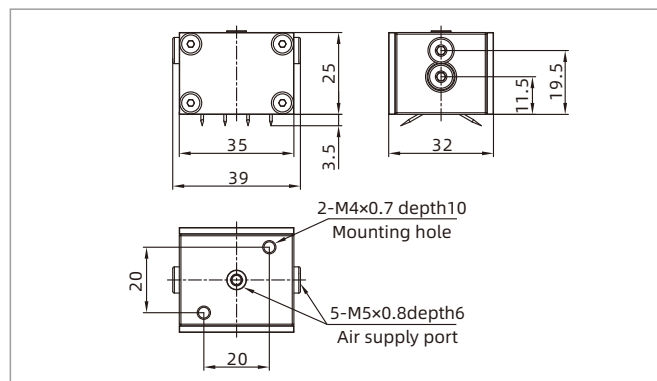
Air circuit schematic diagram



SNC4

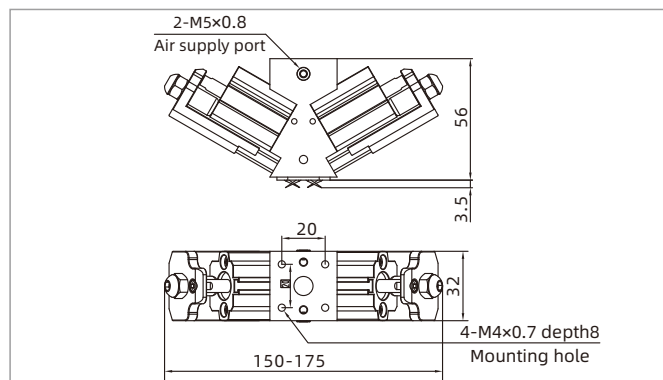
SNC10 SNC32

Dimensions(mm)

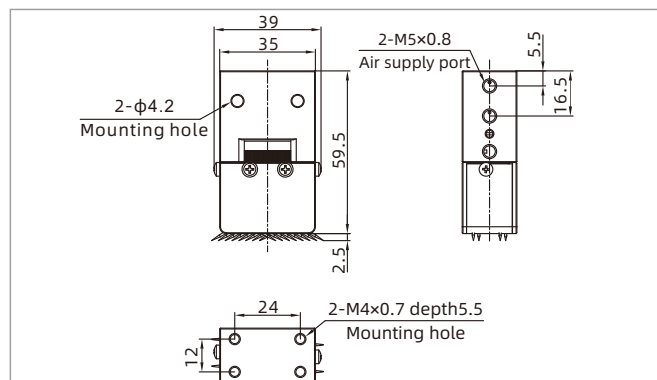


SNC4

Dimensions(mm)



SNC10



SNC32

SNT Series

Non-contact Suction Cup



COMPOSITE MATERIAL



POROUS

Features

- ◇ The suction cup "floats" on the air cushion during the gripping
- ◇ Low vacuum level, large vacuum flow
- ◇ Vacuum created based on Bernoulli principle
- ◇ No air go through the workpiece

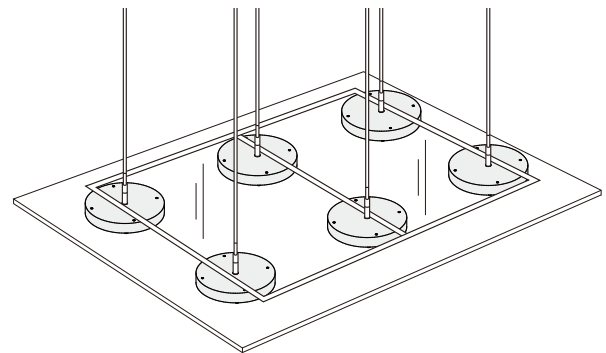
Advantages

- ◇ To achieve non-contact handling of workpiece
- ◇ Good compensation of air leakage
- ◇ Safely separates thin and porous workpiece
- ◇ Connect to compressed air directly, no need extra vacuum generator



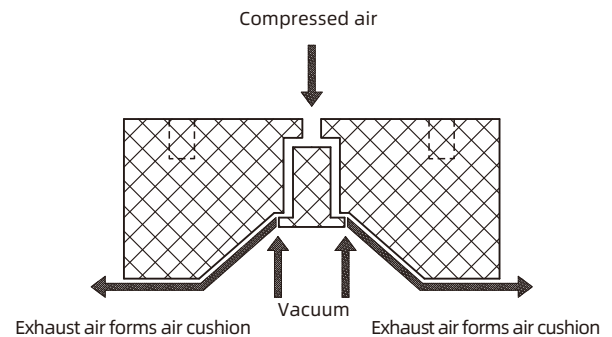
Application

- ◇ Fragile workpieces, such as silicon wafer, solar cell
- ◇ Porous workpieces, such as printed PCB, PVC board, textile
- ◇ Thin and light workpieces, such as plastic film, paper



Structure

- ◇ There are 4 threaded holes on the top
- ◇ Air supply ports on both vertical and horizontal side



SNT Series

Non-contact Suction Cup

How to order

SNT 30 - S N
 ① ② ③ ④

| ① Series | ② Diameter | ③ Flow type | ④ Cushion material |
|----------|------------------|--------------------|---|
| SNT | 20 - ϕ 20mm | 60 - ϕ 60mm | N - NBR (not available in SNT20) |
| | 30 - ϕ 30mm | 100 - ϕ 100mm | PK - PEEK (Mark free) |
| | 40 - ϕ 40mm | 120 - ϕ 120mm | PM - POM (Food grade) (Only available in SNT20) |

Selection

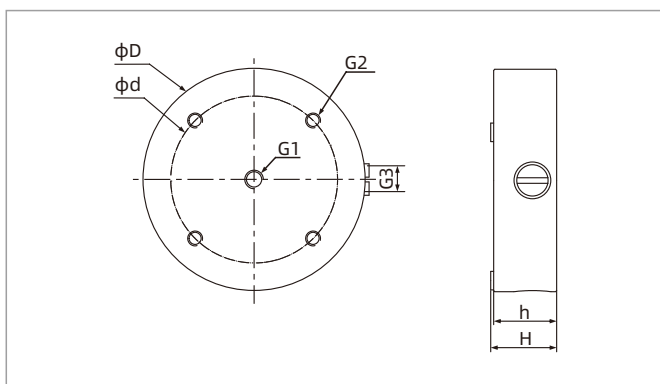
| Model/Diameter 20 | 30 | 40 | 60 | 100 | 120 |
|----------------------|-----------|-----------|-----------|------------|------------|
| - | SNT30-SN | SNT40-SN | SNT60-SN | SNT100-SN | SNT120-SN |
| SNT20-SPK | SNT30-SPK | SNT40-SPK | SNT60-SPK | SNT100-SPK | SNT120-SPK |
| SNT20-SPM | - | - | - | - | - |

Technical parameters

| Model | Pull-out force N | Air supply pressure bar | Max. air consumption NL/min | Working temperature °C | Weight g | Recommended hose dia. mm |
|--------|---------------------|----------------------------|--------------------------------|---------------------------|-------------|-----------------------------|
| SNT20 | 2 | 5.0 | 80 | 0~60 | 9.5 | 6 |
| SNT30 | 4 | 5.0 | 100 | 0~60 | 32 | 8 |
| SNT40 | 6.5 | 5.0 | 130 | 0~60 | 51 | 8 |
| SNT60 | 17 | 5.0 | 225 | 0~60 | 116 | 6 |
| SNT100 | 55.5 | 5.0 | 420 | 0~60 | 252 | 8 |
| SNT120 | 104 | 5.0 | 420 | 0~60 | 331 | 8 |

◇ Note: The tested workpiece is rigid and airtight, air supply pressure range is 1.0 - 6.0bar, vertical action. The specified pull-out force does not include the safety factor

Dimensions(mm)

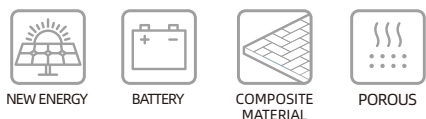


| Model/Size | D | d | H | h | G1 | G2 | G3 |
|------------|-----|-----|------|----|--------|----------------|--------|
| SNT20 | 20 | 15 | 12.8 | 12 | M5×0.8 | 4-M3×0.5depth5 | - |
| SNT30 | 32 | 22 | 17.8 | 17 | M5×0.8 | 4-M4×0.7depth6 | M5×0.8 |
| SNT40 | 40 | 32 | 17.8 | 17 | G1/8 | 4-M4×0.7depth6 | G1/8 |
| SNT60 | 60 | 45 | 17.8 | 17 | G1/8 | 4-M4×0.7depth6 | G1/8 |
| SNT100 | 100 | 75 | 17.8 | 17 | G1/8 | 4-M4×0.7depth6 | G1/8 |
| SNT120 | 120 | 105 | 17.8 | 17 | G1/8 | 4-M4×0.7depth6 | G1/8 |

SNT

SLP Series

Flow Gripper



Features

- ◇ Large vacuum flow
- ◇ Integrated with vacuum generator, suction cup and silencer
- ◇ Vertical and horizontal mounting types
- ◇ Holes on the adsorbing surface, could avoid the deformation of workpiece

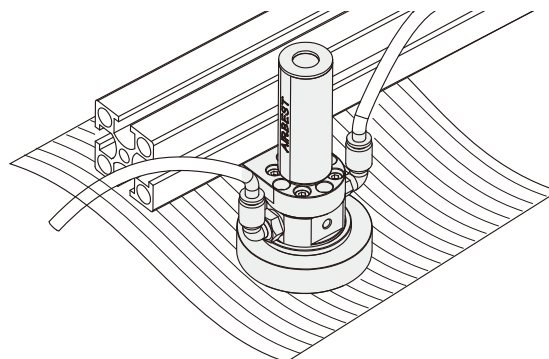
Advantages

- ◇ Flat suction cup to prevent deformation of the workpiece
- ◇ Large vacuum flow, suitable for handling porous workpieces
- ◇ Easy to install, different choice for different application
- ◇ Simple structure, integrated design, connect to compressed air directly, no need extra vacuum generator



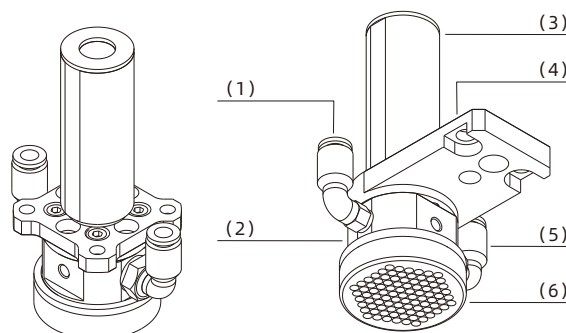
Application

- ◇ Suitable for handling thin and fragile workpieces, such as mobile phone screen, aluminum foil
- ◇ Suitable for handling porous workpieces, such as printed PCB, PVC board
- ◇ Suitable for textile industry, such as fiber sheet



Structure

- ◇ (1) Release/Vacuum detecting port
- ◇ (2) Vacuum generator
- ◇ (3) Silencer
- ◇ (4) Mounting flange
- ◇ (5) Air supply port
- ◇ (6) Adsorbing surface



Special Vacuum Grippers

- SLG
- SNC
- SNT**
- SLP
- SLB
- SLW
- SLF

How to order

SLP 40 - M10 S D - F1
 ① ② ③ ④ ⑤ ⑥

① Series ② Dia. of suction cup ③ Specification of vacuum generator ④ Exhaust direction ⑤ Release function ⑥ Mounting flange

| | | | | |
|------------|----------------------------------|--|---|--|
| SLP | 40 - ϕ 40 60 - ϕ 60 | M10 - Diameter ϕ 10mm M20 - Diameter ϕ 20mm | S - Vertical + silencer D - With release port | F1 - Vertical, 55x6mm F2 - Vertical, 84x9mm F3 - Horizontal, 71x9mm F4 - Horizontal, 95x9mm |
|------------|----------------------------------|--|---|--|

Selection

| Model/ Diameter of suction cup 40 | 60 |
|--------------------------------------|----------------|
| SLP40-M10SD-F1 | SLP60-M10SD-F1 |
| SLP40-M10SD-F3 | SLP60-M10SD-F3 |
| - | SLP60-M20SD-F2 |
| - | SLP60-M20SD-F4 |

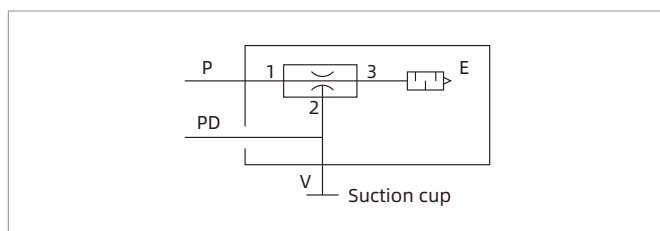
Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Working temperature °C |
|-----------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|------------------------|
| SLP40-M10 | 1.0~7.0 | 5.0 | 11 | 320~450 | 145 | 0~60 |
| SLP60-M10 | 1.0~7.0 | 5.0 | 11 | 330~550 | 145 | 0~60 |
| SLP60-M20 | 1.0~7.0 | 5.0 | 4.5 | 970~1,195 | 260 | 0~60 |

Vacuum flow(NL/min) at different vacuum levels (-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 1.5 | 2.5 | 3.5 | 4.5 | 5.5 | 6.5 | 7.5 | 11 | Max. vacuum level -kPa |
|-----------|-------------------------|------------------------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------------------------|
| SLP40-M10 | 5.0 | 145 | 450 | 430 | 410 | 420 | 350 | 300 | 250 | 170 | 100 | 11 |
| SLP60-M10 | 5.0 | 145 | 550 | 530 | 470 | 420 | 350 | 300 | 250 | 170 | 100 | 11 |
| SLP60-M20 | 5.0 | 260 | 1,195 | 1,120 | 1,050 | 980 | 880 | - | - | - | - | 4.5 |

Air circuit schematic diagram



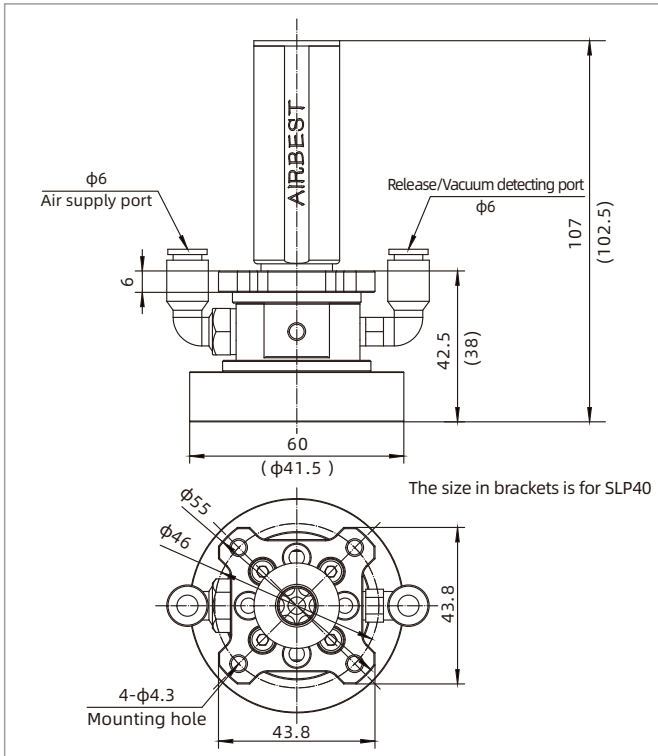
SLP

SLP Series

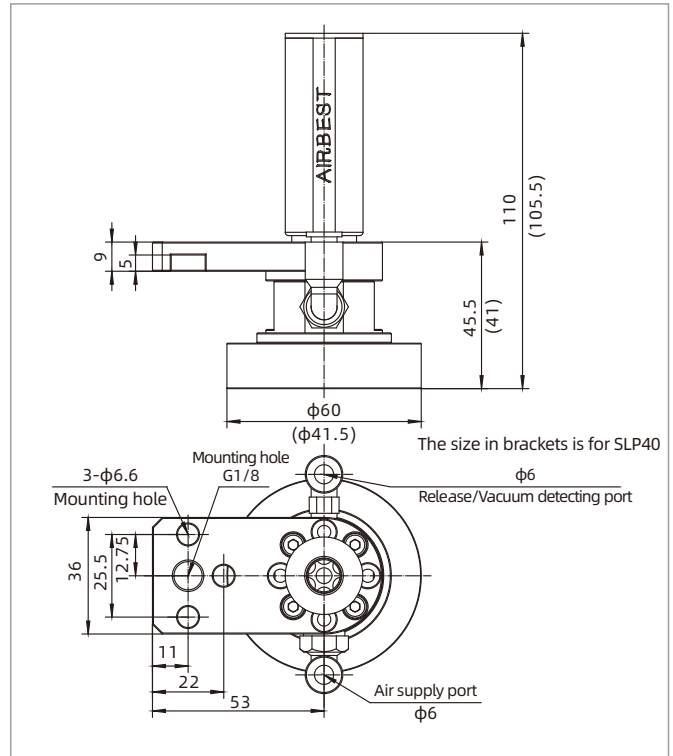
Flow Gripper



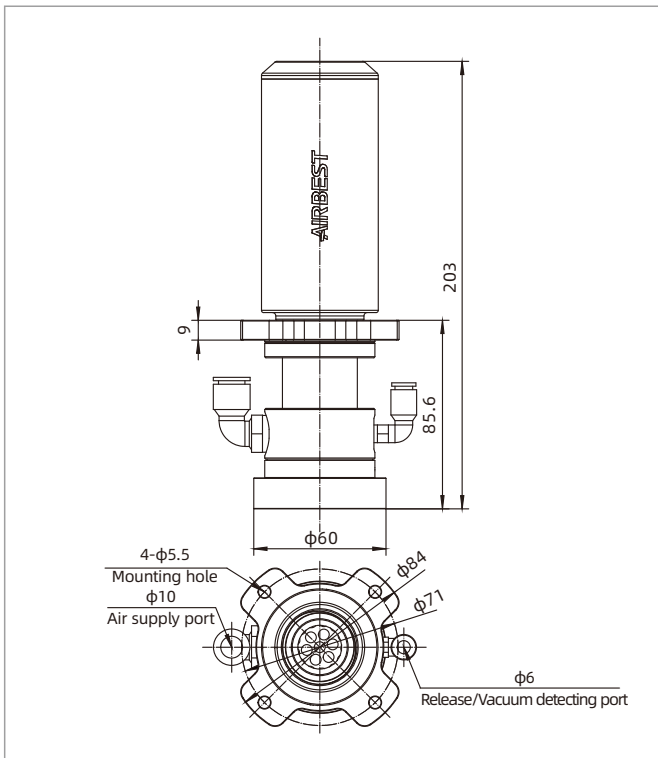
Dimensions(mm)



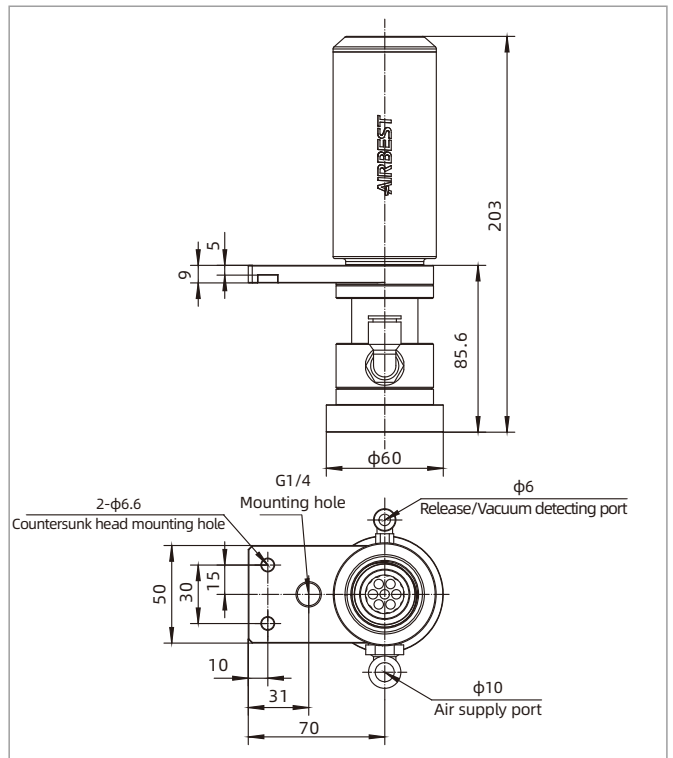
SLP60(40)-M10SD-F1



SLP60(40)-M10SD-F3



SPL60-M20SD-F2



SPL60-M20SD-F4

Special Vacuum Grippers

- SLG
- SNC
- SNT
- SLP
- SLB
- SLW
- SLF

SLB Series

Thin Lip Flow Gripper

AIRBEST



Features

- ◇ Large vacuum flow
- ◇ Integrated with vacuum generator, suction cup, silencer/pagoda fitting
- ◇ Vertical and horizontal mounting types
- ◇ Suction cup with rubber material, flexible, high suction force, protect the surface of workpiece

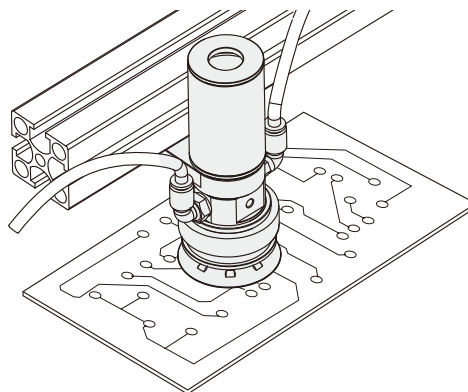
Advantages

- ◇ Flexible gripping, prevent damage to the workpiece during handling
- ◇ Large vacuum flow, suitable for handling porous workpiece
- ◇ Easy to install, different types for option
- ◇ Simple structure, integrated design, could connect to compressed air directly, no need extra vacuum generator
- ◇ Minimize noise, pagoda fitting could be used to collect the exhausted air, no pollution



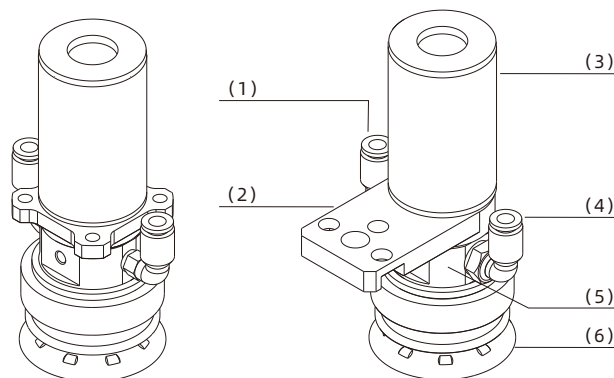
Application

- ◇ Suitable for handling porous workpieces, such as printed PCB, PVC board
- ◇ Suitable for food industry, such as biscuit, bread, etc.
- ◇ Suitable for handling irregular workpieces



Structure

- ◇ (1) Release/Vacuum detecting port
- ◇ (2) Mounting flange
- ◇ (3) Silencer
- ◇ (4) Air supply port
- ◇ (5) Vacuum generator
- ◇ (6) Adsorbing surface



SLB Series

Thin Lip Flow Gripper

How to order

SLB 50 E - M10 S D - F13
 ① ② ③ ④ ⑤ ⑥ ⑦

| ① Series | ② Dia. of suction cup | ③ Material of suction cup | ④ Specification of vacuum generator |
|----------|-----------------------|---------------------------|-------------------------------------|
| SLB | 30 - ϕ 30mm | WS - White silicone | M10 - Diameter ϕ 10mm |
| | 50 - ϕ 50mm | E - EPDM | M20 - Diameter ϕ 20mm |

| ⑤ Exhaust direction | ⑥ Vacuum release function | ⑦ Mounting flange |
|-------------------------------|------------------------------|--------------------------|
| S - Vertical + silencer | D - With vacuum release port | F2 - Vertical, 84x9mm |
| T - Vertical + pagoda fitting | | F4 - Horizontal, 95x9mm |
| | | F11 - Horizontal, 71x9mm |
| | | F13 - Vertical, 55x6mm |

◇ Note: For specification of M20, white silicone material is not available

Selection

| Model/ Diameter of suction cup | 50 |
|--------------------------------|------------------|
| SLB30E-M10SD-F11 | SLB50E-M10SD-F11 |
| SLB30E-M10SD-F13 | SLB50E-M10SD-F13 |
| SLB30E-M10TD-F11 | SLB50E-M10TD-F11 |
| SLB30E-M10TD-F13 | SLB50E-M10TD-F13 |
| - | SLB50E-M20SD-F2 |
| - | SLB50E-M20SD-F4 |

Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Working temperature °C |
|-----------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|------------------------|
| SLB30-M10 | 1.0~7.0 | 5.0 | 16 | 680~690 | 165 | 0~60 |
| SLB50-M10 | 1.0~7.0 | 5.0 | 16 | 680~690 | 165 | 0~60 |
| SLB50-M20 | 1.0~7.0 | 5.0 | 4.5 | 1,070~1,315 | 260 | 0~60 |

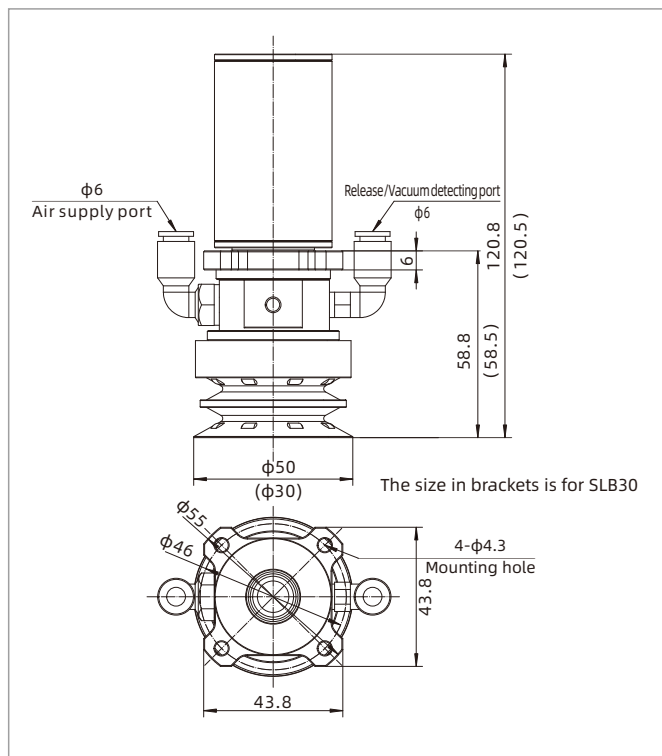
Vacuum flow (NL/min) at different vacuum levels (-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 1.5 | 2.5 | 3.5 | 4.5 | 5.5 | 6.5 | 7.5 | 11 | Max. vacuum level -kPa |
|-----------|-------------------------|------------------------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------------------------|
| SLB30-M10 | 5.0 | 165 | 550 | 530 | 470 | 420 | 350 | 300 | 250 | 170 | 100 | 16 |
| SLB50-M10 | 5.0 | 165 | 550 | 530 | 470 | 420 | 350 | 300 | 250 | 170 | 100 | 16 |
| SLB50-M20 | 5.0 | 260 | 1,315 | 1,120 | 1,050 | 980 | 880 | - | - | - | - | 4.5 |

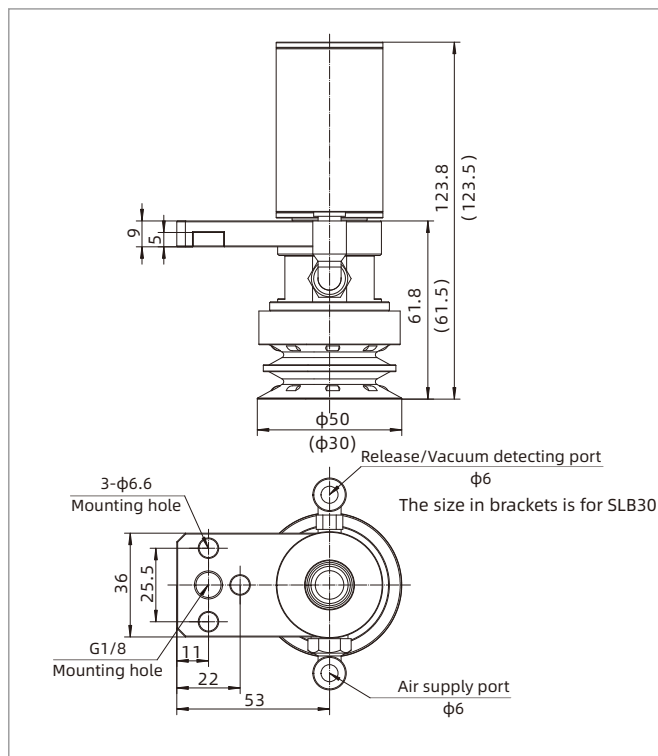
SLB Series

Thin Lip Flow Gripper

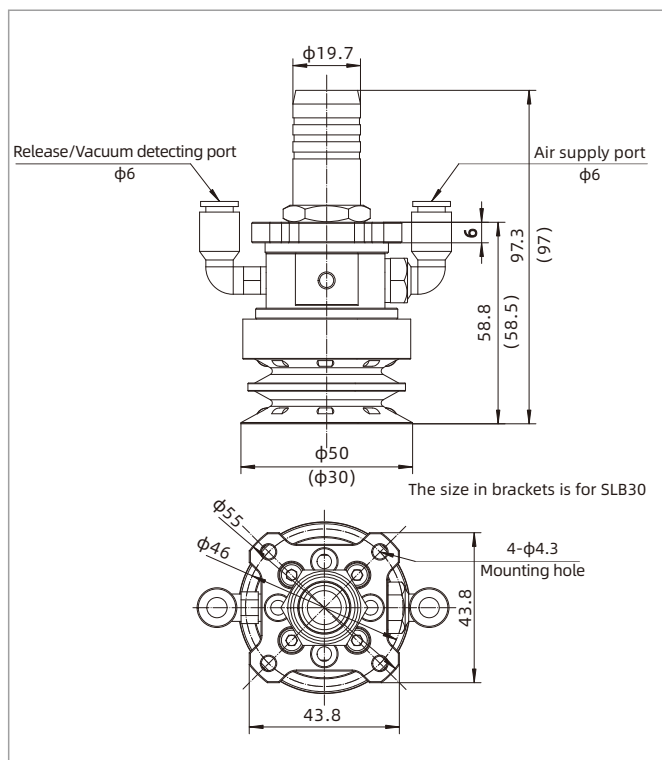
Dimensions(mm)



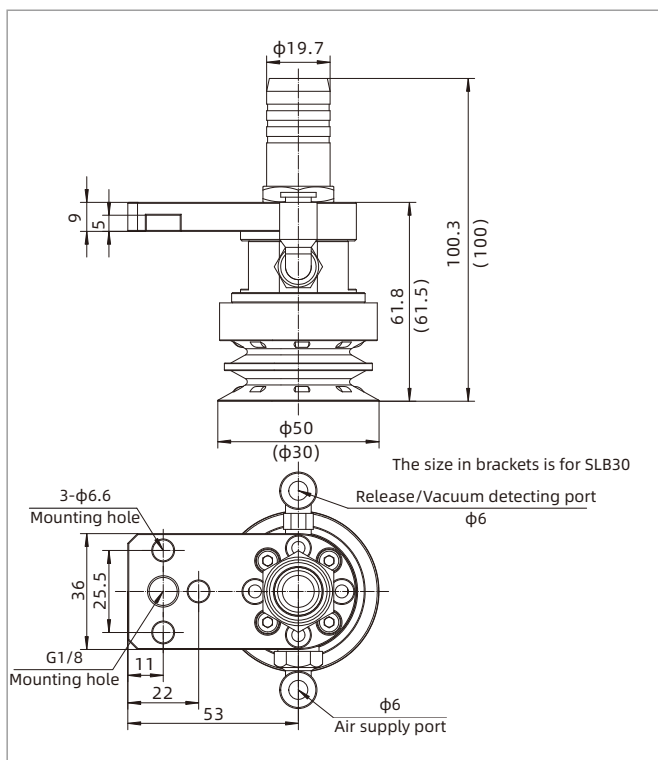
SLB50(30)E-M10SD-F13



SLB50(30)E-M10SD-F11



SLB50(30)E-M10TD-F13



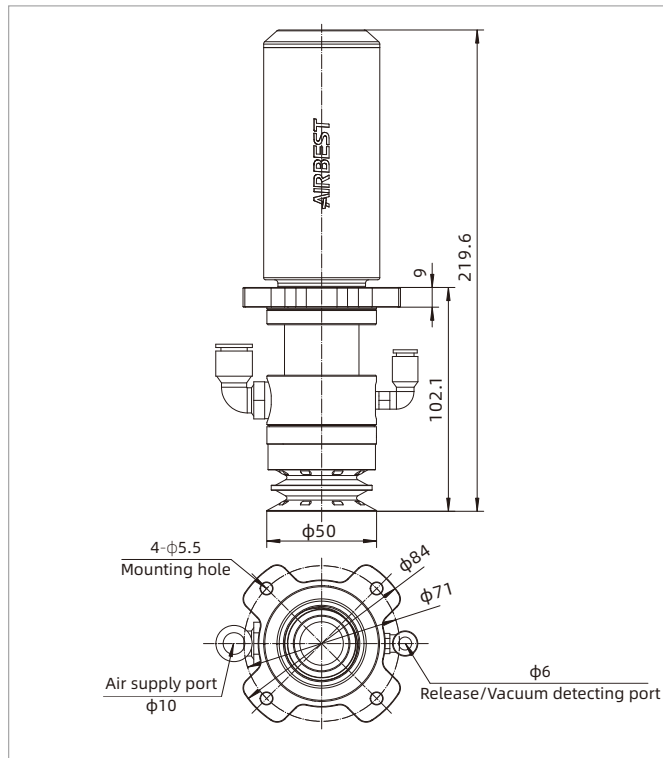
SLB50(30)E-M10TD-F11

SLB Series

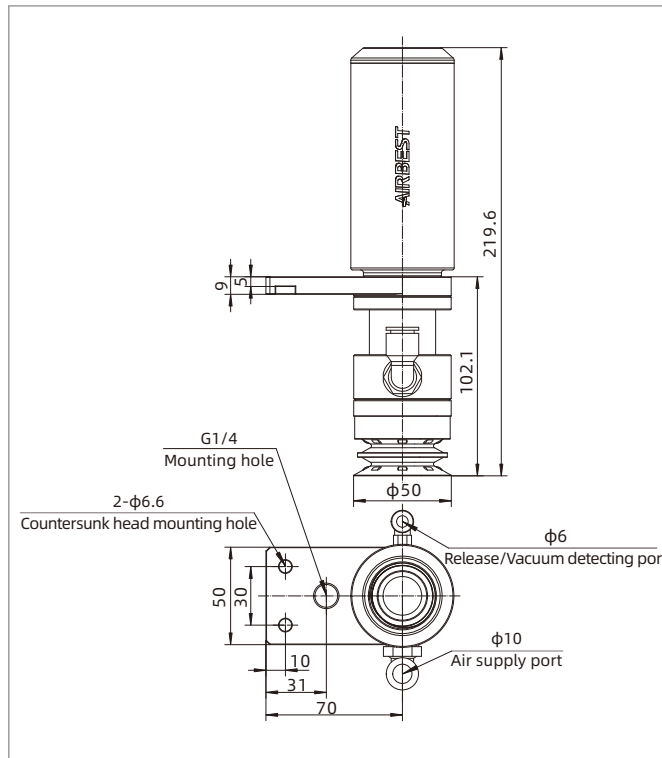
Thin Lip Flow Gripper



Dimensions(mm)



SLB50-M20SD-F2



SLB50-M20SD-F4

Special Vacuum Grippers

SLG

SNC

SNT

SLP

SLB

SLW

SLF

SLW Series

Wafer Gripper

AIRBEST



NEW ENERGY



COMPOSITE MATERIAL



POROUS



Features

- ◇ Multihole adsorbing area, prevent the physical deformation of fragile workpiece
- ◇ Integrated with suction cup and vacuum generator
- ◇ Vertical exhaust and lateral exhaust for option
- ◇ Vertical and horizontal mounting types for option

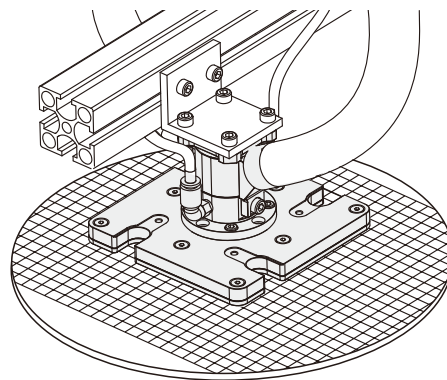
Advantages

- ◇ Reduce fragment rate
- ◇ With vacuum release port, improve efficiency
- ◇ Easy to install, different types for option
- ◇ Simple structure, integrated design, could connect to compressed air directly, no need extra vacuum generator



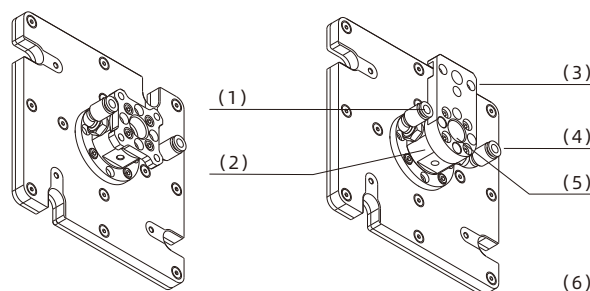
Application

- ◇ Suitable for handling fragile workpieces, such as silicon wafer, solar cell, glass, etc.



Structure

- ◇ (1) Air supply port
- ◇ (2) Vacuum generator
- ◇ (3) Mounting flange
- ◇ (4) Release/Vacuum detecting port
- ◇ (5) Exhaust port
- ◇ (6) Adsorbing area



SLW Series

Wafer Gripper

How to order

SLW 115 PK - M10 I - F1

① ② ③ ④ ⑤ ⑥

| ① Series | ② Dimension | ③ Material of suction cup | ④ Specification of vacuum generator | ⑤ Exhaust direction | ⑥ Mounting flange |
|----------|-----------------|---------------------------|-------------------------------------|----------------------|----------------------------------|
| SLW | 100 - 100x55mm | PK - PEEK | M10 - Diameter φ10mm | I - Vertical exhaust | F1 - Vertical, 55x6mm |
| | 115 - 115x115mm | AE - Aluminum plate+ | M15 - Diameter φ15mm | Y - Lateral exhaust | F3 - Horizontal, 71x9mm |
| | 146 - 146x146mm | EPDM support cushion | | | F9 - Vertical, Triangular flange |
| | 170 - 170x105mm | FT - Sponge+PTFE | | | |
| | 120 - φ120mm | | | | |
| | 150 - φ150mm | | | | |
| | 180 - φ180mm | | | | |

Selection

| Model/ Specification of vacuum generator M10 | | M15 | |
|---|------------------|------------------|------------------|
| SLW100PK-M10I-F1 | SLW100PK-M10Y-F1 | SLW120AE-M15I-F9 | SLW120FT-M15I-F9 |
| SLW100PK-M10I-F3 | SLW100PK-M10Y-F3 | - | - |
| SLW115PK-M10I-F1 | SLW115PK-M10Y-F1 | SLW150AE-M15I-F9 | SLW150FT-M15I-F9 |
| SLW115PK-M10I-F3 | SLW115PK-M10Y-F3 | - | - |
| SLW146PK-M10I-F1 | SLW146PK-M10Y-F1 | SLW180AE-M15I-F9 | SLW180FT-M15I-F9 |
| SLW146PK-M10I-F3 | SLW146PK-M10Y-F3 | - | - |
| SLW170PK-M10I-F1 | SLW170PK-M10Y-F1 | - | - |
| SLW170PK-M10I-F3 | SLW170PK-M10Y-F3 | - | - |

Special Vacuum Grippers

Technical parameters

| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Working temperature °C |
|------------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|------------------------|
| SLW115-M10 | 1.0~7.0 | 5.0 | 11 | 400~430 | 150 | 0~60 |
| SLW146-M10 | 1.0~7.0 | 5.0 | 11 | 410~440 | 150 | 0~60 |
| SLW100-M10 | 1.0~7.0 | 5.0 | 11 | 330~460 | 150 | 0~60 |
| SLW170-M10 | 1.0~7.0 | 5.0 | 11 | 350~490 | 150 | 0~60 |
| SLW120-M15 | 1.0~7.0 | 5.0 | 4.5 | 370~460 | 150 | 0~60 |
| SLW150-M15 | 1.0~7.0 | 5.0 | 4.5 | 370~460 | 160 | 0~60 |
| SLW180-M15 | 1.0~7.0 | 5.0 | 4.5 | 370~460 | 180 | 0~60 |

SLG

SNC

SNT

SLP

SLB

SLW

SLF

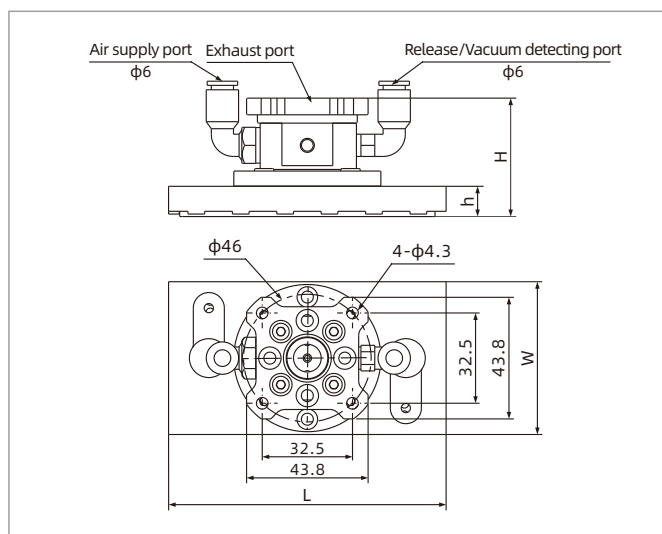
SLW Series

Wafer Gripper

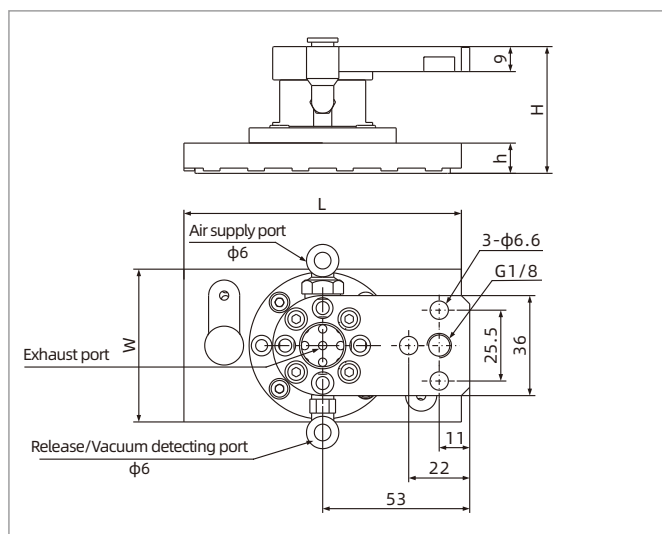
Vacuum flow (NL/min) at different vacuum levels (-kPa)

| Model | Air supply pressure bar | Air consumption NL/min | 0 | 1.5 | 2.5 | 3.5 | 4.5 | 5.5 | 6.5 | 7.5 | 11 | Max. vacuum level -kPa |
|------------|-------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------------|
| SLW115-M10 | 5.0 | 150 | 400 | 375 | 363 | 334 | 315 | 289 | 265 | 246 | 215 | 11 |
| SLW146-M10 | 5.0 | 150 | 410 | 386 | 370 | 330 | 324 | 296 | 374 | 258 | 234 | 11 |
| SLW100-M10 | 5.0 | 150 | 330 | 311 | 285 | 263 | 241 | 219 | 198 | 179 | 160 | 11 |
| SLW170-M10 | 5.0 | 150 | 350 | 330 | 310 | 280 | 263 | 238 | 219 | 200 | 180 | 11 |
| SLW120-M15 | 5.0 | 150 | 440 | 429 | 407 | 385 | 363 | 335 | 308 | 275 | - | 4.5 |
| SLW150-M15 | 5.0 | 160 | 440 | 429 | 407 | 385 | 363 | 335 | 308 | 275 | - | 4.5 |
| SLW180-M15 | 5.0 | 180 | 440 | 429 | 407 | 385 | 363 | 335 | 308 | 275 | - | 4.5 |

Dimensions(mm)



SLW□PK-M10I-F1



SLW□PK-M10I-F3

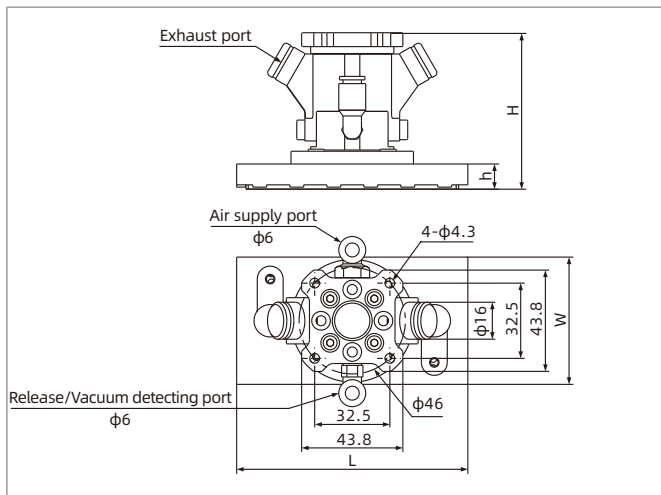
| Model/Size | L | W | H | h | Weight g |
|------------------|-----|-----|----|----|----------|
| SLW100PK-M10I-F1 | 100 | 55 | 43 | 11 | 220 |
| SLW115PK-M10I-F1 | 115 | 115 | 43 | 11 | 350 |
| SLW146PK-M10I-F1 | 146 | 146 | 43 | 11 | 458 |
| SLW170PK-M10I-F1 | 170 | 105 | 43 | 11 | 354 |

| Model/Size | L | W | H | h | Weight g |
|------------------|-----|-----|----|----|----------|
| SLW100PK-M10I-F3 | 100 | 55 | 46 | 11 | 135 |
| SLW115PK-M10I-F3 | 115 | 115 | 46 | 11 | 376 |
| SLW146PK-M10I-F3 | 146 | 146 | 46 | 11 | 484 |
| SLW170PK-M10I-F3 | 170 | 105 | 46 | 11 | 386 |

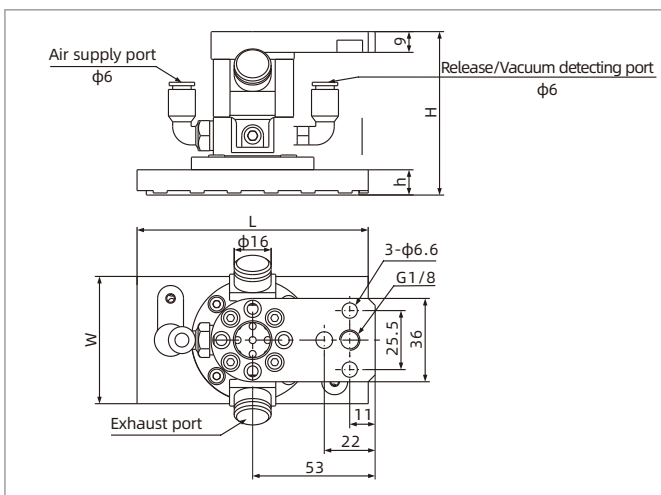
SLW Series

Wafer Gripper

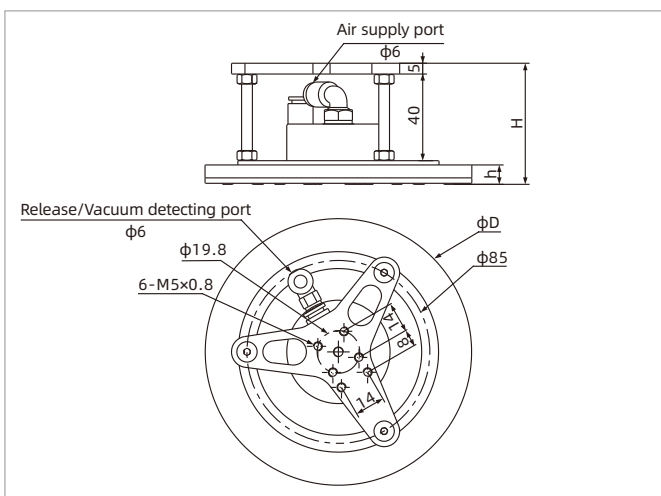
Dimensions(mm)



SLW□PK-M10Y-F1



SLW□PK-M10Y-F3



SLW□AE-M15I-F9

| Model/Size | L | W | H | h | Weight g |
|------------------|-----|-----|----|----|----------|
| SLW100PK-M10Y-F1 | 100 | 55 | 68 | 11 | 284 |
| SLW115PK-M10Y-F1 | 115 | 115 | 68 | 11 | 415 |
| SLW146PK-M10Y-F1 | 146 | 146 | 68 | 11 | 523 |
| SLW170PK-M10Y-F1 | 170 | 105 | 68 | 11 | 420 |

| Model/Size | L | W | H | h | Weight g |
|------------------|-----|-----|----|----|----------|
| SLW100PK-M10Y-F3 | 100 | 55 | 71 | 11 | 310 |
| SLW115PK-M10Y-F3 | 115 | 115 | 71 | 11 | 441 |
| SLW146PK-M10Y-F3 | 146 | 146 | 71 | 11 | 549 |
| SLW170PK-M10Y-F3 | 170 | 105 | 71 | 11 | 445 |

| Model/Size | D | H | h | Weight g |
|------------------|-----|---------|-----|----------|
| SLW120AE-M15I-F9 | 124 | 53.5~57 | 9.5 | 343 |
| SLW120FT-M15I-F9 | 124 | 56~59 | 12 | 375 |
| SLW150AE-M15I-F9 | 149 | 53.5~57 | 9.5 | 418 |
| SLW150FT-M15I-F9 | 149 | 56~59 | 12 | 472 |
| SLW180AE-M15I-F9 | 179 | 53.5~57 | 9.5 | 632 |
| SLW180FT-M15I-F9 | 179 | 56~59 | 12 | 630 |

