



Special for Electronic Industry

- Vacuum Generator
- Suction Cups
- Special Vacuum Grippers
- Vacuum Grippers
- Vacuum Accessories
- Mounting Parts



Vacuum Solutions Supplier

www.airbest.com

AIRBEST

Make Smart Go Together

Vacuum Generators

01

AZK Series

RoHS

Integrated Vacuum Generator

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



ELECTRONICS PACKAGING PLASTIC

08

AZQ Series

Mini Integrated Vacuum Generator

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



ELECTRONICS PACKAGING PLASTIC

12

AGX Series

Multistage Vacuum Generator

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



ELECTRONICS PACKAGING METAL SHEET

14

ABM/ABX Series

Mini Vacuum Generator

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



METAL SHEET PACKAGING PLASTIC

20

AMC Series

RoHS

Multistage Vacuum Generator

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



METAL SHEET PACKAGING WOOD COMPOSITE MATERIAL

26

AM/AL/AH Series

RoHS

Multistage Vacuum Generator

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



METAL SHEET PACKAGING WOOD COMPOSITE MATERIAL

34

AZR Series

RoHS

Mini Vacuum Generator With Fast Blow-off

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



ELECTRONICS PLASTIC

39

AEVC Series

Vacuum Generator with Fast Blow-off

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



METAL SHEET PACKAGING AUTOMOTIVE

42

AZL Series

RoHS

Multistage Vacuum Generator

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



METAL SHEET PACKAGING PLASTIC

46

ALH Series

Basic Vacuum Generator

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



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Vacuum Generators

49

AZH Series

RoHS

Basic Vacuum Generator

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



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55

AZU Series

RoHS

Basic Vacuum Generator

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



UNIVERSAL

58

ACV Series

RoHS

Basic Vacuum Generator

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



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Suction Cups

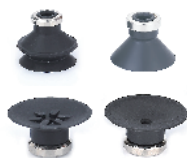
63

SZ Series

RoHS

Standard Suction Cup

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



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71

SP3 Series

RoHS

Suction Cup

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



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85

SAN Series

RoHS

Nozzle Type Suction Cup

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



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86

SAO Series

RoHS

Oval Flat Suction Cup

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



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Suction Cups

93

SOFA Series

RoHS

Oval Flat Suction Cup

- ◇ Size: 6×18mm
- ◇ Material: N WS



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94

SP2F Series

RoHS

Universal Flat Suction Cup

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



PAPER



ANTI-DEFORMATION

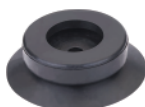
101

SPA Series

RoHS

Thin Lip Flat Suction Cup

- ◇ Diameter: 10-50mm
- ◇ Material: N WS CN CS



PAPER



ANTI-DEFORMATION

110

SPD Series

RoHS

Thin Lip Flat Suction Cup

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



PAPER

112

SPF Series

RoHS

Flat Suction Cup

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



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124

SPC Series

RoHS

Bellows Suction Cup

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



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PLASTIC



ELECTRONICS

130

SPJ Series

RoHS

Bellows Suction Cup

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



PACKAGING



PLASTIC

Special Vacuum Grippers

139

SLB Series

RoHS

Thin Lip Flow Gripper

- ◇ Vacuum level: 4.5~16kPa
- ◇ Vacuum flow: 680~1,315NL/min



ELECTRONICS



NEW ENERGY



POROUS

Vacuum Grippers

143

TXN Series

RoHS

Vacuum Gripper-Mini Type

- ◇ Vacuum type: Built-in vacuum generator
Without vacuum generator
- ◇ Adsorption surface type: Sponge
Suction cup