Special Vacuum Grippers

SLG

SNC

SNT

SLP

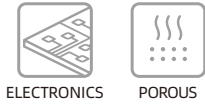
SLB

SLW

SLF

SLF Series

Matrix Gripper



Features

- ◇ Various types for option, built-in vacuum generator type, external blower type, external vacuum generator type
- ◇ With throttling function
- ◇ Suction cups on the adsorbing area

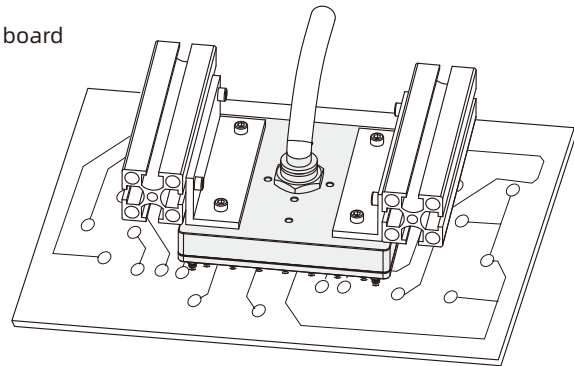


Advantages

- ◇ Easy to install and maintain
- ◇ Flexible selection according to the actual working condition
- ◇ Suitable for handling hollow or irregular workpieces, prevent the adhesion between workpieces
- ◇ Flexible gripping, prevent the deformation of the workpiece during handling

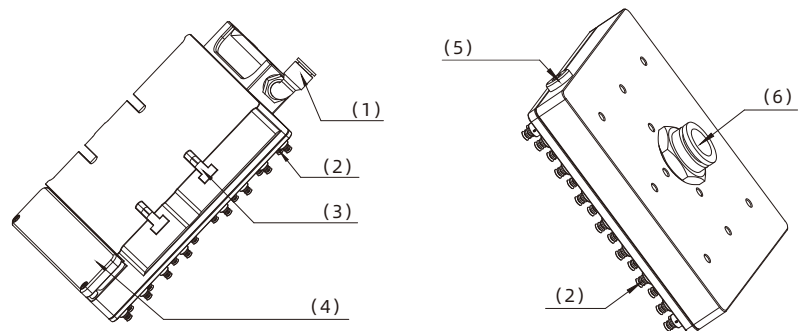
Application

- ◇ Suitable for handling porous workpieces, such as printed PCB, PVC board
- ◇ Handling irregular workpieces
- ◇ Suitable for electronic industry



Structure

- ◇ (1) Air supply port
- ◇ (2) Suction cups
- ◇ (3) T type installation slot
- ◇ (4) Exhaust port
- ◇ (5) Vacuum detecting port
- ◇ (6) Vacuum port



How to order

SLF 180 S - 5 WS

① ② ③ ④ ⑤

| ① Series | ② Size | ③ Type of vacuum source | ④ Dia.of suction cup | ⑤ Suction cup material |
|----------|-----------------|---|----------------------|------------------------|
| SLF | 140 - 140×140mm | Nil - Default, external blower | Nil - SPC7 | Nil - NBR |
| | 180 - 180×180mm | W - External vacuum generator | 3 - SPC3 | WS - White silicone |
| | | S - Built-in flow type vacuum generator | 5 - SPC5 | E - EPDM |
| | | X - Built-in vacuum type vacuum generator | | |

Selection

| Model/ Type of vacuum source | 140 | 140W | 180 | 180W | 180S | 180X |
|------------------------------|-----|-------------|------------|-------------|-------------|-------------|
| SLF140 | | SLF140W | SLF180 | SLF180W | SLF180S | SLF180X |
| SLF140-WS | | SLF140W-WS | SLF180-WS | SLF180W-WS | SLF180S-WS | SLF180X-WS |
| SLF140-E | | SLF140W-E | SLF180-E | SLF180W-E | SLF180S-E | SLF180X-E |
| SLF140-3 | | SLF140W-3 | SLF180-3 | SLF180W-3 | SLF180S-3 | SLF180X-3 |
| SLF140-3WS | | SLF140W-3WS | SLF180-3WS | SLF180W-3WS | SLF180S-3WS | SLF180X-3WS |
| SLF140-3E | | SLF140W-3E | SLF180-3E | SLF180W3-E | SLF180S-3E | SLF180X-3E |
| SLF140-5 | | SLF140W-5 | SLF180-5 | SLF180W-5 | SLF180S-5 | SLF180X-5 |
| SLF140-5WS | | SLF140W-5WS | SLF180-5WS | SLF180W-5WS | SLF180S-5WS | SLF180X-5WS |
| SLF140-5E | | SLF140W-5E | SLF180-5E | SLF180W-5E | SLF180S-5E | SLF180X-5E |

Technical parameters

| Model | Air supply pressure range bar | Working temperature °C | Vacuum source | QTY of suction cup pcs | Weight g |
|---------|-------------------------------|------------------------|--------------------------------------|------------------------|----------|
| SLF140 | 1.0~7.0 | 0~60 | External blower | 186 | 890 |
| SLF180 | 1.0~7.0 | 0~60 | External blower | 312 | 1,460 |
| SLF140W | 1.0~7.0 | 0~60 | External large flow vacuum generator | 114 | 1,070 |
| SLF180W | 1.0~7.0 | 0~60 | External large flow vacuum generator | 76 | 1,330 |

Technical parameters

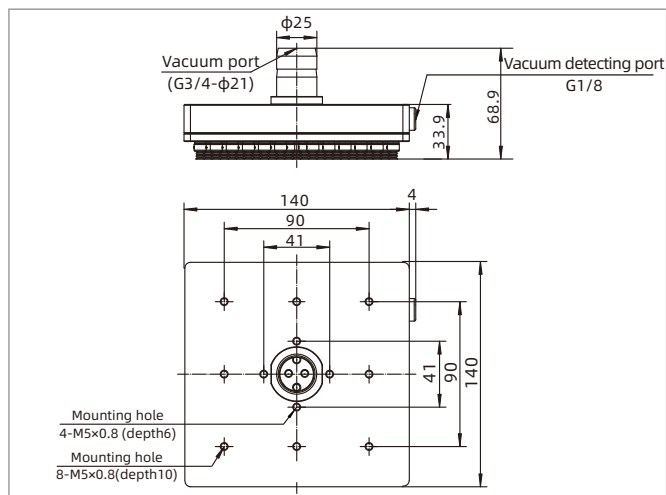
| Model | Air supply pressure range bar | Rated air supply pressure bar | Max. vacuum level -kPa | Max. vacuum flow NL/min | Air consumption NL/min | Working temperature °C | QTY of suction cup pcs | Weight g |
|---------|-------------------------------|-------------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|----------|
| SLF180S | 1.0~7.0 | 5.0 | 58 | 242 | 360 | 0~60 | 76 | 1,220 |
| SLF180X | 1.0~7.0 | 5.0 | 80 | 250 | 480 | 0~60 | 76 | 1,220 |

SLF Series

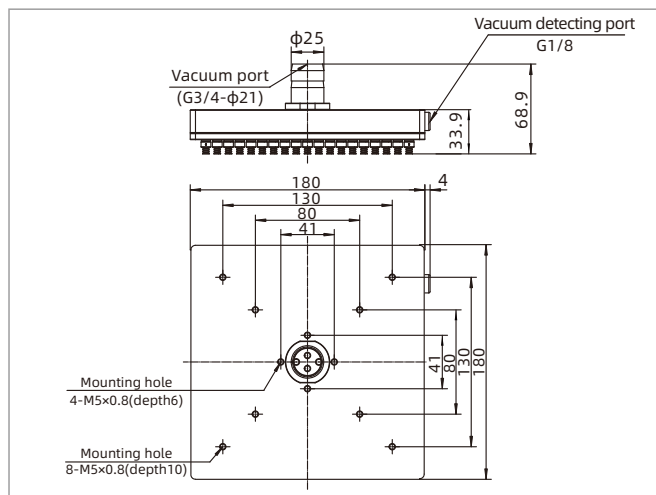
Matrix Gripper



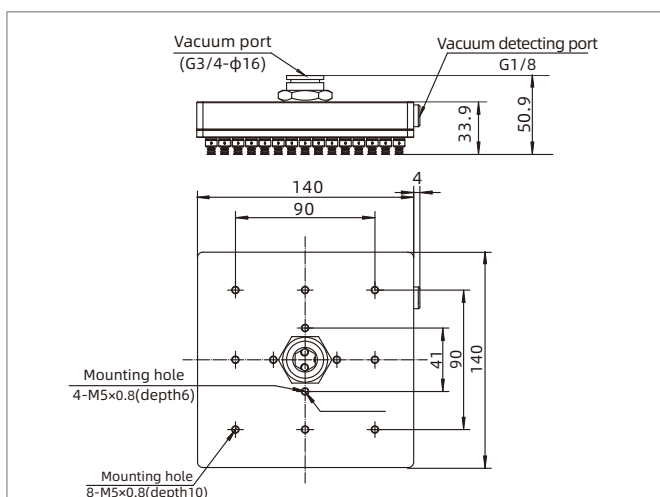
Dimensions(mm)



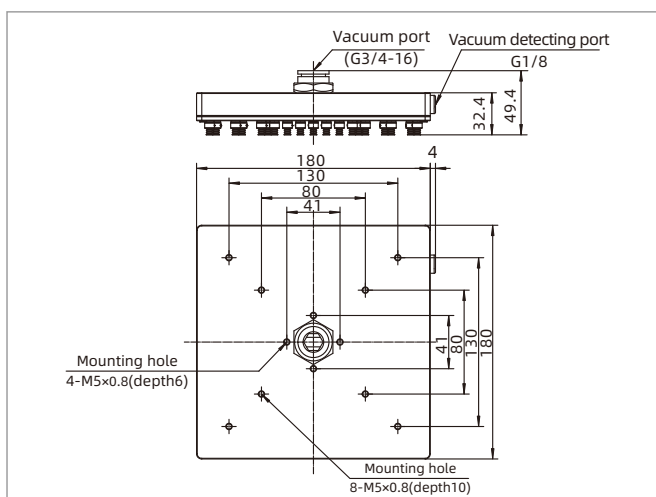
SLF140



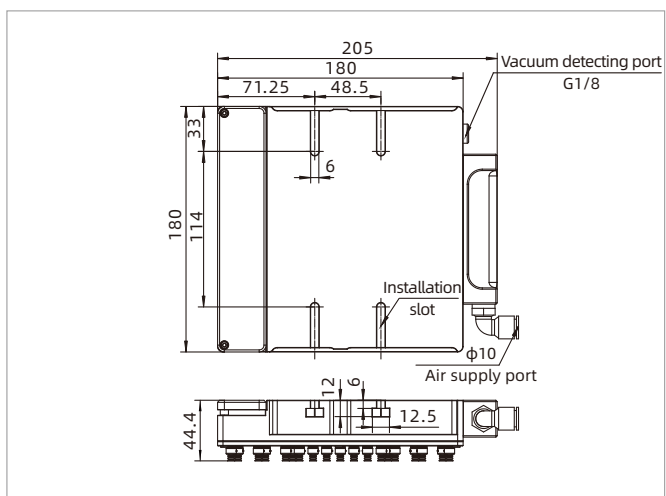
SLF180



SLF140W



SLF180W



SLF180X(S)

E Vacuum Grippers

Vacuum grippers

Products overview

Vacuum grippers

375 TXN Series Vacuum Gripper-Mini Type

- ◇ Vacuum type: Built-in vacuum generator
Without vacuum generator
- ◇ Adsorption surface type: Sponge
Suction cup



ELECTRONICS PACKAGING



393 TXP Series Vacuum Gripper-Oval Shaped

- ◇ Vacuum type: External Blower
- ◇ Adsorption surface type: Sponge



PACKAGING



381 TXD Series Vacuum Gripper-Light Load Type

- ◇ Vacuum type: Built-in vacuum generator
- ◇ Adsorption surface type: Sponge
Suction cup



PACKAGING



395 TXH Series Vacuum Gripper-Heavy Load Type

- ◇ Vacuum type: With vacuum generator
Without vacuum generator
- ◇ Adsorption surface type: Sponge
Suction cup



UNIVERSAL HEAVY LOAD



384 TXC Series Vacuum Gripper -Vacuum Generator Standard Type

- ◇ Vacuum type: Built-in vacuum generator
- ◇ Adsorption surface type: Sponge
Suction cup



UNIVERSAL

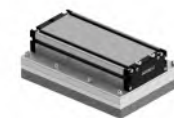


399 TXL Series Vacuum Gripper -Combined Type

- ◇ Vacuum type: Built-in vacuum generator
External Blower
- ◇ Adsorption surface type: Sponge
Suction cup



UNIVERSAL



389 TXM Series Vacuum gripper-blower standard type

- ◇ Vacuum type: External Blower
- ◇ Adsorption surface type: Sponge
Suction cup



UNIVERSAL



TXN Series

Vacuum Gripper-Mini Type



ELECTRONICS



PACKAGING

Features

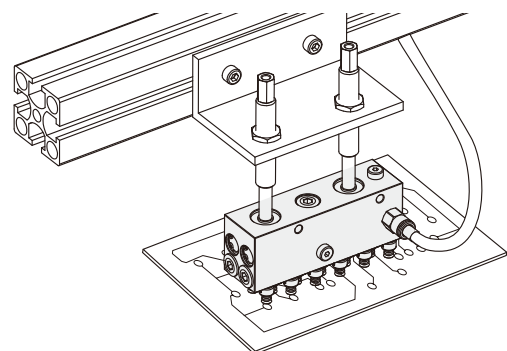
- ◇ Small size, simple structure and light weight
- ◇ Various vacuum sources, can select built-in vacuum generator or external blower
- ◇ Sponge type: Conventional sponge, Mark free sponge,Conductive sponge can be selected
- ◇ Suction cup type: The size, material and rows of suction cups are optional

Advantages

- ◇ It is easy to install and maintain
- ◇ Customers can choose accurately according to the actual application, built-in vacuum generator structure can save space and create vacuum fastly, easy to control
- ◇ Sponge type can achieve flexible contact, when touching with glass and other fragile workpieces, it could be mark free and non-positioning suction
- ◇ Suction cup type has throttling effect, which can be used to adsorb hollow porous, uneven, different shapes of workpieces

Applications

- ◇ Used for handling light and small fragile workpieces, such as electronics, glass screen, electronic components and PCB board, etc.
- ◇ Sponge type can also be used for sorting and labeling in packaging industry



Vacuum gripper

TXN

TXD

TXC

TXM

TXP

TXH

TXL

Structure

- ◇ The main body is made of aluminum alloy
- ◇ The vacuum gripper TXN22 × 38/TXN22 × 76 are without vacuum generator, others are with built-in vacuum generator

TXN Series

Vacuum Gripper-Mini Type



How to order

TXN 15×76 - B5N WS - C

① ② ③ ④ ⑤

| ① Series | ② Dimension | ③ Adsorption surface type | ④ Material of suction cup | ⑤ Vacuum type |
|----------|-------------|---------------------------------------|---------------------------|------------------------------------|
| TXN | 22×38 | A - Conventional sponge | Nil - Default,NBR | Nil - Without vacuum generator |
| | 22×76 | AT - Mark free sponge | WS - White silicone | C - With built-in vacuum generator |
| | 15×76 | CA - Conductive sponge | | |
| | 15×90 | B3 - $\phi 3$ Single-row suction cup | | |
| | 27×90 | B5 - $\phi 5$ Single-row suction cup | | |
| | 60×120 | B7 - $\phi 7$ Single-row suction cup | | |
| | | B3N - $\phi 3$ double-row suction cup | | |
| | | B5N - $\phi 5$ double-row suction cup | | |
| | | B7N - $\phi 7$ double-row suction cup | | |
| | | B3D - $\phi 3$ four-row suction cup | | |
| | | B5D - $\phi 5$ four-row suction cup | | |
| | | B7D - $\phi 7$ four-row suction cup | | |

Selection - Sponge type

| Model/Adsorption surface type | A - Conventional sponge | AT - Mark free sponge | CA - Conductive sponge |
|-------------------------------|-------------------------|-----------------------|------------------------|
| TXN22×38-□ | TXN22×38-A | TXN22×38-AT | TXN22×38-CA |
| TXN22×76-□ | TXN22×76-A | TXN22×76-AT | TXN22×76-CA |
| TXN60×120-□-C | TXN60×120-A-C | - | - |

Selection - Suction cup type

| Model/Suction cup material | Nil - NBR | WS - White silicone |
|----------------------------|----------------|---------------------|
| TXN15×76-B5N□-C | TXN15×76-B5N-C | TXN15×76-B5NWS-C |
| TXN15×76-B7N□-C | TXN15×76-B7N-C | TXN15×76-B7NWS-C |
| TXN15×90-B3□-C | TXN15×90-B3-C | TXN15×90-B3WS-C |
| TXN15×90-B5□-C | TXN15×90-B5-C | TXN15×90-B5WS-C |
| TXN15×90-B7□-C | TXN15×90-B7-C | TXN15×90-B7WS-C |
| TXN15×90-B3N□-C | TXN15×90-B3N-C | TXN15×90-B3NWS-C |
| TXN15×90-B5N□-C | TXN15×90-B5N-C | TXN15×90-B5NWS-C |
| TXN15×90-B7N□-C | TXN15×90-B7N-C | TXN15×90-B7NWS-C |
| TXN27×90-B3D□-C | TXN27×90-B3D-C | TXN27×90-B3DWS-C |
| TXN27×90-B5D□-C | TXN27×90-B5D-C | TXN27×90-B5DWS-C |
| TXN27×90-B7D□-C | TXN27×90-B7D-C | TXN27×90-B7DWS-C |

TXN22×38/TXN22×76

Vacuum Gripper-Mini Type

Features

- ◇ The gripper is used in the handling and sorting process of light and small workpieces. It is suitable to handle multihole workpieces and partial leakage workpieces

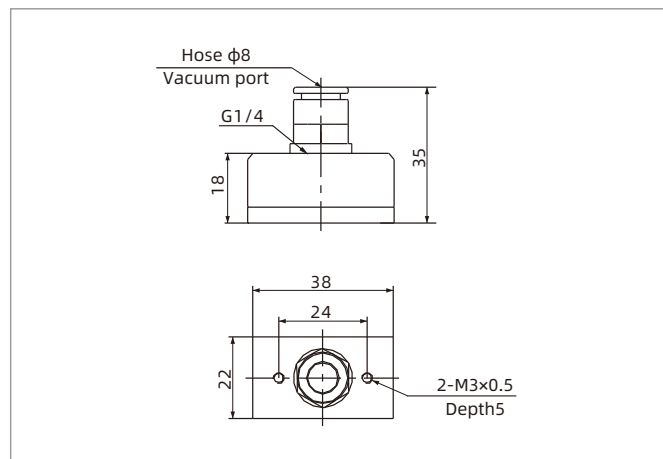


Technical parameters

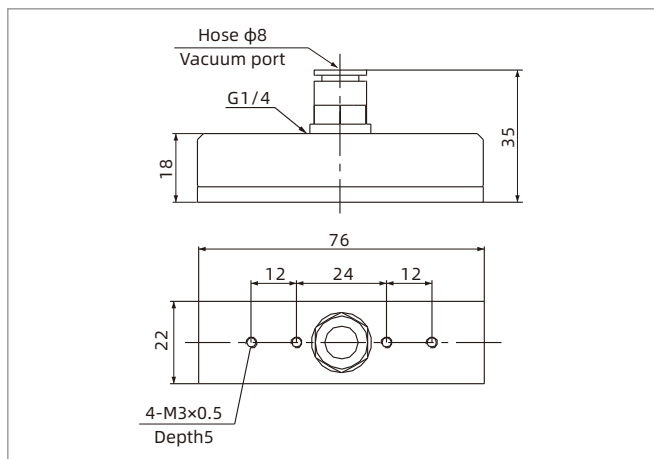
| Model | Theoretical suction force N | Recommended min. flow of vacuum generator NL/min | Optional function | Working temperature °C | Weight g | Recommended hose dia.(mm) Vacuum port (V) |
|----------|-----------------------------|--|----------------------|------------------------|----------|---|
| TXN22×38 | 18 | ≥40 | Mark free/Conductive | 0-60 | 45 | φ8 |
| TXN22×76 | 34 | ≥60 | Mark free/Conductive | 0-60 | 68 | φ8 |

- ◇ Note: 1. Testing vacuum level is -60kPa, the data of theoretical suction force as above are figured out in the condition that the vacuum gripper is fully covered by a rigid airtight workpiece, and without considering safety factor.
- 2. The mark free in the optional function of the above table indicates that special materials are attached to the sponge surface to reduce the mark on the contact surface.
- 3. Conductivity in the optional function shown in the above table indicates the use of special conductive sponge materials.

Dimensions(mm)



TXN22x38



TXN22x76

Spare parts selection

| Item | Sponge model | Dimension mm | Application |
|---------------------------|--------------|--------------|--------------------------|
| 22×38 Conventional sponge | TXN38-A | 22×38×4 | Conventional application |
| 22×38 Mark free sponge | TXN38-AT | 22×38×4 | Mark free application |
| 22×38 Conductive sponge | TXN38-CA | 22×38×4 | Conductive application |
| 22×76 Conventional sponge | TXN76-A | 22×76×4 | Conventional application |
| 22×76 Mark free sponge | TXN76-AT | 22×76×4 | Mark free application |
| 22×76 Conductive sponge | TXN76-CA | 22×76×4 | Conductive application |

TXN15×76

Vacuum Gripper-Mini Type

Features

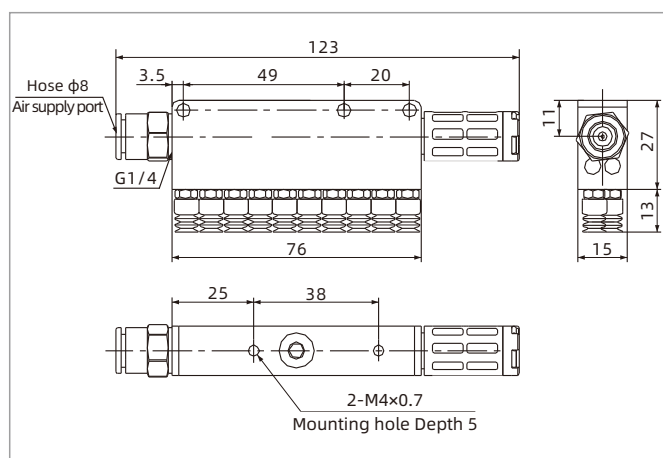
- ◇ The gripper is used in the handling and sorting process of light and small workpieces. It is suitable to handle multihole workpieces and partial leakage workpieces



Technical parameters

| Model | Air supply pressure bar | Max.vacuum level -kPa | Max.vacuum flow NL/min | Air consumption NL/min | Working temperature °C | QTY of suction cup pcs | Weight g |
|----------|-------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|----------|
| TXN15×76 | 5.0 | 85 | 40 | 45 | 0~60 | 10 | 110 |

Dimensions (mm)



TXN15×76

Spare parts selection

| Item | Model of suction cup | Diameter of suction cup mm |
|-----------------|----------------------|----------------------------|
| TXN suction cup | SPC5N SPC5WS | φ5 |
| TXN suction cup | SPC7N SPC7WS | φ7 |

TXN15×90/TXN27×90



Vacuum Gripper-Mini Type

Features

- ◇ The gripper has throttling effect, which can be used to adsorb hollow porous, uneven, different shapes of workpieces. It can achieve suction without positioning, and can effectively grasp in case of leakage to protect workpieces

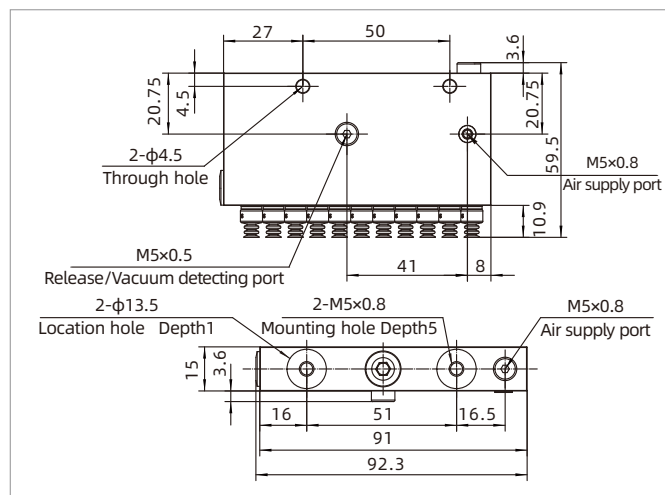


Technical parameters

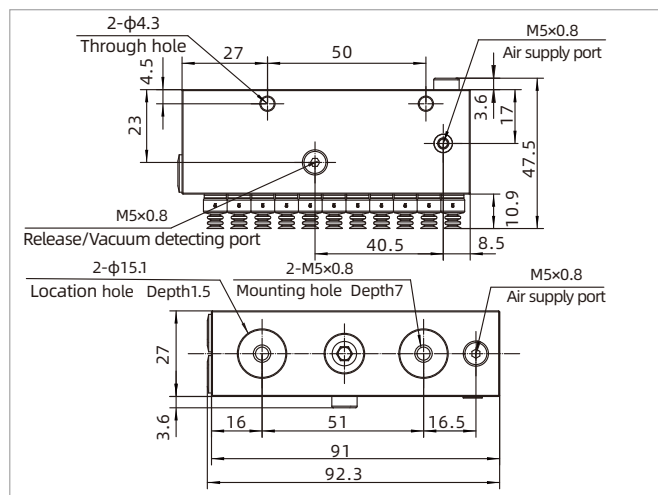
| Model | Air supply pressure range bar | Max.vacuum level covered area 100% | Max.vacuum level covered area 25% | Max.vacuum flow NL/min | Air consumption NL/min | Working temperature °C | QTY of suction cup pcs | Weight g |
|----------|-------------------------------|------------------------------------|-----------------------------------|------------------------|------------------------|------------------------|------------------------|----------|
| TXN15×90 | 5.0-6.0 | 88 | 50 | 140 | 77 | 0~80 | 9/11 | 150 |
| TXN27×90 | 5.0-6.0 | 88 | 25 | 140 | 77 | 0~80 | 22 | 190 |

- ◇ Note: 1. TXN15 × 90 can be made into single-row and double-row suction cups. The suction cup quantity of single-row is 9pcs, the suction cup quantity of double-row is 11pcs.
- 2. TXN27 × 90 can be only made into four-row suction cups, and the quantity of suction cups is 22pcs.

Dimensions(mm)



TXN15×90



TXN27×90

Vacuum gripper

TXN

TXD

TXC

TXM

TXP

TXH

TXL

TXN60×120



Vacuum Gripper-Mini Type

Features

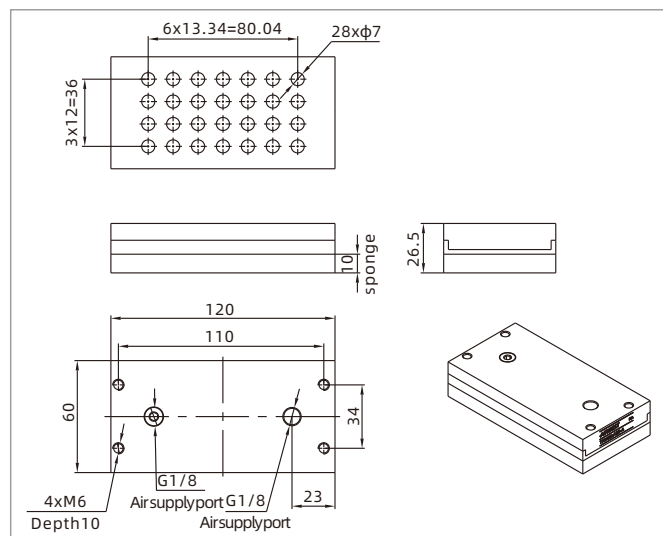
- ◇ The gripper is used in the handling and sorting process of light and small workpieces. It is suitable to handle multihole workpieces and partial leakage workpieces



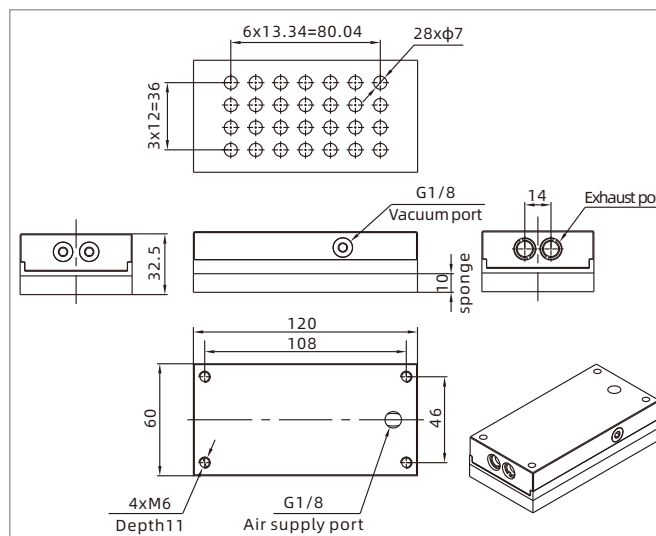
Technical parameters

| Model | Air supply pressure bar | Max.vacuum level -kPa | Max.vacuum flow NL/min | Air consumption NL/min | Working temperature °C | Air supply port | Weight g |
|---------------|-------------------------|-----------------------|------------------------|------------------------|------------------------|-----------------|----------|
| TXN60×120-A | - | - | - | - | 0-60 | G1/8 | 230 |
| TXN60×120-A-C | 5.0 | 83 | 72 | 90 | 0-60 | G1/8 | 300 |

Dimensions(mm)



TXN60x120-A



TXN60x120-A-C

Spare parts selection

| Item | Model | Dimension mm |
|---------------|----------|--------------|
| 60x120 sponge | TXN120-A | 60x120x10 |

TXD Series

Vacuum Gripper-Light Load Type



PACKAGING

Features

- ◇ The housing is made of high quality aluminum alloy
- ◇ With built-in large flow vacuum generator
- ◇ Suction cup adsorption surface type, with built-in throttling function
- ◇ Sponge adsorption surface type, with large area structure of inner cavity

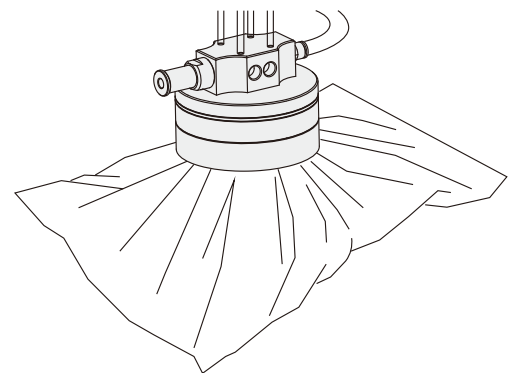
Advantages

- ◇ High strength and light weight
- ◇ Fast reaction time
- ◇ The inner cavity is large enough to handle the workpiece with obvious height difference on the surface



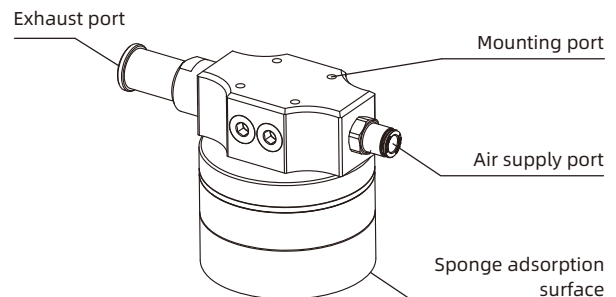
Applications

- ◇ Suction cup type is used to handle light and small sensitive workpieces, such as electronics, glass screen and electronic components, etc.
- ◇ Suction cup type is with built-in throttling function, which can be used to handle workpieces with leakage
- ◇ Sponge type is used for sorting and packing in packaging industry



Structure

- ◇ Vacuum source has flow type and vacuum type
- ◇ The adsorption surface has two structures: round and square
- ◇ Air supply port is equipped with $\phi 8$ one-touch fitting, which can be directly connected to the hose. There is a vacuum port on the side. The exhaust way is direct exhaust.



Vacuum gripper

TXN

TXD

TXC

TXM

TXP

TXH

TXL

TXD Series

Vacuum Gripper-Light Load Type

How to order

TXD 80 S - H
① ② ③ ④

| ① Series | ② Dimension | ③ Adsorption surface type | | ④ Vacuum source type |
|----------|-------------|---------------------------|------------------------------|--------------------------|
| TXD | 80 | R | - Square sponge | H - Vacuum type (-95kPa) |
| | 100 | S | - Round sponge | L - Flow type (-75kPa) |
| | 120 | B3N/B5N/B7N | - Round NBR suction cup | |
| | | B3WS/B5WS/B7WS | - Round silicone suction cup | |

Selection-Sponge type

| Model/adsorption surface type | R - Square sponge | | S - Round sponge | |
|-------------------------------|-------------------|-----------|------------------|-----------|
| TXD80□-□ | TXD80R-H | TXD80R-L | TXD80S-H | TXD80S-L |
| TXD100□-□ | TXD100R-H | TXD100R-L | TXD100S-H | TXD100S-L |
| TXD120□-□ | TXD120R-H | TXD120R-L | TXD120S-H | TXD120S-L |

Selection-suction cup type

| Model/suction cup material | Nil-NBR | | WS-White silicone | |
|----------------------------|------------|------------|-------------------|-------------|
| TXD80B3□-□ | TXD80B3N-H | TXD80B3N-L | TXD80B3WS-H | TXD80B3WS-L |
| TXD80B5□-□ | TXD80B5N-H | TXD80B5N-L | TXD80B5WS-H | TXD80B5WS-L |
| TXD80B7□-□ | TXD80B7N-H | TXD80B7N-L | TXD80B7WS-H | TXD80B7WS-L |

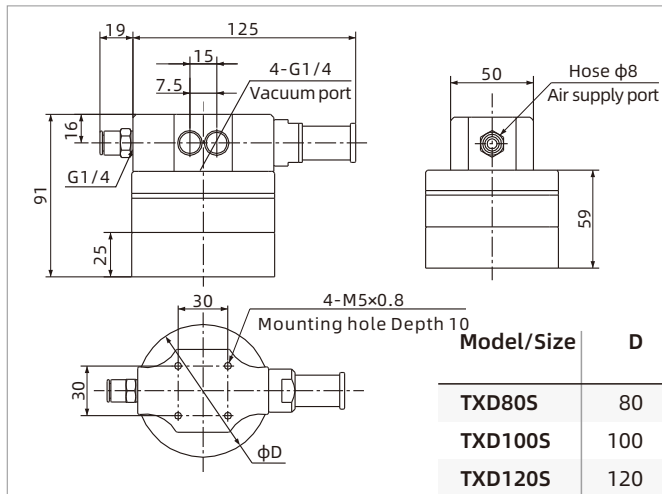
Technical parameters

| Model | Rated air supply pressure bar | Max.vacuum level -kPa | Max.vacuum flow NL/min | Air consumption NL/min | Weight kg | Recommended hose dia. (mm) Air supply port P |
|-----------|-------------------------------|-----------------------|------------------------|------------------------|-----------|---|
| TXD80R-L | 6.0 | 75 | 180 | 120 | 0.55 | φ8 |
| TXD80R-H | 5.0 | 95 | 170 | 125 | 0.55 | φ8 |
| TXD80S-L | 6.0 | 75 | 180 | 120 | 0.5 | φ8 |
| TXD80S-H | 5.0 | 95 | 170 | 125 | 0.5 | φ8 |
| TXD80B-L | 6.0 | 75 | 180 | 120 | 0.65 | φ8 |
| TXD80B-H | 5.0 | 95 | 170 | 125 | 0.7 | φ8 |
| TXD100R-L | 6.0 | 75 | 180 | 120 | 0.65 | φ8 |
| TXD100R-H | 5.0 | 95 | 170 | 125 | 0.65 | φ8 |
| TXD100S-L | 6.0 | 75 | 180 | 120 | 0.6 | φ8 |
| TXD100S-H | 5.0 | 95 | 170 | 125 | 0.6 | φ8 |
| TXD120R-L | 6.0 | 75 | 180 | 120 | 0.73 | φ8 |
| TXD120R-H | 5.0 | 95 | 170 | 125 | 0.73 | φ8 |
| TXD120S-L | 6.0 | 75 | 180 | 120 | 0.8 | φ8 |
| TXD120S-H | 5.0 | 95 | 170 | 125 | 0.8 | φ8 |

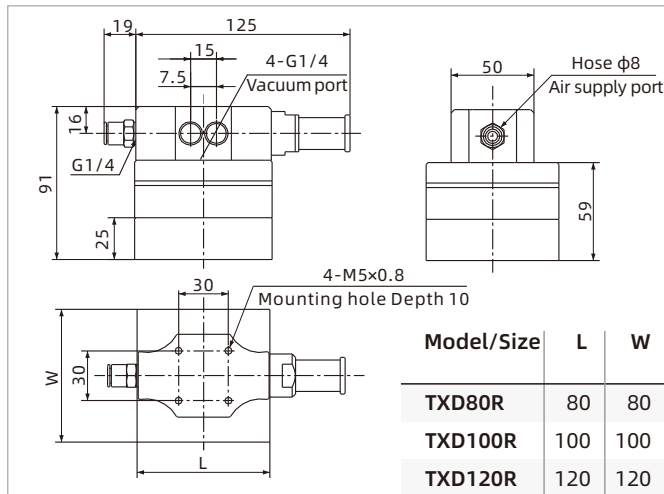
TXD Series

Vacuum Gripper-Light Load Type

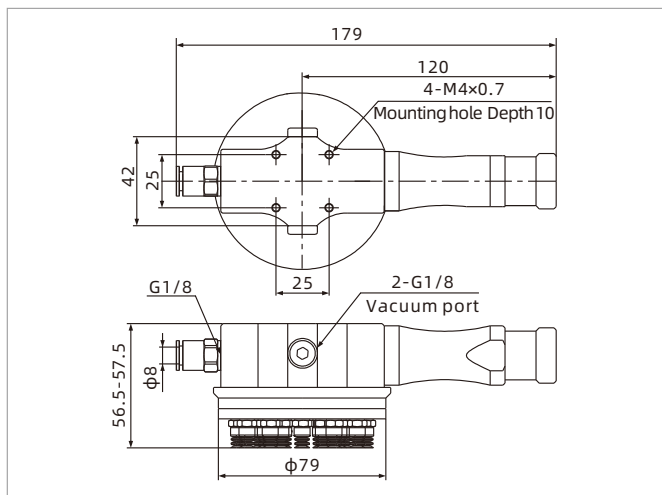
Dimensions(mm)



TXD□S - Round sponge



TXD□R - Square sponge



TXD80B - Round suction cup

Spare parts selection

| Item | Adsorption surface model | Adsorption surface dimension mm | Applicable gripper model |
|---------------|--------------------------|---------------------------------|--------------------------|
| TXD80R Spone | TXD80RA | 80×80×25 | TXD80R-H、TXD80R-L |
| TXD80S Spone | TXD80SA | φ80×25 | TXD80S-H、TXD80S-L |
| TXD100R Spone | TXD100RA | 100×100×25 | TXD100R-H、TXD100R-L |
| TXD100S Spone | TXD100SA | φ100×25 | TXD100S-H、TXD100S-L |
| TXD120R Spone | TXD120RA | 120×120×25 | TXD120R-H、TXD120R-L |
| TXD120S Spone | TXD120SA | φ120×25 | TXD120S-H、TXD120S-L |

TXC Series

Vacuum Gripper -Vacuum Generator Standard Type



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Features

- ◇ The housing is made of high quality aluminum alloy
- ◇ With built-in large flow vacuum generator
- ◇ Suction cup type and sponge type are optional for adsorption surface
- ◇ Built-in non-return valve can be selected

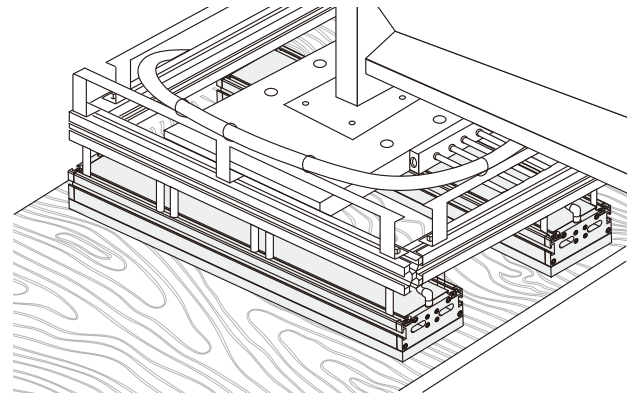
Advantages

- ◇ High strength and light weight
- ◇ Fast reaction time
- ◇ Suitable for the handling of various industries
- ◇ It can meet the handling of different dimension workpieces



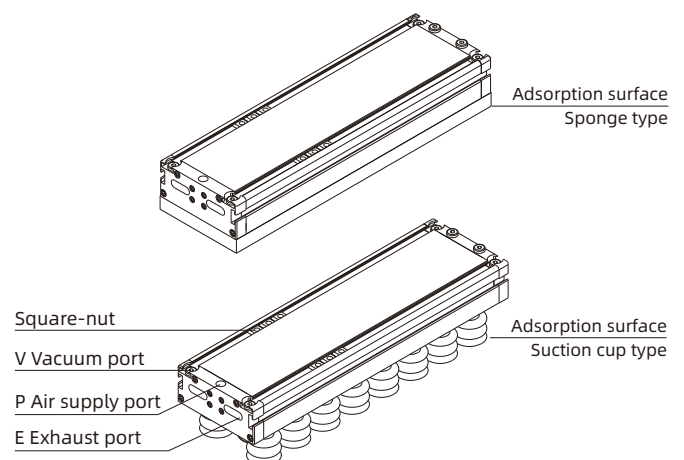
Applications

- ◇ Mainly used in the packaging industry, such as intelligent warehousing, intelligent logistics, stacking and unstacking, unmanned sorting, etc.
- ◇ With built-in non-return valve, it can be used to adsorb the workpieces with certain leakage, different sizes and different shapes
- ◇ Because of its light weight, it is very suitable for robots



Structure

- ◇ The main body is made of aluminum alloy, with T-shaped slots on the front and side respectively, which can be used for installation or mounting of the inductive switch
- ◇ It is equipped with Square-nut (M8 × 18 × 14 × 5.5)
- ◇ TXC130 × 400-800 has one air supply port (G1 / 4F) and six vacuum ports (6-G1 / 8F), direct exhaust from the side of the air supply end cover
- ◇ TXC130 × 1000-1200 has one air supply port (G1 / 4F) and four vacuum ports (4-G1 / 8F) at both end covers, direct exhaust from the side of the air supply end covers
- ◇ With built-in large flow vacuum generator, non-return valve is optional
- ◇ For sponge type, A1, A3, A5 sponge can be selected
- ◇ For suction cup type, B30, B40 can be selected



How to order

TXC 130×400 - A3 - V

① ② ③ ④

| ① Series | ② Dimension | ③ Adsorption surface type | ④ Non-return valve |
|----------|-------------|--|--|
| TXC | 130×400 | A1 - Single row sponge holes | Nil - Default, Without non-return valve |
| | 130×600 | A3 - Three rows sponge holes | (Throttling hole structure) |
| | 130×800 | A5 - Five rows sponge holes | V - With non-return valve |
| | 130×1000 | B30 - Suction cup type(suction cup dia.30mm) | (Ball valve structure) |
| | 130×1200 | B40 - Suction cup type(suction cup dia.40mm) | VF - With non-return valve |
| | 130×1400 | | (Flap valve structure, reversible) only for sponge type |

Selection-Standard type

| Model/ Adsorption surface type | A1 - Single row sponge holes | A3 - Three rows sponge holes | A5 - Five rows sponge holes | B30 - Suction cup type | B40 - Suction cup type |
|-----------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------|---------------------------|
| TXC130×400-□ | TXC130×400-A1 | TXC130×400-A3 | TXC130×400-A5 | TXC130×400-B30 | TXC130×400-B40 |
| TXC130×600-□ | TXC130×600-A1 | TXC130×600-A3 | TXC130×600-A5 | TXC130×600-B30 | TXC130×600-B40 |
| TXC130×800-□ | TXC130×800-A1 | TXC130×800-A3 | TXC130×800-A5 | TXC130×800-B30 | TXC130×800-B40 |
| TXC130×1000-□ | TXC130×1000-A1 | TXC130×1000-A3 | TXC130×1000-A5 | TXC130×1000-B30 | TXC130×1000-B40 |
| TXC130×1200-□ | TXC130×1200-A1 | TXC130×1200-A3 | TXC130×1200-A5 | TXC130×1200-B30 | TXC130×1200-B40 |
| TXC130×1400-□ | TXC130×1400-A1 | TXC130×1400-A3 | - | TXC130×1400-B30 | TXC130×1400-B40 |

Selection-With non-return valve

| Model/ Adsorption surface type | A1 - Single row sponge holes | A3 - Three rows sponge holes | A5 - Five rows sponge holes | B30 - Suction cup type | B40 - Suction cup type |
|-----------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------|---------------------------|
| TXC130×400-□-V/VF | TXC130×400-A1-V/VF | TXC130×400-A3-V/VF | TXC130×400-A5-V/VF | TXC130×400-B30-V | TXC130×400-B40-V |
| TXC130×600-□-V/VF | TXC130×600-A1-V/VF | TXC130×600-A3-V/VF | TXC130×600-A5-V/VF | TXC130×600-B30-V | TXC130×600-B40-V |
| TXC130×800-□-V/VF | TXC130×800-A1-V/VF | TXC130×800-A3-V/VF | TXC130×800-A5-V/VF | TXC130×800-B30-V | TXC130×800-B40-V |
| TXC130×1000-□-V/VF | TXC130×1000-A1-V/VF | TXC130×1000-A3-V/VF | TXC130×1000-A5-V/VF | TXC130×1000-B30-V | TXC130×1000-B40-V |
| TXC130×1200-□-V/VF | TXC130×1200-A1-V/VF | TXC130×1200-A3-V/VF | TXC130×1200-A5-V/VF | TXC130×1200-B30-V | TXC130×1200-B40-V |
| TXC130×1400-□-V/VF | TXC130×1400-A1-V/VF | TXC130×1400-A3-V/VF | - | TXC130×1400-B30-V | TXC130×1400-B40-V |

Technical parameters

| Model | Rated air supply pressure bar | Max.vacuum flow NL/min | Air consumption NL/min | Max.theoretical suction force N (-60kPa) | Weight kg V-with non- return valve | Recommended hose dia. mm | QTY of suction hole PCS |
|----------------|-------------------------------------|------------------------------|------------------------------|--|--|--------------------------------|-------------------------------|
| TXC130×400-A1 | 6.0 | 710 | 230 | 559 | 2.6 | 1×φ10 | 15 |
| TXC130×600-A1 | 6.0 | 1,050 | 345 | 820 | 3.4 | 1×φ10 | 22 |
| TXC130×800-A1 | 6.0 | 1,410 | 460 | 1,180 | 4.2 | 1×φ10 | 30 |
| TXC130×1000-A1 | 6.0 | 1,760 | 575 | 1,379 | 5.4 | 2×φ10 | 37 |
| TXC130×1200-A1 | 6.0 | 2,100 | 690 | 1,640 | 6.2 | 2×φ10 | 44 |
| TXC130×1400-A1 | 6.0 | 2,460 | 805 | 1,901 | 7.4 | 2×φ10 | 52 |

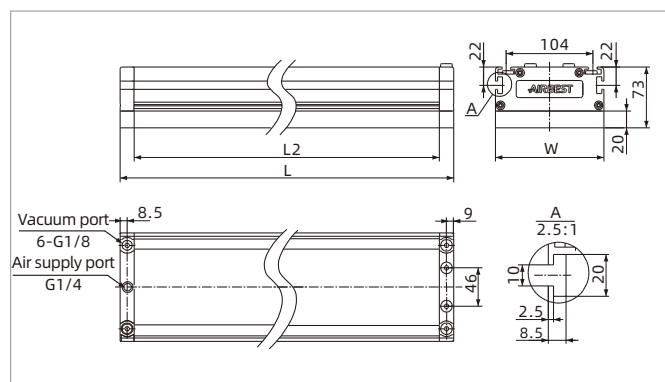
Vacuum Gripper -Vacuum Generator Standard Type

Technical parameters

| Model | Rated air supply pressure bar | Max.vacuum flow NL/min | Air consumption NL/min | Max.theoretical suction force N (-60kPa) | Weight KG V-with non-return valve | Recommended hose dia. mm | QTY of suction hole PCS |
|-----------------|-------------------------------|------------------------|------------------------|--|-----------------------------------|--------------------------|-------------------------|
| TXC130×400-A3 | 6.0 | 710 | 230 | 344 | 2.6 | 1×φ10 | 65 |
| TXC130×600-A3 | 6.0 | 1,050 | 345 | 519 | 3.4 | 1×φ10 | 98 |
| TXC130×800-A3 | 6.0 | 1,410 | 460 | 694 | 4.2 | 1×φ10 | 131 |
| TXC130×1000-A3 | 6.0 | 1,760 | 575 | 869 | 5.4 | 2×φ10 | 164 |
| TXC130×1200-A3 | 6.0 | 2,100 | 690 | 1,044 | 6.2 | 2×φ10 | 197 |
| TXC130×1400-A3 | 6.0 | 2,460 | 805 | 1,219 | 7.4 | 2×φ10 | 230 |
| TXC130×400-A5 | 6.0 | 1,050 | 345 | 347 | 2.6 | 1×φ10 | 108 |
| TXC130×600-A5 | 6.0 | 1,410 | 460 | 530 | 3.4 | 1×φ10 | 165 |
| TXC130×800-A5 | 6.0 | 1,760 | 575 | 707 | 4.2 | 1×φ10 | 220 |
| TXC130×1000-A5 | 6.0 | 2,460 | 805 | 884 | 5.4 | 2×φ10 | 275 |
| TXC130×1200-A5 | 6.0 | 2,810 | 920 | 1,061 | 6.2 | 2×φ10 | 330 |
| TXC130×400-B30 | 6.0 | 710 | 230 | 588 | 3.3 | 1×φ10 | 28 |
| TXC130×600-B30 | 6.0 | 1,050 | 345 | 903 | 4.3 | 1×φ10 | 43 |
| TXC130×800-B30 | 6.0 | 1,410 | 460 | 1,155 | 5.4 | 1×φ10 | 55 |
| TXC130×1000-B30 | 6.0 | 1,760 | 575 | 1,470 | 7.0 | 2×φ10 | 70 |
| TXC130×1200-B30 | 6.0 | 2,100 | 690 | 1,785 | 8.1 | 2×φ10 | 85 |
| TXC130×1400-B30 | 6.0 | 2,460 | 805 | 2,058 | 9.6 | 2×φ10 | 98 |
| TXC130×400-B40 | 6.0 | 710 | 230 | 867 | 3.6 | 1×φ10 | 23 |
| TXC130×600-B40 | 6.0 | 1,050 | 345 | 1,319 | 4.9 | 1×φ10 | 35 |
| TXC130×800-B40 | 6.0 | 1,410 | 460 | 1,771 | 6.2 | 1×φ10 | 47 |
| TXC130×1000-B40 | 6.0 | 1,760 | 575 | 2,224 | 7.9 | 2×φ10 | 59 |
| TXC130×1200-B40 | 6.0 | 2,100 | 690 | 2,676 | 9.3 | 2×φ10 | 71 |
| TXC130×1400-B40 | 6.0 | 2,460 | 805 | 3,129 | 10.9 | 2×φ10 | 83 |

◇ Note: The suction force in the above table is the theoretical suction force obtained under the condition that the vacuum gripper is fully covered by a rigid airtight workpiece, and without considering safety factor.