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Mounting Parts

149

PSPE Series

RoHS

Small and Light Level Compensator

- ◇ Connection thread: M5 M8
- ◇ Buffer stroke: 6~50mm



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153

PSPL Series

RoHS

Retractive Level Compensator

- ◇ Connection thread: M5
- ◇ Buffer stroke: 3~20mm



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155

PSPF Series

RoHS

Compact Level Compensator

- ◇ Connection thread: M5 M8 G1/8
- ◇ Buffer stroke: 10~50mm



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159

PSPT Series

RoHS

Universal Level Compensator

- ◇ Connection thread: G1/8
G1/4 G3/8
- ◇ Buffer stroke: 10~110mm



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Vacuum Accessories

162

ZFA Series

RoHS

Universal Vacuum Filter

- ◇ Nominal flow: 40-370NL/min
- ◇ Removal efficiency: 5µm



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165

ZFE Series

Universal Vacuum Filter

- ◇ Nominal flow: 2-10NL/min
- ◇ Removal efficiency: 10µm



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167

ZVR Series

Check Valve

- ◇ Max. blow-off flow: 80-790NL/min
- ◇ Connection thread: M5-G1/2



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168

ZVRM Series

Check Valve

- ◇ Min. action flow: 2-16NL/min
- ◇ Connection thread: M5 G1/8



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AZK Series

Integrated Vacuum Generator

AIRBEST

RoHS



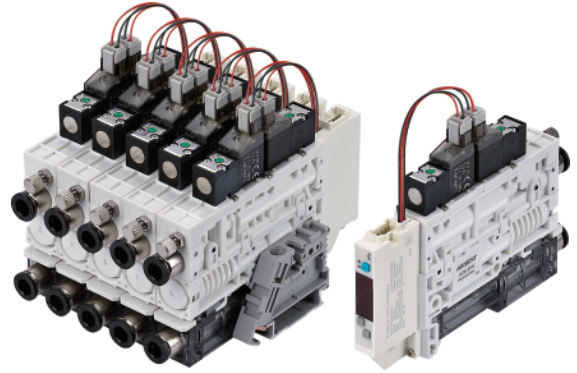
ELECTRONICS PACKAGING PLASTIC

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

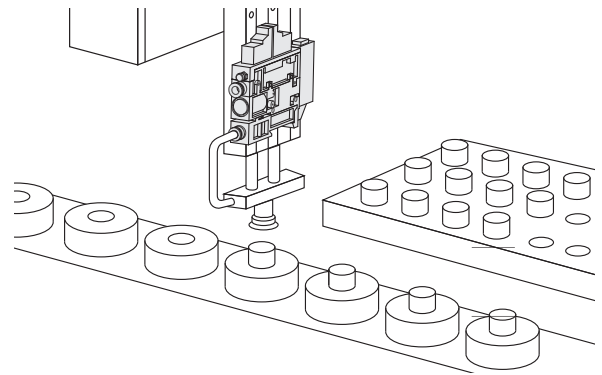
Advantages

- ◇ 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



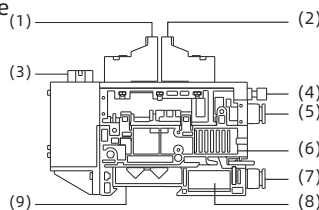
Applications

- ◇ 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



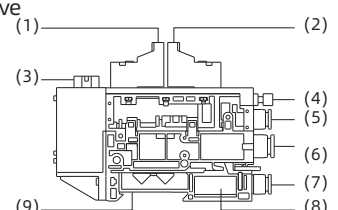
Structure - With vacuum source type (Vacuum generator type)

- ◇ (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 X - High vacuum level type P - Low air supply pressure and high vacuum level type L - Large flow type B - Vacuum pump type	Nil - Single body 2 3 8	Nil - Supply valve NC + release valve NC NO - Supply valve NO + release valve NC (lead wire length 300mm, power supply DC24V)
⑤ Vacuum switch		⑥ Bracket	
Nil - Without vacuum switch N - NPN, without energy saving function P - PNP, without energy saving function NE - NPN, with energy saving function PE - PNP, with energy saving function		Nil - Single air supply, without bracket F - Single air supply, with bracket(single body) D - Single air supply, guide rail installation(integrated) DP - Centralized air supply, guide rail installation(integrated)	