Dimensions(mm)



TXC130×400/600/800-A Sponge type

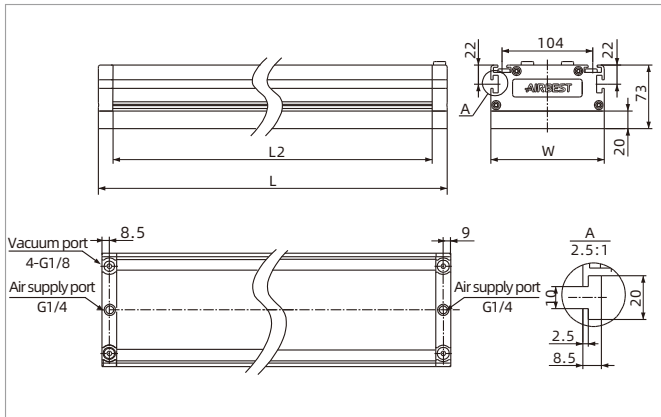
| Model/Size | L | L2 | W |
|--------------|-----|-----|-----|
| TXC130×400-A | 434 | 400 | 130 |
| TXC130×600-A | 634 | 600 | 130 |
| TXC130×800-A | 834 | 800 | 130 |

TXC Series



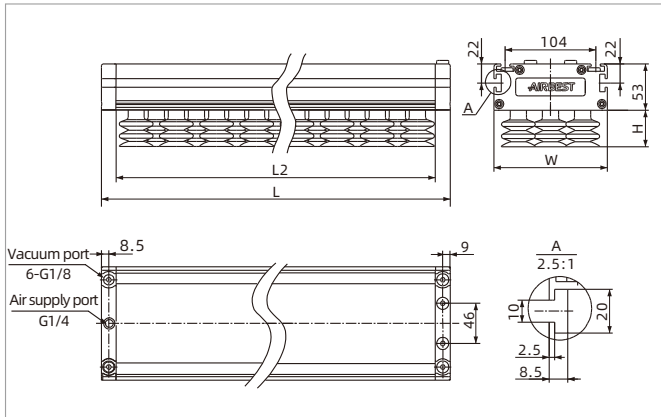
Vacuum Gripper - Vacuum Generator Standard Type

Dimensions(mm)



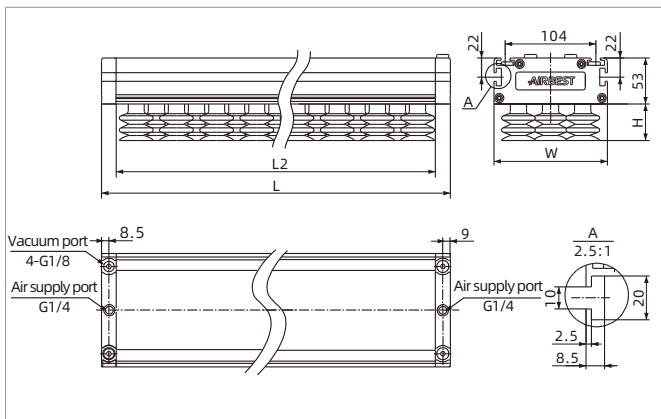
| Model/Size | L | L2 | W |
|---------------|-------|-------|-----|
| TXC130×1000-A | 1,034 | 1,000 | 130 |
| TXC130×1200-A | 1,234 | 1,200 | 130 |
| TXC130×1400-A | 1,434 | 1,400 | 130 |

TXC130×1000/1200/1400-A Sponge type



| Model/Size | L | L2 | W | B30 | H B40 |
|--------------|-----|-----|-----|-----|-------|
| TXC130×400-B | 434 | 400 | 130 | 37 | 45 |
| TXC130×600-B | 634 | 600 | 130 | 37 | 45 |
| TXC130×800-B | 834 | 800 | 130 | 37 | 45 |

TXC130×400/600/800-B Suction cup type



| Model/Size | L | L2 | W | B30 | H B40 |
|---------------|-------|-------|-----|-----|-------|
| TXC130×1000-B | 1,034 | 1,000 | 130 | 37 | 45 |
| TXC130×1200-B | 1,234 | 1,200 | 130 | 37 | 45 |
| TXC130×1400-B | 1,434 | 1,400 | 130 | 37 | 45 |

TXC130×1000/1200/1400-B Suction cup type

Vacuum gripper

TXN

TXD

TXC

TXM

TXP

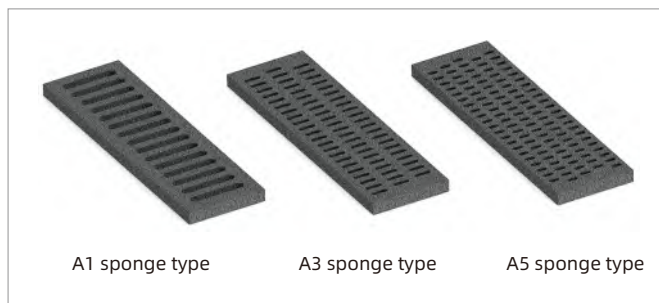
TXH

TXL

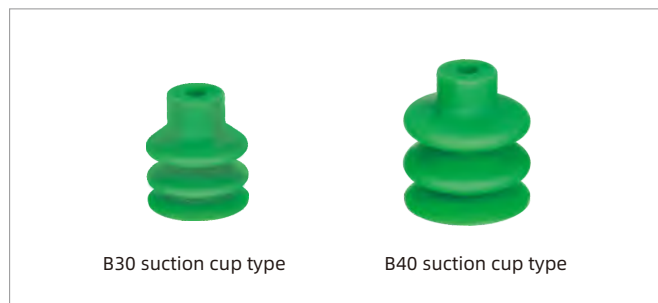
TXC Series

Vacuum Gripper -Vacuum Generator Standard Type

Spare parts selection(mm)



Sponge type



Suction cup type

Spare parts selection

| Item | Model | Dimension mm |
|-------------|------------------------------------|--------------|
| Sponge | TXC400-A1, TXC400-A3, TXC400-A5 | 434×130×20 |
| | TXC600-A1, TXC600-A3, TXC600-A5 | 634×130×20 |
| | TXC800-A1, TXC800-A3, TXC800-A5 | 834×130×20 |
| | TXC1000-A1, TXC1000-A3, TXC1000-A5 | 1034×130×20 |
| | TXC1200-A1, TXC1200-A3, TXC1200-A5 | 1234×130×20 |
| Suction cup | TXC1400-A1, TXC1400-A3, | 1434×130×20 |
| | SPC30S | φ30 |
| | SPC40S | φ40 |

◇ Note: Sponges are consumables in this product. Please replace it in time according to actual working conditions, otherwise, it will affect the adsorption effect.
 Operating temperature: - 10 ~ 60 °C, do not contact with strong acid, strong alkali and other corrosive gas or liquid, do not contact with sharp objects.

TXM Series

Vacuum Gripper-Blower Standard Type



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Features

- ◇ The housing is made of high quality aluminum alloy
- ◇ External vacuum generator or blower can be connected
- ◇ Suction cup type and sponge type are optional for adsorption surface
- ◇ Built-in non-return valve can be selected

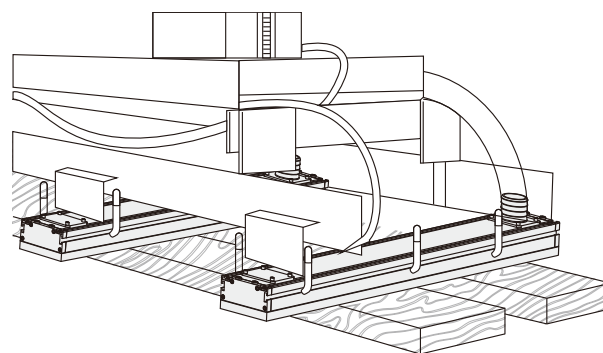
Advantages

- ◇ High strength and light weight
- ◇ The vacuum source can be selected accurately according to the actual working condition
- ◇ Suitable for the handling of various industries
- ◇ It can meet the handling of different dimension workpieces



Applications

- ◇ Mainly used in the packaging industry, such as intelligent warehousing, intelligent logistics, stacking and unstacking, unmanned sorting, etc.
- ◇ With built-in non-return valve, it can be used to adsorb the workpieces with certain leakage, different sizes and different shapes
- ◇ Because of its light weight, it is very suitable for robots

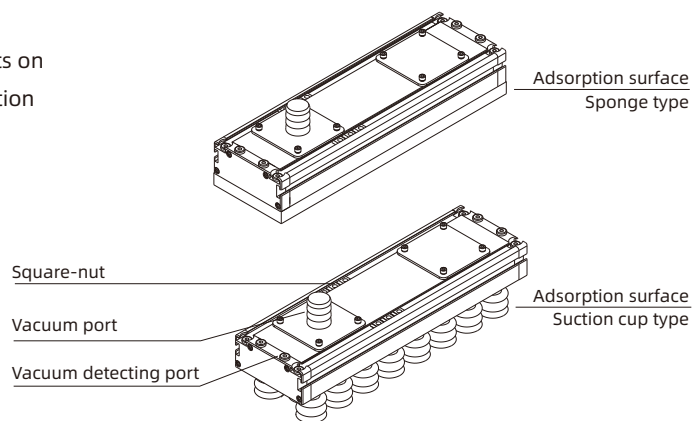


Vacuum gripper

- TXN
- TXD
- TXC**
- TXM**
- TXP
- TXH
- TXL

Structure

- ◇ The main body is made of aluminum alloy, with T-shaped slots on the front and side respectively, which can be used for installation or mounting of the inductive switch
- ◇ It is equipped with Square-nut (M8 × 18 × 14 × 5.5)
- ◇ The gripper has one vacuum port and 8 vacuum detecting ports (8-G1/8F). The vacuum port can connect to external steel wire hose
- ◇ Non-return valve is optional
- ◇ For sponge type, A1, A3, A5 sponge can be selected
- ◇ For suction cup type, B30, B40 can be selected



How to order

TXM 130×400 - A3 - V

① ② ③ ④

| ① Series | ② Dimension | ③ Adsorption surface type | ④ Non-return valve |
|----------|-------------|--|--|
| TXM | 130×400 | A1 - Single row sponge holes | Nil - Default, Without non-return valve (Throttling hole structure) |
| | 130×600 | A3 - Three rows sponge holes | |
| | 130×800 | A5 - Five rows sponge holes | V - With non-return valve (Ball valve structure) |
| | 130×1000 | B30 - Suction cup type(suction cup dia.30mm) | |
| | 130×1200 | B40 - Suction cup type(suction cup dia.40mm) | |
| | 130×1400 | | |

Selection-Standard type

| Model/ Adsorption surface type | A1 - Single row sponge holes | A3 - Three rows sponge holes | A5 - Five rows sponge holes | B30 - Suction cup type | B40 - Suction cup type |
|-----------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------|---------------------------|
| TXM130×400-□ | TXM130×400-A1 | TXM130×400-A3 | TXM130×400-A5 | TXM130×400-B30 | TXM130×400-B40 |
| TXM130×600-□ | TXM130×600-A1 | TXM130×600-A3 | TXM130×600-A5 | TXM130×600-B30 | TXM130×600-B40 |
| TXM130×800-□ | TXM130×800-A1 | TXM130×800-A3 | TXM130×800-A5 | TXM130×800-B30 | TXM130×800-B40 |
| TXM130×1000-□ | TXM130×1000-A1 | TXM130×1000-A3 | TXM130×1000-A5 | TXM130×1000-B30 | TXM130×1000-B40 |
| TXM130×1200-□ | TXM130×1200-A1 | TXM130×1200-A3 | TXM130×1200-A5 | TXM130×1200-B30 | TXM130×1200-B40 |
| TXM130×1400-□ | TXM130×1400-A1 | TXM130×1400-A3 | TXM130×1400-A5 | TXM130×1400-B30 | TXM130×1400-B40 |

Selection-With non-return valve

| Model/ Adsorption surface type | A1 - Single row sponge holes | A3 - Three rows sponge holes | A5 - Five rows sponge holes | B30 - Suction cup type | B40 - Suction cup type |
|-----------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------|---------------------------|
| TXM130×400-□-V | TXM130×400-A1-V | TXM130×400-A3-V | TXM130×400-A5-V | TXM130×400-B30-V | TXM130×400-B40-V |
| TXM130×600-□-V | TXM130×600-A1-V | TXM130×600-A3-V | TXM130×600-A5-V | TXM130×600-B30-V | TXM130×600-B40-V |
| TXM130×800-□-V | TXM130×800-A1-V | TXM130×800-A3-V | TXM130×800-A5-V | TXM130×800-B30-V | TXM130×800-B40-V |
| TXM130×1000-□-V | TXM130×1000-A1-V | TXM130×1000-A3-V | TXM130×1000-A5-V | TXM130×1000-B30-V | TXM130×1000-B40-V |
| TXM130×1200-□-V | TXM130×1200-A1-V | TXM130×1200-A3-V | TXM130×1200-A5-V | TXM130×1200-B30-V | TXM130×1200-B40-V |
| TXM130×1400-□-V | TXM130×1400-A1-V | TXM130×1400-A3-V | TXM130×1400-A5-V | TXM130×1400-B30-V | TXM130×1400-B40-V |

Technical parameters

| Model | Max.theoretical suction force N (-30kPa) | Max.theoretical suction force N (-40kPa) | Max.theoretical suction force N (-50kPa) | Max.theoretical suction force N (-60kPa) | Weight kg V-with non- return valve | Blower connection port dia. mm | QTY of suction hole PCS |
|----------------|--|--|--|--|--|--------------------------------------|-------------------------------|
| TXM130×400-A1 | 280 | 373 | 465 | 559 | 2.3 | φ32 | 15 |
| TXM130×600-A1 | 410 | 546 | 683 | 820 | 3.1 | φ32 | 22 |
| TXM130×800-A1 | 590 | 787 | 984 | 1,180 | 3.9 | φ60 | 30 |
| TXM130×1000-A1 | 690 | 919 | 1,149 | 1,379 | 4.6 | φ60 | 37 |
| TXM130×1200-A1 | 820 | 1,093 | 1,367 | 1,640 | 5.4 | φ60 | 44 |
| TXM130×1400-A1 | 951 | 1,267 | 1,584 | 1,901 | 6.6 | φ60 | 52 |

TXM Series



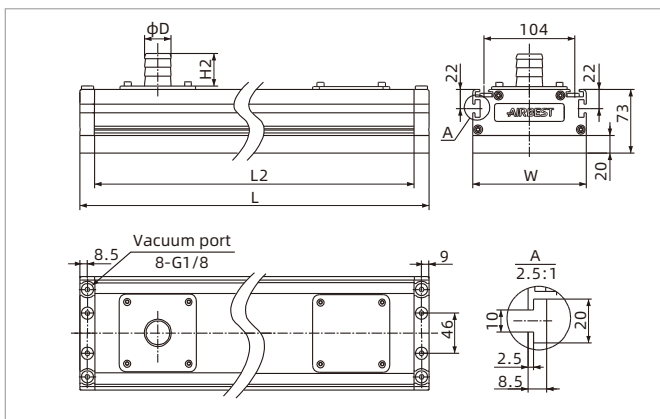
Vacuum Gripper-Blower Standard Type

Technical parameters

| Model | Max.theoretical suction force N (-30kPa) | Max.theoretical suction force N (-40kPa) | Max.theoretical suction force N (-50kPa) | Max.theoretical suction force N (-60kPa) | Weight kg V-with non-return valve | Blower connection port dia. mm | QTY of suction hole PCS |
|-----------------|--|--|--|--|-----------------------------------|--------------------------------|-------------------------|
| TXM130×400-A3 | 169 | 227 | 286 | 344 | 2.3 | φ32 | 65 |
| TXM130×600-A3 | 254 | 343 | 431 | 519 | 3.1 | φ32 | 98 |
| TXM130×800-A3 | 340 | 458 | 576 | 694 | 3.9 | φ60 | 131 |
| TXM130×1000-A3 | 426 | 574 | 721 | 869 | 4.6 | φ60 | 164 |
| TXM130×1200-A3 | 512 | 689 | 866 | 1,044 | 5.4 | φ60 | 197 |
| TXM130×1400-A3 | 598 | 805 | 1,012 | 1,219 | 6.6 | φ60 | 230 |
| TXM130×400-A5 | 170 | 226 | 283 | 340 | 2.3 | φ32 | 108 |
| TXM130×600-A5 | 255 | 340 | 425 | 510 | 3.1 | φ32 | 165 |
| TXM130×800-A5 | 335 | 447 | 558 | 670 | 3.9 | φ60 | 220 |
| TXM130×1000-A5 | 435 | 580 | 725 | 870 | 4.6 | φ60 | 275 |
| TXM130×1200-A5 | 505 | 673 | 842 | 1,010 | 5.4 | φ60 | 330 |
| TXM130×1400-A5 | 590 | 787 | 983 | 1,180 | 6.6 | φ60 | 385 |
| TXM130×400-B30 | 294 | 392 | 490 | 588 | 3.1 | φ32 | 28 |
| TXM130×600-B30 | 451 | 602 | 752 | 903 | 4.1 | φ32 | 43 |
| TXM130×800-B30 | 577 | 770 | 962 | 1,155 | 5.3 | φ60 | 55 |
| TXM130×1000-B30 | 735 | 980 | 1,225 | 1,470 | 6.2 | φ60 | 70 |
| TXM130×1200-B30 | 892 | 1,190 | 1,487 | 1,785 | 7.3 | φ60 | 85 |
| TXM130×1400-B30 | 1,029 | 1,372 | 1,715 | 2,058 | 8.8 | φ60 | 98 |
| TXM130×400-B40 | 432 | 575 | 722 | 867 | 3.3 | φ32 | 23 |
| TXM130×600-B40 | 658 | 875 | 1,099 | 1,319 | 4.6 | φ32 | 35 |
| TXM130×800-B40 | 883 | 1,175 | 1,475 | 1,771 | 6.0 | φ60 | 47 |
| TXM130×1000-B40 | 1,109 | 1,475 | 1,852 | 2,224 | 7.1 | φ60 | 59 |
| TXM130×1200-B40 | 1,334 | 1,775 | 2,229 | 2,676 | 8.5 | φ60 | 71 |
| TXM130×1400-B40 | 1,560 | 2,075 | 2,606 | 3,129 | 10.1 | φ60 | 83 |

◇ Note: The suction force in the above table is the theoretical suction force obtained under the condition that the vacuum gripper is fully covered by a rigid airtight workpiece, and without considering safety factor.

Dimensions(mm)



TXM130×400(600-1400)-A Sponge type

| Model/Size | L | L2 | W | D | H2 |
|---------------|-------|-------|-----|----|----|
| TXM130×400-A | 434 | 400 | 130 | 33 | 40 |
| TXM130×600-A | 634 | 600 | 130 | 33 | 40 |
| TXM130×800-A | 834 | 800 | 130 | 61 | 50 |
| TXM130×1000-A | 1,034 | 1,000 | 130 | 61 | 50 |
| TXM130×1200-A | 1,234 | 1,200 | 130 | 61 | 50 |
| TXM130×1400-A | 1,434 | 1,400 | 130 | 61 | 50 |

Vacuum gripper

TXN

TXD

TXC

TXM

TXP

TXH

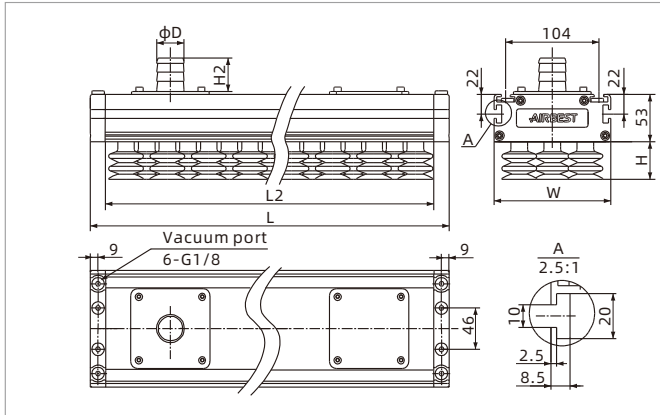
TXL

TXM Series



Vacuum Gripper-Blower Standard Type

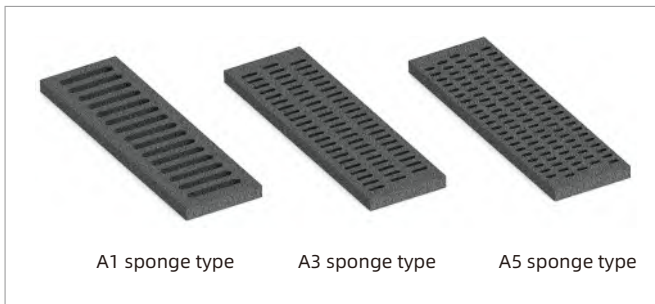
Dimensions(mm)



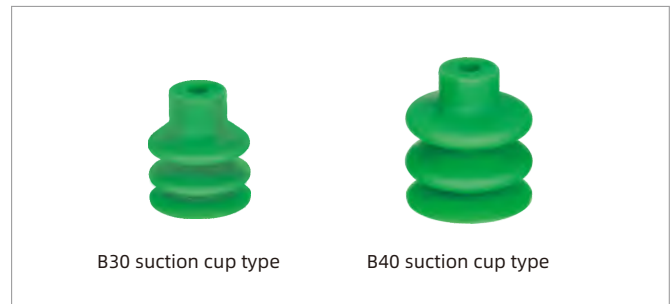
TXM130×400(600-1400)-B Suction cup type

| Model/size | L | L2 | W | D | H2 | H | B30 | B40 |
|---------------|-------|-------|-----|----|----|----|-----|-----|
| TXM130×400-B | 434 | 400 | 130 | 33 | 40 | 37 | 45 | |
| TXM130×600-B | 634 | 600 | 130 | 33 | 40 | 37 | 45 | |
| TXM130×800-B | 834 | 800 | 130 | 61 | 50 | 37 | 45 | |
| TXM130×1000-B | 1,034 | 1,000 | 130 | 61 | 50 | 37 | 45 | |
| TXM130×1200-B | 1,234 | 1,200 | 130 | 61 | 50 | 37 | 45 | |
| TXM130×1400-B | 1,434 | 1,400 | 130 | 61 | 50 | 37 | 45 | |

Spare parts selection(mm)



Sponge type



Suction cup type

Spare parts selection

| Item | Model | Dimension mm |
|-------------|------------------------------------|--------------|
| Sponge | TXC400-A1, TXC400-A3, TXC400-A5 | 434×130×20 |
| | TXC600-A1, TXC600-A3, TXC600-A5 | 634×130×20 |
| | TXC800-A1, TXC800-A3, TXC800-A5 | 834×130×20 |
| | TXC1000-A1, TXC1000-A3, TXC1000-A5 | 1034×130×20 |
| | TXC1200-A1, TXC1200-A3, TXC1200-A5 | 1234×130×20 |
| | TXC1400-A1, TXC1400-A3, TXC1400-A5 | 1434×130×20 |
| Suction cup | SPC30S | φ30 |
| | SPC40S | φ40 |

◇ Note: Sponges are consumables in this product. Please replace it in time according to actual working conditions, otherwise, it will affect the adsorption effect.
Operating temperature: - 10 ~ 60 °C, do not contact with strong acid, strong alkali and other corrosive gas or liquid, do not contact with sharp objects.

TXP Series

Vacuum Gripper-Oval Shaped



PACKAGING

Features

- ◇ The housing is made of high quality stainless steel
- ◇ External blower is used for vacuum source
- ◇ Large inside area structure

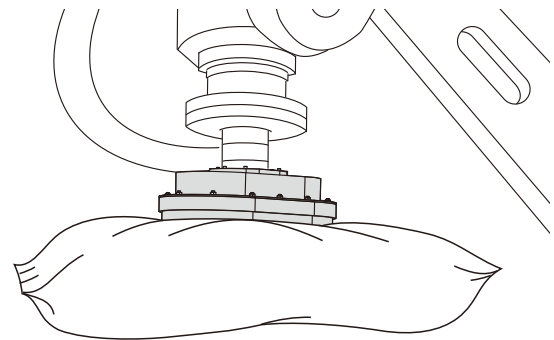
Advantages

- ◇ High strength, mainly used in high load working conditions
- ◇ Achieve stable and fast handling of products
- ◇ Maximize the suction force by increasing the adsorption area



Applications

- ◇ Mainly used for handling objects with large deformation, serious concave and convex surface and certain air permeability under high load conditions, such as flour bags, rice bags, cement bags and so on

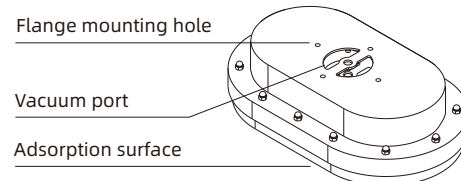
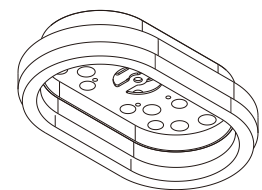


Vacuum gripper

- TXN
- TXD
- TXC
- TXM**
- TXP**
- TXH
- TXL

Structure

- ◇ The housing is made of stainless steel, and the flange mounting hole is reserved at the top
- ◇ Large area oval cavity structure design
- ◇ Foam rubber is used for adsorption with good sealing and long lifetime.
The foam rubber can be purchased separately and replaced by users themselves



How to order

TXP 230×380 - A

① ② ③

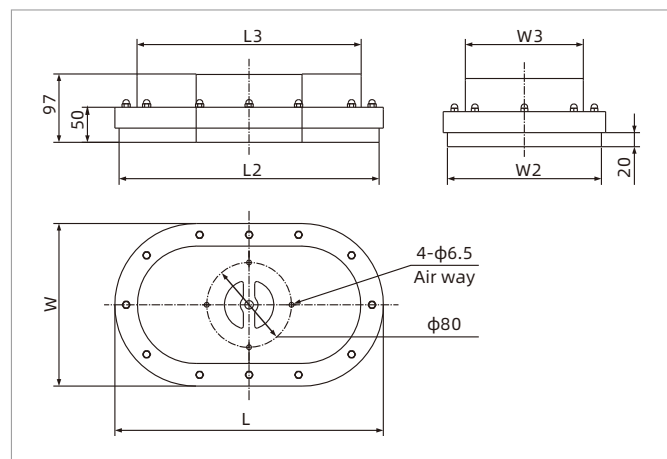
| ① Series | ② Dimension | ③ Adsorption surface type |
|----------|--------------------|---------------------------|
| TXP | 190×290 230×380 | A - Foam rubber |

Technical parameters

| Model | Recommended blower flow m ³ /h | Max.theoretical suction force N (-40kPa) | Weight kg | Recommended hose dia. of blower mm |
|--------------|--|---|--------------|--|
| TXP190×290-A | 200 | 860 | 2.9 | φ60 |
| TXP230×380-A | 200 | 1,440 | 4.0 | φ60 |

◇ Note: The suction force in the above table is the theoretical suction force obtained under the condition that the vacuum gripper is fully covered by a rigid airtight workpiece, and without considering safety factor.

Dimensions(mm)



| Model/size | W | W2 | W3 | L | L2 | L3 |
|--------------|-----|-----|-----|-----|-----|-----|
| TXP190×290-A | 200 | 190 | 132 | 300 | 280 | 236 |
| TXP230×380-A | 228 | 220 | 164 | 378 | 360 | 314 |

TXP

Spare parts selection

| Item | Model | Applicable vacuum gripper |
|-------------|--------|---------------------------|
| Foam rubber | TXP190 | TXP190×290-A |
| | TXP230 | TXP230×380-A |

TXH Series

Vacuum Gripper-Heavy Load Type



UNIVERSAL HEAVY LOAD

Features

- ◇ Large area structure design
- ◇ Vacuum source can be built-in vacuum generator or external blower
- ◇ Suction cup type and sponge type are optional for adsorption surface
- ◇ Built-in non-return valve structure

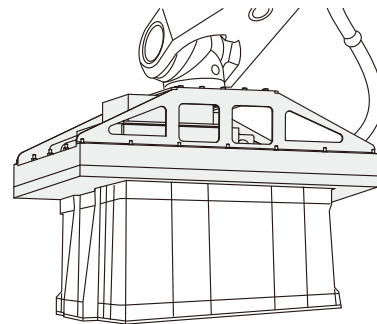
Advantages

- ◇ Large area adsorption structure, mainly used in high load working conditions
- ◇ Customers can select flexibly according to the actual working conditions
- ◇ Suitable for the handling of various industries
- ◇ It can meet the handling of different dimension workpieces



Applications

- ◇ Mainly used in heavy load sorting system, intelligent warehousing, stacking and unstacking, logistics, etc.



Vacuum gripper

- TXN
- TXD
- TXC
- TXM
- TXP**
- TXH
- TXL

How to order

TXH 500×700 - A - C - V
① ② ③ ④ ⑤

| Series | Dimension | ③ Adsorption surface type | ④ Vacuum source | ⑤ Non-return valve |
|--------|-----------|---------------------------|------------------------------------|-------------------------|
| TXH | 500×700 | A - Sponge | Nil - Without vacuum source | V-with non-return valve |
| | 800×1000 | B40 - Suction cup | C - With external vacuum generator | |
| | 1100×1300 | | | |

Selection

| Model/Adsorption surface type | A - Sponge | B40 - Suction cup |
|-------------------------------|------------------|--------------------|
| TXH500×700-□-C-V | TXH500×700-A-C-V | - |
| TXH800×1000-□-V | TXH800×1000-A-V | TXH800×1000-B40-V |
| TXH1100×1300-□-V | TXH1100×1300-A-V | TXH1100×1300-B40-V |

TXH500×700-A-C-V

Vacuum Gripper-Heavy Load Type



Features

- ◇ Large area handling, heavy load application
- ◇ Built-in large flow vacuum generator, fast reaction time
- ◇ Built-in non-return valve structure, which can meet the handling of various dimension workpieces
- ◇ The adsorption surface is sponge
- ◇ Mainly used in sorting system, stacking and unstacking industry

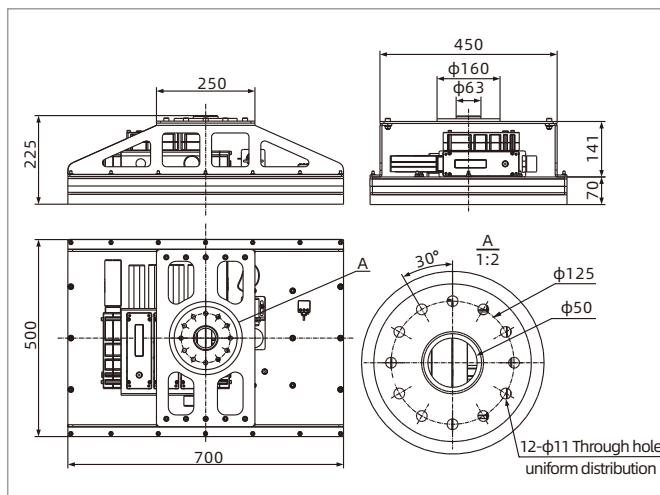


Technical parameters

| Model | Rated air supply pressure bar | Max.vacuum level -kPa | Max.vacuum flow NL/min | Air consumption NL/min | Max.theoretical suction force N (-40kPa) | Mounting bracket | Weight kg | Recommended hose dia. mm Air supply port (P) |
|------------------|-------------------------------|-----------------------|------------------------|------------------------|--|------------------|-----------|---|
| TXH500×700-A-C-V | 6.0 | 85 | 3,710 | 2,300 | 1,440 | with | 36.5 | φ16 |

- ◇ Note: 1. The detecting device includes 1 mechanical negative pressure gauge, 1 digital pressure gauge and 1 photoelectric inductive switch, and NPN output
- 2. The data of theoretical suction force as above are figured out in the condition that the gripper is fully covered by rigid airtight workpieces without considering safety factor.

Dimensions(mm)



TXH500×700-A-C-V

Spare parts selection

| Item | Model | Dimension mm | Applicable vacuum gripper |
|--------|------------|--------------|---------------------------|
| Sponge | TXH500×700 | 500×700×25 | TXH500×700-A-C-V |

TXH500×700-A-V

Vacuum Gripper-Heavy Load Type

Features

- ◇ Applicable for packaging and logistics industry, such as box handling, stacking and unstacking. High quality sponge fits the uneven surface perfectly with the performance of long lifetime and good sealing. The vacuum source is external blower. It is equipped with built-in check valve and reversing valve control unit for blower. The vacuum detecting switch and approach switch are equipped as well to provide convenience for automatic control systems

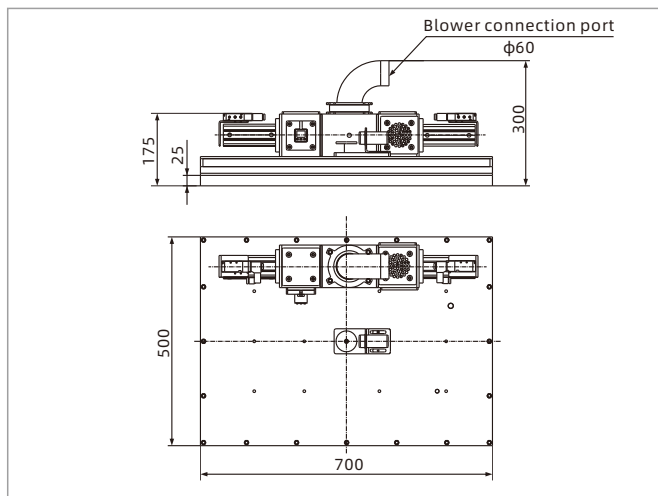


Technical parameters

| Model | Max.theoretical suction force N (-40kPa) | Recommended blower flow m ³ /h | Working voltage of control unit V | Reverser for blower | Mounting bracket | Weight kg | Blower connection port dia. mm |
|----------------|---|--|--------------------------------------|---------------------|------------------|--------------|-----------------------------------|
| TXH500×700-A-V | 1,440 | 170 | DC24V | with | without | 36.5 | φ60 |

- ◇ Note: 1. The detecting device includes 1 mechanical negative pressure gauge, 1 digital pressure gauge and 1 photoelectric inductive switch.
- 2. The data of theoretical suction force as above are figured out in the condition that the gripper is fully covered by rigid airtight workpieces without considering safety factor.

Dimensions(mm)



TXH500×700-A-V

Spare parts selection

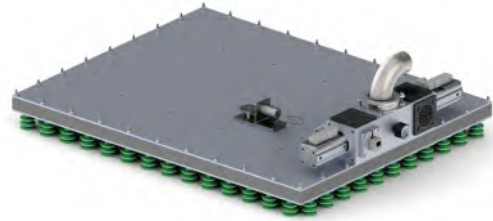
| Item | Model | Dimension mm | Applicable vacuum gripper |
|--------|------------|-----------------|---------------------------|
| Sponge | TXH500×700 | 500×700×25 | TXH500×700-A-V |

TXH800×1000-B40-V

Vacuum Gripper-Heavy Load Type

Features

- ◇ Applicable for packaging and logistics industry, such as box handling, stacking and unstacking. High quality sponge fits the uneven surface perfectly with the performance of long lifetime and good sealing. The vacuum source is external blower. It is equipped with built-in check valve and reversing valve control unit for blower. The vacuum detecting switch and approach switch are equipped as well to provide convenience for automatic control systems

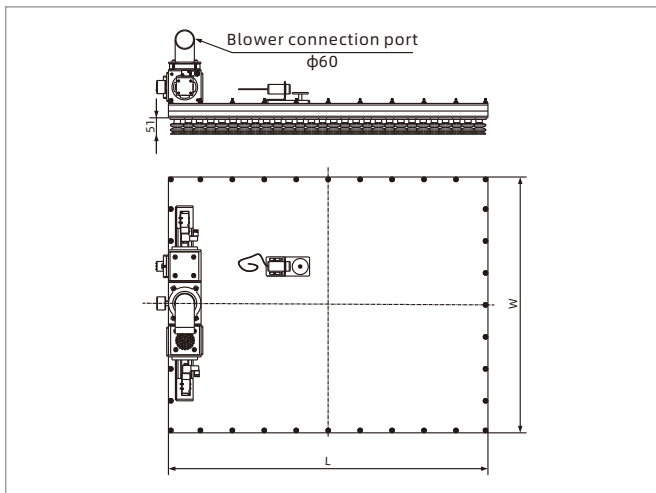


Technical parameters

| Model | Max.theoretical suction force N (-40kPa) | Recommended blower flow m ³ /h | Working voltage of control unit V | Reverser for blower | Mounting bracket | Weight kg | Blower connection port dia. mm |
|--------------------|--|---|-----------------------------------|---------------------|------------------|-----------|--------------------------------|
| TXH800×1000-B40-V | 3,850 | 320 | DC24V | with | without | 56 | φ60 |
| TXH1100×1300-B40-V | 5,200 | 520 | DC24V | with | without | 79 | φ60 |

- ◇ Note: 1. The detecting device includes 1 mechanical negative pressure gauge, 1 digital pressure gauge and 1 photoelectric inductive switch.
- 2. The data of theoretical suction force as above are figured out in the condition that the gripper is fully covered by rigid airtight workpieces without considering safety factor.

Dimensions(mm)



| Model/Size | W | L |
|--------------------|-------|-------|
| TXH800×1000-B40-V | 800 | 1,000 |
| TXH1100×1300-B40-V | 1,100 | 1,300 |

TXH800×1000-B40-V TXH1100×1300-B40-V

Spare parts selection

| Item | Model | Dimension mm | Applicable vacuum gripper |
|-------------|--------------|--------------|--------------------------------------|
| Sponge | TXH800×1000 | 800×1000×25 | TXH800×1000-A-V |
| | TXH1100×1300 | 1100×1300×25 | TXH1100×1300-A-V |
| Suction cup | SPC40S | φ40 | TXH800×1000-B40-V、TXH1100×1300-B40-V |

TXL Series

Vacuum Gripper -Combined Type



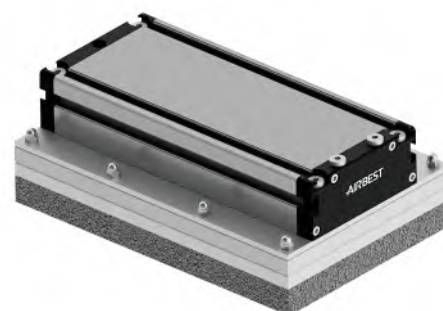
UNIVERSAL

Features

- ◇ The product is of modular structure
- ◇ The housing is made of high quality aluminum alloy
- ◇ Built -in large flow vacuum generator and external blower are optional
- ◇ Suction cup type and sponge type are optional for adsorption surface
- ◇ Built-in non-return valve can be selected

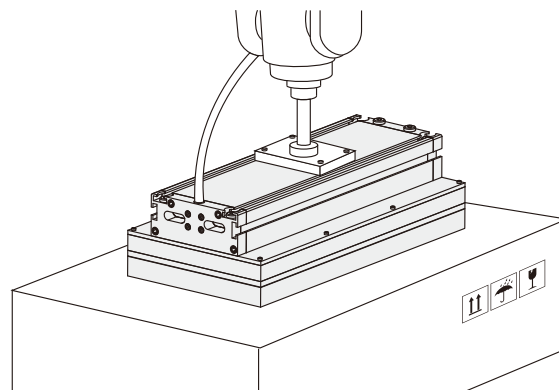
Advantages

- ◇ Different sizes can be combined freely
- ◇ High strength and light weight
- ◇ Fast reaction time
- ◇ Suitable for the handling of various industries
- ◇ It can meet the handling of different dimension workpieces



Applications

- ◇ Mainly used in the packaging industry, such as intelligent warehousing, intelligent logistics, stacking and unstacking, unmanned sorting, etc.
- ◇ With built-in non-return valve, it can be used to adsorb the workpieces with certain leakage, different sizes and different shapes
- ◇ Because of its light weight, it is very suitable for robots



Vacuum gripper

TXN

TXD

TXC

TXM

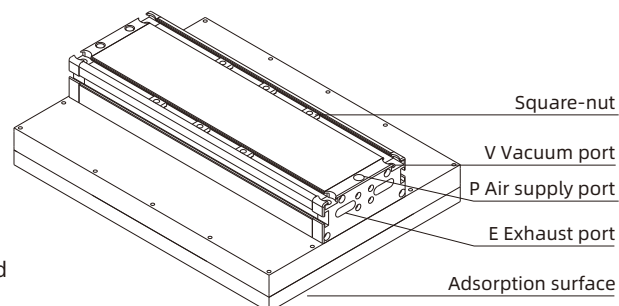
TXP

TXH

TXL

Structure

- ◇ The main body is made of aluminum alloy, with T-shaped slots on the front and side respectively, which can be used for installation or mounting of the inductive switch
- ◇ It is equipped with Square-nut (M8 × 18 × 14 × 5.5)
- ◇ The gripper has one air supply port (G1/4F) and six vacuum ports (6-G1/8F), direct exhaust from the side of the air supply end cover
- ◇ Built-in vacuum generator type and external blower type can be selected
- ◇ Non-return valve is optional



Vacuum Gripper -Combined Type

How to order

TXL 200×300 - A - C - V
①
②
③
④
⑤

| ① Series | ② Dimension | ③ Adsorption surface type | ④ Vacuum source type | ⑤ Non-return valve |
|----------|-------------|---------------------------|-----------------------------|---|
| TXL | 200×300 | A - sponge type | Nil-Blower type | Nil - Default, Without non-return valve |
| | 200×400 | B40 - suction cup type | C-Built-in vacuum generator | (Throttling hole structure) |
| | 300×300 | | | V - With non-return valve |
| | 300×400 | | | (Ball valve structure) |

Selection-Vacuum generator type

| Model/Adsorption surface type | A - Sponge type | B - Suction cup type |
|-------------------------------|------------------|----------------------|
| TXL200×300-□-C | TXL200×300-A-C | TXL200×300-B40-C |
| TXL200×300-□-C-V | TXL200×300-A-C-V | TXL200×300-B40-C-V |
| TXL200×400-□-C | TXL200×400-A-C | TXL200×400-B40-C |
| TXL200×400-□-C-V | TXL200×400-A-C-V | TXL200×400-B40-C-V |
| TXL300×300-□-C | TXL300×300-A-C | TXL300×300-B40-C |
| TXL300×300-□-C-V | TXL300×300-A-C-V | TXL300×300-B40-C-V |
| TXL300×400-□-C | TXL300×400-A-C | TXL300×400-B40-C |
| TXL300×400-□-C-V | TXL300×400-A-C-V | TXL300×400-B40-C-V |

Selection-Blower type

| Model/Adsorption surface type | A - Sponge type | B - Suction cup type |
|-------------------------------|-----------------|----------------------|
| TXL200×300-□ | TXL200×300-A | TXL200×300-B40 |
| TXL200×300-□-V | TXL200×300-A-V | TXL200×300-B40-V |
| TXL200×400-□ | TXL200×400-A | TXL200×400-B40 |
| TXL200×400-□-V | TXL200×400-A-V | TXL200×400-B40-V |
| TXL300×300-□ | TXL300×300-A | TXL300×300-B40 |
| TXL300×300-□-V | TXL300×300-A-V | TXL300×300-B40-V |
| TXL300×400-□ | TXL300×400-A | TXL300×400-B40 |
| TXL300×400-□-V | TXL300×400-A-V | TXL300×400-B40-V |

Technical parameters-Vacuum generator type

| Model | Rated air supply pressure bar | Max. vacuum flow NL/min | Air consumption NL/min | Max. theoretical suction force N (-60kPa) | Weight (kg) V-with non-return valve | Recommended hose dia. mm | QTY of suction hole PCS |
|------------------|-------------------------------|-------------------------|------------------------|---|-------------------------------------|--------------------------|-------------------------|
| TXL200×300-A-C | 6.0 | 1,050 | 345 | 415 | 4.1 | 1×φ10 | 126 |
| TXL200×400-A-C | 6.0 | 1,410 | 460 | 563 | 5.2 | 1×φ10 | 171 |
| TXL300×300-A-C | 6.0 | 1,410 | 460 | 646 | 5.8 | 1×φ10 | 196 |
| TXL300×400-A-C | 6.0 | 1,410 | 460 | 874 | 8.4 | 1×φ10 | 266 |
| TXL200×300-B40-C | 6.0 | 1,050 | 345 | 1,055 | 4.6 | 1×φ10 | 28 |
| TXL200×400-B40-C | 6.0 | 1,050 | 345 | 1,432 | 6.1 | 1×φ10 | 38 |
| TXL300×300-B40-C | 6.0 | 1,050 | 345 | 1,469 | 6.8 | 1×φ10 | 39 |
| TXL300×400-B40-C | 6.0 | 1,050 | 345 | 1,997 | 9.4 | 1×φ10 | 53 |

TXL Series



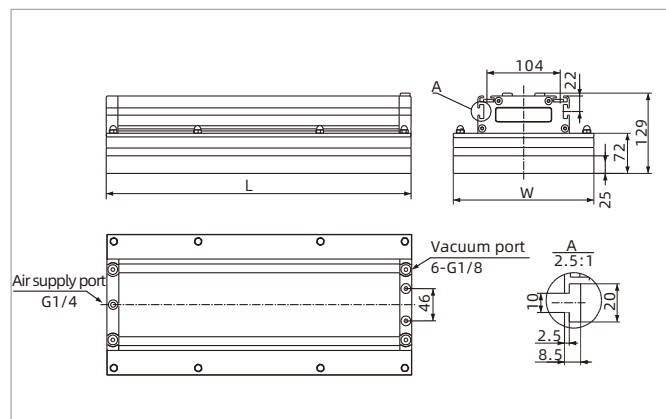
Vacuum Gripper - Combined Type

Technical parameters-Blower type

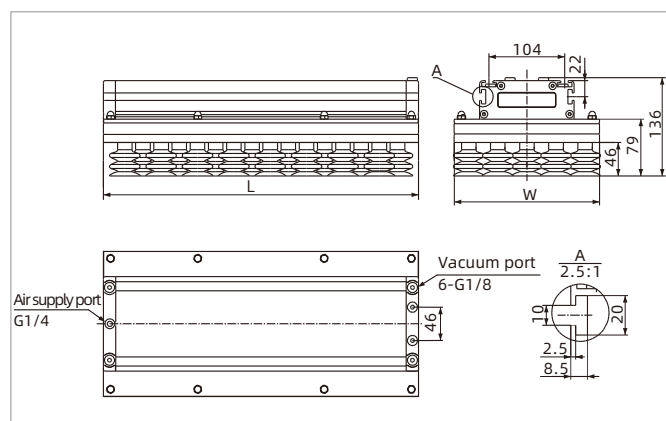
| Model | Max.theoretical suction force N (-30kPa) | Max.theoretical suction force N (-40kPa) | Max.theoretical suction force N (-50kPa) | Max.theoretical suction force N (-60kPa) | Weight (kg) V-with non-return valve | Blower connection port dia. mm | QTY of suction hole PCS |
|------------------|--|--|--|--|-------------------------------------|--------------------------------|-------------------------|
| TXL200×300-A-□ | 208 | 277 | 346 | 415 | 3.8 | φ60 | 126 |
| TXL200×400-A-□ | 282 | 375 | 469 | 563 | 4.9 | φ60 | 171 |
| TXL300×300-A-□ | 323 | 431 | 538 | 646 | 5.5 | φ60 | 196 |
| TXL300×400-A-□ | 437 | 583 | 728 | 874 | 8.1 | φ60 | 266 |
| TXL200×300-B40-□ | 526 | 701 | 879 | 1,055 | 4.3 | φ60 | 28 |
| TXL200×400-B40-□ | 714 | 950 | 1,193 | 1,432 | 5.8 | φ60 | 38 |
| TXL300×300-B40-□ | 733 | 975 | 1,224 | 1,469 | 6.5 | φ60 | 39 |
| TXL300×400-B40-□ | 996 | 1,325 | 1,664 | 1,997 | 9.1 | φ60 | 53 |

◇ Note: The suction force in the above table is the theoretical suction force obtained under the condition that the vacuum gripper is fully covered by a rigid airtight workpiece, and without considering safety factor.