- ◇ 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

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	65~70	88.5	102.5	φ6	-	φ6
AZK-X	3.0~6.0	5.0	91	41	54	29	65~70	88.5	102.5	φ6	-	φ6
AZK-P	3.0~6.0	3.7	88	40	46	32	65~70	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	-	-	35	-	-	-	101.5	113.5	φ4	φ6	φ6

- ◇ Note: 35NL/min is the max. allowed passing flow of AZK-B, AZK-L external silencer

AZK Series

Integrated Vacuum Generator

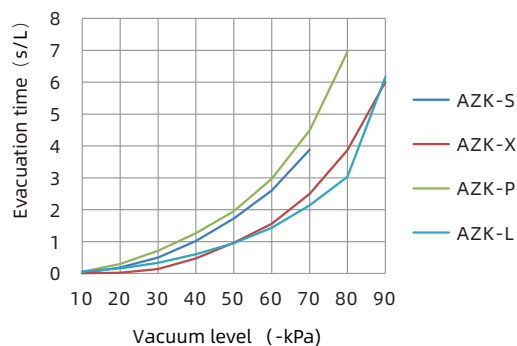
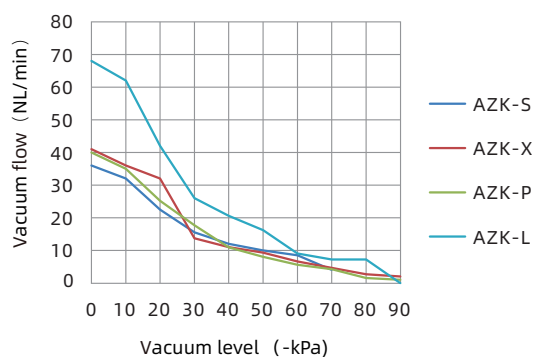


Vacuum flow(NL/min) at different vacuum levels(-kPa)