Dimensions(mm)



TXL Sponge type



TXL Suction cup type

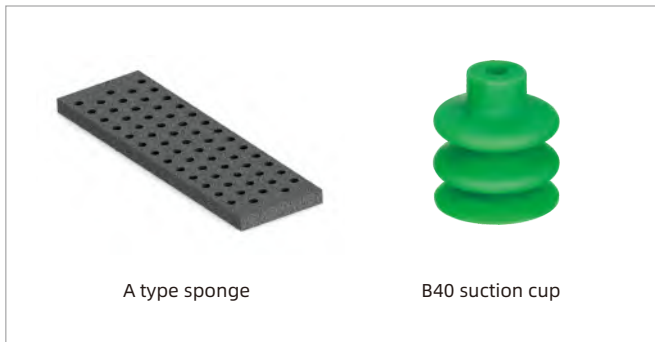
| Model/Size | L | W |
|----------------|-----|-----|
| TXL200×300-A-□ | 300 | 200 |
| TXL200×400-A-□ | 400 | 200 |
| TXL300×300-A-□ | 300 | 300 |
| TXL300×400-A-□ | 400 | 300 |

| Model/Size | L | W |
|------------------|-----|-----|
| TXL200×300-B40-□ | 300 | 200 |
| TXL200×400-B40-□ | 400 | 200 |
| TXL300×300-B40-□ | 300 | 300 |
| TXL300×400-B40-□ | 400 | 300 |

Vacuum gripper

- TXN
- TXD
- TXC
- TXM
- TXP
- TXH
- TXL

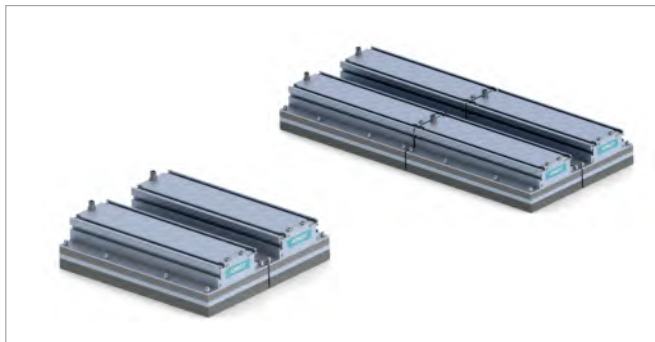
Spare parts selection(mm)



Spare parts selection

| Item | Model | Dimension mm |
|-------------|---------------|--------------|
| Sponge | TXL200×300-A5 | 200×300×25 |
| | TXL200×400-A5 | 200×400×25 |
| | TXL300×300-A5 | 300×300×25 |
| | TXL300×400-A5 | 300×400×25 |
| Suction cup | SPC40S | φ40 |

Example of modular



Selection remark:

- In the selection of gripper series products, it is necessary to carefully check the operating conditions, and select a suitable gripper model according to the different features of the grabbing workpiece.
- In the selection manual, the gripper which is driven by vacuum generator, is required to use clean and dry compressed air.
- In the selection manual, for the gripper products driven by the blowers, select a suitable model of the blowers according to the recommendation. All products in the selection manual do not include the blower, the blower has to be purchased by the customer separately.
- The air supply pressure in the selection manual refers to the air supply pressure of the product under the operating condition. It is recommended that the fluctuation range of the operating pressure value is within $\pm 10\%$ of the air supply pressure standard value.
- The theoretical maximum suction value in the selection manual is the recommended value calculated according to the theory of grabbing specific workpieces under the specific vacuum level. It is only the reference for the gripper selection, and not the only basis for grabbing any workpieces by the gripper.
- All models of the products in the manual can only work under normal temperature and pressure. If there is a need for use in special environment (high temperature, high humidity, high oil pollution, high dust, corrosiveness, radioactivity, etc.), please contact the company's customer service for consultation.
- All products in the selection manual have rated life. The rated life of each product is determined by the surface roughness, material, hardness, working condition environment, use frequency and other factors. Customers can contact the company's customer service according to the specific application conditions.
- In order to prolong the operation life of the adsorption surface (sponge / rubber suction cup) of the gripper, it is suggested that the normal use method: when grabbing the workpiece, first contact closely the workpiece, and then open the vacuum; When placing the workpiece, first stabilize the workpiece, and then turn off the vacuum.
- In order to improve product quality and customer experience, we will continuously improve the product, and inform customers of the update information in time.

F Mounting parts

Mounting Parts

Products overview

Mounting Parts

403 PSPE Series

Small and Light Level Compensator

- ◇ Connection thread: M5 M8
- ◇ Buffer stroke: 6~50mm



ELECTRONICS



419 PSPD Series

Double Springs Heavy-duty Compensator

- ◇ Connection thread: G1/4
G3/8 G1/2
- ◇ Buffer stroke: 25~90mm



UNIVERSAL HEAVY LOAD



407 PSPL Series

Retractive Level Compensator

- ◇ Connection thread: M5
- ◇ Buffer stroke: 3~20mm



ELECTRONICS



422 PSPF Series

Compact Level Compensator

- ◇ Connection thread: M5 M8 G1/8
- ◇ Buffer stroke: 10~50mm



ELECTRONICS



409 PSPS Series

Retractive Level Compensator

- ◇ Connection thread: M10
- ◇ Buffer stroke: 10~20mm



UNIVERSAL



425 PJS Series

Fitting For Suction Cup

- ◇ Connection thread: M5 G1/8
G1/4 G3/8
- ◇ Special specification: EW EH



UNIVERSAL



412 PSPT Series

Universal Level Compensator

- ◇ Connection thread: G1/8
G1/4 G3/8
- ◇ Buffer stroke: 10~110mm



UNIVERSAL



429 PJT Series

Universal Mounting Parts-Adapter

- ◇ Connection thread: M5 M8
G1/8 G1/4 G3/8 G1/2



UNIVERSAL



416 PSPH Series

Heavy-duty Level Compensator

- ◇ Connection thread: G1/4
G3/8 G1/2
- ◇ Buffer stroke: 25~90mm



UNIVERSAL HEAVY LOAD



431 PJF Series

Universal Mounting Parts-Locking Fitting

- ◇ Connection thread: M5 M8 G1/8



UNIVERSAL



Mounting Parts

Products overview

Mounting Parts

433 PJB Series

Universal Mounting Parts-Ball Joint

- ◇ Connection thread: M10 G1/8
G1/2 G1/4



UNIVERSAL



441 PDA Series

Universal Block Plug

- ◇ Sealing specification:
Countersunk, Horizontal



UNIVERSAL



434 PJE Series

Universal Mounting Parts-Flexible Joint

- ◇ Vacuum connection thread:
G1/4 G1/2
- ◇ Max.deflection angle: 12°



UNIVERSAL



443 PDR Series

Positive Pressure/Vacuum Shunt

- ◇ Branching port: 5, 9
- ◇ Main port: G1/4 G3/8



UNIVERSAL



435 PJH Series

Universal Mounting Parts-Flexible Joint

- ◇ Connection thread: G1/4 G3/8
- ◇ Max.deflection angle: 15°



UNIVERSAL



445 PTS Series

PVC Transparent Wired Hose

- ◇ Operating pressure range: 0.2~7.0bar
- ◇ Min.inner diameter: 19mm



UNIVERSAL



437 PJP Series

Universal One-touch Fitting

- ◇ Hose specification: $\phi 4 \sim \phi 14$ mm



UNIVERSAL



446 PTK Series

Stainless Steel Hose Clamp

- ◇ Width: 12mm
- ◇ Thickness: 0.68mm



UNIVERSAL



440 PJJ Series

Universal Pagoda Fitting

- ◇ Hose specification: $\phi 6 \sim \phi 32$ mm



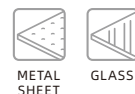
UNIVERSAL



447 PSW Series

吸盘保护套

- ◇ Specification: $\phi 150 \sim \phi 400$ mm



METAL SHEET GLASS



PSPE Series

Small and Light Level Compensator

AIRBEST



ELECTRONICS

RoHS

Features

- ◇ Level compensator with built-in spring, small elasticity
- ◇ Small size and light weight
- ◇ The guide rod is made of stainless steel
- ◇ Oilless wear-resistant bushing is built in the guide sleeve

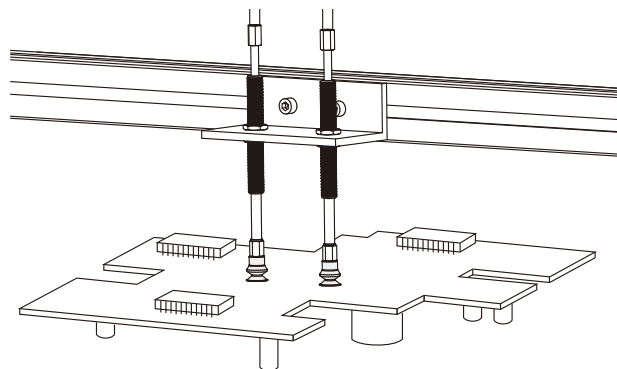
Advantages

- ◇ Avoid pollution and external mechanical force, flexible contact
- ◇ Suitable for fast handling in small space
- ◇ Resistant to environment, corrosion and abrasion
- ◇ Improve the life time of the products and reduce the noise of the products
- ◇ Ensure the accurate positioning of the workpieces



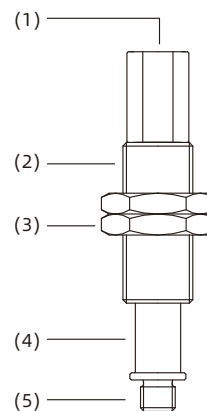
Applications

- ◇ Suitable for electronic industry
- ◇ Suitable for handling light and small workpieces with flexible contact
- ◇ Suitable for handling workpieces with height difference
- ◇ The non-rotating level compensator is suitable for the working condition requiring accurate positioning



Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Guide rod
- ◇ (5) Suction cup connection



PSPE Series

Small and Light Level Compensator

How to order

PSPE - I 10 L A4 M5M - M10

① ② ③ ④ ⑤ ⑥ ⑦

| ① Series | ② Buffer style | ③ Buffer stroke | ④ Rotary type | ⑤ Vacuum port connection | ⑥ Suction cup connection | ⑦ Mounting thread |
|----------|---------------------|-----------------|---------------------------|---------------------------------|-----------------------------|-------------------|
| PSPE | I - Built-in spring | 6 25 | Nil - Vertical rotating | Nil - Default | M5F - M5×0.8 female thread | M8 - M8×1 |
| | | 10 30 | R - Vertical non-rotating | A4 - One-touch fitting, φ4 hose | M5M - M5×0.8 male thread | M10 - M10×1 |
| | | 15 40 | L - Lateral rotating | A6 - One-touch fitting, φ6 hose | M8F - M8×1.25 female thread | M14 - M14×1 |
| | | 20 50 | B - Lateral non-rotating | | M8M - M8×1.25 male thread | |

Selection-Vertical direction

| Model/Connection thread M5M | RM5M | M5F | M8M | M8F |
|--------------------------------|------------------|-----------------|-----------------|-----------------|
| PSPE-I10M5M-M10 | PSPE-I10RM5M-M10 | PSPE-I10M5F-M10 | PSPE-I10M8M-M14 | PSPE-I10M8F-M14 |
| PSPE-I20M5M-M10 | PSPE-I20RM5M-M10 | PSPE-I20M5F-M10 | PSPE-I20M8M-M14 | PSPE-I20M8F-M14 |
| PSPE-I30M5M-M10 | PSPE-I30RM5M-M10 | PSPE-I30M5F-M10 | PSPE-I30M8M-M14 | PSPE-I30M8F-M14 |
| PSPE-I40M5M-M10 | PSPE-I40RM5M-M10 | PSPE-I40M5F-M10 | - | - |
| PSPE-I50M5M-M10 | PSPE-I50RM5M-M10 | PSPE-I50M5F-M10 | PSPE-I50M8M-M14 | PSPE-I50M8F-M14 |

Selection-Lateral direction

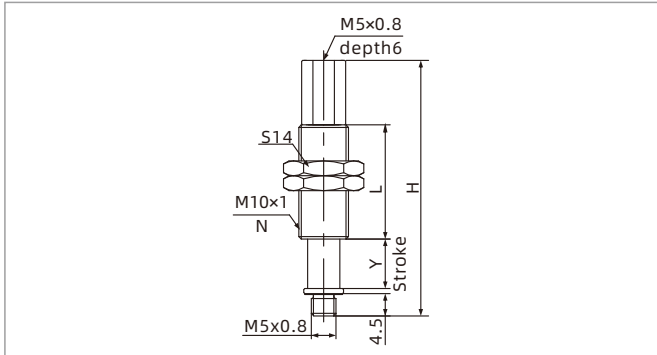
| Model/Connection thread LA4M5M | LA6M5M | BA4M5M | BA6M5M |
|-----------------------------------|--------------------|--------------------|--------------------|
| PSPE-I6LA4M5M-M8 | PSPE-I6LA6M5M-M8 | PSPE-I6BA4M5M-M8 | PSPE-I6BA6M5M-M8 |
| PSPE-I10LA4M5M-M8 | PSPE-I10LA6M5M-M8 | PSPE-I10BA4M5M-M8 | PSPE-I10BA6M5M-M8 |
| PSPE-I15LA4M5M-M8 | PSPE-I15LA6M5M-M8 | PSPE-I15BA4M5M-M8 | PSPE-I15BA6M5M-M8 |
| PSPE-I25LA4M5M-M8 | PSPE-I25LA6M5M-M8 | PSPE-I25BA4M5M-M8 | PSPE-I25BA6M5M-M8 |
| PSPE-I10LA4M5M-M10 | PSPE-I10LA6M5M-M10 | PSPE-I10BA4M5M-M10 | PSPE-I10BA6M5M-M10 |
| PSPE-I20LA4M5M-M10 | PSPE-I20LA6M5M-M10 | PSPE-I20BA4M5M-M10 | PSPE-I20BA6M5M-M10 |
| PSPE-I30LA4M5M-M10 | PSPE-I30LA6M5M-M10 | PSPE-I30BA4M5M-M10 | PSPE-I30BA6M5M-M10 |
| PSPE-I40LA4M5M-M10 | PSPE-I40LA6M5M-M10 | PSPE-I40BA4M5M-M10 | PSPE-I40BA6M5M-M10 |
| PSPE-I50LA4M5M-M10 | PSPE-I50LA6M5M-M10 | PSPE-I50BA4M5M-M10 | PSPE-I50BA6M5M-M10 |

◇ Note: It is suggested that the actual working compressed stroke of level compensator should not exceed 50% of its max. compressed stroke

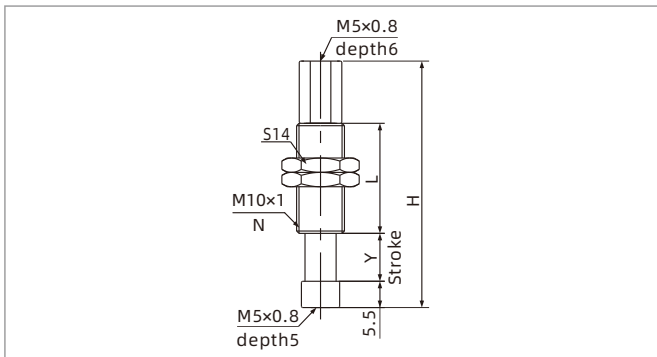
PSPE Series

Small and Light Level Compensator

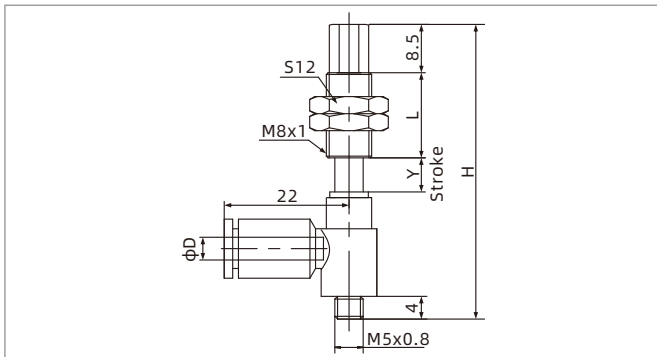
Dimensions(mm)



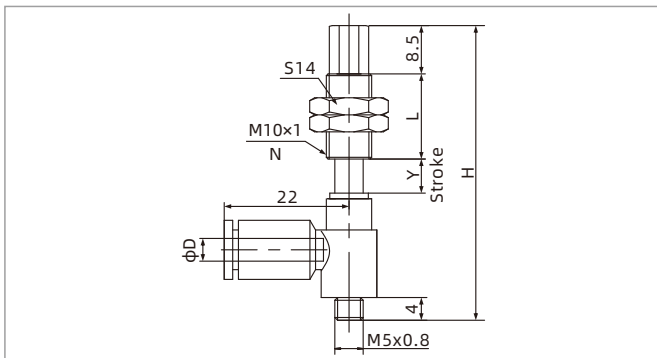
M5M-Vertical male thread connection



M5F-Vertical female thread connection



M5M-Lateral male thread connection



M5M-Lateral male thread connection

◇ Note: No thread at N, non-rotating N=4, rotating N=3

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|--------------------|-------|----|----|----------|------|------|
| PSPE-I10(R)M5M-M10 | 51.5 | 23 | 10 | 22 | 1.0 | 3.0 |
| PSPE-I20(R)M5M-M10 | 89.5 | 51 | 20 | 34 | 1.0 | 3.0 |
| PSPE-I30(R)M5M-M10 | 99.5 | 51 | 30 | 36 | 1.0 | 3.0 |
| PSPE-I40(R)M5M-M10 | 135.5 | 77 | 40 | 47 | 1.0 | 3.0 |
| PSPE-I50(R)M5M-M10 | 145.5 | 77 | 50 | 50 | 1.0 | 3.0 |

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|-----------------|-------|----|----|----------|------|------|
| PSPE-I10M5F-M10 | 51.5 | 23 | 10 | 23 | 1.0 | 3.0 |
| PSPE-I20M5F-M10 | 89.5 | 51 | 20 | 36 | 1.0 | 3.0 |
| PSPE-I30M5F-M10 | 99.5 | 51 | 30 | 38 | 1.0 | 3.0 |
| PSPE-I40M5F-M10 | 135.5 | 77 | 40 | 49 | 1.0 | 3.0 |
| PSPE-I50M5F-M10 | 145.5 | 77 | 50 | 51 | 1.0 | 3.0 |

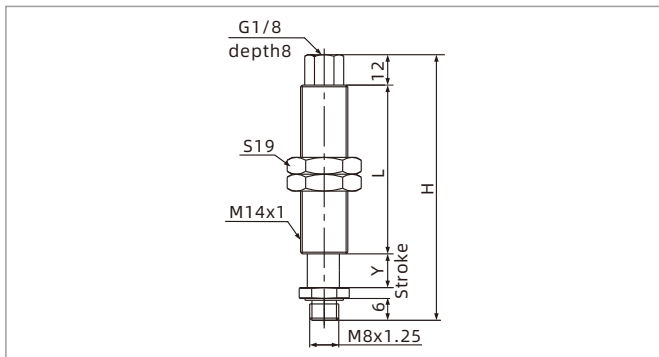
| Model/Size | H | L | Y | D | Weight g | F1 N | F2 N |
|----------------------|----|----|----|---|----------|------|------|
| PSPE-I6L(B)A4M5M-M8 | 52 | 15 | 6 | 4 | 19 | 0.8 | 1.2 |
| PSPE-I6L(B)A6M5M-M8 | 52 | 15 | 6 | 6 | 20 | 0.8 | 1.2 |
| PSPE-I10L(B)A4M5M-M8 | 84 | 43 | 10 | 4 | 26 | 0.8 | 1.2 |
| PSPE-I10L(B)A6M5M-M8 | 84 | 43 | 10 | 6 | 28 | 0.8 | 1.2 |
| PSPE-I15L(B)A4M5M-M8 | 89 | 43 | 15 | 4 | 27 | 0.8 | 1.2 |
| PSPE-I15L(B)A6M5M-M8 | 89 | 43 | 15 | 6 | 29 | 0.8 | 1.2 |
| PSPE-I25L(B)A4M5M-M8 | 99 | 43 | 25 | 4 | 29 | 0.8 | 1.2 |
| PSPE-I25L(B)A6M5M-M8 | 99 | 43 | 25 | 6 | 30 | 0.8 | 1.2 |

| Model/Size | H | L | Y | D | Weight g | F1 N | F2 N |
|-----------------------|-----|----|----|---|----------|------|------|
| PSPE-I10L(B)A4M5M-M10 | 64 | 23 | 10 | 4 | 26 | 1.0 | 3.0 |
| PSPE-I10L(B)A6M5M-M10 | 64 | 23 | 10 | 6 | 28 | 1.0 | 3.0 |
| PSPE-I20L(B)A4M5M-M10 | 102 | 51 | 20 | 4 | 44 | 1.0 | 3.0 |
| PSPE-I20L(B)A6M5M-M10 | 102 | 51 | 20 | 6 | 46 | 1.0 | 3.0 |
| PSPE-I30L(B)A4M5M-M10 | 112 | 51 | 30 | 4 | 46 | 1.0 | 3.0 |
| PSPE-I30L(B)A6M5M-M10 | 112 | 51 | 30 | 6 | 48 | 1.0 | 3.0 |
| PSPE-I40L(B)A4M5M-M10 | 148 | 77 | 40 | 4 | 59 | 1.0 | 3.0 |
| PSPE-I40L(B)A6M5M-M10 | 148 | 77 | 40 | 6 | 62 | 1.0 | 3.0 |
| PSPE-I50L(B)A4M5M-M10 | 158 | 77 | 50 | 4 | 62 | 1.0 | 3.0 |
| PSPE-I50L(B)A6M5M-M10 | 158 | 77 | 50 | 6 | 65 | 1.0 | 3.0 |

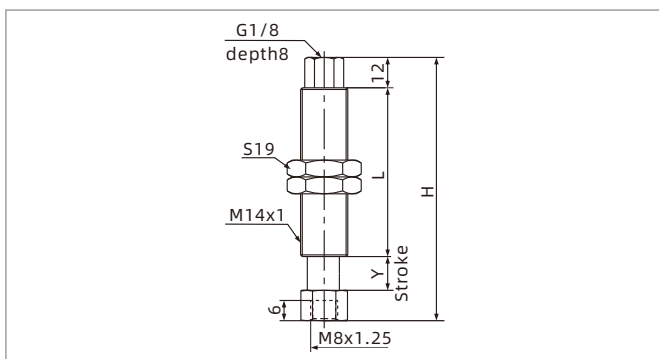
PSPE Series

Small and Light Level Compensator

Dimensions(mm)



M8M-Vertical male thread connection



M8F-Vertical female thread connection

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|-----------------|------|----|----|----------|------|------|
| PSPE-I10M8M-M14 | 84.5 | 50 | 10 | 68 | 2.0 | 5.5 |
| PSPE-I20M8M-M14 | 90 | 50 | 20 | 71 | 2.0 | 5.5 |
| PSPE-I30M8M-M14 | 100 | 50 | 30 | 76 | 2.0 | 5.5 |
| PSPE-I50M8M-M14 | 145 | 50 | 50 | 102 | 2.0 | 5.5 |

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|-----------------|-----|----|----|----------|------|------|
| PSPE-I10M8F-M14 | 75 | 44 | 10 | 70 | 2.0 | 5.5 |
| PSPE-I20M8F-M14 | 85 | 44 | 20 | 73 | 2.0 | 5.5 |
| PSPE-I30M8F-M14 | 95 | 44 | 30 | 80 | 2.0 | 5.5 |
| PSPE-I50M8F-M14 | 146 | 75 | 50 | 106 | 2.0 | 5.5 |

◇ Note: "F1" means spring force at 0 stroke
 "F2" means spring force at max. stroke

Mounting Parts

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PSPL Series

Retractive Level Compensator

AIRBEST



ELECTRONICS



Features

- ◇ Level compensator with built-in spring, small elasticity
- ◇ Small size and light weight
- ◇ special surface treatment for guide rod
- ◇ Guide sleeve with built-in resin bushing
- ◇ Retractive structure design

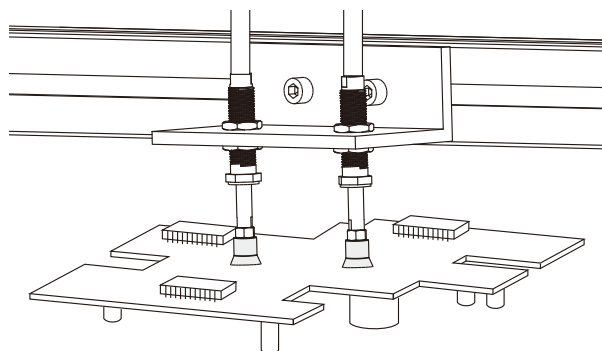
Advantages

- ◇ Avoid pollution and external mechanical force, flexible contact
- ◇ Suitable for fast handling in small space
- ◇ Resistant to environment, corrosion and abrasion
- ◇ Reduce metal dust, special for dust-free working condition
- ◇ During the operation, the hose is static and without transverse load



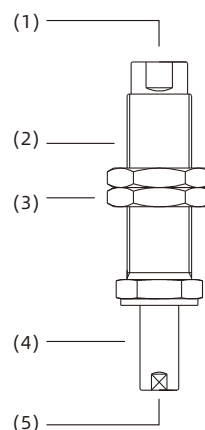
Applications

- ◇ Suitable for electronic industry
- ◇ Suitable for handling light and small workpieces with flexible contact
- ◇ Suitable for handling workpieces with height difference
- ◇ Suitable for dust-free working condition



Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Guide rod
- ◇ (5) Suction cup connection



PSPL Series

Retractive Level Compensator

How to order

PSPL - I 10 R M5F - M10

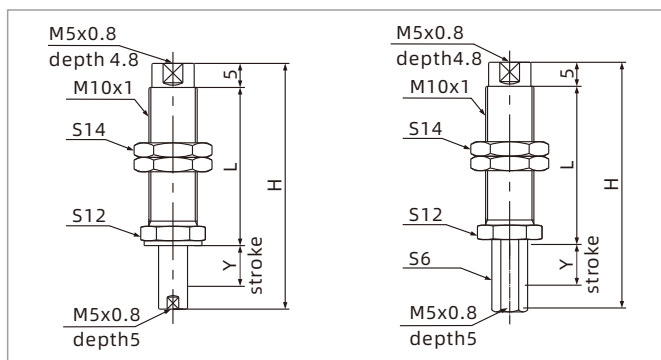
① ② ③ ④ ⑤ ⑥

| ① Series | ② Buffer style | ③ Buffer stroke | ④ Rotary type | ⑤ Vacuum port connection | ⑥ Mounting thread |
|----------|---------------------|-----------------|--|----------------------------|-------------------|
| PSPL | I - Built-in spring | 3 10 15 20 | Nil - Vertical rotating R - Vertical non-rotating | M5F - M5x0.8 female thread | M10 - M10x1 |

Selection

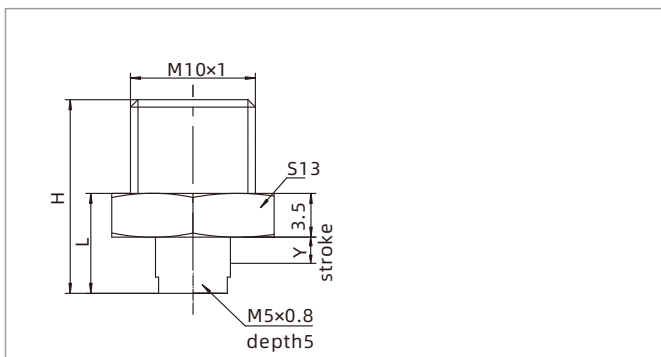
| Model/Buffer stroke | 3 | 10 | 15 | 20 |
|---------------------|----------------|------------------|------------------|------------------|
| PSPL-I□M5F-M10 | PSPL-I3M5F-M10 | PSPL-I10M5F-M10 | PSPL-I15M5F-M10 | PSPL-I20M5F-M10 |
| PSPL-I□RM5F-M10 | - | PSPL-I10RM5F-M10 | PSPL-I15RM5F-M10 | PSPL-I20RM5F-M10 |

Dimensions(mm)



PSPL-I□M5F-M10

PSPL-I□RM5F-M10



PSPL-I3M5F-M10

| Model/Size | H | L | Y | F1 N | F2 N |
|--------------------|----|------|----|---------|---------|
| PSPL-I10(R)M5F-M10 | 51 | 31.8 | 10 | 1.0 | 1.4 |
| PSPL-I15(R)M5F-M10 | 61 | 36.8 | 15 | 1.0 | 1.4 |
| PSPL-I20(R)M5F-M10 | 71 | 41.8 | 20 | 1.0 | 1.4 |

- ◇ Note: 1. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke
- 2. The locking torque of M10 nut is 2.5 ~ 3.5N.M, please work within the specified torque range

| Model/Size | H | L | Y | F1 N | F2 N |
|----------------|------|---|---|---------|---------|
| PSPL-I3M5F-M10 | 16.5 | 9 | 3 | 0.7 | 1.0 |

- ◇ Note: 1. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

PSPS Series

Retractive Level Compensator



ELECTRONICS

Features

- ◇ Level compensator with built-in spring, small elasticity
- ◇ Small size and light weight
- ◇ Made of stainless steel
- ◇ Guide sleeve with built-in resin bushing
- ◇ Retractive structure design

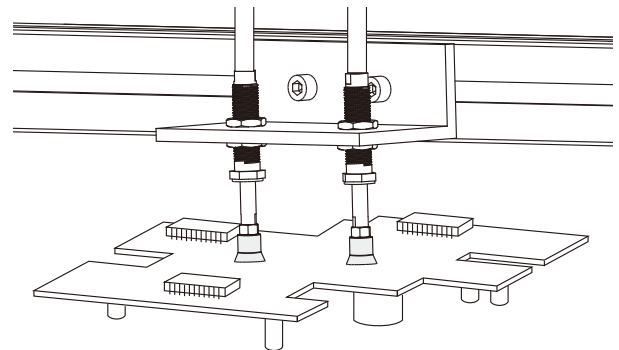
Advantages

- ◇ Avoid pollution and external mechanical force, flexible contact
- ◇ Suitable for fast handling in small space
- ◇ Resistant to environment, corrosion and abrasion
- ◇ Reduce metal dust, special for dust-free working condition
- ◇ During the operation, the hose is static and without transverse load



Applications

- ◇ Suitable for electronic industry
- ◇ Suitable for handling light and small workpieces with flexible contact
- ◇ Suitable for handling workpieces with height difference
- ◇ Suitable for dust-free working condition



Structure-fixed type

- ◇ (1) Vacuum generator connection
 - ◇ (2) Guide sleeve
 - ◇ (3) Mounting nut
 - ◇ (4) Guide rod
 - ◇ (5) Suction cup connection
-

Structure-plug in type

- ◇ (1) Nut
 - ◇ (2) Combination Gasket
 - ◇ (3) Clamp Plate
 - ◇ (4) Nylon Gasket
 - ◇ (5) Guide sleeve
 - ◇ (6) Guide rod
 - ◇ (7) Suction cup connection
-
- Release port
- Release port
- $\phi 8^{+0.012}$
- $\phi 10^{+0.012}$

PSPS Series

Retractive Level Compensator

How to order

PSPS - I 10 M5F - M10

① ② ③ ④ ⑤

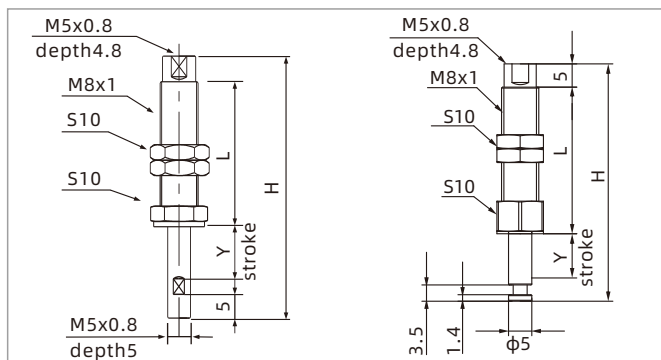
| ① Series | ② Buffer style | ③ Buffer stroke | ④ Vacuum port connection | ⑤ Mounting thread |
|----------|---------------------|-----------------|---|--|
| PSPS | I - Built-in spring | 3 6 10 15 20 | M5F - M5×0.8 female thread M5M - M5×0.8 male thread D5 - φ5 suction cup fitting | M8 - M8×1 M10 - M10×1 I8 - M8×0.75 plug in connecting I10 - M10×10 plug in connecting |

Selection

| Model/Buffer stroke | 3 | 6 | 10 | 15 | 20 |
|---------------------|--------------|-----------------|------------------|-----------------|-----------------|
| PSPS-I□M5M-M8 | - | - | PSPS-I10M5M-M8 | - | - |
| PSPS-I□M5F-M10 | - | - | PSPS-I10M5F-M10 | PSPS-I15M5F-M10 | PSPS-I20M5F-M10 |
| PSPS-I□RM5F-M10 | - | PSPS-I6RM5F-M10 | PSPS-I10RM5F-M10 | - | - |
| PSPS-I□D5-M8 | PSPS-I3D5-M8 | - | PSPS-I10D5-M8 | - | - |
| PSPS-I□D5-I8 | - | PSPS-I6D5-I8 | - | - | - |
| PSPS-I□RM5F-I10 | - | - | PSPS-I10RM5F-I10 | - | - |

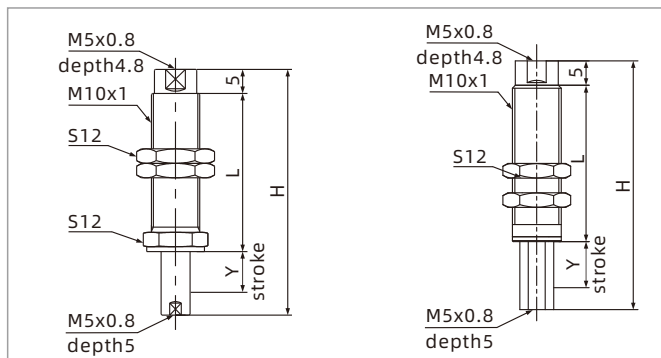
◇ Note: It is suggested that the actual working compressed stroke of level compensator should not exceed 50% of its max. compressed stroke

Dimensions(mm)



PSPS-I□M5M-M8

PSPS-I□D5-M8



PSPS-I□M5F-M10

PSPS-I□RM5F-M10

| Model/Size | H | L | Y | F1 N | F2 N |
|----------------|------|------|----|---------|---------|
| PSPS-I3D5-M8 | 32.5 | 21.5 | 3 | 0.7 | 0.9 |
| PSPS-I10D5-M8 | 51 | 31.5 | 10 | 0.5 | 0.8 |
| PSPS-I10M5M-M8 | 50 | 27 | 10 | 0.5 | 0.8 |

◇ Note: 1. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke
2. The locking torque of M8 nut is 2.5 ~ 3.5N.M, please work within the specified torque range

| Model/Size | H | L | Y | F1 N | F2 N |
|------------------|----|------|----|---------|---------|
| PSPS-I10M5F-M10 | 51 | 31.8 | 10 | 1.0 | 1.4 |
| PSPS-I15M5F-M10 | 61 | 36.8 | 15 | 1.0 | 1.4 |
| PSPS-I20M5F-M10 | 71 | 41.8 | 20 | 1.0 | 1.4 |
| PSPS-I6RM5F-M10 | 51 | 32 | 10 | 0.9 | 1.2 |
| PSPS-I10RM5F-M10 | 43 | 28 | 6 | 0.9 | 1.2 |

◇ Note: 1. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke
2. The locking torque of M10 nut is 2.5 ~ 3.5N.M, please work within the specified torque range

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

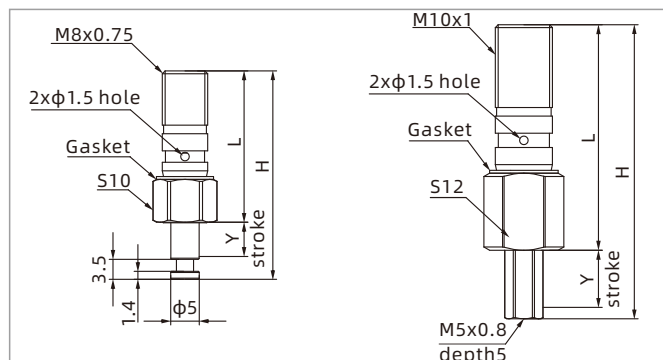
PTK

PSW

PSPS Series

Retractive Level Compensator

Dimensions(mm)



PSPS-I6D5-I8

PSPS-I10RM5F-I10

| Model/Size | H | L | Y | F1 N | F2 N |
|------------------|------|------|----|---------|---------|
| PSPS-I6D5-I8 | 36.5 | 26.5 | 6 | 0.7 | 0.9 |
| PSPS-I10RM5F-I10 | 51.5 | 39.5 | 10 | 0.7 | 0.9 |

- ◇ Note: 1. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke
2. The locking torque of M8 nut is 1.5 ~ 2N.m, The locking torque of M10 nut is 2 ~ 3N.m, please work within the specified torque range
 3. The plug in type level compensator may experience a pressure drop ranging from 0 to 1 kPa due to varying operating conditions and usage environments
 4. The nut may loosen under different usage conditions and environments, please check and maintain it regularly
 5. When using the plug in type level compensator, do not block the hole at the top of the nut

PSPT Series

Universal Level Compensator



Features

- ◇ Oilless, wear-resistant bushing is built in the guide sleeve
- ◇ Built-in buffer spring and external buffer spring
- ◇ Various buffer stroke specifications are available
- ◇ Light duty and heavy duty can be selected

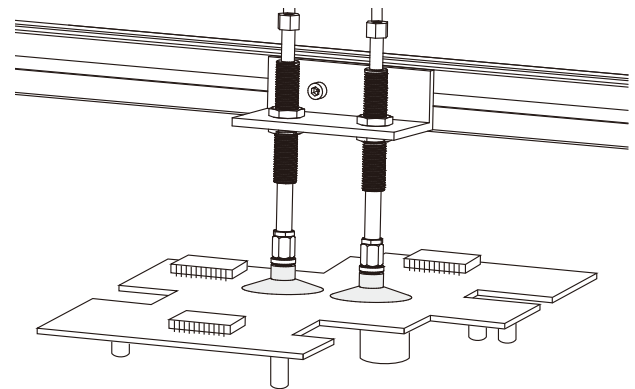
Advantages

- ◇ Improve the lifetime of the products and reduce the noise of the products
- ◇ Flexible contact with fragile workpieces, compensate the height difference of workpieces
- ◇ Suitable for various working conditions



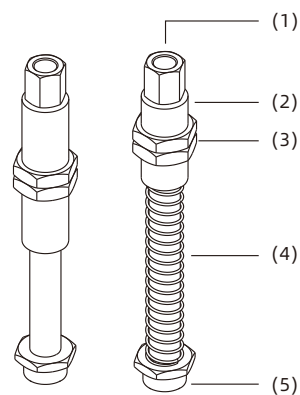
Applications

- ◇ Suitable for handling workpieces with height difference
- ◇ Handle parts sensitive to pressure with flexible contact
- ◇ All kinds of connection specifications, universal type, suitable for various industries



Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Spring
- ◇ (5) Suction cup connection



Mounting Parts

- PSPE
- PSPL
- PSPS
- PSPT**
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR
- PTS
- PTK
- PSW

PSPT Series

Universal Level Compensator

How to order

PSPT - ① I ② 10 ③ LM5 ④ G1M - M16 - H
 ⑤ ⑥ ⑦

| ① Series | ② Buffer type | ③ Buffer stroke | ④ Rotary type | ⑤ Suction cup connection | ⑥ Mounting thread | ⑦ Heavy load |
|----------|---------------------|-----------------|---------------------------|--------------------------|-------------------|----------------|
| PSPT | I - Built-in spring | 10 60 | Nil - Vertical rotating | G1F - G1/8 female thread | M16 - M16×1 | Nil - Standard |
| | E - External spring | 20 75 | R - Vertical non-rotating | G2F - G1/4 female thread | M18 - M18×1 | H - Heavy load |
| | | 30 90 | LM5 - Lateral rotating | G1M - G1/8 male thread | | |
| | | 50 110 | | G2M - G1/4 male thread | | |
| | | | | G3M - G3/8 male thread | | |

Selection

| Model/Connection thread G1M | LM5G1M | G1F | G2F | |
|--------------------------------|--------------------|-----------------|-----------------|-------------------|
| PSPT-I10G1M-M16 | PSPT-I10LM5G1M-M16 | PSPT-I10G1F-M16 | PSPT-I10G2F-M18 | PSPT-I10G2F-M18-H |
| PSPT-I20G1M-M16 | PSPT-I20LM5G1M-M16 | PSPT-I20G1F-M16 | PSPT-I20G2F-M18 | PSPT-I20G2F-M18-H |
| PSPT-I30G1M-M16 | PSPT-I30LM5G1M-M16 | PSPT-I30G1F-M16 | PSPT-I30G2F-M18 | PSPT-I30G2F-M18-H |
| PSPT-I50G1M-M16 | PSPT-I50LM5G1M-M16 | PSPT-I50G1F-M16 | PSPT-I50G2F-M18 | PSPT-I50G2F-M18-H |

| Model/Connection thread G2M | | | RG2M | RG3M |
|--------------------------------|------------------|-------------------|------------------|------------------|
| PSPT-I10G2M-M18 | PSPT-E60G2M-M18 | PSPT-I10G2M-M18-H | PSPT-I10RG2M-M18 | PSPT-I10RG3M-M18 |
| PSPT-I20G2M-M18 | PSPT-E75G2M-M18 | PSPT-I20G2M-M18-H | PSPT-I20RG2M-M18 | PSPT-I20RG3M-M18 |
| PSPT-I30G2M-M18 | PSPT-E90G2M-M18 | PSPT-I30G2M-M18-H | PSPT-I30RG2M-M18 | PSPT-I30RG3M-M18 |
| PSPT-I50G2M-M18 | PSPT-E110G2M-M18 | PSPT-I50G2M-M18-H | PSPT-I50RG2M-M18 | PSPT-I50RG3M-M18 |

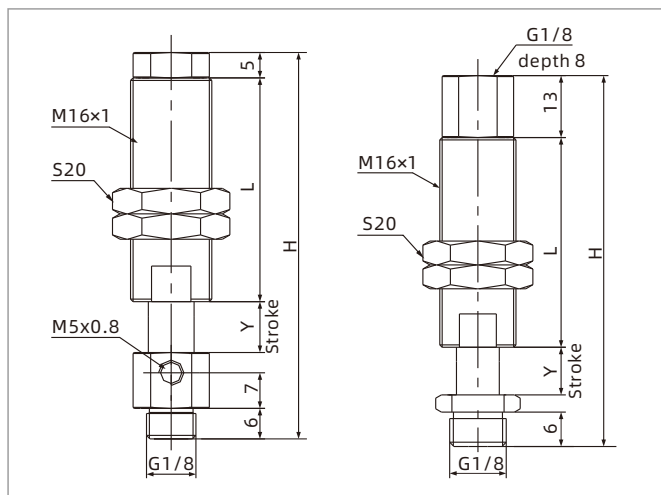
| Model/Connection thread G3M | | |
|--------------------------------|------------------|-------------------|
| PSPT-I10G3M-M18 | PSPT-E60G3M-M18 | PSPT-I10G3M-M18-H |
| PSPT-I20G3M-M18 | PSPT-E75G3M-M18 | PSPT-I20G3M-M18-H |
| PSPT-I30G3M-M18 | PSPT-E90G3M-M18 | PSPT-I30G3M-M18-H |
| PSPT-I50G3M-M18 | PSPT-E110G3M-M18 | PSPT-I50G3M-M18-H |

◇ Note: It is suggested that the actual working compressed stroke of level compensator should not exceed 50% of its max. compressed stroke

PSPT Series

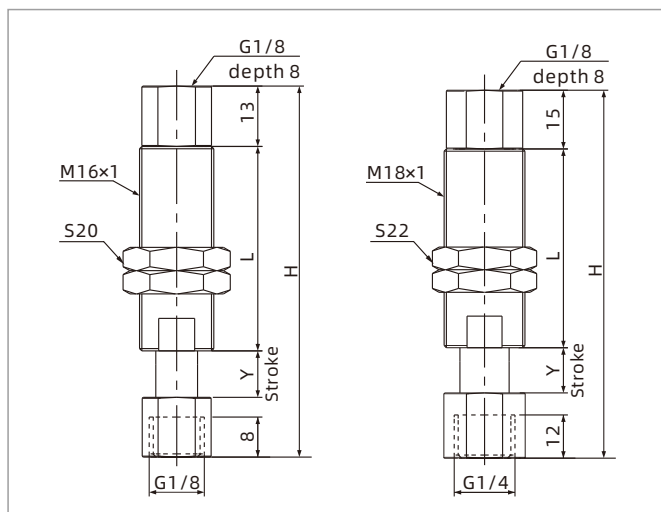
Universal Level Compensator

Dimensions(mm)



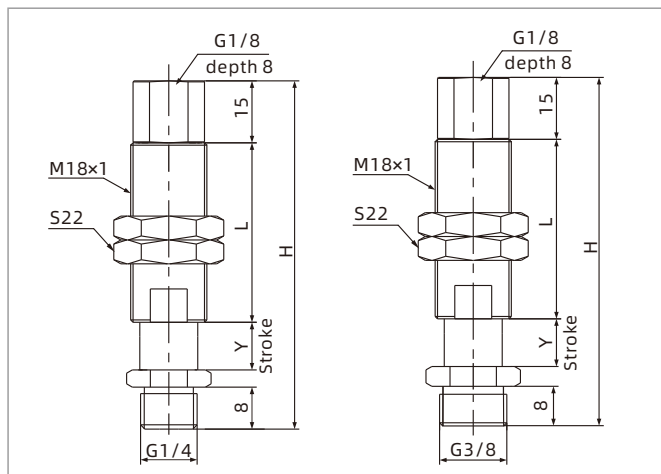
PSPT-I□LM5G1M-M16

PSPT-I□G1M-M16



PSPT-I□G1F-M16

PSPT-I□G2F-M18



PSPT-I□G2M-M18

PSPT-I□G3M-M18

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|--------------------|-----|----|----|-------------|---------|---------|
| PSPT-I10LM5G1M-M16 | 76 | 44 | 10 | 71 | 2.0 | 5.5 |
| PSPT-I20LM5G1M-M16 | 86 | 44 | 20 | 89 | 2.0 | 5.5 |
| PSPT-I30LM5G1M-M16 | 96 | 44 | 30 | 102 | 2.0 | 5.5 |
| PSPT-I50LM5G1M-M16 | 147 | 75 | 50 | 135 | 2.0 | 5.5 |
| PSPT-I10G1M-M16 | 76 | 44 | 10 | 80 | 2.0 | 5.5 |
| PSPT-I20G1M-M16 | 86 | 44 | 20 | 85 | 2.0 | 5.5 |
| PSPT-I30G1M-M16 | 96 | 44 | 30 | 107 | 2.0 | 5.5 |
| PSPT-I50G1M-M16 | 147 | 75 | 50 | 132 | 2.0 | 5.5 |

◇ Note: "F1" means spring force at 0 stroke
"F2" means spring force at max. stroke

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|-------------------|-------|----|----|-------------|---------|---------|
| PSPT-I10G1F-M16 | 80 | 44 | 10 | 85 | 2.0 | 5.5 |
| PSPT-I20G1F-M16 | 90 | 44 | 20 | 90 | 2.0 | 5.5 |
| PSPT-I30G1F-M16 | 100 | 44 | 30 | 108 | 2.0 | 5.5 |
| PSPT-I50G1F-M16 | 151 | 75 | 50 | 135 | 2.0 | 5.5 |
| PSPT-I10G2F-M18 | 70.5 | 28 | 10 | 93 | 4.0 | 7.0 |
| PSPT-I20G2F-M18 | 90.5 | 38 | 20 | 108 | 4.0 | 7.0 |
| PSPT-I30G2F-M18 | 110.5 | 48 | 30 | 121 | 4.0 | 7.0 |
| PSPT-I50G2F-M18 | 150.5 | 68 | 50 | 151 | 4.0 | 7.0 |
| PSPT-I10G2F-M18-H | 70.5 | 28 | 10 | 93 | 9.0 | 27.0 |
| PSPT-I20G2F-M18-H | 90.5 | 38 | 20 | 108 | 9.0 | 27.0 |
| PSPT-I30G2F-M18-H | 110.5 | 48 | 30 | 121 | 9.0 | 27.0 |
| PSPT-I50G2F-M18-H | 150.5 | 68 | 50 | 151 | 9.0 | 27.0 |

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|-----------------|-----|----|----|-------------|---------|---------|
| PSPT-I10G2M-M18 | 65 | 28 | 10 | 103 | 4.0 | 7.0 |
| PSPT-I20G2M-M18 | 85 | 38 | 20 | 117 | 4.0 | 7.0 |
| PSPT-I30G2M-M18 | 105 | 48 | 30 | 135 | 4.0 | 7.0 |
| PSPT-I50G2M-M18 | 145 | 68 | 50 | 169 | 4.0 | 7.0 |
| PSPT-I10G3M-M18 | 65 | 28 | 10 | 105 | 4.0 | 7.0 |
| PSPT-I20G3M-M18 | 85 | 38 | 20 | 123 | 4.0 | 7.0 |
| PSPT-I30G3M-M18 | 105 | 48 | 30 | 142 | 4.0 | 7.0 |
| PSPT-I50G3M-M18 | 145 | 68 | 50 | 177 | 4.0 | 7.0 |

Mounting Parts

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

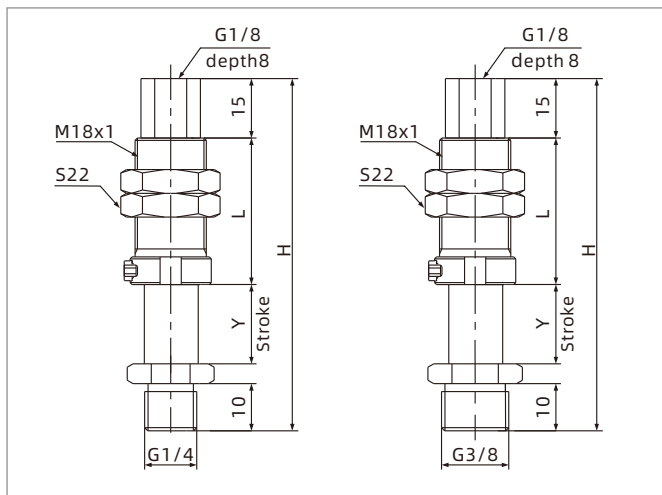
PTK

PSW

PSPT Series

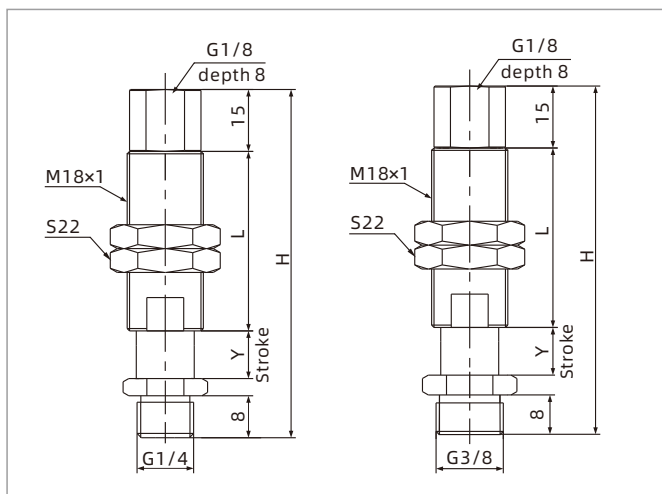
Universal Level Compensator

Dimensions(mm)



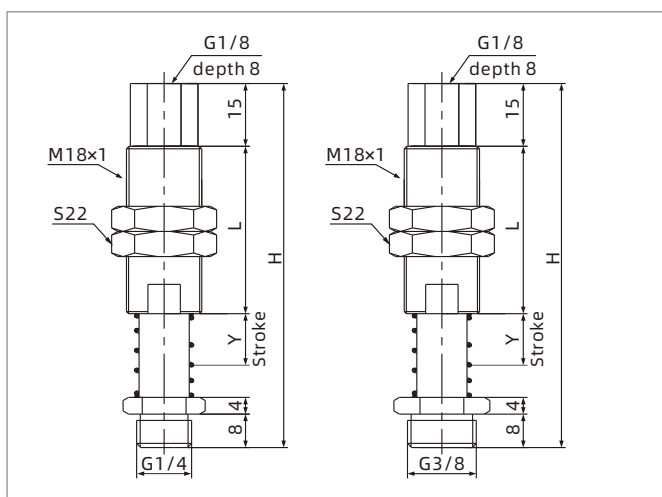
PSPT-I□RG2M-M18

PSPT-I□RG3M-M18



PSPT-I□G2M-M18-H

PSPT-I□G3M-M18-H



PSPT-E□G2M-M18

PSPT-E□G3M-M18

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|------------------|-----|----|----|-------------|---------|---------|
| PSPT-I10RG2M-M18 | 70 | 30 | 10 | 103 | 4.0 | 7.0 |
| PSPT-I20RG2M-M18 | 90 | 40 | 20 | 117 | 4.0 | 7.0 |
| PSPT-I30RG2M-M18 | 110 | 50 | 30 | 135 | 4.0 | 7.0 |
| PSPT-I50RG2M-M18 | 150 | 70 | 50 | 169 | 4.0 | 7.0 |
| PSPT-I10RG3M-M18 | 70 | 30 | 10 | 105 | 4.0 | 7.0 |
| PSPT-I20RG3M-M18 | 90 | 40 | 20 | 123 | 4.0 | 7.0 |
| PSPT-I30RG3M-M18 | 110 | 50 | 30 | 142 | 4.0 | 7.0 |
| PSPT-I50RG3M-M18 | 150 | 70 | 50 | 177 | 4.0 | 7.0 |

◇ Note: "F1" means spring force at 0 stroke
"F2" means spring force at max. stroke

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|-------------------|-----|----|----|-------------|---------|---------|
| PSPT-I10G2M-M18-H | 65 | 28 | 10 | 103 | 9.0 | 27.0 |
| PSPT-I20G2M-M18-H | 85 | 38 | 20 | 117 | 9.0 | 27.0 |
| PSPT-I30G2M-M18-H | 105 | 48 | 30 | 135 | 9.0 | 27.0 |
| PSPT-I50G2M-M18-H | 145 | 68 | 50 | 169 | 9.0 | 27.0 |
| PSPT-I10G3M-M18-H | 65 | 28 | 10 | 105 | 9.0 | 27.0 |
| PSPT-I20G3M-M18-H | 85 | 38 | 20 | 123 | 9.0 | 27.0 |
| PSPT-I30G3M-M18-H | 105 | 48 | 30 | 142 | 9.0 | 27.0 |
| PSPT-I50G3M-M18-H | 145 | 68 | 50 | 177 | 9.0 | 27.0 |

| Model/Size | H | L | Y | Weight g | F1 N | F2 N |
|------------------|-----|----|-----|-------------|---------|---------|
| PSPT-E60G2M-M18 | 150 | 40 | 60 | 171 | 4.5 | 17.0 |
| PSPT-E75G2M-M18 | 170 | 40 | 75 | 185 | 4.5 | 17.0 |
| PSPT-E90G2M-M18 | 185 | 40 | 90 | 196 | 4.5 | 17.0 |
| PSPT-E110G2M-M18 | 205 | 40 | 110 | 216 | 4.5 | 17.0 |
| PSPT-E60G3M-M18 | 150 | 40 | 60 | 176 | 4.5 | 17.0 |
| PSPT-E75G3M-M18 | 170 | 40 | 75 | 192 | 4.5 | 17.0 |
| PSPT-E90G3M-M18 | 185 | 40 | 90 | 205 | 4.5 | 17.0 |
| PSPT-E110G3M-M18 | 205 | 40 | 110 | 221 | 4.5 | 17.0 |

◇ Note: "F1" means spring force at 0 stroke,
"F2" means spring force at max. stroke

PSPH Series

Heavy-duty Level Compensator



UNIVERSAL



HEAVY LOAD



Features

- ◇ Oilless, wear-resistant bushing is built in the guide sleeve
- ◇ Heavy duty external buffer spring
- ◇ Non-rotating type can be selected
- ◇ Various buffer stroke specifications are available
- ◇ Suitable for heavy duty working condition

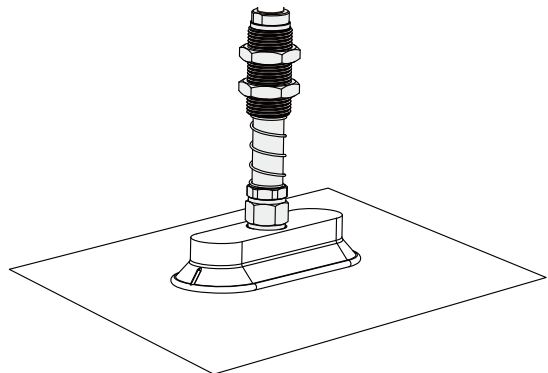
Advantages

- ◇ Reduce product wear, improve the lifetime of the products and reduce the noise
- ◇ Suitable for the workpieces with uneven surface and working conditions which need height compensation
- ◇ Suitable for precise positioning of oval suction cup
- ◇ Suitable for various working conditions



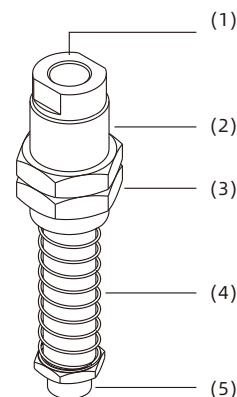
Applications

- ◇ Suitable for handling workpieces with height difference
- ◇ Suitable for working condition which needs shock absorption when handling objects
- ◇ Suitable for working condition that is with short working period and fast handling
- ◇ Non-rotating level compensator is suitable for oval suction cup
- ◇ Especially suitable for handling in automotive industry



Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Guide rod
- ◇ (5) Suction cup connection



PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PSPH Series

Heavy-duty Level Compensator

How to order

PSPH - E 25 R G3M - M30
 ① ② ③ ④ ⑤ ⑥

| ① Series | ② Buffer type | ③ Buffer stroke | ④ Rotary type | ⑤ Suction cup connection | ⑥ Mounting thread |
|----------|---------------------|-----------------|---------------------------|--------------------------|-------------------|
| PSPH | E - External spring | 25 | Nil - Vertical rotating | G2M - G1/4 male thread | M20 - M20×1.5 |
| | | 50 | R - Vertical non-rotating | G3M - G3/8 male thread | M30 - M30×1.5 |
| | | 75 | | G4M - G1/2 male thread | |
| | | 90 | | | |

Selection

| Model/Connection thread G2M | RG2M | G3M | RG3M | G4M | RG4M |
|--------------------------------|------------------|-----------------|------------------|-----------------|------------------|
| PSPH-E25G2M-M20 | PSPH-E25RG2M-M20 | PSPH-E25G3M-M30 | PSPH-E25RG3M-M30 | PSPH-E25G4M-M30 | PSPH-E25RG4M-M30 |
| PSPH-E50G2M-M20 | PSPH-E50RG2M-M20 | PSPH-E50G3M-M30 | PSPH-E50RG3M-M30 | PSPH-E50G4M-M30 | PSPH-E50RG4M-M30 |
| PSPH-E75G2M-M20 | PSPH-E75RG2M-M20 | PSPH-E75G3M-M30 | PSPH-E75RG3M-M30 | PSPH-E75G4M-M30 | PSPH-E75RG4M-M30 |
| PSPH-E90G2M-M20 | PSPH-E90RG2M-M20 | PSPH-E90G3M-M30 | PSPH-E90RG3M-M30 | PSPH-E90G4M-M30 | PSPH-E90RG4M-M30 |

Technical parameters

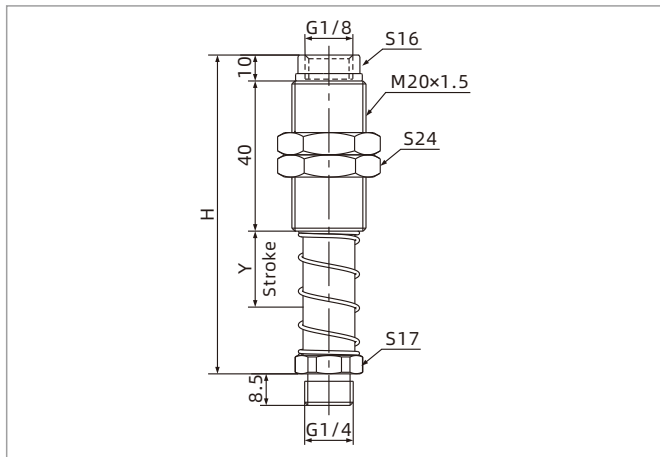
| Model | Pretightening force(1) N | Elastic force(2) N | Vertical load(3) N | Working temperature °C | Weight g |
|--------------------|-----------------------------|-----------------------|-----------------------|---------------------------|-------------|
| PSPH-E25(R)G2M-M20 | 7.5 | 15.8 | 2,400 | 0~80 | 148 |
| PSPH-E50(R)G2M-M20 | 14.4 | 20 | 2,400 | 0~80 | 174 |
| PSPH-E75(R)G2M-M20 | 6 | 16 | 2,400 | 0~80 | 198 |
| PSPH-E90(R)G2M-M20 | 6 | 15.7 | 1,500 | 0~80 | 210 |
| PSPH-E25(R)G3M-M30 | 19.4 | 73 | 4,800 | 0~80 | 408 |
| PSPH-E50(R)G3M-M30 | 24.7 | 78.5 | 4,800 | 0~80 | 483 |
| PSPH-E75(R)G3M-M30 | 39 | 79.6 | 4,800 | 0~80 | 561 |
| PSPH-E90(R)G3M-M30 | 26.4 | 74.5 | 4,800 | 0~80 | 580 |
| PSPH-E25(R)G4M-M30 | 19.4 | 73 | 4,800 | 0~80 | 408 |
| PSPH-E50(R)G4M-M30 | 24.7 | 78.5 | 4,800 | 0~80 | 483 |
| PSPH-E75(R)G4M-M30 | 39 | 79.6 | 4,800 | 0~80 | 561 |
| PSPH-E90(R)G4M-M30 | 26.4 | 74.5 | 4,800 | 0~80 | 580 |

- ◇ Note: 1. Pretightening force is spring elastic force when spring is compressed in nature state
 2. Elastic force is spring elastic force when level compensator is compressed in 50% stroke, it is suggested that the actual working compressed stroke of level compensator should not exceed 50% of its max. compressed stroke
 3. Vertical load refers to the max. vertical tension that the level compensator can bear in static state
 4. When the level compensator is installed horizontally, the workpiece will produce gravity perpendicular to the direction of the level compensator, If the gravity is larger than the horizontal load range, the spring may get stuck

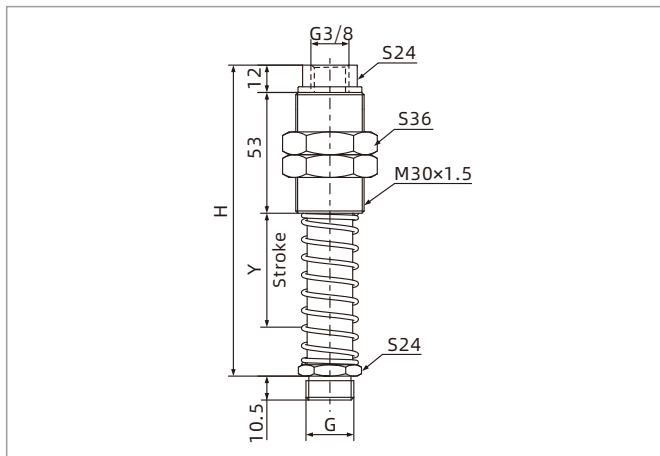
PSPH Series

Heavy-duty Level Compensator

Dimensions(mm)



PSPH-E□(R)G2M-M20



PSPH-E□(R)G3M-M30 PSPH-E□(R)G4M-M30

| Model/Size | H | Y |
|--------------------|-------|----|
| PSPH-E25(R)G2M-M20 | 86 | 25 |
| PSPH-E50(R)G2M-M20 | 114.5 | 50 |
| PSPH-E75(R)G2M-M20 | 145 | 75 |
| PSPH-E90(R)G2M-M20 | 160 | 90 |

| Model/Size | H | G | Y |
|--------------------|-------|------|----|
| PSPH-E25(R)G3M-M30 | 105.5 | G3/8 | 25 |
| PSPH-E50(R)G3M-M30 | 135.5 | G3/8 | 50 |
| PSPH-E75(R)G3M-M30 | 176.5 | G3/8 | 75 |
| PSPH-E90(R)G3M-M30 | 188.5 | G3/8 | 90 |
| PSPH-E25(R)G4M-M30 | 105.5 | G1/2 | 25 |
| PSPH-E50(R)G4M-M30 | 135.5 | G1/2 | 50 |
| PSPH-E75(R)G4M-M30 | 176.5 | G1/2 | 75 |
| PSPH-E90(R)G4M-M30 | 188.5 | G1/2 | 90 |

Mounting Parts

| |
|-------------|
| PSPE |
| PSPL |
| PSPS |
| PSPT |
| PSPH |
| PSPD |
| PSPF |
| PJS |
| PJT |
| PJF |
| PJB |
| PJE |
| PJH |
| PJP |
| PJQ |
| PDA |
| PDR |
| PTS |
| PTK |
| PSW |

PSPD Series

Double Springs Heavy-duty Level Compensator

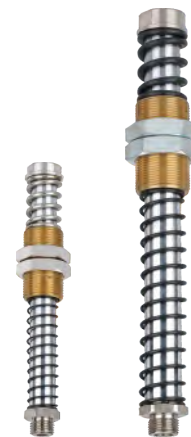


Features

- ◇ Oilless, wear-resistant bushing is built in the guide sleeve
- ◇ With double buffer springs
- ◇ Non-rotating type can be selected
- ◇ Various buffer stroke specifications are available

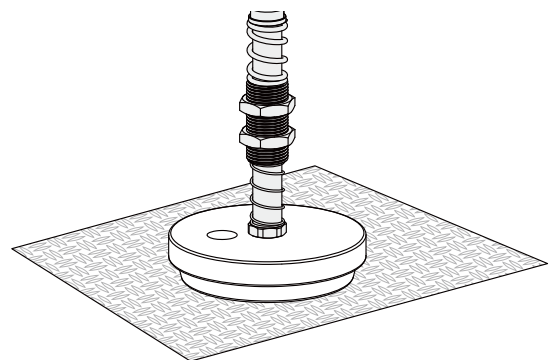
Advantages

- ◇ Reduce product wear, improve the lifetime of the products and reduce the noise
- ◇ Flexible contact with fragile workpieces, compensate the height difference of workpieces
- ◇ Suitable for precise positioning of oval suction cup
- ◇ Suitable for various working conditions



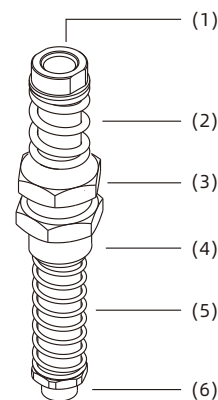
Applications

- ◇ Suitable for handling heavy workpieces, such as steel plate
- ◇ Suitable for the working conditions that need flexible contact and shock absorption when carrying objects, such as glass
- ◇ Suitable for use in harsh environment
- ◇ Non-rotating level compensator is suitable for oval suction cup
- ◇ Double spring buffer structure can prevent the impact on the support rod end when handling the workpiece and turning it over



Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Spring
- ◇ (3) Mounting nut
- ◇ (4) Guide sleeve
- ◇ (5) Spring
- ◇ (6) Suction cup connection



PSPD Series

Double Springs Heavy-duty Level Compensator

How to order

PSPD - E 25 R G3M - M30
 ① ② ③ ④ ⑤ ⑥

| ① Series | ② Buffer type | ③ Buffer stroke | ④ Rotary type | ⑤ Suction cup connection | ⑥ Mounting thread |
|----------|---------------------|-----------------|---------------------------|--------------------------|-------------------|
| PSPD | E - External spring | 25 | Nil - Vertical rotating | G2M - G1/4 male thread | M20 - M20×1.5 |
| | | 50 | R - Vertical non-rotating | G3M - G3/8 male thread | M30 - M30×1.5 |
| | | 90 | | G4M - G1/2 male thread | |

Selection

| Model/Connection thread | | G3M | RG3M | G4M | RG4M |
|-------------------------|------------------|-----------------|------------------|-----------------|------------------|
| G2M | RG2M | | | | |
| PSPD-E25G2M-M20 | PSPH-E25RG2M-M20 | PSPD-E25G3M-M30 | PSPD-E25RG3M-M30 | PSPD-E25G4M-M30 | PSPD-E25RG4M-M30 |
| PSPD-E50G2M-M20 | PSPH-E50RG2M-M20 | PSPD-E50G3M-M30 | PSPD-E50RG3M-M30 | PSPD-E50G4M-M30 | PSPD-E50RG4M-M30 |
| - | - | PSPD-E90G3M-M30 | PSPD-E90RG3M-M30 | PSPD-E90G4M-M30 | PSPD-E90RG4M-M30 |

Technical parameters

| Model | Pretightening force(1) N | Elastic force(2) N | Vertical load(3) N | Working temperature °C | Weight g |
|--------------------|-----------------------------|-----------------------|-----------------------|---------------------------|-------------|
| PSPD-E25(R)G2M-M20 | 8.6 | 16.8 | 2,400 | 0~80 | 181 |
| PSPD-E50(R)G2M-M20 | 14.4 | 21 | 2,400 | 0~80 | 207 |
| PSPD-E25(R)G3M-M30 | 24 | 74.5 | 4,800 | 0~80 | 507 |
| PSPD-E50(R)G3M-M30 | 7.5 | 61 | 4,800 | 0~80 | 600 |
| PSPD-E90(R)G3M-M30 | 25.2 | 73.7 | 4,800 | 0~80 | 754 |
| PSPD-E25(R)G4M-M30 | 24 | 74.5 | 4,800 | 0~80 | 515 |
| PSPD-E50(R)G4M-M30 | 7.5 | 61 | 4,800 | 0~80 | 608 |
| PSPD-E90(R)G4M-M30 | 25.2 | 73.7 | 4,800 | 0~80 | 762 |

- ◇ Note: 1. Pretightening force is spring elastic force when spring is compressed in nature state
2. Elastic force is spring elastic force when level compensator is compressed in 50% stroke, it is suggested that the actual working compressed stroke of level compensator does not exceed 50% of its max. compressed stroke
3. Vertical load refers to the max. vertical tension that the level compensator can bear in static state
4. When the level compensator is installed horizontally, the workpiece will produce gravity perpendicular to the direction of the level compensator, If the gravity is bigger than the horizontal load range, the spring may get stuck

Mounting Parts

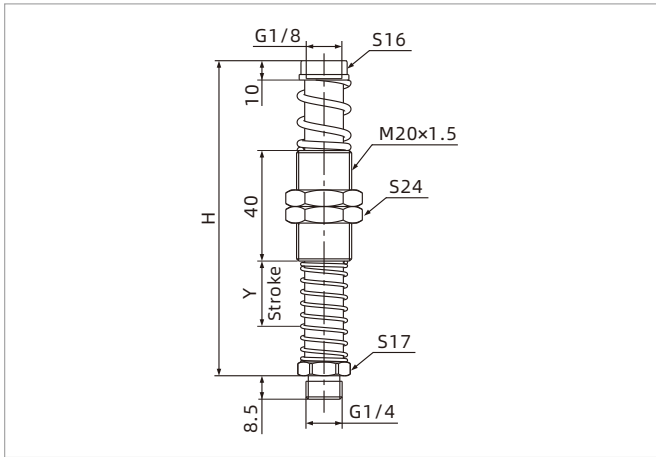
- PSPE
- PSPH
- PSPS
- PSPT
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR
- PTS
- PTK
- PSW

PSPD Series

Double Springs Heavy-duty Level Compensator

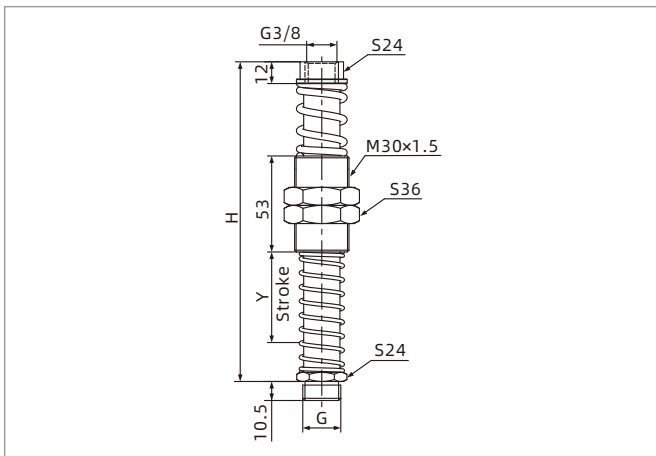


Dimensions(mm)



PSPD-E□(R)G2M-M20

| Model/Size | H | Y |
|--------------------|-------|----|
| PSPD-E25(R)G2M-M20 | 114.5 | 25 |
| PSPD-E50(R)G2M-M20 | 144 | 50 |



PSPD-E□(R)G3M-M30 PSPD-E□(R)G4M-M30

| Model/Size | H | G | Y |
|--------------------|-------|------|----|
| PSPD-E25(R)G3M-M30 | 146.5 | G3/8 | 25 |
| PSPD-E50(R)G3M-M30 | 176.5 | G3/8 | 50 |
| PSPD-E90(R)G3M-M30 | 229.5 | G3/8 | 90 |
| PSPD-E25(R)G4M-M30 | 146.5 | G1/2 | 25 |
| PSPD-E50(R)G4M-M30 | 176.5 | G1/2 | 50 |
| PSPD-E90(R)G4M-M30 | 229.5 | G1/2 | 90 |

PSPF Series

Compact Level Compensator



Features

- ◇ Small size and light weight
- ◇ External buffer spring
- ◇ Different buffer stroke can be selected

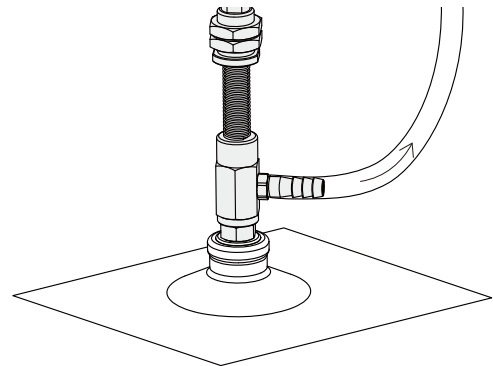
Advantages

- ◇ Especially suitable for electronic industry
- ◇ Flexible contact with fragile workpieces, compensate the height difference of workpieces
- ◇ Suitable for various working conditions



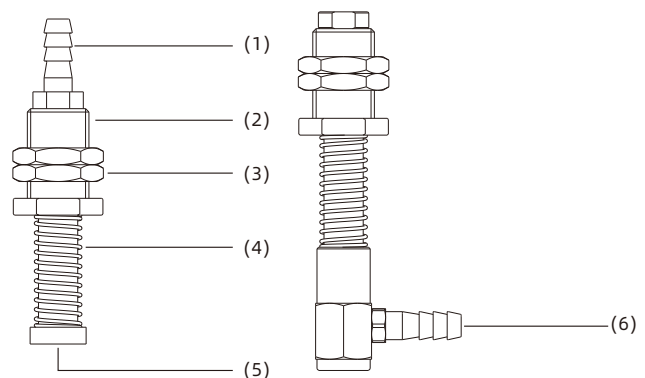
Applications

- ◇ Suitable for handling workpieces with height difference
- ◇ Handle parts sensitive to poessure with flexible contact
- ◇ Suitable for electronic industry



Structure

- ◇ (1) Vacuum generator connection
- ◇ (2) Guide sleeve
- ◇ (3) Mounting nut
- ◇ (4) Spring
- ◇ (5) Suction cup connection
- ◇ (6) Vacuum generator connection



Mounting Parts

- PSPE
- PSPL
- PSPS
- PSPT
- PSPH
- PSPD
- PSPF**
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR
- PTS
- PTK
- PSW

PSPF Series

Compact Level Compensator

How to order

PSPF - E 6 LB6 M5F - M14

① ② ③ ④ ⑤ ⑥

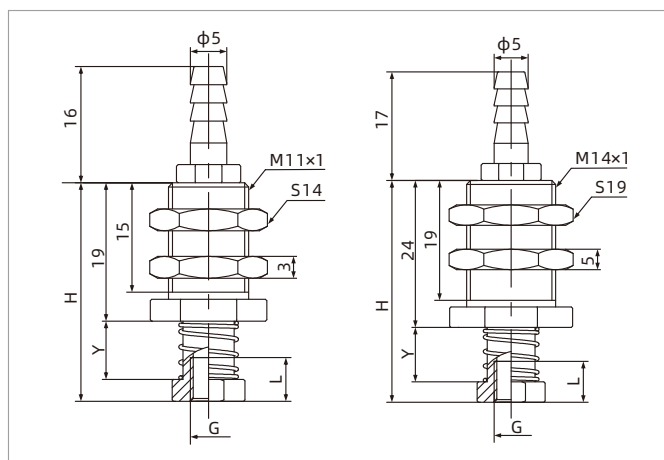
| ① Series | ② Buffer style | ③ Buffer stroke | ④ Rotary type |
|-----------------------------|---------------------|-------------------|--|
| PSPF | E - External spring | 4 15 | B6 - Vertical rotating, pagoda fitting $\phi 6$ hose |
| | | 6 30 | LB6 - Lateral rotating, pagoda fitting $\phi 6$ hose |
| | | 10 | LR1 - Lateral rotating, Rc1/8 inside tapered thread |
| ⑤ Connection thread | | ⑥ Mounting thread | |
| M5F - M5x0.8 female thread | | M11 - M11x1 | |
| M8F - M8x1.25 female thread | | M14 - M14x1 | |
| M10M - M10x1.25 male thread | | M16 - M16x1.5 | |

Selection

| Model/Connection thread | | | | |
|-------------------------|--------------------|------------------|--------------------|---------------------|
| B6M5F | LB6M5F | B6M8F | LB6M8F | LR1M10M |
| PSPF-E4B6M5F-M11 | PSPF-E4LB6M5F-M11 | - | - | - |
| PSPF-E10B6M5F-M11 | PSPF-E10LB6M5F-M11 | - | - | - |
| PSPF-E6B6M5F-M14 | PSPF-E6LB6M5F-M14 | PSPF-E6B6M8F-M14 | PSPF-E6LB6M8F-M14 | - |
| PSPF-E15B6M5F-M14 | PSPF-E15LB6M5F-M14 | PSPF-E6B6M8F-M14 | PSPF-E15LB6M8F-M14 | - |
| - | - | - | - | PSPF-E10LR1M10M-M16 |
| - | - | - | - | PSPF-E30LR1M10M-M16 |

◇ Note: It is suggested that the actual working compressed stroke of level compensator should not exceed 50% of its max. compressed stroke

Dimensions(mm)



PSPF-E□B6M5F-M11

PSPF-E□B6M5F(M8F)-M14

| Model/Size | H | G | L | Y | Stroke | Weight g |
|-------------------|----|---------|---|----|--------|-------------|
| PSPF-E4B6M5F-M11 | 30 | M5x0.8 | 6 | 8 | 4 | 26 |
| PSPF-E10B6M5F-M11 | 42 | M5x0.8 | 6 | 20 | 10 | 29.5 |
| PSPF-E6B6M5F-M14 | 40 | M5x0.8 | 6 | 13 | 6 | 53 |
| PSPF-E15B6M5F-M14 | 57 | M5x0.8 | 6 | 30 | 15 | 64.5 |
| PSPF-E6B6M8F-M14 | 40 | M8x1.25 | 8 | 13 | 6 | 55 |
| PSPF-E15B6M8F-M14 | 57 | M8x1.25 | 8 | 30 | 15 | 65 |

PJS Series

Fitting for Suction Cup



UNIVERSAL

Features

- ◇ Standard fitting for suction cup, easy to selection
- ◇ Split stucture design, reusable and cost saving



How to order

PJS - G1F - SF1 - EW
 ① ② ③ ④

| ① Series | ② Connection thread | ③ Suction cup connection | Special specification |
|----------|---------------------------|----------------------------|---|
| PJS | M3M - M3×0.5 male thread | M5F - M5×0.8 female thread | Nil - Default,without special specification |
| | M5M - M5×0.8 male thread | G1F - G1/8 female thread | |
| | M8M - M8×1.25 male thread | G2F - G1/4 female thread | EW - Built-in mesh filter |
| | G1M - G1/8 male thread | G3F - G3/8 female thread | EH - Built-in mesh filter+ throttle valve |
| | G2M - G1/4 male thread | | |
| | G3M - G3/8 male thread | | |

Selection - SF

| Model/Special specification Basic type | | EW - Built-in mesh filter | | EH - Built-in mesh filter + throttle valve | |
|---|-------------|---------------------------|----------------|--|----------------|
| PJS-G1M-SF1 | PJS-G1F-SF1 | PJS-G1M-SF1-EW | PJS-G1F-SF1-EW | PJS-G1M-SF1-EH | PJS-G1F-SF1-EH |
| PJS-G1M-SF2 | PJS-G1F-SF2 | PJS-G1M-SF2-EW | PJS-G1F-SF2-EW | PJS-G1M-SF2-EH | PJS-G1F-SF2-EH |
| PJS-G2M-SF3 | PJS-G2F-SF3 | PJS-G2M-SF3-EW | PJS-G2F-SF3-EW | PJS-G2M-SF3-EH | PJS-G2F-SF3-EH |
| PJS-G3M-SF3 | PJS-G3F-SF3 | PJS-G3M-SF3-EW | PJS-G3F-SF3-EW | PJS-G3M-SF3-EH | PJS-G3F-SF3-EH |

Selection - SC

| Model/Connection thread M - male thread | F - female thread |
|--|-------------------|
| PJS-M5M-SC2 | PJS-M5F-SC1 |
| PJS-M5M-SC3 | PJS-M5F-SC4 |
| - | PJS-M5F-SC5 |
| - | PJS-M8F-SC6 |

Selection - ST

| Model/Connection thread M - male thread | M - male thread |
|--|-----------------|
| PJS-M3M-ST1 | PJS-M8M-ST5 |
| PJS-M5M-ST2 | PJS-M8M-ST6 |
| PJS-M5M-ST3 | PJS-M6M-ST7 |
| PJS-M5M-ST4 | PJS-G1M-ST8 |

PJS Series

Fitting for Suction Cup

Dimensions(mm) - SF

Applicable suction cup:
 SU20, 25, 30
 SF20, 25, 30
 SB17, 20
 SBL20
 SBP20
 SXP20, 25, 30
 SFP20, 30
 SGP25, 35

PJS-G1F-SF1

Applicable suction cup:
 SU20, 25, 30
 SF20, 25, 30
 SB17, 20
 SBL20
 SBP20
 SXP20, 25, 30
 SFP20, 30
 SGP25, 35

PJS-G1M-SF1

Applicable suction cup:
 SU40
 SF40
 SB30, 40
 SBL30, 40
 SBP30, 40
 SXP35, 40
 SFP40
 SGP45

PJS-G1F-SF2

Applicable suction cup:
 SU40
 SF40
 SB30, 40
 SBL30, 40
 SBP30, 40
 SXP35, 40
 SFP40
 SGP45

PJS-G1M-SF2

Applicable suction cup:
 SU50
 SF50
 SB50
 SBL50
 SBP50
 SXP50
 SGP55

PJS-G2F-SF3

Applicable suction cup:
 SU50
 SF50
 SB50
 SBL50
 SBP50
 SXP50
 SGP55

PJS-G2M-SF3

Applicable suction cup:
 SU50
 SF50
 SB50
 SBL50
 SBP50
 SXP50
 SGP55

PJS-G3F-SF3

Applicable suction cup:
 SU50
 SF50
 SB50
 SBL50
 SBP50
 SXP50
 SGP55

PJS-G3M-SF3

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

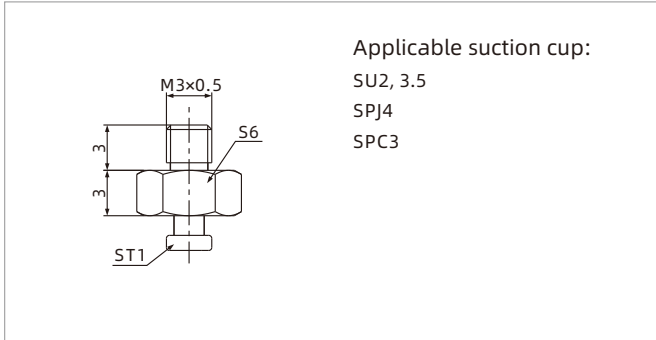
PTK

PSW

PJS Series

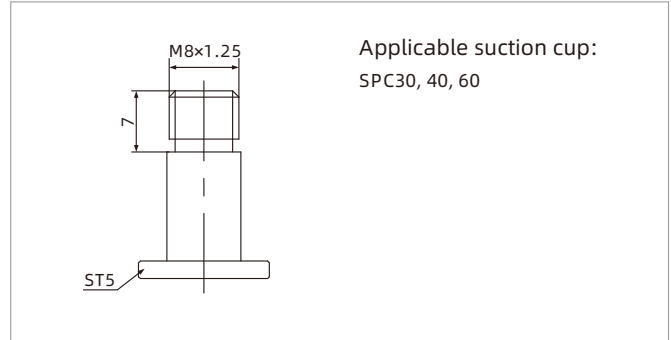
Fitting for Suction Cup

Dimensions(mm)-ST



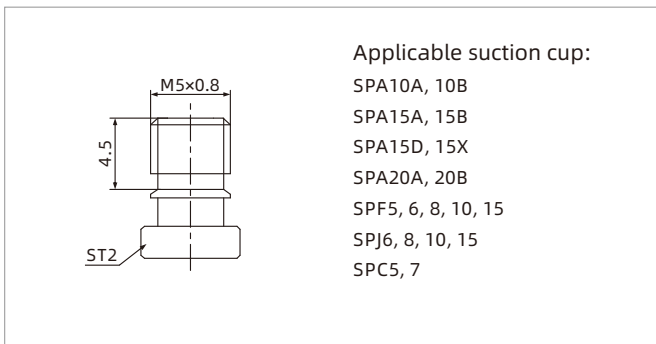
Applicable suction cup:
 SU2, 3,5
 SPJ4
 SPC3

PJS-M3M-ST1



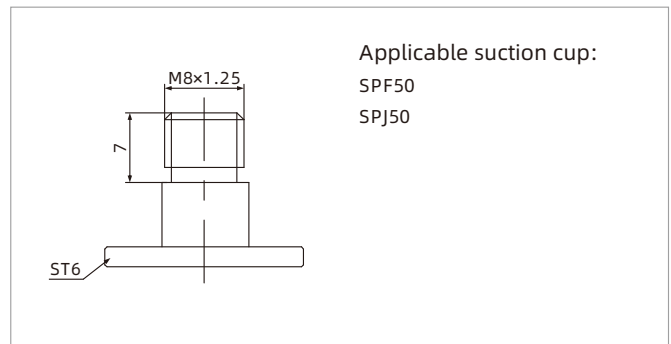
Applicable suction cup:
 SPC30, 40, 60

PJS-M8M-ST5



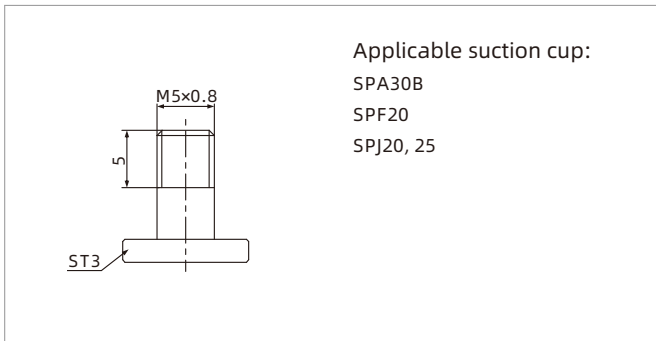
Applicable suction cup:
 SPA10A, 10B
 SPA15A, 15B
 SPA15D, 15X
 SPA20A, 20B
 SPF5, 6, 8, 10, 15
 SPJ6, 8, 10, 15
 SPC5, 7

PJS-M5M-ST2



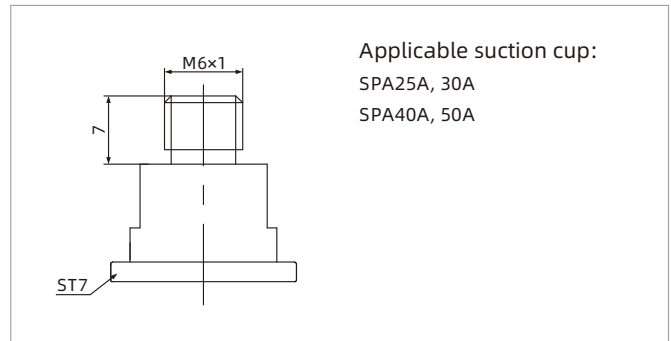
Applicable suction cup:
 SPF50
 SPJ50

PJS-M8M-ST6



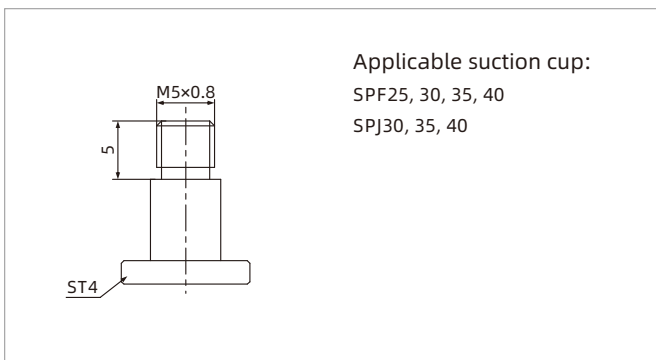
Applicable suction cup:
 SPA30B
 SPF20
 SPJ20, 25

PJS-M5M-ST3



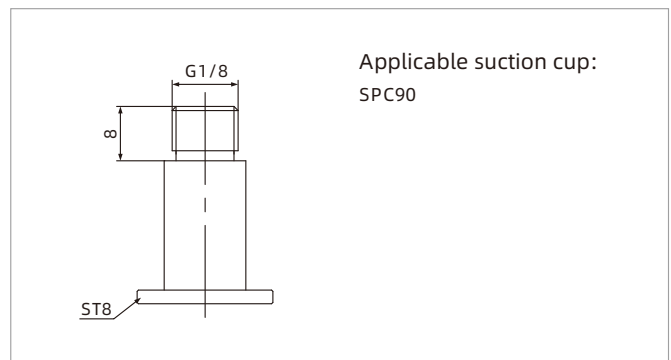
Applicable suction cup:
 SPA25A, 30A
 SPA40A, 50A

PJS-M6M-ST7



Applicable suction cup:
 SPF25, 30, 35, 40
 SPJ30, 35, 40

PJS-M5M-ST4



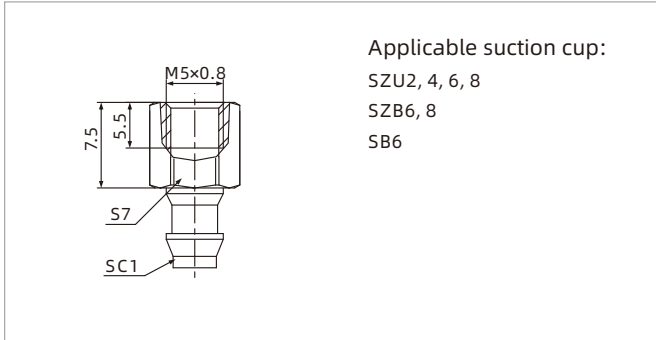
Applicable suction cup:
 SPC90

PJS-G1M-ST8

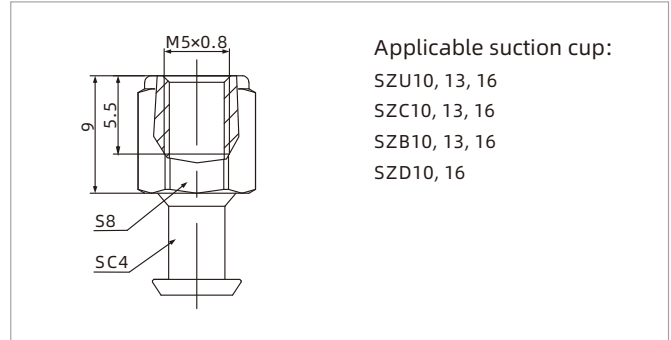
PJS Series

Fitting for Suction Cup

Dimensions(mm) - SC



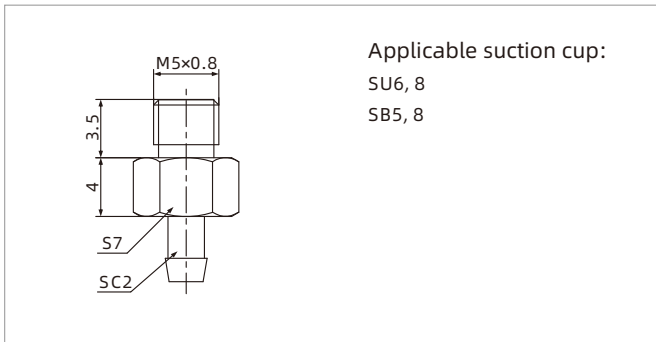
Applicable suction cup:
 SZU2, 4, 6, 8
 SZB6, 8
 SB6



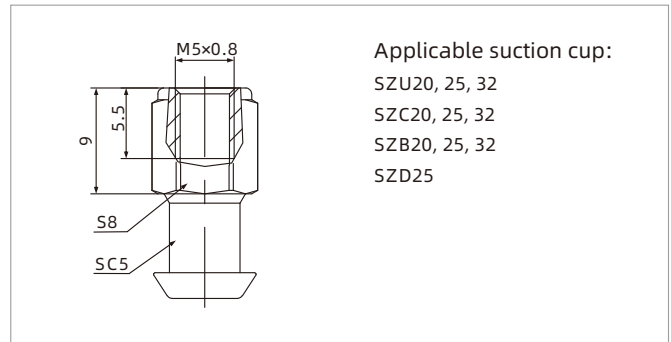
Applicable suction cup:
 SZU10, 13, 16
 SZC10, 13, 16
 SZB10, 13, 16
 SZD10, 16

PJS-M5F-SC1

PJS-M5F-SC4



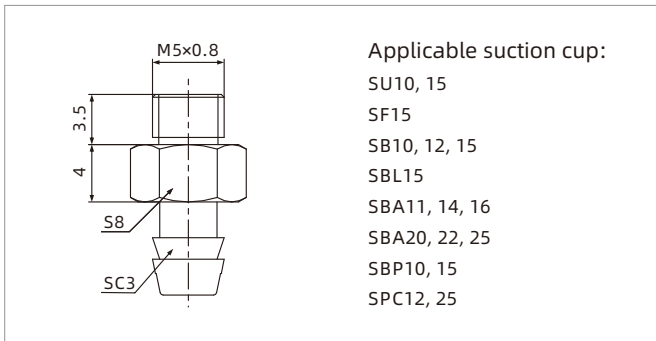
Applicable suction cup:
 SU6, 8
 SB5, 8



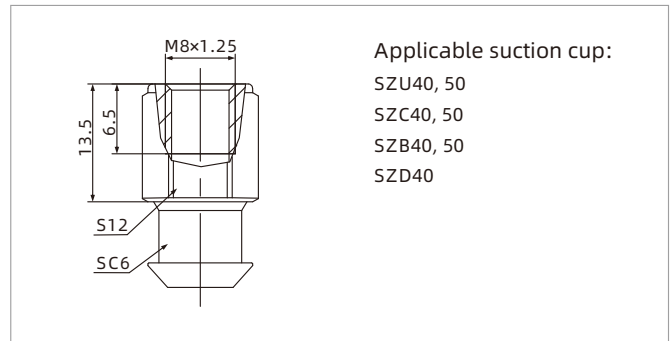
Applicable suction cup:
 SZU20, 25, 32
 SZC20, 25, 32
 SZB20, 25, 32
 SZD25

PJS-M5M-SC2

PJS-M5F-SC5



Applicable suction cup:
 SU10, 15
 SF15
 SB10, 12, 15
 SBL15
 SBA11, 14, 16
 SBA20, 22, 25
 SBP10, 15
 SPC12, 25



Applicable suction cup:
 SZU40, 50
 SZC40, 50
 SZB40, 50
 SZD40

PJS-M5M-SC3

PJS-M8F-SC6

Mounting Parts

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PJT Series

Universal Mounting Parts-Adapter



UNIVERSAL

Features

- ◇ Various specifications to achieve conversion between different threads
- ◇ Made of copper alloy and plated with electroless nickel



How to order

PJT - M5M - M8F
 ① ② ③

| ① Series | ② Connection thread(1) | ③ Connection thread(2) |
|----------|--|--|
| PJT | M5M - M5×0.8 male thread M8M - M8×1.25 male thread G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread M5F - M5×0.8 female thread M8F - M8×1.25 female thread G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread | Nil - Same as connection thread(1) M5M - M5×0.8 male thread M8M - M8×1.25 male thread G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread M5F - M5×0.8 female thread M8F - M8×1.25 female thread G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread G4F - G1/2 female thread |

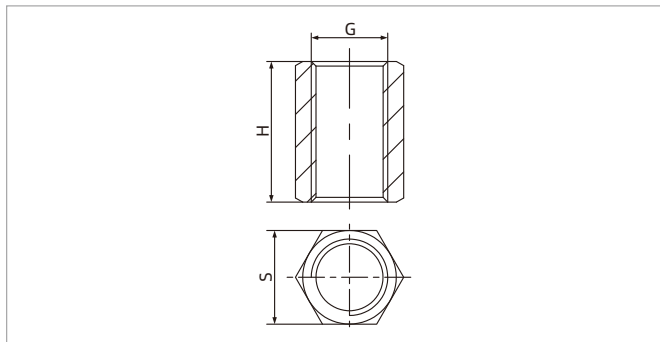
Selection - SF

| Model/Type Equal diameter female-female thread | Equal diameter male-male thread | Different diameter male-male thread | Different diameter female-male thread |
|--|------------------------------------|--|--|
| PJT-M5F | PJT-M5M | PJT-M5M-M8M | PJT-M5M-M8F |
| PJT-M8F | PJT-M8M | PJT-M8M-G1M | PJT-M8M-G1F |
| PJT-G1F | PJT-G1M | PJT-G1M-G2M | PJT-G1M-G2F |
| PJT-G2F | PJT-G2M | PJT-G2M-G3M | PJT-G2M-G3F |
| PJT-G3F | PJT-G3M | PJT-G3M-G4M | PJT-G3M-G4F |

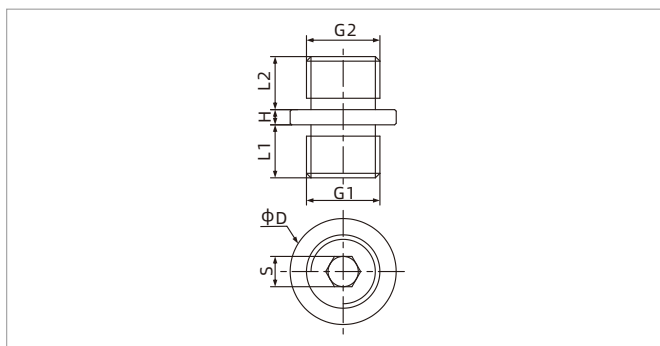
PJT Series

Universal Mounting Parts-Adapter

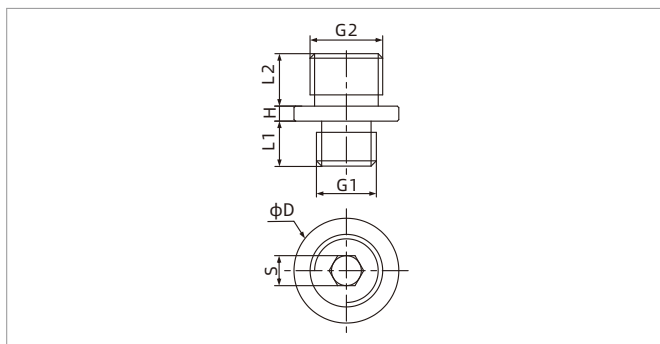
Dimensions(mm)