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



AZK Series

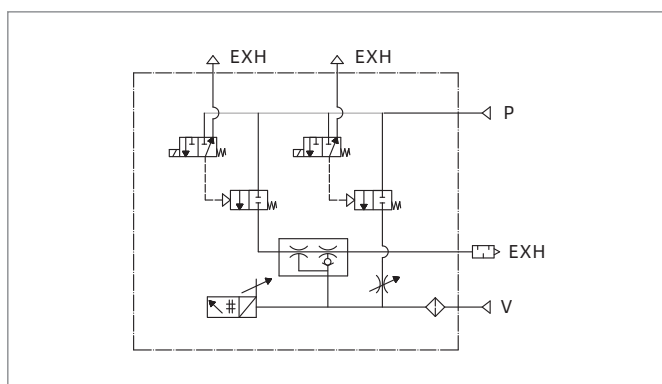
Integrated Vacuum Generator



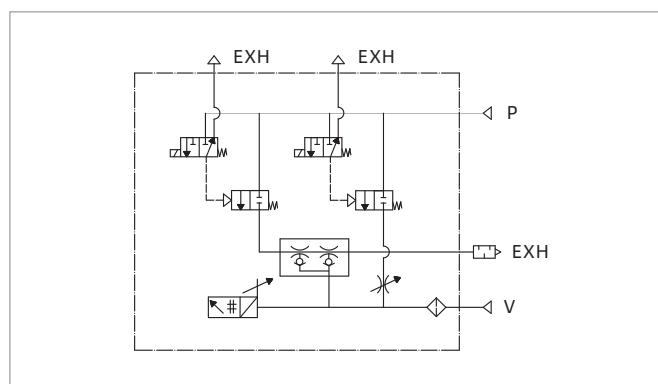
Technical parameters - Pressure switch

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-□-N AZK-□-P



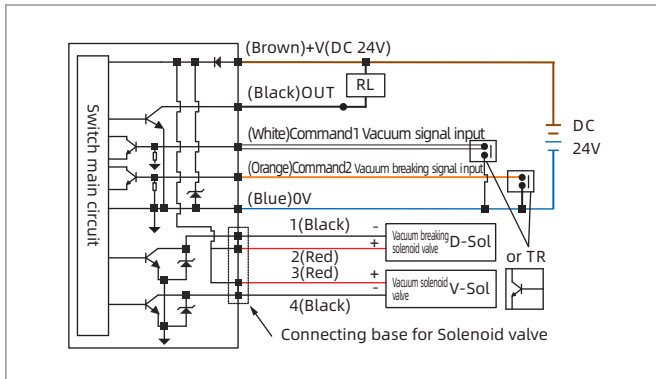
AZK-□-NE AZK-□-PE

AZK Series

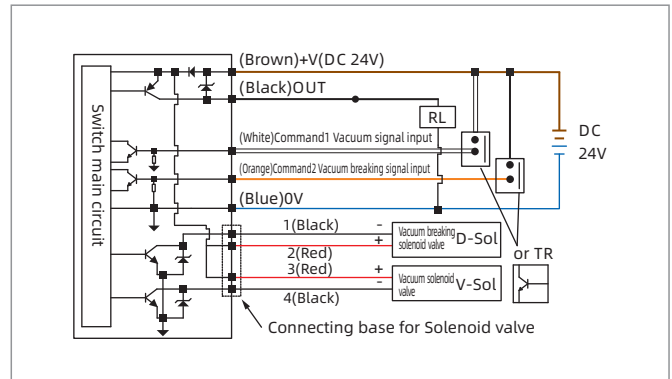
Integrated Vacuum Generator



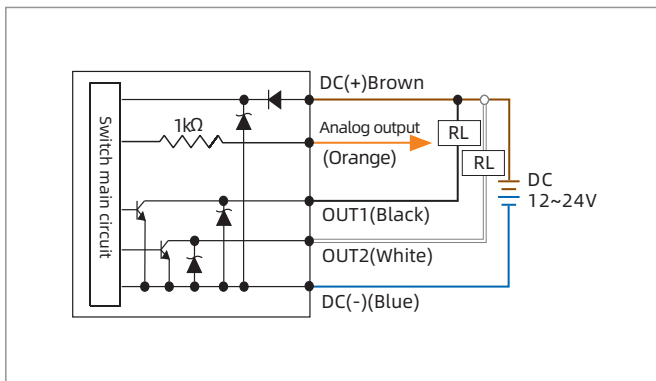
Output circuit wiring diagrams



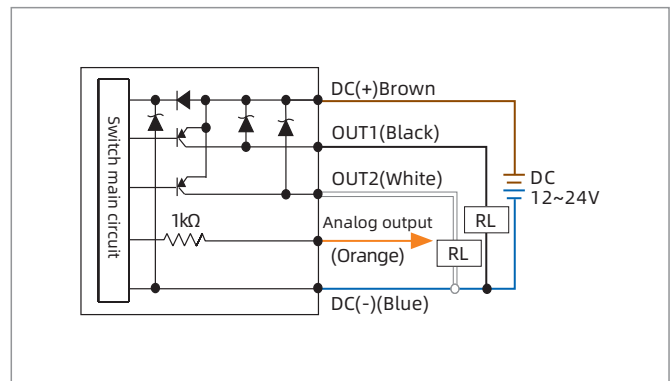
ZPDC-N-E NPN output



ZPDC-P-E PNP output

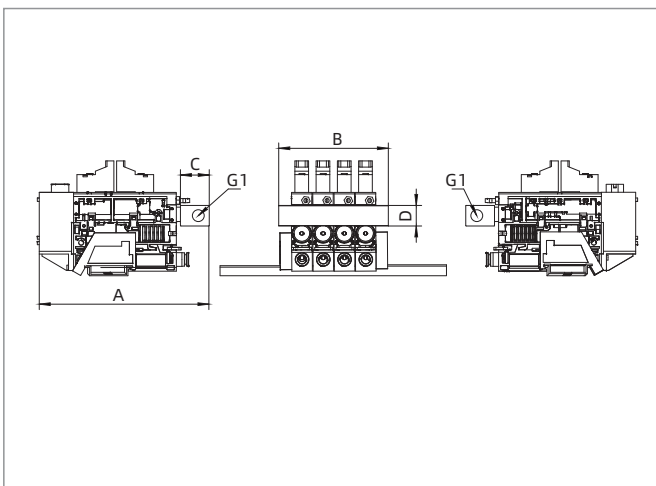


ZPDC-N 2NPN+1 Analog voltage output(1~5V)



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

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

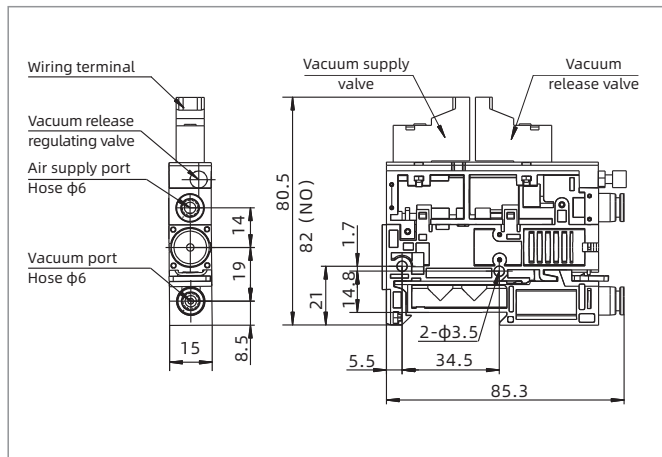
Max.number of manifold stations that can operate simultaneously	AZK-X	AZK-P	AZK-S	AZK-L
Air supply from one side	6	6	6	4
Air supply from both sides	8	8	8	8

AZK Series

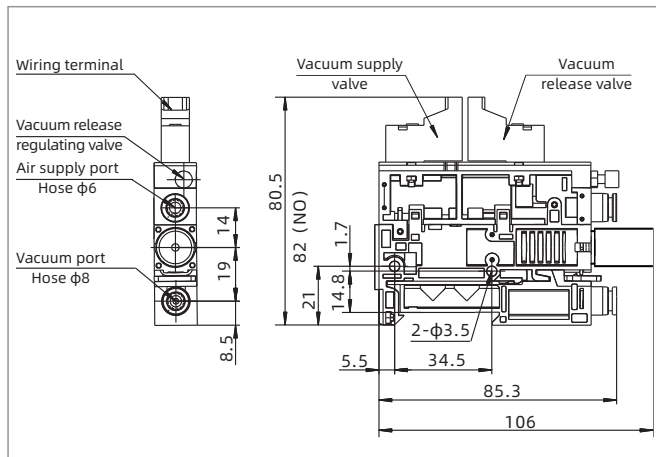
Integrated Vacuum Generator



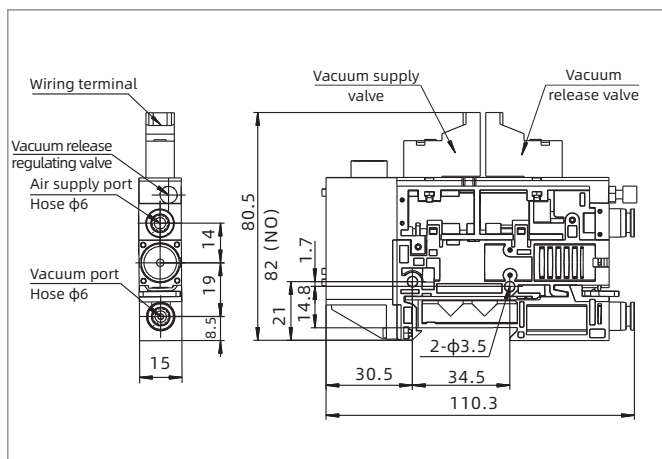
Dimensions(mm)