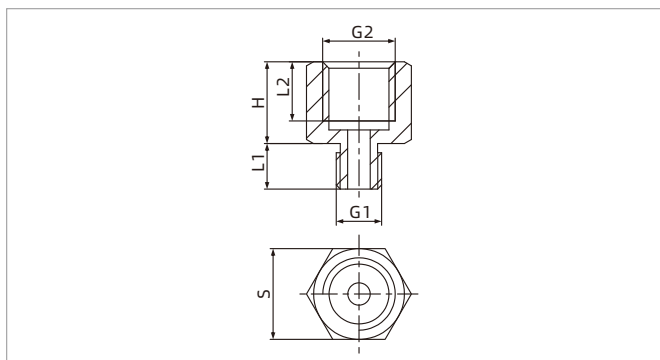
Equal diameter female-female thread



Equal diameter male-male thread



Different diameter male-male thread



Different diameter female-male thread

| Model/Size | G | H | S | Weight g |
|------------|---------|----|----|----------|
| PJT-M5F | M5×0.8 | 11 | 8 | 4 |
| PJT-M8F | M8×1.25 | 15 | 10 | 6.6 |
| PJT-G1F | G1/8 | 18 | 12 | 10 |
| PJT-G2F | G1/4 | 22 | 16 | 22 |
| PJT-G3F | G3/8 | 24 | 19 | 27 |

| Model/Size | G1 | L1 | G2 | L2 | H | D | S | Weight g |
|------------|---------|----|---------|----|-----|----|-----|----------|
| PJT-M5M | M5×0.8 | 5 | M5×0.8 | 5 | 1.5 | 8 | 2.5 | 3 |
| PJT-M8M | M8×1.25 | 7 | M8×1.25 | 7 | 1.5 | 12 | 3 | 7 |
| PJT-G1M | G1/8 | 7 | G1/8 | 7 | 1.5 | 14 | 4 | 11.5 |
| PJT-G2M | G1/4 | 9 | G1/4 | 9 | 2 | 17 | 5 | 23 |
| PJT-G3M | G3/8 | 10 | G3/8 | 10 | 2 | 21 | 5 | 33 |

| Model/Size | G1 | L1 | G2 | L2 | H | D | S | Weight g |
|-------------|---------|-----|---------|-----|-----|----|-----|----------|
| PJT-M5M-M8M | M5×0.8 | 5 | M8×1.25 | 6.5 | 1.5 | 12 | 2.5 | 6 |
| PJT-M8M-G1M | M8×1.25 | 6.5 | G1/8 | 7 | 1.5 | 14 | 3 | 11.5 |
| PJT-G1M-G2M | G1/8 | 7 | G1/4 | 9 | 1.5 | 17 | 5 | 15 |
| PJT-G2M-G3M | G1/4 | 9 | G3/8 | 10 | 2 | 21 | 5 | 30 |
| PJT-G3M-G4M | G3/8 | 10 | G1/2 | 12 | 2 | 24 | 6 | 37 |

| Model/Size | G1 | L1 | G2 | L2 | H | S | Weight g |
|-------------|---------|----|---------|----|----|----|----------|
| PJT-M5M-M8F | M5×0.8 | 5 | M8×1.25 | 7 | 9 | 10 | 5 |
| PJT-M8M-G1F | M8×1.25 | 7 | G1/8 | 8 | 10 | 12 | 8 |
| PJT-G1M-G2F | G1/8 | 7 | G1/4 | 10 | 13 | 16 | 16.2 |
| PJT-G2M-G3F | G1/4 | 9 | G3/8 | 10 | 13 | 19 | 25 |
| PJT-G3M-G4F | G3/8 | 10 | G1/2 | 12 | 15 | 24 | 48 |

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PJF Series

Universal Mounting Parts-Locking Fitting



UNIVERSAL

Features

- ◇ Match the connection thread of suction cup, variety of connection and mounting thread are available
- ◇ Small size and simple structure, especially suitable for electronic industry



How to order

PJF - LB6 - M4F - M5F

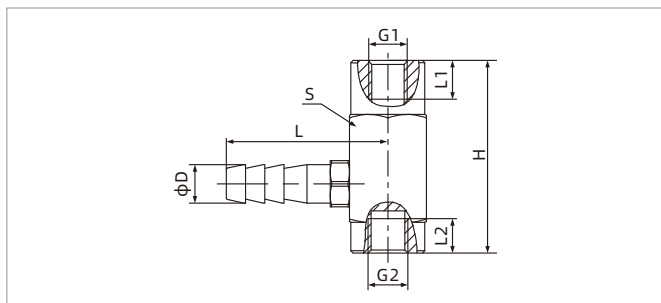
① ② ③ ④

| ① Series | ② Vacuum port connection | ③ Mounting thread | ④ Suction cup connection |
|----------|--|------------------------------|-----------------------------|
| PJF | A4 - Vertical, one-touch fittingφ4 | M4F - M4×0.7 female thread | M8M - M8×1 male thread |
| | A6 - Vertical, one-touch fittingφ6 | M5F - M5×0.8 female thread | M10M - M10×1 male thread |
| | A8 - Vertical, one-touch fittingφ8 | M6F - M6×1 female thread | M12M - M12×1 male thread |
| | R1 - Vertical, Rc1/8 inside tapered thread | M8F - M8×1.25 female thread | M14M - M14×1 male thread |
| | LB6 - Lateral, pagoda fittingφ6 | M10F - M10×1.5 female thread | M16M - M16×1.5 male thread |
| | LR1 - Lateral, Rc1/8 inside tapered thread | | |
| | B6 - Vertical, pagoda fittingφ6 | | |
| | | | M5F - M5×0.8 female thread |
| | | | M8F - M8×1.25 female thread |
| | | | G1F - G1/8 female thread |
| | | | G2F - G1/4 female thread |
| | | | G3F - G3/8 female thread |

Selection

| Model/Vacuum port connection | Lateral pagoda fitting | Vertical one-touch fitting | Vertical pagoda fitting | Vertical female thread | Lateral female thread |
|------------------------------|------------------------|----------------------------|-------------------------|------------------------|-----------------------|
| PJF-LB6-M4F-M5F | | PJF-A4-M12M-M5F | PJF-B6-M8M-M5F | PJF-R1-M16M-G2F | PJF-LR1-M10F-G2F |
| PJF-LB6-M6F-M5F | | PJF-A6-M14M-M5F | PJF-B6-M10M-M5F | PJF-R1-M16M-G3F | PJF-LR1-M10F-G3F |
| PJF-LB6-M6F-M8F | | PJF-A6-M14M-M8F | PJF-B6-M10M-M8F | - | - |
| PJF-LB6-M8F-G1F | | PJF-A6-M14M-G1F | PJF-B6-M14M-G1F | - | - |
| - | | PJF-A8-M16M-G2F | - | - | - |

Dimensions(mm)



Lateral pagoda fitting

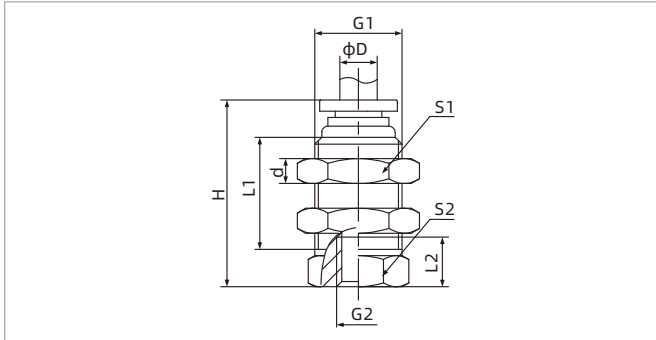
| Model/size | H | G1 | L1 | G2 | L2 | S | D | L | Weight g |
|-----------------|----|----|-----|------|----|----|---|----|----------|
| PJF-LB6-M4F-M5F | 22 | M4 | 6 | M5 | 6 | 10 | 5 | 21 | 15.5 |
| PJF-LB6-M6F-M5F | 32 | M6 | 8 | M5 | 6 | 14 | 5 | 23 | 40 |
| PJF-LB6-M6F-M8F | 32 | M6 | 8 | M8 | 8 | 14 | 5 | 23 | 39 |
| PJF-LB6-M8F-G1F | 32 | M8 | 6.5 | G1/8 | 6 | 14 | 5 | 23 | 39 |

PJF Series

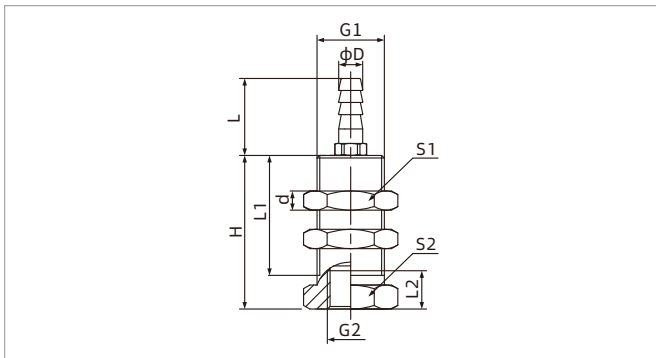
Universal Mounting Parts-Locking Fitting



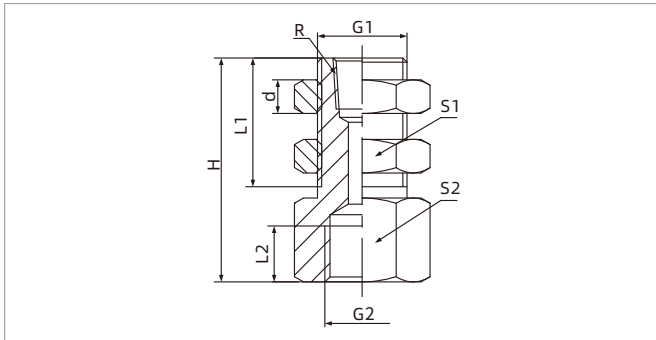
Dimensions(mm)



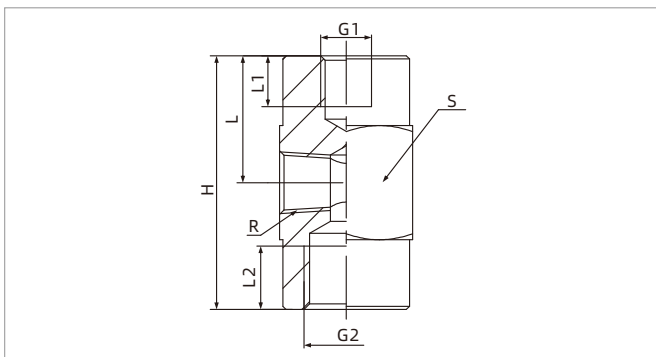
Vertical one-touch fitting



Vertical pagoda fitting



Vertical female thread



Lateral female thread

| Model/Size | H | G1 | L1 | G2 | L2 | S1 | S2 | d | D | Weight g |
|-----------------|------|---------|------|------|----|----|----|---|---|----------|
| PJF-A4-M12M-M5F | 27.5 | M12x1 | 17.5 | M5 | 6 | 14 | 12 | 4 | 4 | 20.1 |
| PJF-A6-M14M-M5F | 29 | M14x1 | 20 | M5 | 6 | 19 | 14 | 5 | 6 | 35.3 |
| PJF-A6-M14M-M8F | 30 | M14x1 | 18 | M8 | 8 | 19 | 14 | 5 | 6 | 34.3 |
| PJF-A6-M14M-G1F | 30 | M14x1 | 18 | G1/8 | 8 | 19 | 14 | 5 | 6 | 32.3 |
| PJF-A8-M16M-G2F | 40 | M16x1.5 | 23 | G1/4 | 10 | 22 | 21 | 6 | 8 | 82.2 |

| Model/Size | H | G1 | L1 | G2 | L2 | S1 | S2 | L | d | D | Weight g |
|-----------------|----|-------|----|------|----|----|----|----|---|---|----------|
| PJF-B6-M8M-M5F | 22 | M8x1 | 17 | M5 | 5 | 12 | 12 | 16 | 3 | 5 | 27 |
| PJF-B6-M10M-M5F | 32 | M10x1 | 22 | M5 | 6 | 14 | 14 | 16 | 3 | 5 | 30 |
| PJF-B6-M10M-M8F | 32 | M10x1 | 22 | M8 | 8 | 14 | 14 | 16 | 3 | 5 | 28 |
| PJF-B6-M14M-G1F | 32 | M14x1 | 22 | G1/8 | 8 | 19 | 17 | 16 | 5 | 5 | 33 |

| Model/Size | H | G1 | L1 | G2 | L2 | S1 | S2 | d | R | Weight g |
|-----------------|----|---------|----|------|----|----|----|---|-------|----------|
| PJF-R1-M16M-G2F | 40 | M16x1.5 | 23 | G1/4 | 10 | 22 | 21 | 6 | Rc1/8 | 86.5 |
| PJF-R1-M16M-G3F | 40 | M16x1.5 | 23 | G3/8 | 11 | 22 | 21 | 6 | Rc1/8 | 78 |

| Model/Size | H | G1 | L1 | G2 | L2 | S | L | R | Weight g |
|------------------|----|-----|----|------|----|----|----|-------|----------|
| PJF-LR1-M10F-G2F | 40 | M10 | 8 | G1/4 | 10 | 21 | 20 | Rc1/8 | 88.5 |
| PJF-LR1-M10F-G3F | 40 | M10 | 8 | G3/8 | 11 | 21 | 20 | Rc1/8 | 79 |

Mounting Parts

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PJB Series

Universal Mounting Parts-Ball Joint



UNIVERSAL

Features

- ◇ Flexible connection for deflection in any direction with a maximum deflection angle of 12°
- ◇ The ball and socket are equipped with sealing rings to prevent vacuum leakage during rotation
- ◇ It is made of high strength steel and has good stability
- ◇ Suitable for large suction cup to handle workpiece with inclined surface



How to order

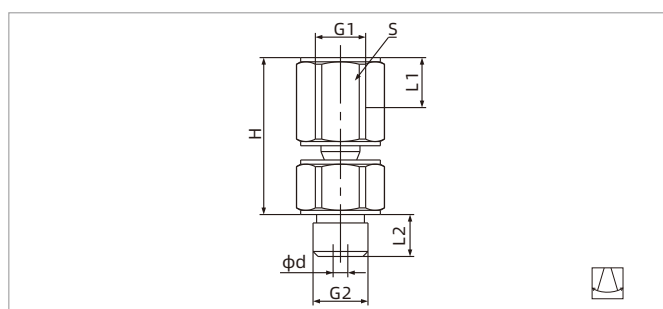
PJB - G4M - S
 ① ② ③

| ① Series | ② Suction cup connection | | ③ External sealing device |
|----------|-----------------------------|------------------------|---------------------------------------|
| PJB | G1M - G1/8 male thread | G2M - G1/4 male thread | Nil - Standard type |
| | M10M - M10×1.25 male thread | G4M - G1/2 male thread | S - With external sealing suction cup |

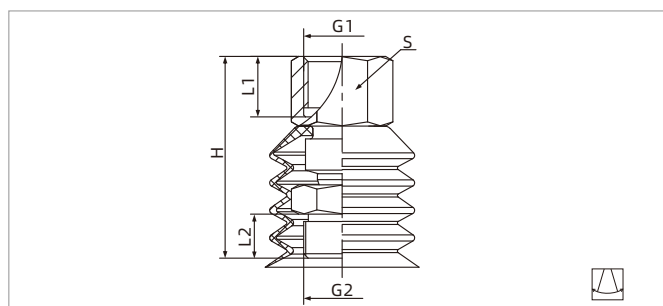
Selection

| Model/Suction cup connection | | G1M | M10M | G2M | G4M |
|------------------------------|-----------|-----|----------|---------|----------------------|
| PJB-G1M | PJB-G1M-S | | PJB-M10M | PJB-G2M | PJB-G4M PJB-G4M-S |

Dimensions(mm)



PJB-□



PJB-□-S

| Model/Size | H | G1 | L1 | G2 | L2 | S | d | Deflection angle | Weight g |
|------------|------|------|----|----------|----|----|-----|------------------|----------|
| PJB-G1M | 26.5 | G1/8 | 8 | G1/8 | 7 | 12 | 2 | 12° | 20 |
| PJB-M10M | 37.5 | G1/4 | 12 | M10×1.25 | 10 | 19 | 3.5 | 12° | 82 |
| PJB-G2M | 37.5 | G1/4 | 12 | G1/4 | 10 | 19 | 3.5 | 12° | 75 |
| PJB-G4M | 40 | G1/2 | 15 | G1/2 | 12 | 24 | 4 | 12° | 113 |

| Model/Size | H | G1 | L1 | G2 | L2 | S | Deflection angle | Weight g |
|------------|----|------|----|------|----|----|------------------|----------|
| PJB-G1M-S | 33 | G1/8 | 8 | G1/8 | 7 | 12 | 12° | 21 |
| PJB-G4M-S | 52 | G1/2 | 15 | G1/2 | 12 | 24 | 12° | 133 |

PJE Series

Universal mounting parts-flexible joint



UNIVERSAL

Features

- ◇ Flexible connection for deflection in any direction with a maximum deflection angle 12°
- ◇ The rotating joints are vulcanized by high-strength metal and high-performance rubber, which guarantees strength, elasticity and sealability, and can be automatically reset
- ◇ Suitable for large suction cup to handle workpiece with inclined surface



How to order

PJE - G2F - G2M

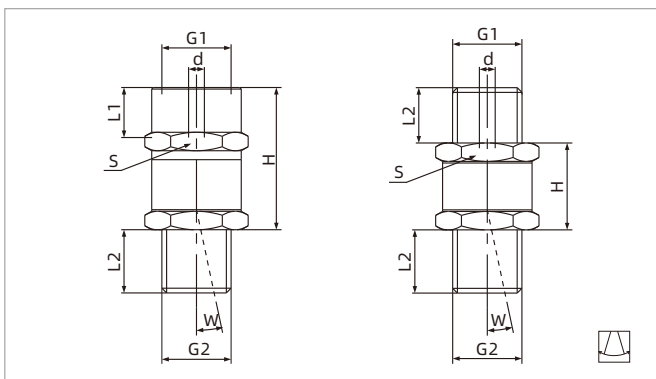
① ② ③

| ① series | ② Vacuum port connection | ③ Suction cup connection |
|----------|--|---|
| PJE | G2M - G1/4 male thread G4M - G1/2 male thread G2F - G1/4 female thread G4F - G1/2 female thread | M10M - M10×1.25 male thread G2M - G1/4 male thread G4M - G1/2 male thread |

Selection

| Model/Vacuum port connection G2M | G2F | G4M | G4F |
|-------------------------------------|----------------------------|-------------|-------------|
| PJE-G2M-G2M | PJE-G2F-M10M PJE-G2F-G2M | PJE-G4M-G4M | PJE-G4F-G4M |

Dimensions(mm)



PJE-F-M

PJE-M-M

| Model/Size | H | G1 | L1 | G2 | L2 | d | S | W | Weight g |
|--------------|------|------|------|----------|----|---|----|-----|-------------|
| PJE-G2F-M10M | 27 | G1/4 | 12 | M10×1.25 | 8 | 3 | 17 | 12° | 33.5 |
| PJE-G2F-G2M | 27 | G1/4 | 12 | G1/4 | 12 | 3 | 17 | 12° | 39 |
| PJE-G2M-G2M | 16.5 | G1/4 | 10.5 | G1/4 | 12 | 3 | 17 | 12° | 32.5 |
| PJE-G4F-G4M | 33.5 | G1/2 | 14 | G1/2 | 14 | 6 | 27 | 12° | 105.5 |
| PJE-G4M-G4M | 21 | G1/2 | 14 | G1/2 | 14 | 6 | 27 | 12° | 94.5 |

PJH Series

Universal Mounting Parts-Flexible Joint



UNIVERSAL

Features

- ◇ Ball clamp structure , which can adjust height and angle.
It is suitable for workpiece with irregular surface
- ◇ Made of high-strength aluminum alloy and light weight



How to order

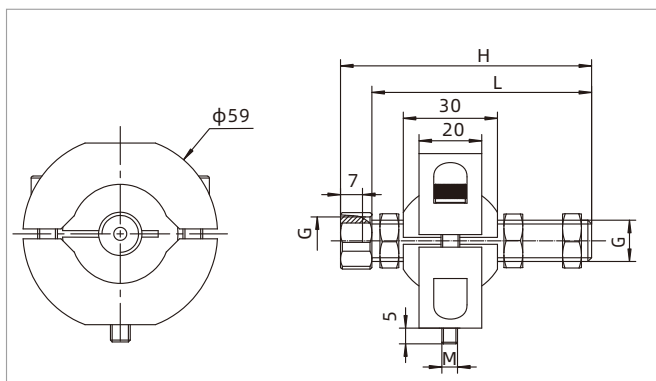
PJH - 1 A 80
① ② ③ ④

| ① Series | ② Mounting Specification | ③ Connection thread | ④ Length of connecting rod | |
|----------|--------------------------|---------------------|----------------------------|-------------|
| PJH | 1 - 1×M5 Fixed screw | A - G1/4 | 80 - 80mm | 140 - 140mm |
| | 2 - 2×M6 Fixed screw | B - G3/8 | 100 - 100mm | 200 - 200mm |

Selection

| Model/Mounting specification 1A | 1B | 2A | 2B |
|------------------------------------|-----------|-----------|-----------|
| PJH-1A80 | PJH-1B80 | PJH-2A80 | PJH-2B80 |
| PJH-1A100 | PJH-1B100 | PJH-2A100 | PJH-2B100 |
| PJH-1A140 | PJH-1B140 | PJH-2A140 | PJH-2B140 |
| PJH-1A200 | PJH-1B200 | PJH-2A200 | PJH-2B200 |

Dimensions(mm)



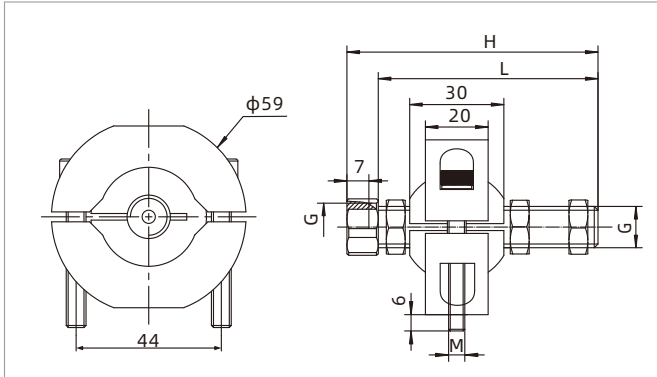
PJH-1□□

| Model/Size | G | M | H | L | Setting angle | Weight g |
|------------|------|--------|-----|-----|---------------|----------|
| PJH-1A80 | G1/4 | M5×0.8 | 80 | 70 | 15° | 293 |
| PJH-1A100 | G1/4 | M5×0.8 | 100 | 90 | 15° | 299.5 |
| PJH-1A140 | G1/4 | M5×0.8 | 140 | 130 | 15° | 314 |
| PJH-1A200 | G1/4 | M5×0.8 | 200 | 190 | 15° | 335 |
| PJH-1B80 | G3/8 | M5×0.8 | 80 | 70 | 15° | 325 |
| PJH-1B100 | G3/8 | M5×0.8 | 100 | 90 | 15° | 331 |
| PJH-1B140 | G3/8 | M5×0.8 | 140 | 130 | 15° | 352 |
| PJH-1B200 | G3/8 | M5×0.8 | 200 | 190 | 15° | 385 |

PJH Series

Universal Mounting Parts-Flexible Joint

Dimensions(mm)



PJH-2□□

| Model/Size | G | M | H | L | Setting angle | Weight g |
|------------|------|--------|-----|-----|---------------|----------|
| PJH-2A80 | G1/4 | 2-M6×1 | 80 | 70 | 15° | 216 |
| PJH-2A100 | G1/4 | 2-M6×1 | 100 | 90 | 15° | 222.5 |
| PJH-2A140 | G1/4 | 2-M6×1 | 140 | 130 | 15° | 237 |
| PJH-2A200 | G1/4 | 2-M6×1 | 200 | 190 | 15° | 257.5 |
| PJH-2B80 | G3/8 | 2-M6×1 | 80 | 70 | 15° | 192.5 |
| PJH-2B100 | G3/8 | 2-M6×1 | 100 | 90 | 15° | 203.5 |
| PJH-2B140 | G3/8 | 2-M6×1 | 140 | 130 | 15° | 239.5 |
| PJH-2B200 | G3/8 | 2-M6×1 | 200 | 190 | 15° | 286.5 |

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PJP Series

Universal One-touch Fitting



UNIVERSAL

Features

- ◇ Copper alloy body, suitable for harsh environment, long lifetime
- ◇ Work as connecting components in vacuum system
- ◇ Various types to be selected



How to order

PJP - I - A4 - M5M
 ① ② ③ ④

| ① Series | ② Hose direction | ③ Hose specification | ④ Connection thread |
|------------|---------------------------|----------------------|--------------------------|
| PJP | I - Straight | A4 - ϕ 4 hose | M5M - M5x0.8 male thread |
| | L - Elbow | A6 - ϕ 6 hose | G1M - G1/8 male thread |
| | LT - Universal male elbow | A8 - ϕ 8 hose | G2M - G1/4 male thread |
| | T - Male branch T | A10 - ϕ 10 hose | G3M - G3/8 male thread |
| | QT - Union T | A12 - ϕ 12 hose | G4M - G1/2 male thread |
| | | | A14 - ϕ 14 hose |

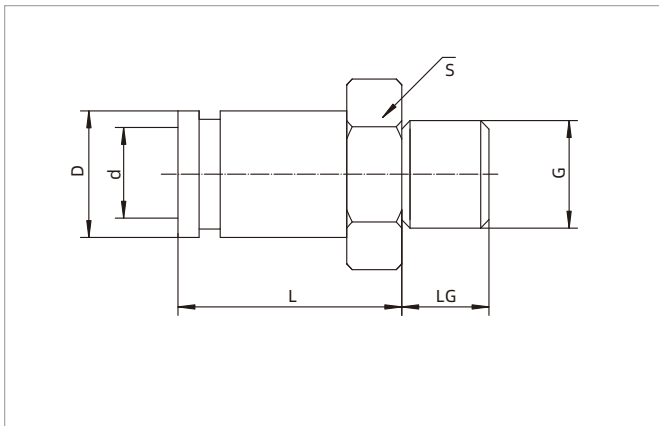
Selection

| Model/Type Straight | | Elbow | | Universal male elbow | Male branch T | Union T |
|------------------------|---------------|---------------|---------------|----------------------|---------------|------------|
| PJP-I-A4-M5M | PJP-I-A8-G3M | PJP-L-A4-M5M | PJP-L-A12-G2M | PJP-LT-A4-M5M | PJP-T-A4-M5M | PJP-QT-A4 |
| PJP-I-A4-G1M | PJP-I-A10-G3M | PJP-L-A4-G1M | PJP-L-A8-G3M | PJP-LT-A6-G1M | PJP-T-A4-G1M | PJP-QT-A6 |
| PJP-I-A6-G1M | PJP-I-A12-G3M | PJP-L-A6-G1M | PJP-L-A10-G3M | PJP-LT-A8-G2M | PJP-T-A6-G1M | PJP-QT-A8 |
| PJP-I-A8-G1M | PJP-I-A14-G3M | PJP-L-A8-G1M | PJP-L-A12-G3M | | PJP-T-A8-G1M | PJP-QT-A10 |
| PJP-I-A6-G2M | PJP-I-A10-G4M | PJP-L-A4-G2M | PJP-L-A10-G4M | | PJP-T-A6-G2M | PJP-QT-A12 |
| PJP-I-A8-G2M | PJP-I-A12-G4M | PJP-L-A6-G2M | PJP-L-A12-G4M | | PJP-T-A8-G2M | PJP-QT-A14 |
| PJP-I-A10-G2M | PJP-I-A14-G4M | PJP-L-A8-G2M | | | PJP-T-A10-G2M | |
| PJP-I-A12-G2M | | PJP-L-A10-G2M | | | PJP-T-A12-G2M | |

PJP Series

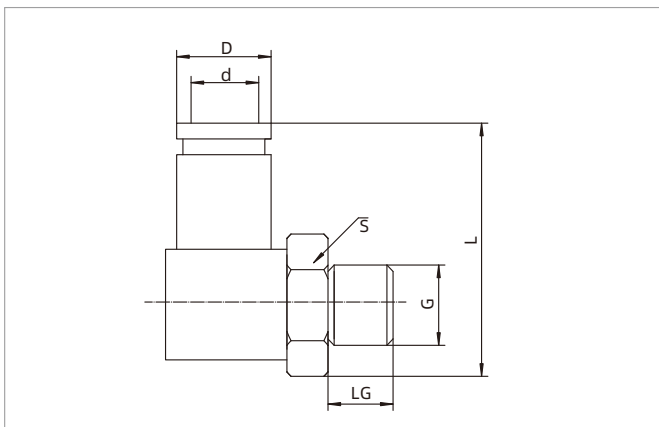
Universal One-touch Fitting

Dimensions(mm)



PJP-I-A8-□

| Model/Size | d | D | L | LG | G | S |
|---------------|----|------|------|-----|--------|----|
| PJP-I-A4-M5M | 4 | 8.8 | 16 | 3.7 | M5×0.8 | 9 |
| PJP-I-A4-G1M | 4 | 8.8 | 13 | 5 | G1/8 | 10 |
| PJP-I-A6-G1M | 6 | 11.8 | 18 | 5 | G1/8 | 12 |
| PJP-I-A8-G1M | 8 | 13.5 | 22.5 | 5 | G1/8 | 14 |
| PJP-I-A6-G2M | 6 | 11.8 | 17 | 6 | G1/4 | 12 |
| PJP-I-A8-G2M | 8 | 13.8 | 19.5 | 6 | G1/4 | 14 |
| PJP-I-A10-G2M | 10 | 15.6 | 23 | 6 | G1/4 | 16 |
| PJP-I-A12-G2M | 12 | 18 | 23 | 6 | G1/4 | 19 |
| PJP-I-A8-G3M | 8 | 13.8 | 16.5 | 7 | G3/8 | 14 |
| PJP-I-A10-G3M | 10 | 16 | 19.5 | 7 | G3/8 | 17 |
| PJP-I-A12-G3M | 12 | 18 | 22 | 7 | G3/8 | 19 |
| PJP-I-A14-G3M | 14 | 20.5 | 26.5 | 7 | G3/8 | 21 |
| PJP-I-A10-G4M | 10 | 16 | 15.5 | 8 | G1/2 | 17 |
| PJP-I-A12-G4M | 12 | 18 | 17 | 8 | G1/2 | 19 |
| PJP-I-A14-G4M | 14 | 20.5 | 23 | 8 | G1/2 | 24 |



PJP-L-A8-□

| Model/Size | d | D | L | LG | G | S |
|---------------|----|-----|------|-----|--------|----|
| PJP-L-A4-M5M | 4 | 8.5 | 22 | 3.7 | M5×0.8 | 8 |
| PJP-L-A4-G1M | 4 | 8.5 | 24.5 | 5 | G1/8 | 10 |
| PJP-L-A6-G1M | 6 | 12 | 29.5 | 5 | G1/8 | 12 |
| PJP-L-A8-G1M | 8 | 14 | 32 | 5 | G1/8 | 12 |
| PJP-L-A4-G2M | 4 | 8.5 | 26 | 6 | G1/4 | 12 |
| PJP-L-A6-G2M | 6 | 12 | 30.5 | 6 | G1/4 | 12 |
| PJP-L-A8-G2M | 8 | 14 | 33.5 | 6 | G1/4 | 12 |
| PJP-L-A10-G2M | 10 | 16 | 37 | 6 | G1/4 | 16 |
| PJP-L-A12-G2M | 12 | 18 | 38 | 6 | G1/4 | 16 |
| PJP-L-A8-G3M | 8 | 14 | 36 | 7 | G3/8 | 19 |
| PJP-L-A10-G3M | 10 | 16 | 38 | 7 | G3/8 | 19 |
| PJP-L-A12-G3M | 12 | 18 | 39 | 7 | G3/8 | 19 |
| PJP-L-A10-G4M | 10 | 16 | 41.5 | 8 | G1/2 | 24 |
| PJP-L-A12-G4M | 12 | 18 | 42.5 | 8 | G1/2 | 24 |

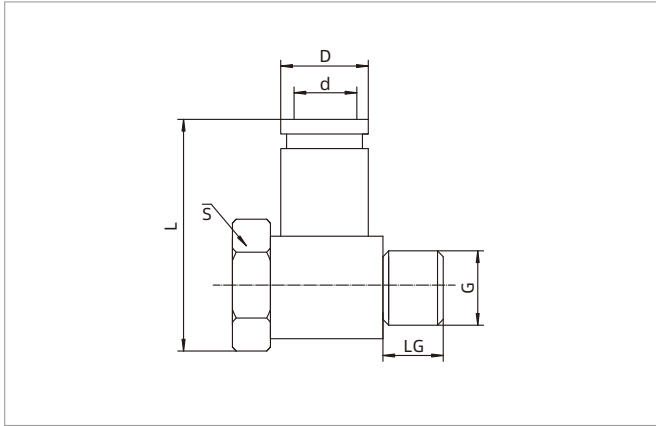
Mounting Parts

- PSPE
- PSPL
- PSPS
- PSPT
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP**
- PJQ
- PDA
- PDR
- PTS
- PTK
- PSW

PJP Series

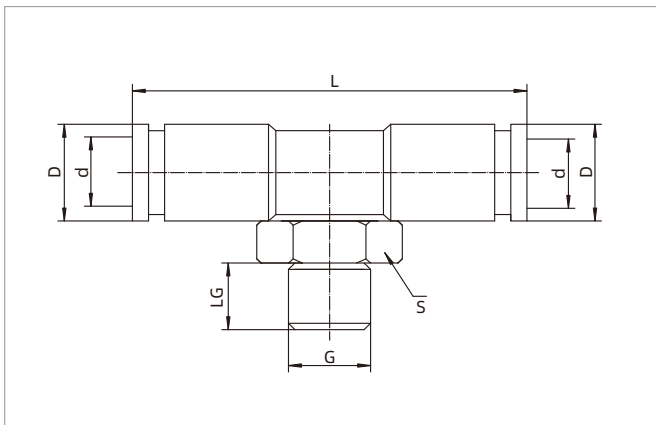
Universal One-touch Fitting

Dimensions(mm)



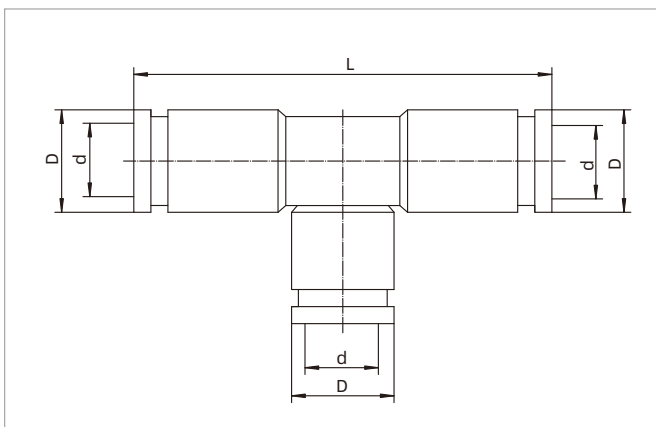
PJP-LT-A8-□

| Model/Size | d | D | L | LG | G | S |
|---------------|---|----|------|-----|--------|----|
| PJP-LT-A4-M5M | 4 | 9 | 25 | 3.7 | M5×0.8 | 8 |
| PJP-LT-A6-G1M | 6 | 12 | 33.5 | 5 | G1/8 | 12 |
| PJP-LT-A8-G2M | 8 | 14 | 37.5 | 6 | G1/4 | 14 |



PJP-T-A8-□

| Model/Size | d | D | L | LG | G | S |
|---------------|----|-----|------|-----|--------|----|
| PJP-T-A4-M5M | 4 | 8.5 | 34.5 | 3.7 | M5×0.8 | 10 |
| PJP-T-A4-G1M | 4 | 8.5 | 34.5 | 5 | G1/8 | 12 |
| PJP-T-A6-G1M | 6 | 12 | 46.5 | 5 | G1/8 | 12 |
| PJP-T-A8-G1M | 8 | 14 | 51 | 5 | G1/8 | 12 |
| PJP-T-A6-G2M | 6 | 12 | 46.5 | 6 | G1/4 | 12 |
| PJP-T-A8-G2M | 8 | 14 | 51 | 6 | G1/4 | 12 |
| PJP-T-A10-G2M | 10 | 16 | 55.5 | 6 | G1/4 | 16 |
| PJP-T-A12-G2M | 12 | 18 | 57.5 | 6 | G1/4 | 16 |



PJP-QT-□

| Model/Size | d | D | L |
|------------|----|-----|------|
| PJP-QT-A4 | 4 | 8.5 | 33.5 |
| PJP-QT-A6 | 6 | 12 | 44.5 |
| PJP-QT-A8 | 8 | 14 | 48.5 |
| PJP-QT-A10 | 10 | 16 | 50.5 |
| PJP-QT-A12 | 12 | 18 | 53.5 |
| PJP-QT-A14 | 14 | 20 | 66 |

PJQ Series

Universal Pagoda Fitting



UNIVERSAL

Features

- ◇ Made of all metal, suitable for harsh environment and long lifetime
- ◇ can be used with standard hose and steel hose on the market
- ◇ Various types to be selected



How to order

PJQ - B6 - M5M

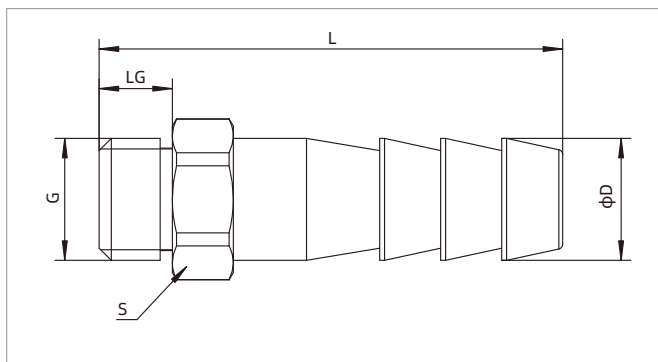
① ② ③

| ① Series | ② Hose diameter | ③ Connection thread |
|----------|-----------------|--------------------------|
| PJQ | B6 - $\phi 6$ | M5M - M5x0.8 male thread |
| | B8 - $\phi 8$ | G1M - G1/8 male thread |
| | B10 - $\phi 10$ | G2M - G1/4 male thread |
| | B12 - $\phi 12$ | G3M - G3/8 male thread |
| | B19 - $\phi 19$ | G4M - G1/2 male thread |
| | B25 - $\phi 25$ | G6M - G3/4 male thread |
| | B32 - $\phi 32$ | G8M - G1 male thread |

Selection

| Model/Type | | |
|-------------|-------------|-------------|
| PJQ-B6-M5M | PJQ-B12-G3M | PJQ-B25-G6M |
| PJQ-B8-G1M | PJQ-B19-G4M | PJQ-B25-G8M |
| PJQ-B10-G2M | PJQ-B19-G6M | PJQ-B32-G8M |

Dimensions(mm)



PJQ-□-□

| Model/Size | G | LG | L | D | S |
|-------------|--------|----|----|-----|----|
| PJQ-B6-M5M | M5x0.8 | 3 | 19 | 5 | 6 |
| PJQ-B8-G1M | G1/8 | 8 | 34 | 6.5 | 14 |
| PJQ-B10-G2M | G1/4 | 10 | 42 | 8 | 17 |
| PJQ-B12-G3M | G3/8 | 10 | 43 | 9 | 19 |
| PJQ-B19-G4M | G1/2 | 10 | 58 | 19 | 24 |
| PJQ-B19-G6M | G3/4 | 12 | 60 | 19 | 32 |
| PJQ-B25-G6M | G3/4 | 12 | 60 | 25 | 32 |
| PJQ-B25-G8M | G1 | 15 | 63 | 25 | 36 |
| PJQ-B32-G8M | G1 | 15 | 63 | 32 | 36 |

Mounting Parts

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PDA Series

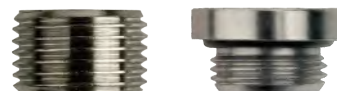
Universal Block Plug



UNIVERSAL

Features

- ◇ Copper alloy body, suitable for harsh environment, long lifetime
- ◇ Suitable for various working conditions in vacuum industry
- ◇ Various types to be selected



How to order

PDA - I - M5M
① ② ③

| ① Series | ② Sealing specification | ③ Connection thread |
|----------|--|--|
| PDA | I - Countersunk head sealing L - Horizontal sealing | M5M - M5×0.8 male thread G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread |

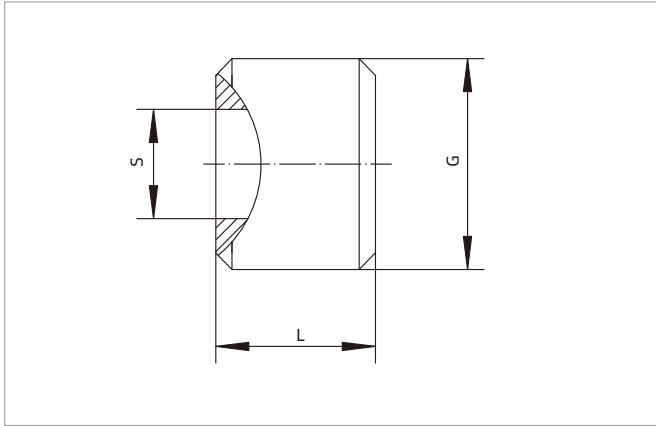
Selection

| Model/Type Countersunk head sealing | Horizontal sealing |
|--|--------------------|
| PDA-I-M5M | PDA-L-M5M |
| PDA-I-G1M | PDA-L-G1M |
| PDA-I-G2M | PDA-L-G2M |
| PDA-I-G3M | PDA-L-G3M |
| PDA-I-G4M | PDA-L-G4M |

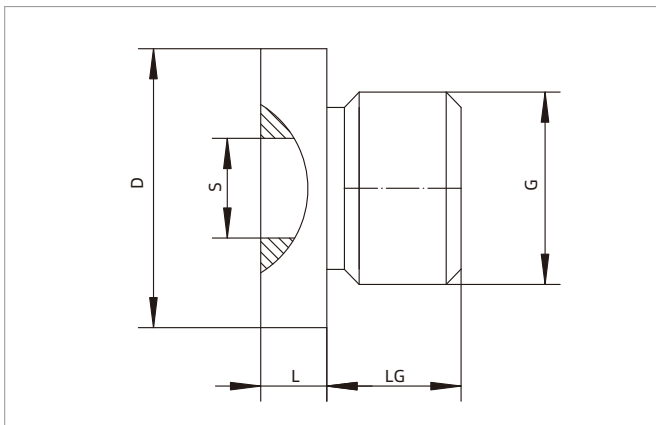
PDA Series

Universal Block Plug

Dimensions(mm)



PDA-I-□



PDA-L-□

| Model/Size | G | L | S |
|------------|--------|----|-----|
| PDA-I-M5M | M5×0.8 | 5 | 2.5 |
| PDA-I-G1M | G1/8 | 6 | 4 |
| PDA-I-G2M | G1/4 | 9 | 6 |
| PDA-I-G3M | G3/8 | 10 | 8 |
| PDA-I-G4M | G1/2 | 12 | 10 |

| Model/Size | D | L | LG | G | S |
|------------|----|-----|-----|--------|-----|
| PDA-L-M5M | 8 | 2 | 3.9 | M5×0.8 | 2.5 |
| PDA-L-G1M | 14 | 3.5 | 5.5 | G1/8 | 4 |
| PDA-L-G2M | 18 | 4.5 | 7.5 | G1/4 | 6 |
| PDA-L-G3M | 22 | 4.5 | 7.5 | G3/8 | 8 |
| PDA-L-G4M | 27 | 5 | 14 | G1/2 | 10 |

◇ Note: To prevent leakage, the block plug needs to be glued when connecting to the thread

PSPE

PSPL

PSPS

PSPT

PSPH

PSPD

PSPF

PJS

PJT

PJF

PJB

PJE

PJH

PJP

PJQ

PDA

PDR

PTS

PTK

PSW

PDR Series

Positive Pressure/Vacuum Shunt



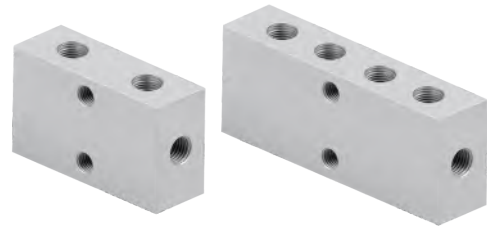
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Features

- ◇ One vacuum generator can be connected to multiple suction cups through the shunt
- ◇ The compressed air is supplied to multiple vacuum generators through the shunt

Advantages

- ◇ Large diameter inlet and outlet are optional
- ◇ Low flow resistance
- ◇ Solution of hose diversion



How to order

PDR - G2F - 5 - G1F
① ② ③ ④

| ① series | ② Connection thread | ③ Branching port quantity | ④ Branching port connection thread |
|----------|---------------------|---------------------------|------------------------------------|
| PDR | G2F - G1/4 female | 5-5 branching ports | G1F - G1/8 female |
| | G3F - G3/8 female | 9-9 branching ports | G2F - G1/4 female |

Selection

| | 5 branching ports | 9 branching ports |
|----------------|-------------------|-------------------|
| Main port G1/4 | PDR-G2F-5-G1F | PDR-G2F-9-G1F |
| Main port G3/8 | PDR-G3F-5-G2F | PDR-G3F-9-G2F |

Selection

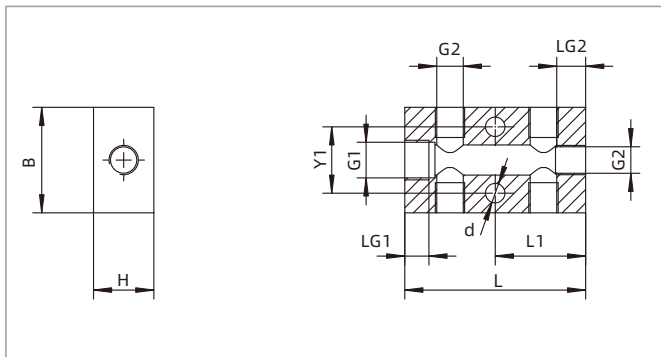
| Model | Branching port connection thread | weight(g) |
|---------------|----------------------------------|-----------|
| PDR-G2F-5-G1F | 5 x G1/8 female | 90 |
| PDR-G3F-5-G2F | 5 x G1/4 female | 110 |
| PDR-G2F-9-G1F | 9 x G1/8 female | 120 |
| PDR-G3F-9-G2F | 9 x G1/4 female | 240 |

PDR Series

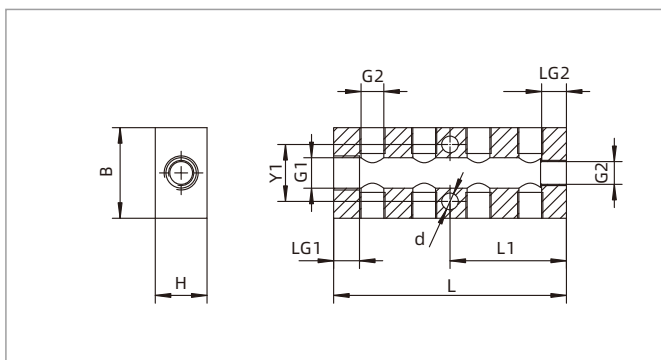
Positive Pressure/Vacuum Shunt



Dimensions(mm)



5 branching ports



9 branching ports

| Model/Size | B | d | G1 | G2 | H | L | L1 | LG1 | LG2 | Y1 |
|---------------|----|-----|------|------|----|----|----|-----|-----|----|
| PDR-G2F-5-G1F | 35 | 6.5 | G1/4 | G1/8 | 20 | 60 | 30 | 10 | 9 | 22 |
| PDR-G3F-5-G2F | 40 | 6.5 | G3/8 | G1/4 | 25 | 72 | 36 | 13 | 11 | 27 |

| Model/Size | B | d | G1 | G2 | H | L | L1 | LG1 | LG2 | Y1 |
|---------------|----|-----|------|------|----|-----|----|-----|-----|----|
| PDR-G2F-9-G1F | 35 | 6.5 | G1/4 | G1/8 | 20 | 90 | 45 | 13 | 9 | 22 |
| PDR-G3F-9-G2F | 40 | 6.5 | G3/8 | G1/4 | 25 | 116 | 58 | 13 | 11 | 27 |

Mounting Parts

- PSPE
- PSPL
- PSPS
- PSPT
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR**
- PTS
- PTK
- PSW

PTS Series

PVC Transparent Stainless Steel Hose



UNIVERSAL

Features

- ◇ The spiral high elastic steel wire is implanted into the hose wall, which makes the product has high axial strength. The inner and outer walls of the product are smooth and can withstand high pressure and vacuum compression. The product has good chemical resistance, acid resistance and alkali resistance



Applications

- ◇ Usually used as suction and delivery hoses, such as solid powder, debris, particles, gas, liquid and so on

How to order

PTS - D19 - 50
① ② ③

| ① Series | ② Specification | ③ length |
|----------|-----------------------------------|-------------|
| PTS | D19, D25, D32, D45, D50, D60, D75 | 20, 40, 50m |

Technical parameters

| Model | Operating pressure range bar | Inner diameter mm | Outer diameter mm | Bending radius(Hose center line) mm | Weight kg/m | MPQ m |
|------------|------------------------------|-------------------|-------------------|-------------------------------------|-------------|-------|
| PTS-D19-50 | 0.2~7.0 | 19 | 25 | 100 | 0.32 | 50 |
| PTS-D25-50 | 0.2~7.0 | 25 | 32 | 128 | 0.50 | 50 |
| PTS-D32-40 | 0.2~7.0 | 32 | 41 | 164 | 0.65 | 40 |
| PTS-D45-40 | 0.2~7.0 | 45 | 55 | 220 | 1.1 | 40 |
| PTS-D50-40 | 0.2~7.0 | 50 | 60 | 256 | 1.24 | 40 |
| PTS-D60-20 | 0.2~7.0 | 60 | 72 | 288 | 1.7 | 20 |
| PTS-D75-20 | 0.2~7.0 | 75 | 89 | 356 | 2.15 | 20 |