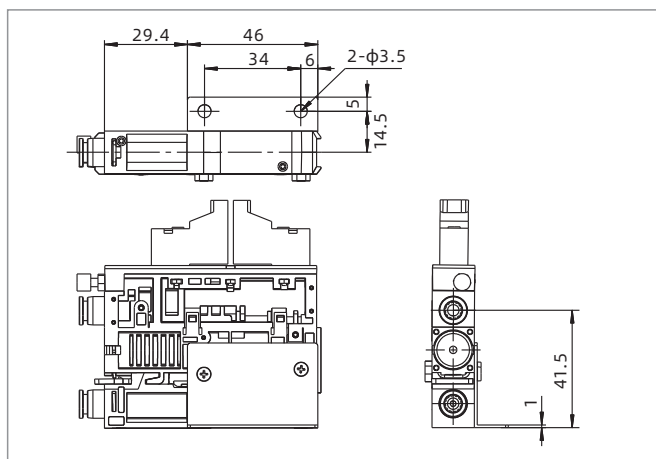
AZK-□ Single body



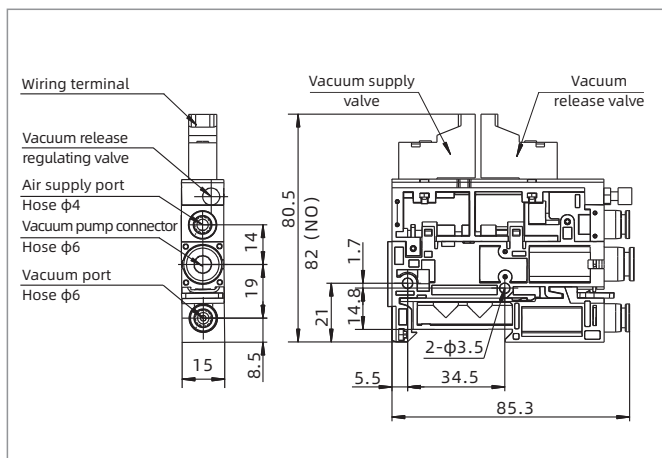
AZK-L Single body



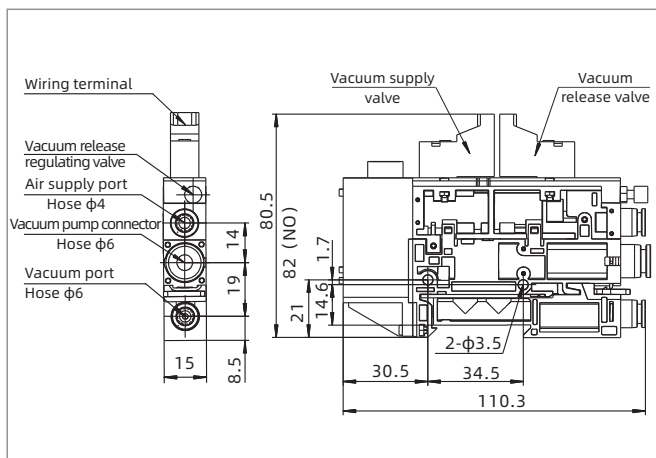
AZK-□-□ Single body with pressure switch