PTK Series

Stainless Steel Hose Clamp



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Features

- ◇ It is made of high quality stainless steel with through-hole technology. It has the advantages of firm and tight locking, large adjustment range, good torsion resistance and wear resistance

Applications

- ◇ Suitable for all kinds of soft and hard tubes connection and fastening with the advantages of locking firmly, beautiful and durable installation



How to order

PTK - 18-32

① ②

| ① Series | ② Specification |
|----------|---|
| PTK | 18-32, 21-38, 21-44, 27-51, 33-57, 40-64, 44-67, 46-70, 52-76 |

Technical parameters

| Model | Width(mm) | Thickness(mm) | Applicable tube dia.(OD) mm | MOQ(pcs) |
|-----------|-----------|---------------|-----------------------------|----------|
| PTK-18-32 | 12 | 0.68 | 18~32 | 100 |
| PTK-21-38 | 12 | 0.68 | 21~38 | 100 |
| PTK-21-44 | 12 | 0.68 | 21~44 | 100 |
| PTK-27-51 | 12 | 0.68 | 27~51 | 100 |
| PTK-33-57 | 12 | 0.68 | 33~57 | 100 |
| PTK-40-64 | 12 | 0.68 | 40~64 | 100 |
| PTK-44-67 | 12 | 0.68 | 44~67 | 100 |
| PTK-46-70 | 12 | 0.68 | 46~70 | 100 |
| PTK-52-76 | 12 | 0.68 | 52~76 | 100 |

Mounting Parts

- PSPE
- PSPL
- PSPS
- PSPT
- PSPH
- PSPD
- PSPF
- PJS
- PJT
- PJF
- PJB
- PJE
- PJH
- PJP
- PJQ
- PDA
- PDR
- PTK
- PTK
- PSW

PSW Series

Protection Cover of Suction Cups



GLASS



METAL SHEET

Features

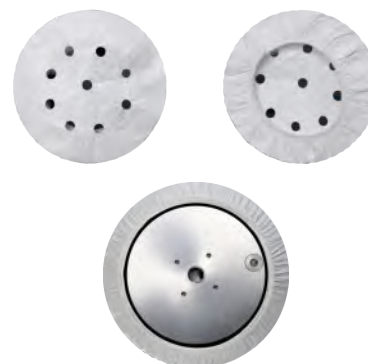
- ◇ Nonwoven, light and soft
- ◇ Elastic straps for closure
- ◇ Full range of size

Applications

- ◇ Suitable for handling vulnerable workpieces with smooth and flat surfaces. Such as glass and thin metal plates

Advantages

- ◇ To extend life cycle of suction cups, and mark free
- ◇ Easy to use and change
- ◇ Suitable for flat suction cups $\Phi 150\sim 400\text{mm}$



How to order

PSW - 150

①

②

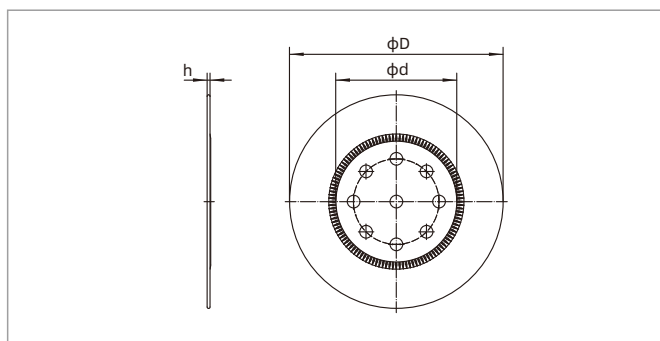
① Series

PSW

② Specification

| | |
|---------------------------|---------------------------|
| 150 - $\Phi 150\text{mm}$ | 300 - $\Phi 300\text{mm}$ |
| 200 - $\Phi 200\text{mm}$ | 350 - $\Phi 350\text{mm}$ |
| 250 - $\Phi 250\text{mm}$ | 400 - $\Phi 400\text{mm}$ |

Dimensions(mm)



| Model/Size | D | d | h |
|------------|-----|-----|-----|
| PSW-150 | 150 | 85 | 1.5 |
| PSW-200 | 190 | 100 | 1.5 |
| PSW-250 | 210 | 105 | 1.5 |
| PSW-300 | 255 | 150 | 1.5 |
| PSW-350 | 265 | 165 | 1.5 |
| PSW-400 | 290 | 180 | 1.5 |

◇ Note: The dimensions of D and d are measured in the undeveloped state

Mounting parts

| Item | Model | Applicable vacuum filter |
|----------------------------------|---------|--------------------------|
| Protection cover of suction cups | PSW-150 | SFU160 SFG150 |
| | PSW-200 | SFU210 SFG200 |
| | PSW-250 | SFU250 SFG250 |
| | PSW-300 | SFU300 SFG300 |
| | PSW-350 | SFU360 SFG350 |
| | PSW-400 | SFU400 SFG400 |

G Vacuum Accessories

Vacuum Accessories

Products overview

Vacuum Accessories

448 ZFS Series

Universal Vacuum Filter

- ◇ Max. pressure resistance: 0.9Mpa
- ◇ Max. vacuum flow: 25NL/min



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458 ZFL Series

Inline Vacuum Filter

- ◇ Nominal flow: 25-220NL/min
- ◇ Removal efficiency: 20-25µm



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450 ZFA Series

Universal Vacuum Filter

- ◇ Nominal flow: 40-370NL/min
- ◇ Removal efficiency: 5µm



UNIVERSAL



RoHS

459 ZFP Series

Large-Flow Vacuum Filter

- ◇ Nominal flow: 32-300m³/h
- ◇ Removal efficiency: 10µm



UNIVERSAL



453 ZFE Series

Universal Vacuum Filter

- ◇ Nominal flow: 2-10NL/min
- ◇ Removal efficiency: 10µm



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461 ZVAB Series

Pneumatic Control Valve

- ◇ Pressure range: 1.5-8.0bar
- ◇ Control mode: Pneumatic control - NO NC



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455 ZFD Series

Mini Type Vacuum Filter

- ◇ Nominal flow: 27-49NL/min
- ◇ Removal efficiency: 10µm



UNIVERSAL



462 ZVAC Series

Pneumatic Control Valve

- ◇ Pressure range: 1.0-8.0bar
- ◇ Control mode: Pneumatic control - NO



UNIVERSAL



456 ZFB Series

Universal Vacuum Filter

- ◇ Nominal flow: 150-510NL/min
- ◇ Removal efficiency: 10µm



UNIVERSAL



463 ZVAA Series

Pneumatic Control Valve

- ◇ Pressure range: 3.5-7.0bar
- ◇ Control mode: Pneumatic control - NO



UNIVERSAL



Vacuum Accessories

Products overview

Vacuum Accessories

464 ZVEA Series

Electric Control Valve

- ◇ Pressure range: 3.5-7.0bar
- ◇ Control mode: Electric Control - NC



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472 ZVS Series

Fast Blow-off Valve

- ◇ Max. blow-off flow: 160NL/min
- ◇ Connection thread: G1/8 G1/4



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465 ZVR Series

Check Valve

- ◇ Max. blow-off flow: 80-790NL/min
- ◇ Connection thread: M5-G1/2



UNIVERSAL



473 ZPDT Series

High-precision Digital Pressure Switch

- ◇ Pressure range: -100.0~100.0kPa
- ◇ Output type: 1NPN+1Analog voltage output
1PNP+1Analog voltage output



UNIVERSAL



466 ZVRM Series

Check Valve

- ◇ Min. action flow: 2-16NL/min
- ◇ Connection thread: M5 G1/8



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477 ZPDE Series

High-precision Digital Pressure Switch

- ◇ Pressure range: -100.0~100.0kPa
- ◇ Output type: 1NPN output



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468 ZVCM Series

Non-return Valve

- ◇ Pressure range: -100~0kPa
- ◇ Connection thread: M5 G1/8



UNIVERSAL



481 ZPMR Series

Mechanical Pressure Gauge

- ◇ Pressure range: P type 0-1MPa
- ◇ Pressure range: V type -100-0kPa



UNIVERSAL



469 ZVD Series

Contact Inductive Valve

- ◇ Connection thread: G1/2 G1/4



UNIVERSAL



482 ZSA Series

Silencer

- ◇ Connection thread: G1/8 G1/4 G3/8
G1/2 G3/4 G1"



UNIVERSAL



470 ZVT Series

Throttle Valve

- ◇ Overflow port dia.: 0.25-2.0mm
- ◇ Connection thread: G1/8 G1/4



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ZFS Series

Air Filter

AIRBEST



UNIVERSAL

Features

- ◇ Straight through structure, both ends are connected with thread, easy installation
- ◇ Small size and light weight
- ◇ Using anticorrosive material, can resist weak acid and alkali corrosion
- ◇ Can withstand up to 200°C high temperature
- ◇ Transparent housing, can directly observe the pollution degree of filter element
- ◇ Stainless steel filter element, easy to clean
- ◇ Can be used in positive or negative pressure systems



Applications

- ◇ Suitable for positive pressure and vacuum systems with light or medium pollution levels
- ◇ Suitable for the working environment with certain corrosion resistance requirements
- ◇ Suitable for high temperature working environment

How to Order

ZFS 10 - G1F

① ② ③

| ① Series | ② Filter specification | ③ Connection thread |
|----------|------------------------|--|
| ZFS | 10 | G1F - G1/8 Female thread G1M - G1/8 Male thread |

Selection

| Model/ Connection thread | G1F | G1M |
|-----------------------------|-----------|-----------|
| ZFS10 | ZFS10-G1F | ZFS10-G1M |

Technical parameters

| Model | Rated operating pressure range Mpa | Max. pressure resistance Mpa | Max. positive pressure flow L/min | Max. vacuum flow L/min | Fluid | Hose diameter mm | Operating temperature °C | Weight g |
|-----------|------------------------------------|------------------------------|-----------------------------------|------------------------|--|------------------|--------------------------|----------|
| ZFS10-G1F | -0.1~0.6 | 0.9 | 250 | 25 | Air, inert gas, slightly corrosive gas | 8 | 0~200 | 29 |
| ZFS10-G1M | -0.1~0.6 | 0.9 | 250 | 25 | Air, inert gas, slightly corrosive gas | 8 | 0~200 | 39 |

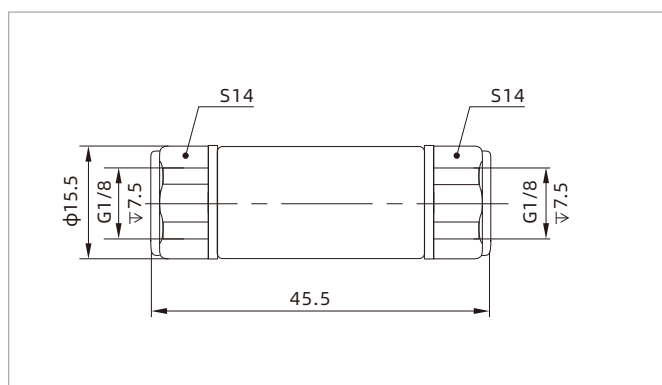
ZFS Series

Air Filter

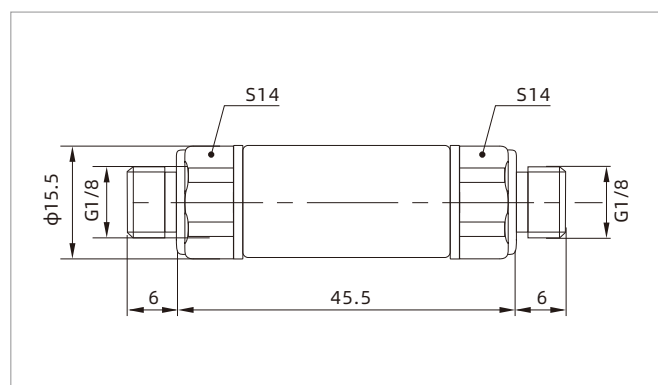
Technical parameters

| Spare parts | Material |
|---------------------------|---------------------|
| End cover, filter element | 316 Stainless steel |
| Housing | Teflon |
| Seal ring | Fluororubber |

Dimensions (mm)

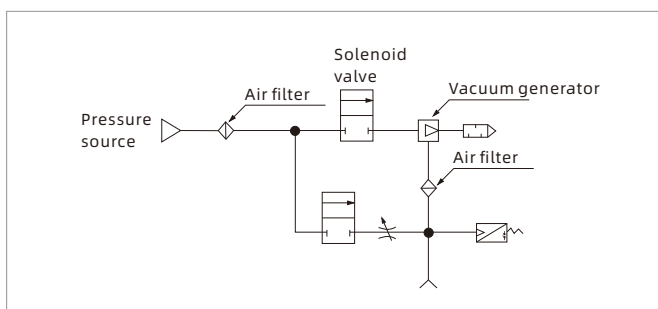


ZFS10-G1F



ZFS10-G1M

Structural diagram



Cautions:

1. Please connect and use the air filter according to the diagram
 2. Please use the filter as far as possible under the rated operating pressure
 3. The filter itself and piping shall not withstand torsion, pulling, load, vibration, impact and other external forces, it may causes danger if withstanding extra external force under high positive pressure.
 4. When disassembling and cleaning the filter, please pay attention to ensure that the sealing ring is not damaged, and the tightening torque is $3\pm 0.3\text{N}\cdot\text{m}$ of the front and back covers when reassembling
- ★ When using the filter in positive pressure environment, do not connect the filter behind the solenoid valve, which will cause the filter to withstand frequent shocks if solenoid valve is long-term frequent on-off

★

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZFA Series

Universal Vacuum Filter

AIRBEST



UNIVERSAL



Features

- ◇ Straight through design, one-touch fitting, with bracket, easy to mount
- ◇ Small size and light weight
- ◇ Filter elements could be replaced
- ◇ Suitable for vacuum and positive pressure systems with light or medium pollution level



How to order

ZFA 5 4 B
 ① ② ③ ④

| ① Series | ② Filter area | ③ Hose diameter | ④ Bracket |
|----------|--|---|---------------------------|
| ZFA | 5 - Filter area 790mm ² 7 - Filter area 1,280mm ² | 4 - φ4 hose 6 - φ6 hose 8 - φ8 hose 10 - φ10 hose 12 - φ12 hose | B - Default, with bracket |

Selection

| Model/Hose diameter 4 - φ4hose | 6 - φ6hose | 8 - φ8hose | 10 - φ10hose | 12 - φ12hose |
|-----------------------------------|------------|------------|--------------|--------------|
| ZFA54B | ZFA56B | - | - | - |
| - | ZFA76B | ZFA78B | ZFA710B | ZFA712B |

Technical parameters

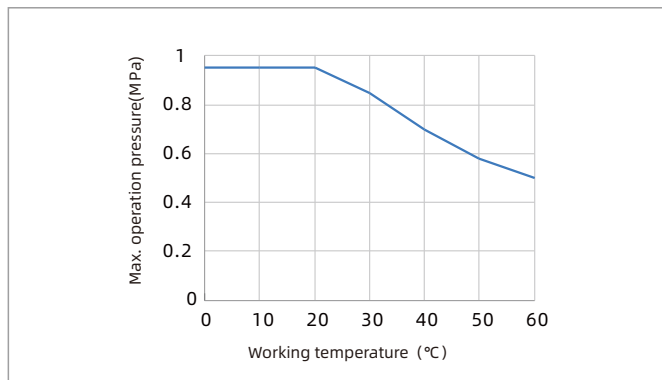
| Model | Hose diameter mm | Fluid | Rated operating pressure range MPa | Max. pressure resistance MPa | Positive pressure flow NL/min | Vacuum flow NL/min | Removal efficiency μm | Operating temperature °C | Weight g |
|---------|------------------|--------------|------------------------------------|------------------------------|-------------------------------|--------------------|-----------------------|--------------------------|----------|
| ZFA54B | φ4 | Air,Nitrogen | -0.1~0.8 | 1.0 | 40 | 10 | 5 | 0~60 | 14 |
| ZFA56B | φ6 | Air,Nitrogen | -0.1~0.8 | 1.0 | 130 | 75 | 5 | 0~60 | 13 |
| ZFA76B | φ6 | Air,Nitrogen | -0.1~0.8 | 1.0 | 140 | 80 | 5 | 0~60 | 24 |
| ZFA78B | φ8 | Air,Nitrogen | -0.1~0.8 | 1.0 | 280 | 110 | 5 | 0~60 | 24 |
| ZFA710B | φ10 | Air,Nitrogen | -0.1~0.8 | 1.0 | 320 | 120 | 5 | 0~60 | 30 |
| ZFA712B | φ12 | Air,Nitrogen | -0.1~0.8 | 1.0 | 370 | 140 | 5 | 0~60 | 31 |

◇ Note: Positive pressure flow is tested at air supply pressure 0.1Mpa

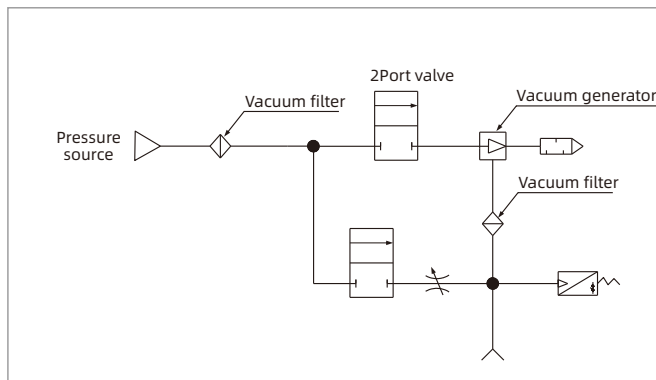
ZFA Series

Universal Vacuum Filter

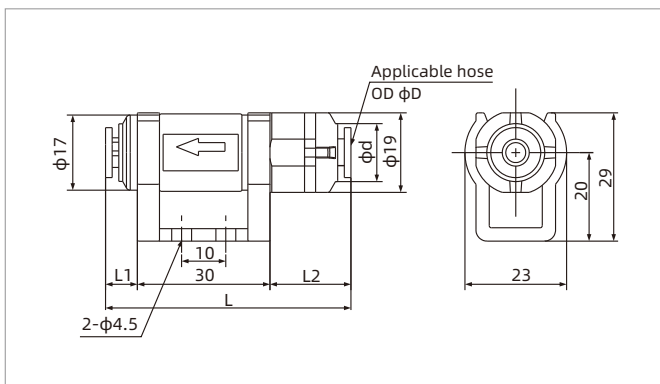
Max. operating pressure and temperature



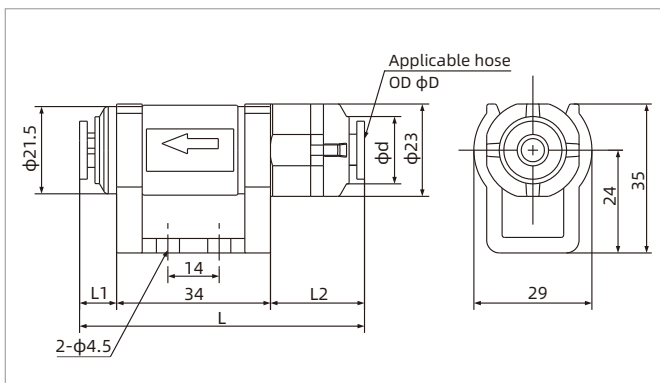
Application diagram



Dimensions (mm)



ZFA5□B



ZFA7□B

| Model/Size | L | L1 | D | d |
|------------|------|----|---|----|
| ZFA54B | 55.5 | 8 | 4 | 13 |
| ZFA56B | 55.5 | 8 | 6 | 13 |

| Model/Size | L | L1 | D | d |
|------------|------|------|----|------|
| ZFA76B | 67 | 10.5 | 6 | 15.5 |
| ZFA78B | 69.5 | 12 | 8 | 16 |
| ZFA710B | 78.5 | 17 | 10 | 19.5 |
| ZFA712B | 78.5 | 17 | 12 | 21 |

Vacuum Accessories

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

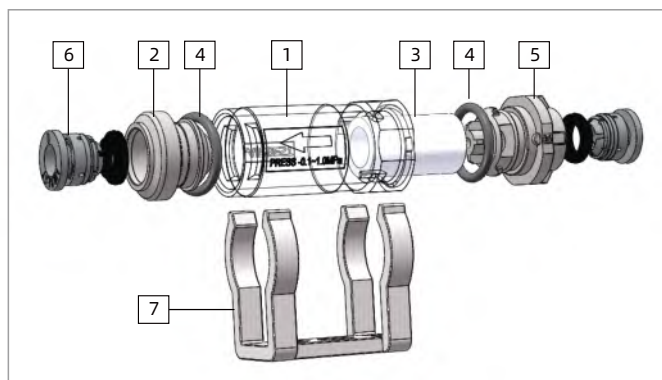
ZSA

ZFA Series

Universal Vacuum Filter

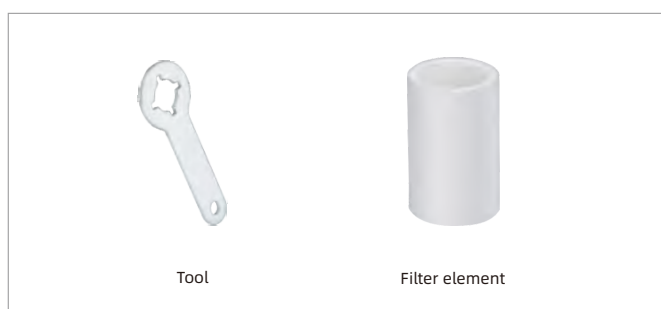


Structural diagram



| NO. | Item | Material | Q'ty |
|-----|-------------------|----------|------|
| 1 | Housing | PC | 1 |
| 2 | Rear cap | PBT | 1 |
| 3 | Filter element | PE | 1 |
| 4 | O-ring | NBR | 2 |
| 5 | Front cap | PBT | 1 |
| 6 | One-touch fitting | - | 2 |
| 7 | Bracket | PBT | 1 |

Repair kits



| Item | Model | Dimension | Applicable vacuum filter |
|----------------|---------|-----------|--------------------------|
| Tool | ZFA5-SP | - | ZFA54, 56 |
| | ZFA7-SP | - | ZFA76, 78, 710, 712 |
| Filter element | ZFA5-FE | 8×12×L20 | ZFA54, 56 |
| | ZFA7-FE | 12×16×L25 | ZFA76, 78, 710, 712 |

◇ Note: The minimum packing quantity of filter element is 10pcs/bag.

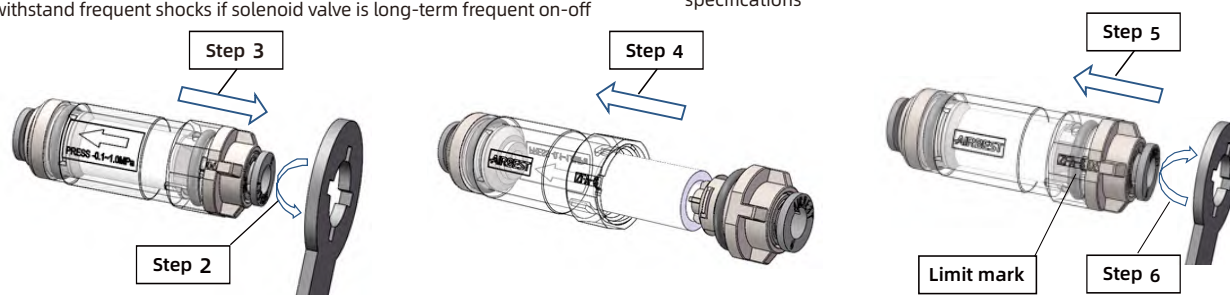
Filter element replacement

1. Stop supplying air and reduce the pressure in the vacuum filter to atmospheric pressure
2. Put tool on the front cap and turn it 90° anti-clockwise
3. Pull out the front cap, remove the filter element, and if there is dust inside the housing, clean it with an air gun (make sure that it does not damage the O-ring)
4. Install new filter element on the front cap and insert it into the housing.
5. Align the side without number of front cap at the limit mark, and push it until touching the housing
6. Rotate clockwise with the tool until it stops (align the number at the limit mark)

★ When using the filter in positive pressure environment, do not connect the filter behind the solenoid valve, which will cause the filter to withstand frequent shocks if solenoid valve is long-term frequent on-off

Cautions:

1. When connecting the hose, check the arrow indicating the flow direction. If reverse connecting, airtightness of the filter element cannot be ensured
2. In one air line, positive and negative pressure should not be used at the same time
3. Please make sure not to damage the O-ring during assembling and disassembling. And please confirm that there is no air leakage after the filter element is replaced
4. The vacuum filter and hose shall not withstand external force such as torsion, pull, load, vibration, impact, etc., and external force may cause danger at high positive pressure
5. There is anti-rotating structure at the limit mark. After replacing the filter element, please confirm the position of the limit mark
6. Please use vacuum filter at rated working pressure
7. Compressed air operation may cause danger. Therefore, filter replacement and other maintenance should be operated by a person who has sufficient knowledge and experience in air mechanics while complying with product specifications



ZFE Series

Small Vacuum Filter



UNIVERSAL

Features

- ◇ Straight through design, one-touch fitting, with bracket, easy to mount
- ◇ Small size and light weight
- ◇ Transparent housing, easy to indicate the degree of contamination
- ◇ Filter element could be replaced
- ◇ Suitable for vacuum system with light and medium pollution level



Vacuum Accessories

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

How to order

ZFE - 04 B

① ② ③

| ① Series | ② Hose diameter | ③ Bracket |
|----------|---|---------------------------|
| ZFE | 02 - ϕ 2hose 03 - ϕ 3.2hose 04 - ϕ 4hose | B - Default, with bracket |

Selection

| Model/Hose diameter 02 - ϕ 2hose | 03 - ϕ 3.2hose | 04 - ϕ 4hose |
|--|---------------------|-------------------|
| ZFE-02B | ZFE-03B | ZFE-04B |

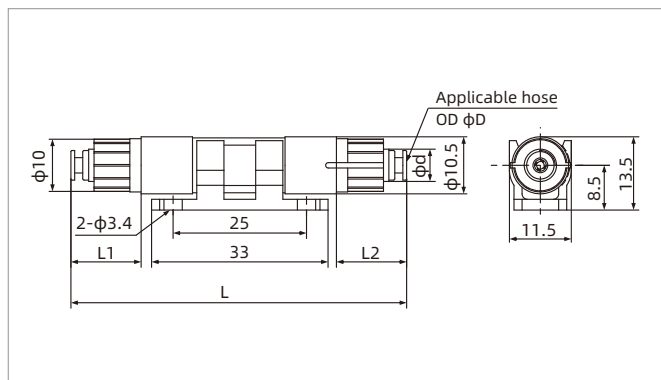
Technical parameters

| Model | Applicable hose dia. mm | Fluid | Rated operating pressure range kPa | Max. pressure difference bar | Nominal flow NL/min | Removal efficiency μ m | Working temperature $^{\circ}$ C | Applicable hose material | Weight g |
|---------|-------------------------|-------|------------------------------------|------------------------------|---------------------|----------------------------|----------------------------------|--------------------------|----------|
| ZFE-02B | ϕ 2 | Air | -100~0 | 1.5 | 2 | 10 | 0~60 | Nylon,PU | 6 |
| ZFE-03B | ϕ 3.2 | Air | -100~0 | 1.5 | 7 | 10 | 0~60 | Nylon,PU | 6 |
| ZFE-04B | ϕ 4 | Air | -100~0 | 1.5 | 10 | 10 | 0~60 | Nylon,PU | 6 |

ZFE Series

Small Vacuum Filter

Dimensions (mm)



| Model/Size | L | L1 | L2 | D | d |
|------------|------|------|------|-----|---|
| ZFE-02B | 59.5 | 13 | 13 | 2 | 6 |
| ZFE-03B | 59.5 | 11.5 | 11.5 | 3.2 | - |
| ZFE-04B | 59.5 | 12.8 | 12.8 | 4 | - |

ZFE-□B

Repair kits



| Item | Model | Size | Applicable vacuum filter |
|----------------|--------|-----------|--------------------------|
| Filter element | ZFE-FE | 6×4×L25.3 | ZFE-02、-03、-04 |

◇ Note: The minimum packing quantity of filter element is 10pcs/bag

ZFD Series

Mini Type Vacuum Filter



UNIVERSAL

Features

- ◇ Filter dust and other particles from the vacuum port
- ◇ Transparent housing, easy to check the degree of contamination
- ◇ Directly connect to vacuum port of vacuum generator, eg. AZR series
- ◇ Pipe type design, connect to hose directly
- ◇ Compact structure and small size, light weight, economy and environmental protection



How to order

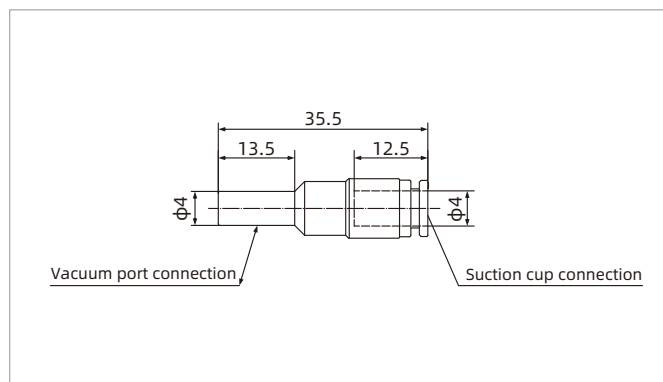
ZFD 06
① ②

| ① Series | ② Connection specification |
|----------|--|
| ZFD | 04 - ϕ 4hose 06 - ϕ 6hose |

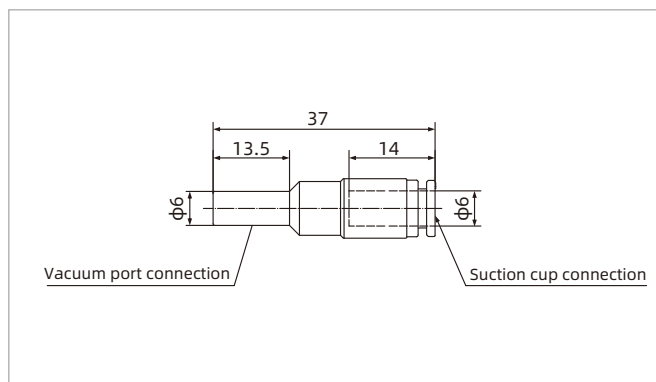
Technical parameters

| Model | Rated operating pressure range kPa | Material | Nominal flow NL/min | Removal efficiency μ m | Working temperature $^{\circ}$ C | Weight g |
|-------|------------------------------------|----------|---------------------|----------------------------|----------------------------------|----------|
| ZFD04 | -100~0 | PP、PE | 27 | 10 | 0~60 | 1.5 |
| ZFD06 | -100~0 | PP、PE | 49 | 10 | 0~60 | 2.5 |

Dimensions (mm)



ZFD04



ZFD06

Vacuum Accessories

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZFB Series

Universal Vacuum Filter



UNIVERSAL

Features

- ◇ Filter dust and other particles from the vacuum port
- ◇ Transparent housing, easy to check the degree of contamination
- ◇ Filter elements could be replaced
- ◇ Different nominal flow for option
- ◇ Suitable for vacuum system with light and medium pollution level
- ◇ Could be used for as prefilter, it can effectively filter dust with different degrees



How to order

ZFB 15 B

① ② ③

| ① Series | ② Connection thread | ③ Bracket |
|----------|--|---------------------------|
| ZFB | 10 - G3/8 female thread 15 - G1/2 female thread 20 - G3/4 female thread 25 - G1" female thread 40 - G1"1/2 female thread | B - Default, with bracket |

Selection

| Model/Connection thread | | 20 - G3/4 | 25 - G1" | 40 - G1"1/2 |
|-------------------------|-----------|-----------|----------|-------------|
| 10 - G3/8 | 15 - G1/2 | | | |
| ZFB10B | ZFB15B | ZFB20B | ZFB25B | ZFB40B |

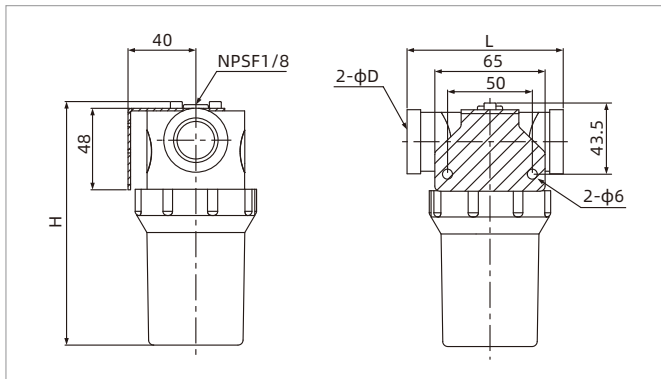
Technical parameters

| Model | Rated operating pressure range kPa | Material | Nominal flow NL/min | Internal volume cm ³ | Filter area m ² | Removal efficiency μm | Working temperature °C | Weight g |
|--------|------------------------------------|------------|---------------------|---------------------------------|----------------------------|-----------------------|------------------------|----------|
| ZFB10B | -100~0 | PA, PC, PE | 150 | 45 | 0.003 | 10 | -20~80 | 70 |
| ZFB15B | -100~0 | PA, PC, PE | 900 | 195 | 0.010 | 10 | -20~80 | 168 |
| ZFB20B | -100~0 | PA, PC, PE | 900 | 205 | 0.010 | 10 | -20~80 | 170 |
| ZFB25B | -100~0 | PA, PC, PE | 2,520 | 495 | 0.019 | 10 | -20~80 | 424 |
| ZFB40B | -100~0 | PA, PC, PE | 5,100 | 675 | 0.023 | 10 | -20~80 | 550 |

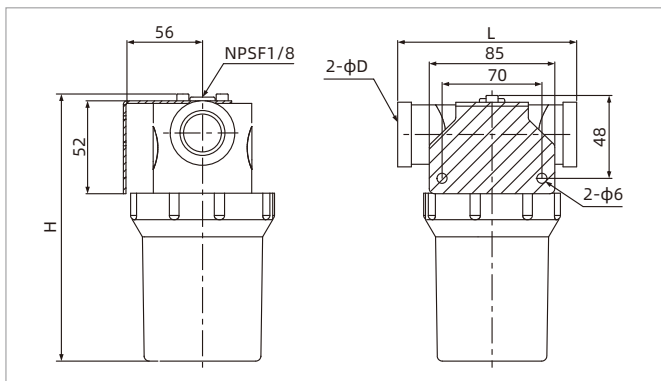
ZFB Series

Universal Vacuum Filter

Dimensions (mm)



ZFB10(15-20)B



ZFB25B ZFB40B

| Model/Size | H | L | D |
|------------|-------|------|--------|
| ZFB10B | 74.5 | 76.5 | 2-G3/8 |
| ZFB15B | 134.5 | 91.5 | 2-G1/2 |
| ZFB20B | 143.5 | 92 | 2-G3/4 |

| Model/Size | H | L | D |
|------------|-------|-----|----------|
| ZFB25B | 169.5 | 127 | 2-G1" |
| ZFB40B | 212.5 | 127 | 2-G1"1/2 |

Repair kits



| Item | Model | Size | Applicable vacuum filter |
|----------------|----------|-------------|--------------------------|
| Filter element | ZFB10-FE | 15×26×L35 | ZFB10 |
| | ZFB20-FE | 27.5×39×L90 | ZFB15、20 |
| | ZFB25-FE | 45×57×L104 | ZFB25 |
| | ZFB40-FE | 45×57×L136 | ZFB40 |

◇ Note: The minimum packing quantity of filter element is 10pcs/bag

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZFL Series

Inline Vacuum Filter



UNIVERSAL

Features

- ◇ Filter dust and other small particles from the vacuum port
- ◇ Transparent housing, easy to indicate degree of contamination
- ◇ It can be connected directly to the vacuum port of the vacuum generator, such as ABM and ABX, etc.
- ◇ Compact structure and small size, light weight, economic and environmental protective



How to order

ZFL 06

① ②

① Series

ZFL

② Port size

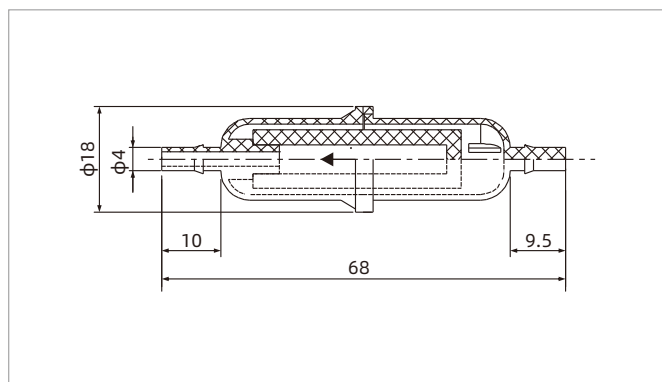
06 - $\phi 6$ hose(Direct-insert type)

10 - G3/8 male thread

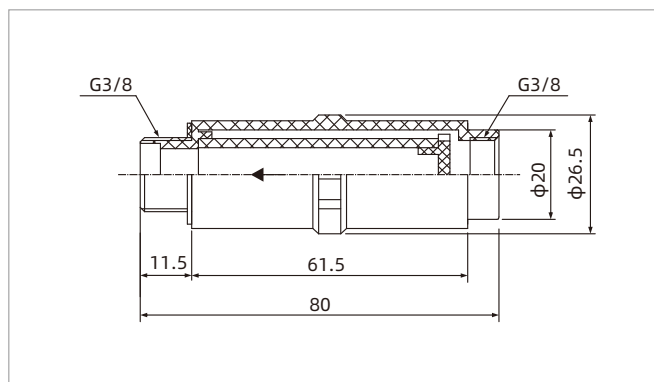
Technical parameters

| Model | Rated operating pressure range kPa | Material | Nominal flow NL/min | Internal volume cm ³ | Removal efficiency μm | Working temperature $^{\circ}\text{C}$ | Weight g |
|-------|------------------------------------|----------|---------------------|---------------------------------|----------------------------------|--|----------|
| ZFL06 | -100~0 | PP、PE | 25 | 4 | 20~25 | 0~80 | 3.5 |
| ZFL10 | -100~0 | PP、PE | 220 | 20 | 20~25 | 0~80 | 13 |

Dimensions (mm)



ZFL06



ZFL10

ZFP Series

Large-flow Vacuum Filter



UNIVERSAL

Features

- ◇ It can effectively prevent solid particles or dust from being sucked into the vacuum generator or system, reduce wear, improve operation reliability, extend the lifetime of the vacuum generator, and also effectively protect components of vacuum system (such as vacuum valve, vacuum gauge, etc.)
- ◇ All-steel structure, sturdy and durable, suitable for heavy load requirements of industrial use, adopts seamless tensile metal housing with copper welding joint, which has the advantages of high air tightness, large space for dirt, easy cleaning, easy replacement of filter element, and quick inlet and outlet with threaded connection
- ◇ Various nominal flow rates for option



Vacuum Accessories

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

How to order

ZFP 30
① ②

| ① Series | ② Nominal flow |
|----------|----------------------------|
| ZFP | 30 - 32m ³ /h |
| | 40 - 42m ³ /h |
| | 100 - 100m ³ /h |
| | 120 - 120m ³ /h |
| | 300 - 300m ³ /h |

Selection

| Model/Nominal flow 30 - 32m ³ /h | 40 - 42m ³ /h | 100 - 100m ³ /h | 120 - 120m ³ /h | 300 - 300m ³ /h |
|--|--------------------------|----------------------------|----------------------------|----------------------------|
| ZFP30 | ZFP40 | ZFP100 | ZFP120 | ZFP300 |

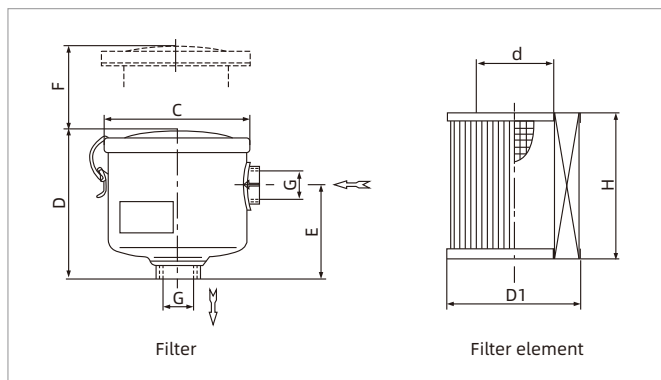
Technical parameters

| Model | Rated operating pressure range kPa | Body material | Nominal flow m ³ /h | Internal volume cm ³ | Filter area cm ² | Removal efficiency μm | Working temperature °C | Weight kg |
|--------|---------------------------------------|---------------|-----------------------------------|------------------------------------|--------------------------------|--------------------------|---------------------------|--------------|
| ZFP30 | -100~0 | Steel | 32 | 45 | 30 | 10 | -15~90 | 1 |
| ZFP40 | -100~0 | Steel | 42 | 195 | 100 | 10 | -15~90 | 1 |
| ZFP100 | -100~0 | Steel | 100 | 205 | 100 | 10 | -15~90 | 1.4 |
| ZFP120 | -100~0 | Steel | 120 | 495 | 190 | 10 | -15~90 | 2.3 |
| ZFP300 | -100~0 | Steel | 300 | 675 | 230 | 10 | -15~90 | 6.9 |

ZFP Series

Large-flow Vacuum Filter

Dimensions (mm)



| Model/Size | G | C | D | E | F | D1 | d | H |
|------------|--------|-----|-----|-----|-----|-----|----|-----|
| ZFP30 | G1/2 | 101 | 90 | 53 | 70 | 65 | 38 | 69 |
| ZFP40 | G3/4 | 101 | 90 | 53 | 70 | 65 | 38 | 69 |
| ZFP100 | G1"1/4 | 146 | 110 | 70 | 75 | 98 | 60 | 70 |
| ZFP120 | G1"1/4 | 185 | 170 | 115 | 130 | 128 | 64 | 125 |
| ZFP300 | G2" | 222 | 258 | 125 | 140 | 150 | 88 | 222 |

ZFP

Repair kits



| Item | Model | Applicable vacuum filter |
|----------------|-----------|--------------------------|
| Filter element | ZFP30-FE | ZFP30、40 |
| | ZFP100-FE | ZFP100 |
| | ZFP120-FE | ZFP120 |
| | ZFP300-FE | ZFP300 |

ZVAB Series

Pneumatic Control Valve



UNIVERSAL

Features

- ◇ Converts vacuum signal into pneumatic signal
- ◇ Different vacuum ranges are set by adjusting the screws on the valve
- ◇ There are two different valves for option: normally open valve and normally closed valve



How to order

ZVAB - NC

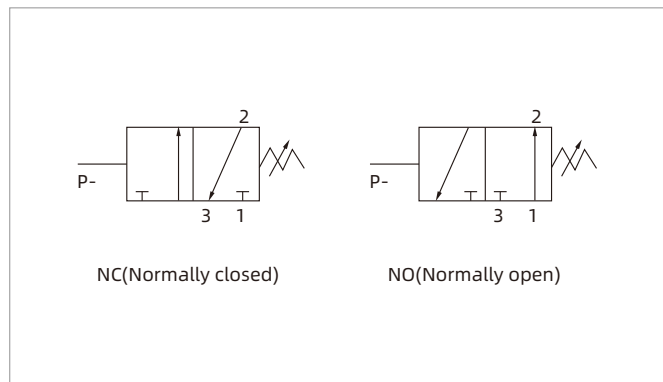
① ②

| ① Series | ② Function | Connection thread |
|----------|--|---------------------------|
| ZVAB | NC - Normally closed NO - Normally open | Default, G1/8 male thread |

Technical parameters

| Model | Output function | Air supply pressure bar | Signal range -kPa | Hysteresis -kPa | Working temperature °C | Weight g |
|---------|-----------------|-------------------------|-------------------|-----------------|------------------------|----------|
| ZVAB-NC | NC | 1.5~8 | 15~95 | 12 | -10~60 | 44 |
| ZVAB-NO | NO | 1.5~8 | 10~95 | 3 | -10~60 | 44 |

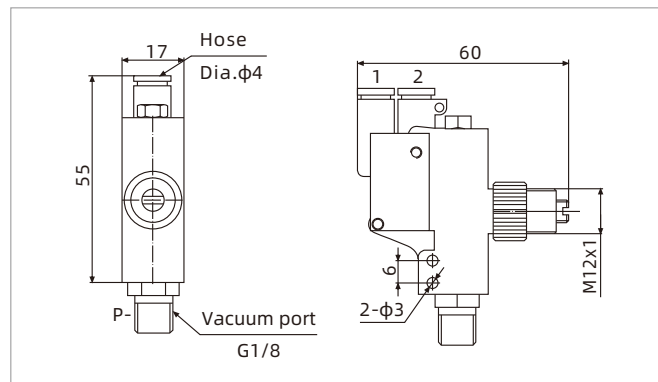
Symbol



ZVAB-NC

ZVAB-NO

Dimensions (mm)



ZVAB

ZVAC Series

Pneumatic Control Valve



UNIVERSAL

Features

- ◇ Be used with ZVAB-NC
- ◇ ZVAB-NC provides the air control signal to realize the opening and closing of the control valve and save energy



How to order

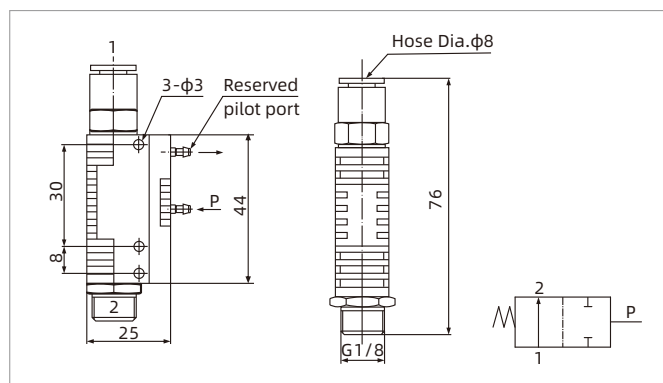
ZVAC - NO
① ②

| ① Series | ② Function | Connection thread |
|----------|--------------------|---------------------------|
| ZVAC | NO - Normally open | Default, G1/8 male thread |

Technical parameters

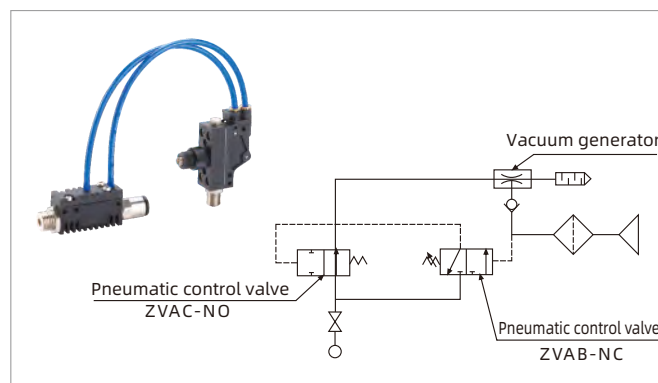
| Model | Air supply pressure bar | Control mode | Action mode | Working temperature °C | Weight g |
|---------|-------------------------|-------------------|-------------|------------------------|----------|
| ZVAC-NO | 1.0~8.0 | Pneumatic control | NO | 0~60 | 55 |

Dimensions (mm)



ZVAC-NO

Energy-saving system



ZVU-ES

ZVAA Series

Pneumatic Control Valve



UNIVERSAL

Features

- ◇ 2 position 2 port reversing valve (normally open) with G1/8 and G1/4 air supply ports returns the air signal through the vacuum switch to realize the air supply opening and closing to save energy
- ◇ The small valve can control high flow compressed air



How to order

ZVAA - G1F ^① ^②

① Series

ZVAA

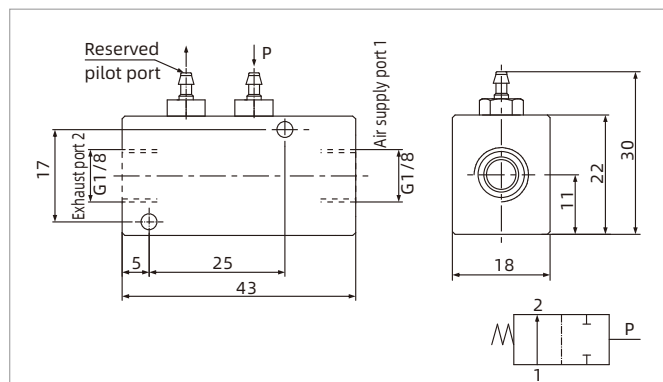
② Connection thread

G1F - G1/8 female thread
G2F - G1/4 female thread

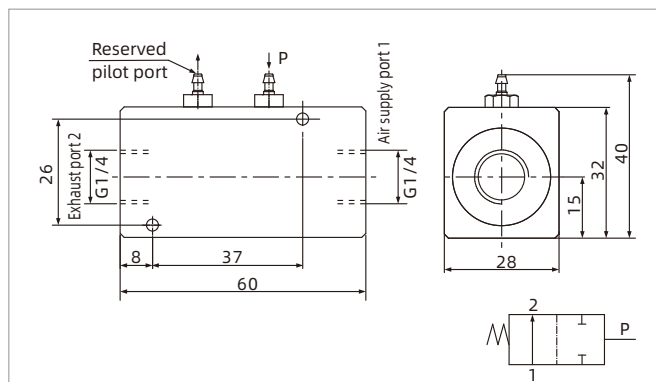
Technical parameters

| Model | Air supply pressure bar | Valve body material | Output function | Working temperature °C | Weight g |
|----------|-------------------------|---------------------|-----------------|------------------------|----------|
| ZVAA-G1F | 3.5~7.0 | Aluminum alloy | NO | 0~60 | 45 |
| ZVAA-G2F | 3.5~7.0 | Aluminum alloy | NO | 0~60 | 125 |

Dimensions (mm)



ZVAA-G1F



ZVAA-G2F

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZVEA Series

Electric Control Valve



UNIVERSAL

Features

- ◇ The small valve (normally closed) can realize remote control of high flow compressed air and can supply compressed air when the current is switched



How to order

ZVEA - G1F

① ②

① Series

ZVEA

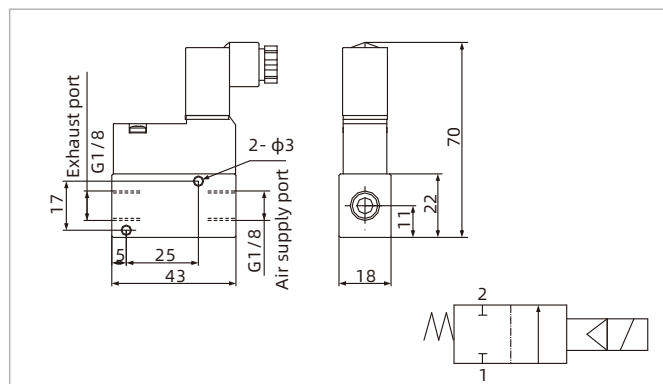
② Connection thread

G1F - G1/8 female thread
G2F - G1/4 female thread

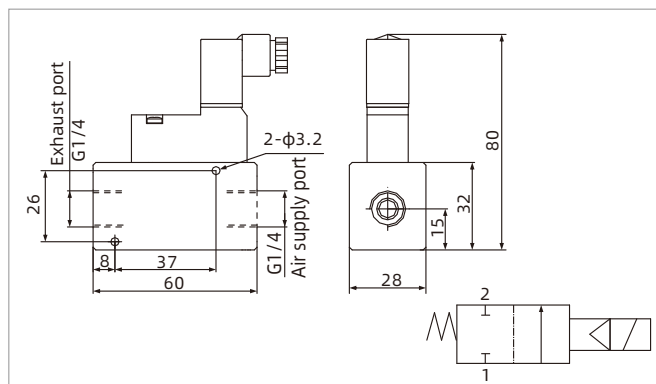
Technical parameters

| Model | Air supply pressure bar | Valve body material | Output function | Operating voltage V | Consumed power W | Working temperature °C | Weight g |
|----------|-------------------------|---------------------|-----------------|---------------------|------------------|------------------------|----------|
| ZVEA-G1F | 3.5~7.0 | Aluminum alloy | NC | DC24 | 0.85 | 0~60 | 84 |
| ZVEA-G2F | 3.5~7.0 | Aluminum alloy | NC | DC24 | 0.85 | 0~60 | 165 |

Dimensions (mm)



ZVEA-G1F



ZVEA-G2F

ZVR Series

Check Valve



UNIVERSAL

Features

- ◇ In the process of grabbing the workpiece, it will not affect the whole vacuum system once suction cups failed to adsorb the workpiece or the workpiece falls off suddenly after adsorption
- ◇ In the above case, the suction cups are isolated from vacuum system to make sure that the vacuum level and vacuum flow in the whole vacuum system are maintained. It is specific for repeatedly gripping workpieces with various sizes and shapes in a vacuum system



How to order

ZVR 05 - G1M

① ② ③

| ① Series | ② Overflow port diameter | ③ Suction cup connection thread |
|----------|---|--|
| ZVR | 04 - ϕ 0.4mm 05 - ϕ 0.5mm 06 - ϕ 0.6mm 10 - ϕ 1.0mm 12 - ϕ 1.2mm | M5M - M5×0.8 male thread G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread |
| | | M5F - M5×0.8 female thread G1F - G1/8 female thread G2F - G1/4 female thread G3F - G3/8 female thread G4F - G1/2 female thread |

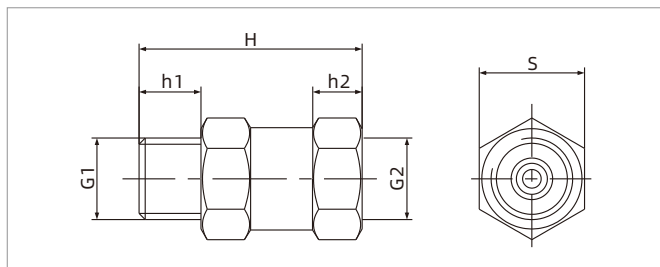
Selection

| Model/ Connection thread M - Male thread | F - Female thread |
|---|-------------------|
| ZVR04-M5M | ZVR04-M5F |
| ZVR05-G1M | ZVR05-G1F |
| ZVR06-G2M | ZVR06-G2F |
| ZVR10-G3M | ZVR10-G3F |
| ZVR12-G4M | ZVR12-G4F |

Technical parameters

| Model | Suction flow NL/min(-30kPa) | Suction flow NL/min(-60kPa) | Max. blow flow NL/min | Weight g |
|-----------|--------------------------------|--------------------------------|--------------------------|-------------|
| ZVR04-M5□ | 1.2 | 1.3 | 80 | 2 |
| ZVR05-G1□ | 2.3 | 2.5 | 310 | 8.3 |
| ZVR06-G2□ | 2.9 | 3.4 | 340 | 15.6 |
| ZVR10-G3□ | 7.3 | 8 | 590 | 28.6 |
| ZVR12-G4□ | 8.1 | 9 | 790 | 46 |

Dimensions (mm)



ZVR

| Model/Size | H | G1 | h1 | G2 | h2 | S |
|------------|----|--------|-----|--------|----|----|
| ZVR04-M5□ | 20 | M5×0.8 | 4.5 | M5×0.8 | 5 | 8 |
| ZVR05-G1□ | 28 | G1/8 | 8 | G1/8 | 6 | 14 |
| ZVR06-G2□ | 36 | G1/4 | 10 | G1/4 | 8 | 17 |
| ZVR10-G3□ | 39 | G3/8 | 10 | G3/8 | 8 | 22 |
| ZVR12-G4□ | 41 | G1/2 | 12 | G1/2 | 9 | 27 |

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZVRM Series

Check Valve



UNIVERSAL

Features

- ◇ Effectively avoid the influence to the whole vacuum system when the suction cup failed to adsorb the workpiece
- ◇ In the same vacuum system, workpieces of different sizes can be repeatedly grasped
- ◇ Spring type check valve helps to prevent workpiece from dropping in turnover movement



How to order

ZVRM 07 - M5M

① ② ③

| ① Series | ② Overflow port diameter | ③ Suction cup connection thread |
|----------|--|--|
| ZVRM | 03 - ϕ 0.3mm 05 - ϕ 0.5mm 07 - ϕ 0.7mm 10 - ϕ 1.0mm | M5M - M5x0.8 male thread G1M - G1/8 male thread |

Selection

| Model/Thread M5M | G1M |
|---------------------|------------|
| ZVRM03-M5M | - |
| ZVRM05-M5M | ZVRM05-G1M |
| ZVRM07-M5M | ZVRM07-G1M |
| - | ZVRM10-G1M |

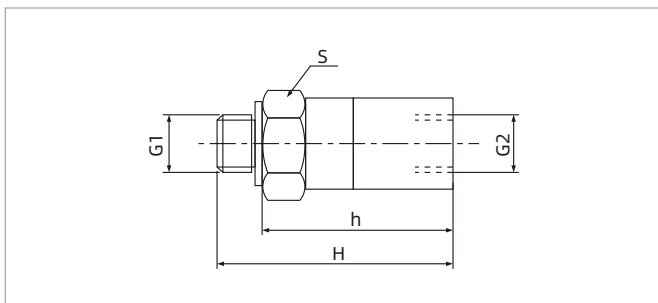
Technical parameters

| Model | Overflow port diameter mm | Valve core works Effective cross-sectional area mm ² | Valve core doesn't work Effective cross-sectional area mm ² | Fluid | Max. pressure range kPa | Removal efficiency μ m | Minimum action flow NL/min | Weight g |
|------------|------------------------------|---|--|-------|----------------------------|-------------------------------|-------------------------------|-------------|
| ZVRM03-M5M | 0.3 | 0.07 | 1.64 | Air | -100~0 | 40 | 2 | 6 |
| ZVRM05-M5M | 0.5 | 0.19 | 1.76 | Air | -100~0 | 40 | 4 | 6 |
| ZVRM07-M5M | 0.7 | 0.38 | 1.95 | Air | -100~0 | 40 | 5.5 | 6 |
| ZVRM05-G1M | 0.5 | 0.19 | 1.76 | Air | -100~0 | 40 | 5 | 22 |
| ZVRM07-G1M | 0.7 | 0.38 | 2.64 | Air | -100~0 | 40 | 8 | 22 |
| ZVRM10-G1M | 1.0 | 0.78 | 3.04 | Air | -100~0 | 40 | 16 | 22 |

ZVRM Series

Check Valve

Dimensions (mm)



ZVRM

| Model/Size | H | h | G1 | G2 | S |
|------------|------|----|----------------|--------------|----|
| ZVRM03-M5M | 20 | 16 | M5×0.8depth3.5 | M5×0.8depth6 | 8 |
| ZVRM05-M5M | 20 | 16 | M5×0.8depth3.5 | M5×0.8depth6 | 8 |
| ZVRM07-M5M | 20 | 16 | M5×0.8depth3.5 | M5×0.8depth6 | 8 |
| ZVRM05-G1M | 28.5 | 23 | G1/8depth5 | G1/8depth8.5 | 13 |
| ZVRM07-G1M | 28.5 | 23 | G1/8depth5 | G1/8depth8.5 | 13 |
| ZVRM10-G1M | 28.5 | 23 | G1/8depth5 | G1/8depth8.5 | 13 |

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZVCM Series

Non-Return Valve



UNIVERSAL

Features

- ◇ It can keep vacuum level of the system in case of power failure when vacuum line is closed
- ◇ Small size, can be used in narrow space



Selection

ZVCM - M5F

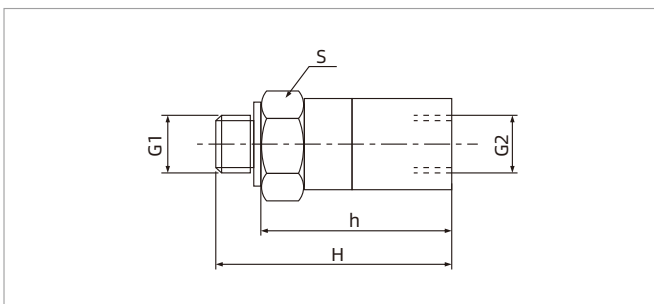
① ②

| ① Series | ② Vacuum generator connection thread |
|----------|---|
| ZVCM | M5F- M5×0.8 female thread G1F - G1/8 female thread |

Technical parameters

| Model | Valve core works Effective cross-sectional area mm ² | Fluid | Max. pressure range kPa | Removal efficiency μm | Weight g |
|----------|---|-------|-------------------------|-----------------------|----------|
| ZVCM-M5F | 2.0 | Air | -100~0 | 40 | 6 |
| ZVCM-G1F | 5.0 | Air | -100~0 | 40 | 22 |

Dimensions(mm)



ZVCM

| Model/Size | H | h | G1 | G2 | S |
|------------|------|----|--------|--------|----|
| ZVCM-M5F | 20 | 16 | M5×0.8 | M5×0.8 | 8 |
| ZVCM-G1F | 28.5 | 23 | G1/8 | G1/8 | 13 |

ZVD Series

Touch Valve



UNIVERSAL

Features

- ◇ It is used to induct whether the suction cup touches the workpiece, the vacuum system cannot be established without touch



Vacuum Accessories

How to order

ZVD - G2M

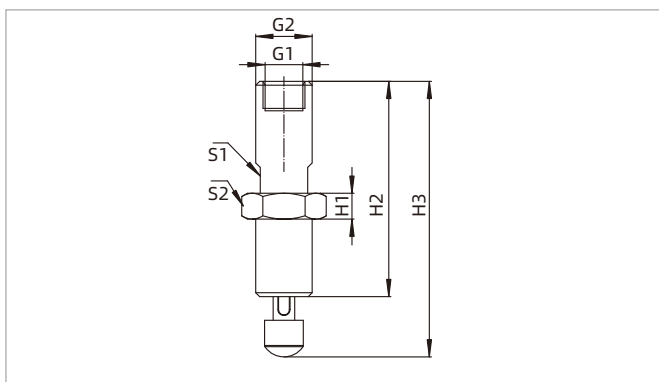
① ②

| ① Series | ② Specification |
|----------|--|
| ZVD | G2M - Mounting thread G1/4 G4M - Mounting thread G1/2 |

Selection

| Model | Mounting thread | Starting elastic force | Weight g |
|---------|-----------------|------------------------|----------|
| ZVD-G2M | G1/4 | 5 | 41.5 |
| ZVD-G4M | G1/2 | 6.6 | 96.5 |

Dimensions(mm)



| Model/Size | G1 | G2 | S1 | S2 | H1 | H2 | H3 |
|------------|------|------|----|----|----|------|------|
| ZVD-G2M | G1/8 | G1/4 | 11 | 17 | 6 | 50 | 64 |
| ZVD-G4M | G3/8 | G1/2 | 18 | 27 | 8 | 54.5 | 68.5 |

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZVT Series

Throttle Valve



UNIVERSAL

Features

- ◇ Compact size, simple structure, suitable for vacuum handling system in narrow space
- ◇ For suction cup loop which does not cover the working surface, it can reduce vacuum leakage efficiently and ensure the stability of the system



How to order

ZVT 60 - G1M

① ② ③

| ① Series | ② Overflow port diameter | | | ③ Connection thread |
|----------|--------------------------|--------------------|--------------------|------------------------|
| ZVT | 25 - ϕ 0.25mm | 80 - ϕ 0.8mm | 150 - ϕ 1.5mm | G1M - G1/8 male thread |
| | 40 - ϕ 0.4mm | 100 - ϕ 1.0mm | 200 - ϕ 2.0mm | G2M - G1/4 male thread |
| | 60 - ϕ 0.6mm | 120 - ϕ 1.2mm | | |

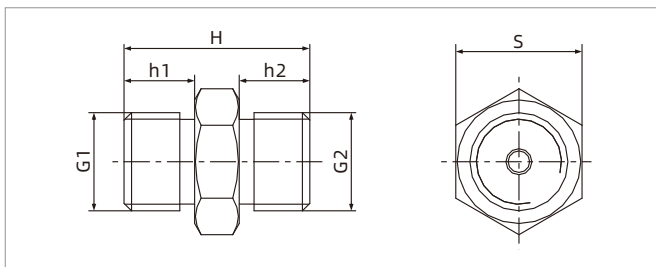
Selection

| Model/Thread G1M | G2M |
|---------------------|------------|
| ZVT25-G1M | - |
| ZVT40-G1M | ZVT40-G2M |
| ZVT60-G1M | ZVT60-G2M |
| ZVT80-G1M | ZVT80-G2M |
| ZVT100-G1M | ZVT100-G2M |
| ZVT120-G1M | ZVT120-G2M |
| - | ZVT150-G2M |
| - | ZVT200-G2M |

Technical parameters

| Model | Vacuum flow NL/min (-30kPa) | Vacuum flow NL/min (-60kPa) | Weight g | |
|--------|-----------------------------------|-----------------------------------|-------------|-----|
| | | | G1M | G2M |
| ZVT25 | 0.2 | 0.3 | 6 | - |
| ZVT40 | 1 | 1.3 | 6 | 8 |
| ZVT60 | 3.1 | 3.2 | 6 | 8 |
| ZVT80 | 5 | 5.2 | 6 | 8 |
| ZVT100 | 7.7 | 8.5 | 6 | 8 |
| ZVT120 | 12.5 | 12.8 | 6 | 8 |
| ZVT150 | 22.2 | 23.5 | - | 8 |
| ZVT200 | 34 | 36.5 | - | 8 |

Dimensions(mm)



ZVT

| Model/Size | H | G1 | h1 | G2 | h2 | S |
|------------|----|------|-----|------|-----|----|
| ZVT□-G1M | 25 | G1/8 | 9.5 | G1/8 | 9.5 | 14 |
| ZVT□-G2M | 25 | G1/4 | 9.5 | G1/4 | 9.5 | 17 |

ZVS Series

Fast Blow-off Valve



UNIVERSAL

Features

- ◇ It is connected with the suction cup, can effectively seal the vacuum and break the vacuum under the condition of positive pressure input

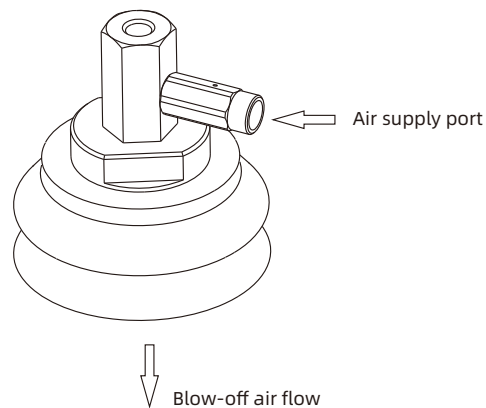
Advantages

- ◇ Low startig pressure with stable and fast blow-off even if there are multiple suction cups working at the same time
- ◇ Fast vacuum break as it is mounted directly on the suction cup



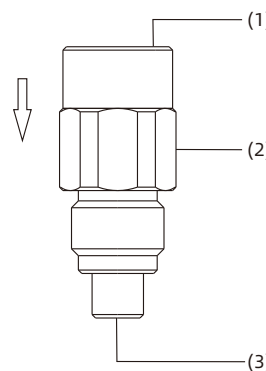
Application

- ◇ Fast blow-off to break vacuum
- ◇ The blow-off air flow can clean the suction cup as it is mounted directly on the suction cup



Structure

- ◇ (1) Air supply port
- ◇ (2) Main body
- ◇ (3) Exhaust port



ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZVS Series

Fast Blow-off Valve

How to order

ZVS - G1F

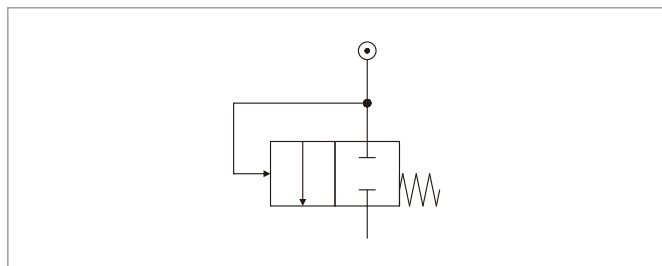
① ②

| ① Series | ② Air supply port connection thread | Exhaust port connection thread |
|----------|--|--------------------------------------|
| ZVS | G1F - G1/8 female thread G2F - G1/4 female thread | G1/8 male thread G1/4 male thread |

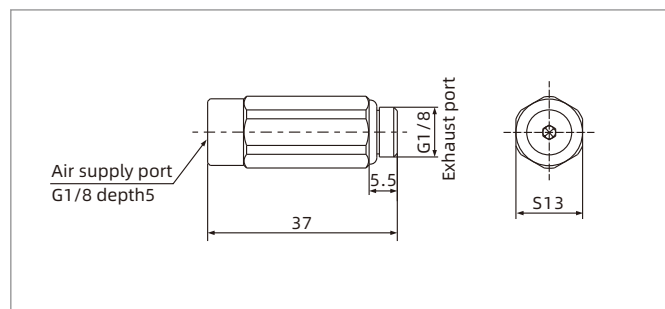
Technical parameters

| Model | Air supply pressure range bar | Max. blow flow NL/min | Working temperature °C | Weight g | Recommended hose dia. mm |
|---------|-------------------------------|-----------------------|------------------------|----------|--------------------------|
| ZVS-G1F | 3.0~7.0 | 90~160 | -10~80 | 12.9 | φ8 |
| ZVS-G2F | 3.0~7.0 | 90~160 | -10~80 | 15.1 | φ8 |

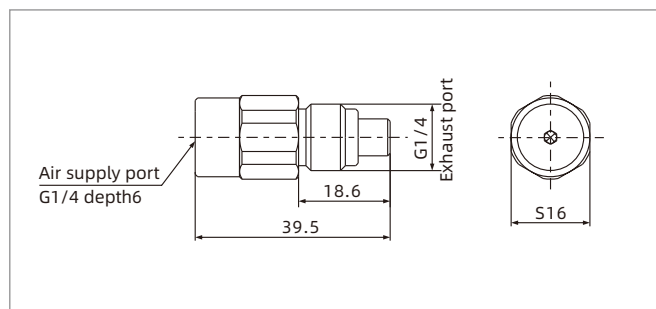
Pneumatic schematic diagram



Dimensions (mm)



ZVS-G1F



ZVS-G2F

ZPDT Series

High-precision Digital Pressure Switch



UNIVERSAL

Features

- ◇ Digital display electronic pressure switch, optional two-color display
- ◇ 4-digit seven-segment LED display
- ◇ Pressure units can be converted and displayed on the screen
- ◇ Parameter values can be displayed directly on the screen

Advantages

- ◇ Monitor the system action clearly and visually, could change the setting content and backlight display mode
- ◇ The pressure is displayed on the screen, easy to read
- ◇ Main and sub display can set parameter directly, setting steps could be reduced by 3/4
- ◇ Easy to operate with the clear display



Application

- ◇ Monitor the vacuum system, optimize the working cycle
- ◇ Adjust the system circuit, improve economic benefit of vacuum system
- ◇ Square shape is more suitable for installing panel
- ◇ Suitable for all automation handling industries

Structure

- ◇ Electronic vacuum switch, solid polycarbonate case
- ◇ Vacuum connection is Rc1/8 Male thread
- ◇ 2m connecting cable
- ◇ Optional mounting bracket and panel type mounting frame

How to order

ZPDT - C NV - R1M
 ① ② ③ ④

| Series | Pressure range | Output specification | Connection thread |
|--------|------------------------------|---|-------------------------|
| ZPDT | C - Compound P - Positive | NV - 1NPN+1 Analog(Voltage) output (1-5V) PV - 1PNP+1 Analog(Voltage) output(1-5V) | R1M - Rc1/8 male thread |

Selection

| Model Nil | | | |
|--------------|--------------|--------------|--------------|
| ZPDT-CNV-R1M | ZPDT-CPV-R1M | ZPDT-PNV-R1M | ZPDT-PPV-R1M |

Vacuum Accessories

- ZFS
- ZFA
- ZFE
- ZFD
- ZFB
- ZFL
- ZFP
- ZVAB
- ZVAC
- ZVAA
- ZVEA
- ZVR
- ZVRM
- ZVCM
- ZVD
- ZVT
- ZVS
- ZPDT
- ZPDE
- ZPMR
- ZSA

ZPDT Series



High-precision Digital Pressure Switch

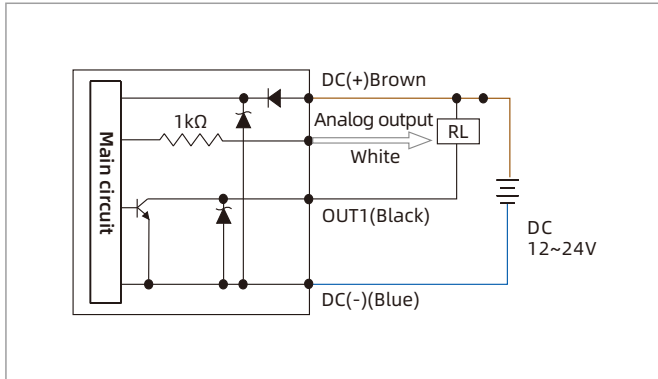
Technical parameters

| Model | ZPDT-C (Compound) | ZPDT-P (Positive) |
|-------------------------|---|--|
| Rated pressure range | -100.0~100.0kPa | -0.100~1.000MPa |
| Setting pressure range | -103.0~103.0kPa | -0.103~1.030MPa |
| Withstand pressure | 500kPa | 1.5MPa |
| Fluid | Air, Non-corrosive gas/Non-flammable gas | Air, Non-corrosive gas/Non-flammable gas |
| Pressure unit | kPa | - |
| Set pressure resolution | MPa | 0.001 |
| | kgf/cm ² | 0.01 |
| | bar | 0.01 |
| | psi | 0.1 |
| | inHg | - |
| | mmHg | - |
| Power supply voltage | 12 to 24V DC±10%, ripple(P-P)10% or less | |
| Current consumption | ≤40mA (Without load) | |
| Switch output | Output type | Open collector (NPN or PNP) |
| | load current | Max.125mA |
| | Residual voltage | ≤1.0V |
| | Response time | ≤2.5ms (Chattering-proof function: 25ms,100ms,250ms, 500ms, 1000ms, 1500ms selectable) |
| Analog output | Output Voltage | 1-5V ±2.5%F.S (within rated pressure range) 0.6-5V ±2.5%F.S (within rated pressure range) |
| | Output impedance | 1kΩ |
| | Linearity | ±1% F.S. |
| Display | Display | Three colors (Red/ Green/ Orange)display(sampling rate:5 times/sec,2 times/sec,1 time/sec for choice.) |
| | Indicator accuracy | ±1%F.S.±1 digit (ambient temperature: 25±3°C) |
| | Repeatability | ±0.3%F.S.±1 digit |
| | Switch ON indicator | Orange (1 indicator)OUT1 |
| Environment | Enclosure | IP40 |
| | Ambient temp.range | 0~50°C |
| | Temperature characteristic | ±3% F.S.of rated ambient temperature 25°C (at temp. range of 0~50°C) |
| | Storage temperature | Storage: -10-60°C (No condensation or freezing) |
| | Ambient humidity | Operation/ storage:35-85%HR (No condensation) |
| | Withstand voltage | 1000VAC in 1-min (between case and lead wire) |
| | Insulation resistance | 50MΩ min (500V DC) (between case and lead wire) |
| | Vibration | Total amplitude 1.5mm Or 10G, 10Hz~150Hz~10Hz for 1 minute, two hours each direction of X, Y and Z |
| | Shock | 100m/s ² (10G) 3 times each in direction of X, Y and Z |
| Port size | Rc1/8, M5 | |
| Lead wire | Oil-resistance cable (0.15mm ²) | |
| Weight | 67g (with 2-meter lead wire) | |

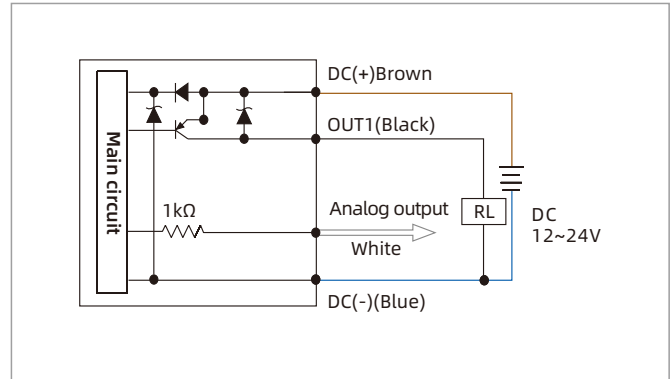
ZPDT Series

High-precision Digital Pressure Switch

Output circuit wiring diagrams

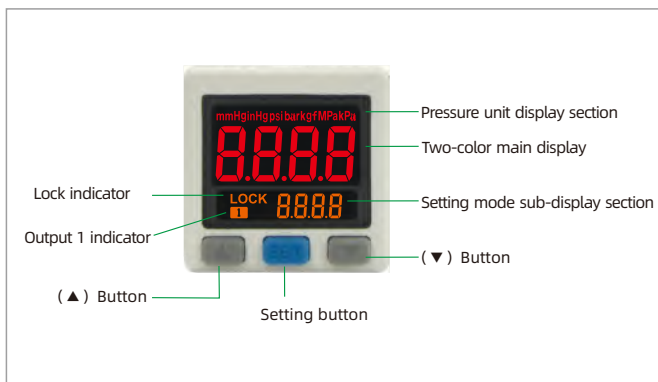


ZPDT-□NV-R1M 1NPN+Analog voltage output (1-5V)

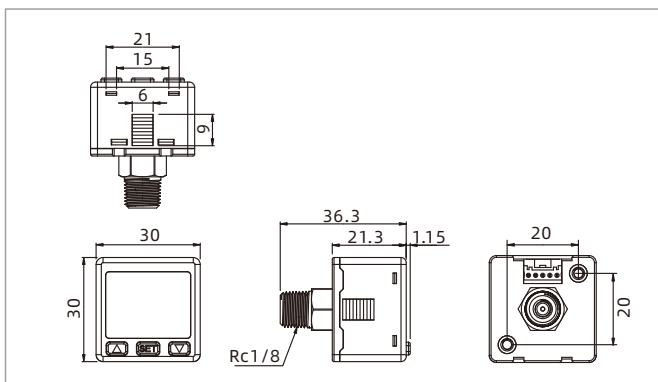


ZPDT-□PV-R1M 1PNP+Analog voltage output (1-5V)

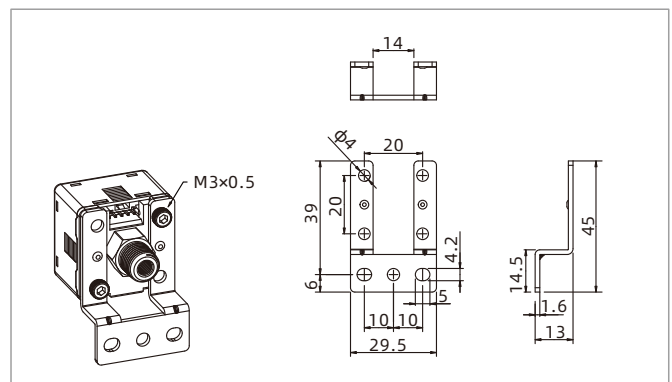
Panel instructions



Dimensions(mm)



ZPDT-□□-R1M



ZPDT-A-MB Mounting bracket A type

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

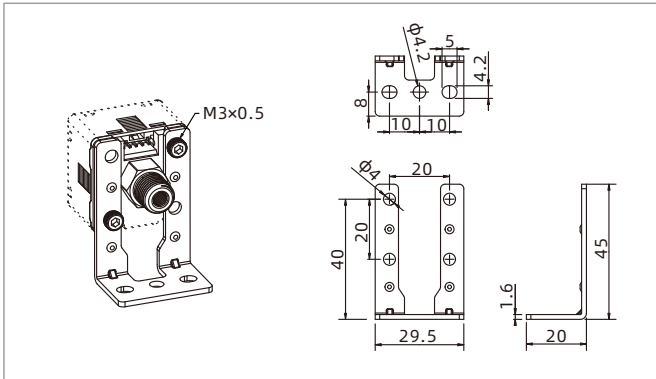
ZPMR

ZSA

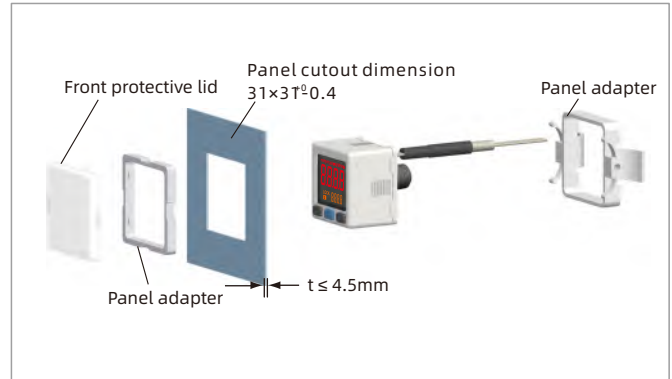
ZPDT Series

High-precision Digital Pressure Switch

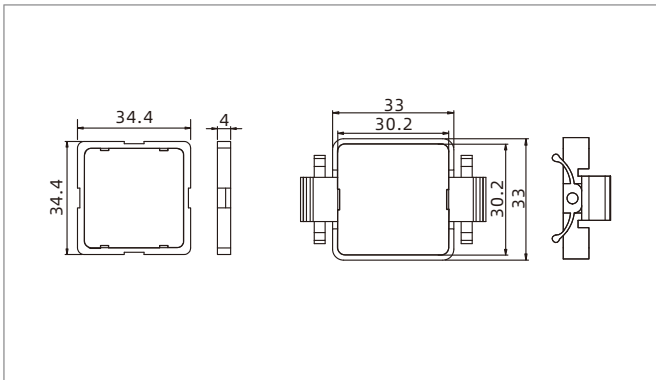
Dimensions (mm)



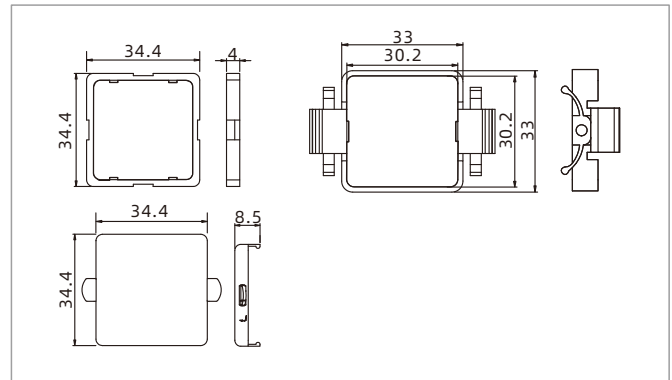
ZPDT-B-MB Mounting bracket B type



Panel type



ZPDT-PS Panel adapter



ZPDT-PC Front protective lid + panel adapter

Accessories

| Item | Model |
|--------------------------------------|-----------|
| Mounting bracket A type | ZPDT-A-MB |
| Mounting bracket B type | ZPDT-B-MB |
| Panel adapter | ZPDT-PS |
| Front protective lid + panel adapter | ZPDT-PC |

ZPDE Series

High-precision Digital Pressure Switch



UNIVERSAL

Features

- ◇ Digital display electronic pressure switch, optional two-color display
- ◇ 4-digit seven-segment LED display
- ◇ Pressure units can be converted and displayed on the screen
- ◇ Parameter values can be displayed directly on the screen

Advantages

- ◇ Monitor the system action clearly and visually, could change the setting content and backlight display mode
- ◇ The pressure is displayed on the screen, easy to read
- ◇ Easy to operate with the clear display



Application

- ◇ Monitor the vacuum system, optimize the working cycle
- ◇ Adjust the system circuit, improve economic benefit of vacuum system
- ◇ Square shape is more suitable for installing panel
- ◇ Suitable for all automation handling industries

Structure

- ◇ Electronic vacuum switch, solid polycarbonate case
- ◇ 2m connecting cable
- ◇ Optional mounting bracket and panel type mounting frame

How to order

ZPDE - C N - R1M
 ① ② ③ ④

| ① Series | ② Pressure range | ③ Output specification | ④ Connection thread |
|----------|------------------------------|------------------------------------|-------------------------|
| ZPDE | C - Compound P - Positive | N - 1NPN output P - 1PNP output | R1M - Rc1/8 male thread |

Selection

| Model | |
|-------------|-------------|
| ZPDE-CN-R1M | ZPDE-PN-R1M |
| ZPDE-CP-R1M | ZPDE-PP-R1M |

Vacuum Accessories

- ZFS
- ZFA
- ZFE
- ZFD
- ZFB
- ZFL
- ZFP
- ZVAB
- ZVAC
- ZVAA
- ZVEA
- ZVR
- ZVRM
- ZVCM
- ZVD
- ZVT
- ZVS
- ZPDT
- ZPDE
- ZPMR
- ZSA

ZPDE Series



High-precision Digital Pressure Switch

Technical parameters

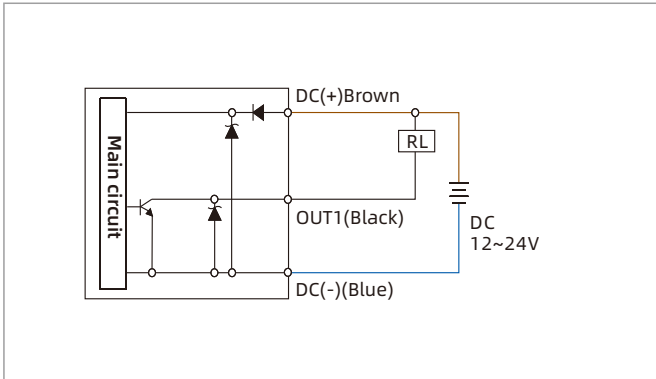
| Model | | ZPDE-C (Compound) | ZPDE-P (Positive) |
|-------------------------|----------------------------|---|--|
| Rated pressure range | | -100.0~100.0kPa | -0.100~1.000MPa |
| Setting pressure range | | -103.0~103.0kPa | -0.103~1.030MPa |
| Withstand pressure | | 500kPa | 1.5MPa |
| Fluid | | Air, Non-corrosive gas/Non-flammable gas | Air, Non-corrosive gas/Non-flammable gas |
| Pressure unit | kPa | 0.1 | 1 |
| Set pressure resolution | MPa | - | - |
| | kgf/cm ² | 0.001 | 0.01 |
| | bar | 0.001 | 0.01 |
| | psi | 0.01 | 0.1 |
| | inHg | 0.1 | - |
| | mmHg | 1 | - |
| Power supply voltage | | 12to24V DC±10%,ripple(P-P)10% or less | |
| Current consumption | | ≤30mA (Without load) | |
| Switch output | Output type | Open collector (NPN) / Close collector (PNP) | |
| | Load current | Max.125mA | |
| | Residual voltage | ≤1.0V | |
| | Response time | ≤2.5ms(Chattering-proof function:25ms,100ms,250ms,500ms,1000ms,1500ms selectable) | |
| Display | Display | White (Sampling rate:0.2 time/sec,0.5 time/sec,1 time/sec for choice) | |
| | Indicator accuracy | ±1%F.S.±1 digit (ambient temperature:25±3°C) | |
| | Repeatability | ±0.3%F.S.±1 digit | |
| | Switch ON Indicator | White (1 indicator) OUT1 | |
| Environment | Enclosure | IP40 | |
| | Ambient temp. range | 0~50°C | |
| | Temperature characteristic | ±2% F.S.of rated ambient temperature 25°C (at temp. range of 0~50°C) | |
| | Storage temperature | Storage:-10-60°C (No condensation or freezing) | |
| | Ambient humidity | Operation/ storage:35-85%RH (No condensation) | |
| | Withstand voltage | 1000V AC in 1-min (between case and lead wire) | |
| | Insulation resistance | 50MΩ above (500V DC) (between case and lead wire) | |
| | Vibration | Total amplitude 1.5mm Or 10G,10Hz~150Hz~10Hz for 1 minute,two hours each direction of X,Y and Z | |
| | Shock | 100m/s ² (10G)3 times each in direction of X,Y and Z | |
| Port size | | Rc1/8, M5 | |
| Lead wire | | φ4 oil-resistance PVC cable- 3 core | |
| Weight | | 67g(with 2-meter lead wire) | |

ZPDE Series

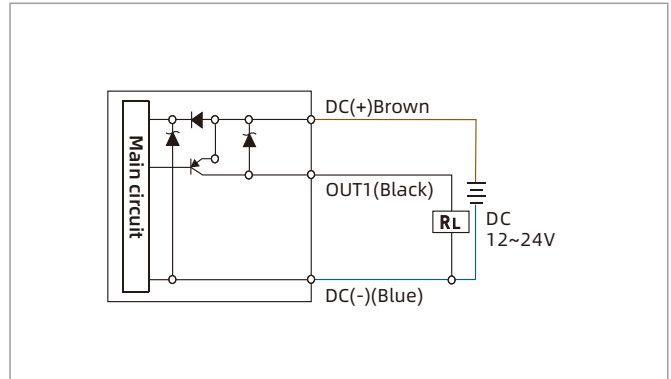
High-precision Digital Pressure Switch



Output circuit wiring diagrams

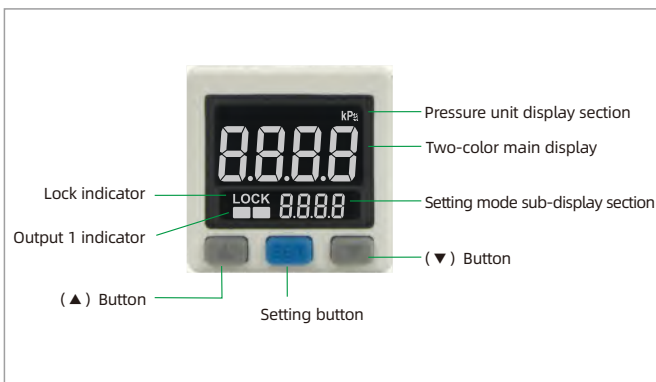


ZPDE-□N-R1M 1NPN output

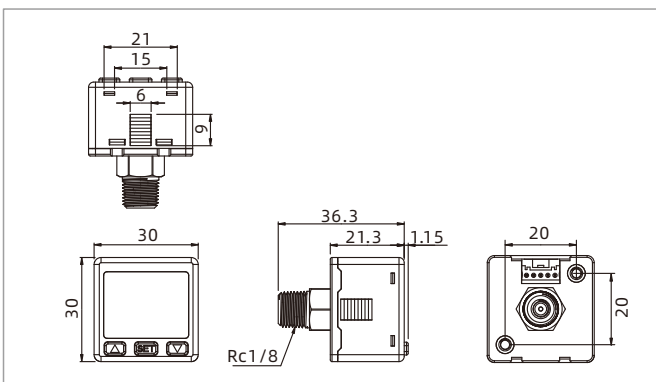


ZPDE-□P-R1M 1PNP output

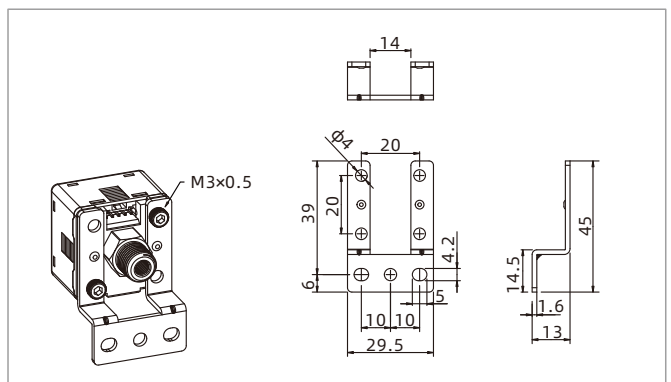
Panel instructions



Dimensions (mm)



ZPDE-□N-R1M



ZPDT-A-MB Mounting bracket A type

Vacuum Accessories

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

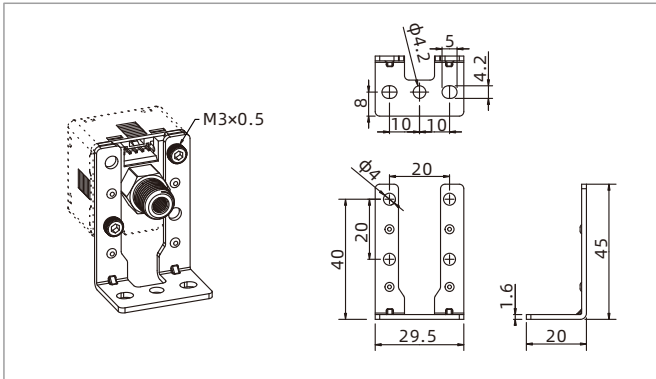
ZPMR

ZSA

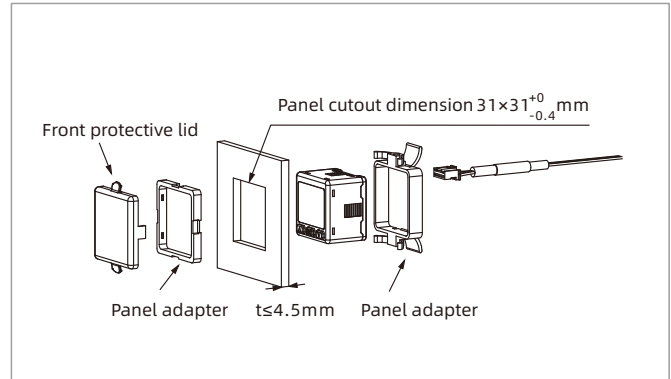
ZPDE Series

High-precision Digital Pressure Switch

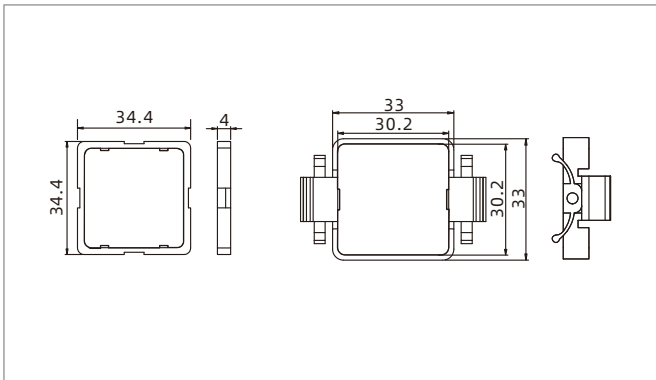
Dimensions (mm)



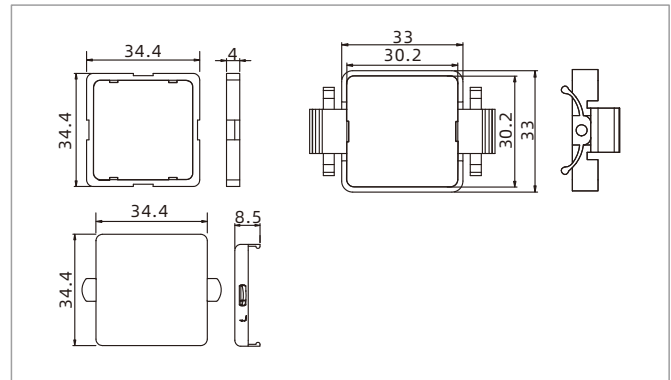
ZPDT-B-MB Mounting bracket B type



Panel type



ZPDT-PS Panel adapter



ZPDT-PC Front protective lid + panel adapter

Accessories

| Item | Model |
|--------------------------------------|-----------|
| Mounting bracket A type | ZPDT-A-MB |
| Mounting bracket B type | ZPDT-B-MB |
| Panel adapter | ZPDT-PS |
| Front protective lid + panel adapter | ZPDT-PC |

ZPMR Series

Mechanical Pressure Gauge



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Features

- ◇ Mechanical pressure gauge, panel is made of acrylic, and ABS black plastic for housing
- ◇ Back entry type mounting, universal specifications, easy to use



How to order

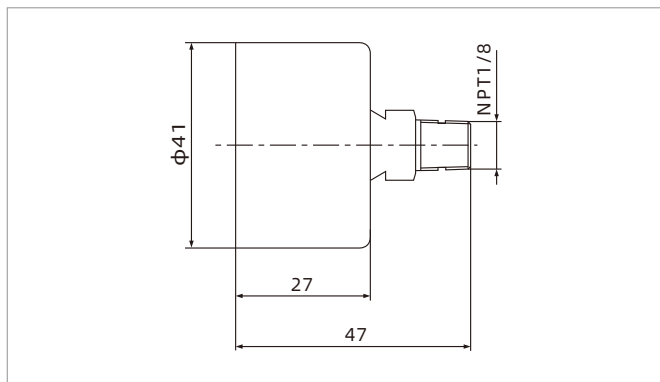
ZPMR - P
① ②

| ① Series | ② Pressure type | Connection thread |
|----------|------------------------------|--|
| ZPMR | P - Positive V - Negative | NPT1/8 male thread G1/8 male thread |

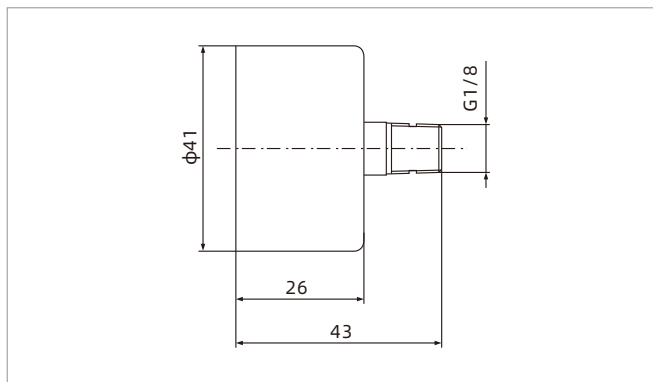
Technical parameters

| Model | Pressure range | Dial size | Material of connector | Connection thread | Weight g |
|--------|----------------|-----------|-----------------------|-------------------|----------|
| ZPMR-P | 0~1MPa | 1.5 inch | Copper alloy | NPT1/8 | 63.5 |
| ZPMR-V | -100~0kPa | 1.5 inch | Copper alloy | G1/8 | 57 |

Dimensions (mm)



ZPMR-P



ZPMR-V

ZFS

ZFA

ZFE

ZFD

ZFB

ZFL

ZFP

ZVAB

ZVAC

ZVAA

ZVEA

ZVR

ZVRM

ZVCM

ZVD

ZVT

ZVS

ZPDT

ZPDE

ZPMR

ZSA

ZSA Series

Silencer



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Features

- ◇ The silencers which are fitted to various standard vacuum generators can be ordered separately as replacements. They significantly reduce noise level on all exhaust applications



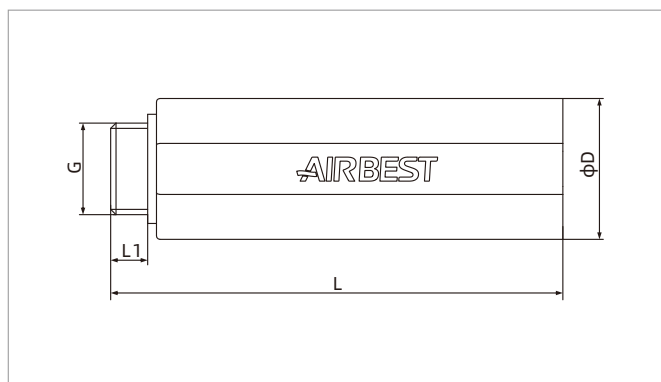
How to order

ZSA - G1M

① ②

| ① Series | ② Connection thread |
|----------|---|
| ZSA | G1M - G1/8 male thread G2M - G1/4 male thread G3M - G3/8 male thread G4M - G1/2 male thread G6M - G3/4 male thread G8M - G1" male thread |

Dimensions (mm)



ZSA

| Model/Size | L | D | G | L1 | Weight g | Denoise dB(A) |
|------------|-------|----|------|----|----------|---------------|
| ZSA-G1M | 46 | 14 | G1/8 | 5 | 3 | 10 |
| ZSA-G2M | 73 | 20 | G1/4 | 8 | 20 | 10 |
| ZSA-G3M | 72 | 24 | G3/8 | 8 | 25 | 10 |
| ZSA-G4M | 128 | 30 | G1/2 | 7 | 35 | 10 |
| ZSA-G6M | 126 | 40 | G3/4 | 7 | 55 | 10 |
| ZSA-G8M | 127.5 | 53 | G1" | 10 | 82 | 10 |