AZK-□-F Single body with mounting bracket



AZK-B Single body



AZK-B-□ Single body with pressure switch

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

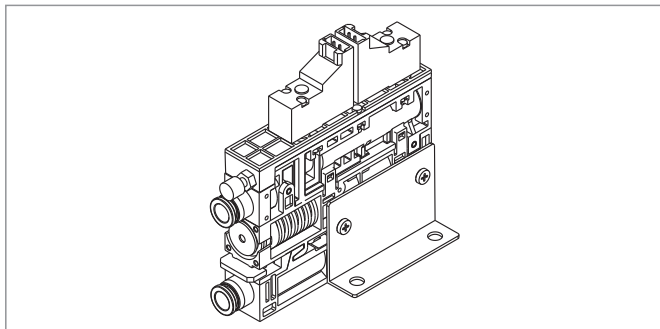
Mounting Parts

Vacuum Accessories

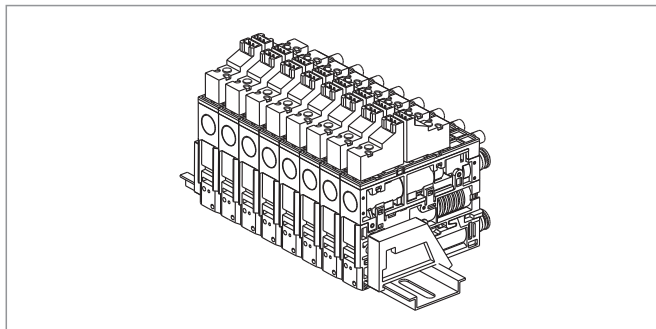
AZK Series

Integrated Vacuum Generator

Installation diagram

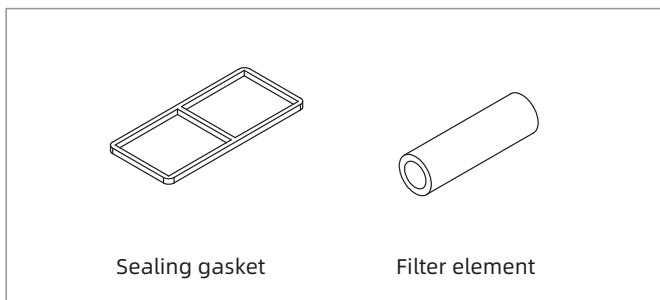


Mounting with bracket for single body



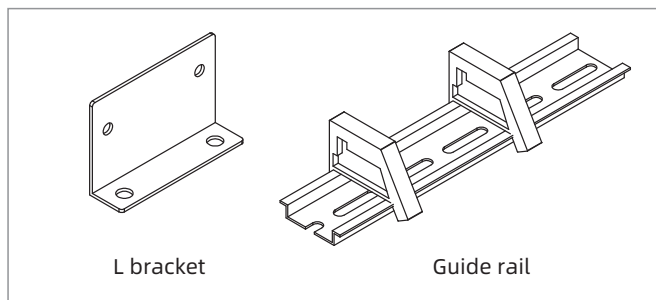
Mounting with DIN guide rail for combined type

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

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

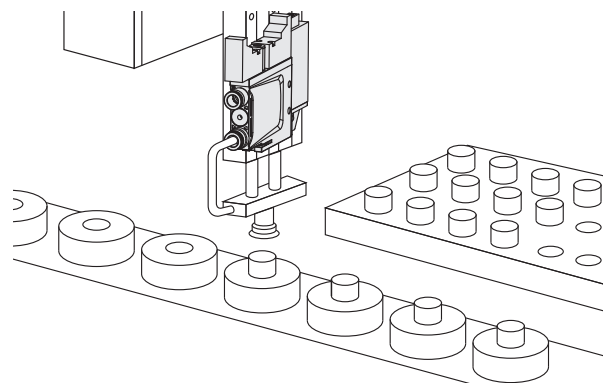
Advantages

- ◇ 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



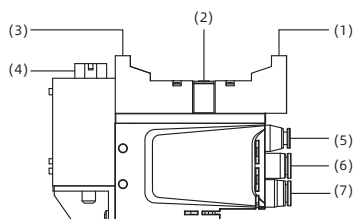
Applications

- ◇ 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



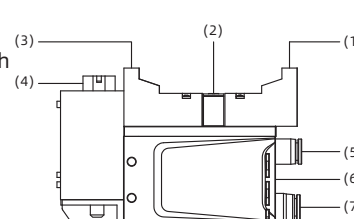
Structure - Without vacuum source type (Vacuum pump type)

- ◇ (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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

AZQ Series

Mini Integrated Vacuum Generator



How to order

AZQ - T × 8 - N - DP
 ① ② ③ ④ ⑤

① Series	② Specifications	③ Stack	④ Vacuum switch	⑤ Air supply
AZQ	X - High vacuum level type T - Large flow type B - Vacuum pump type	Nil - Single body 2 3 10	N - 2NPN output+1 analog output (1~5V) P - 2PNP output+1 analog output (1~5V)	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. For vacuum pump type, the recommended stack quantity is 6PCs. The maximum vacuum flow rate will be a decrease if there is stack Bx7 and Bx8. Please refer to the following parameters:
 31NL/min is the max.allowed passing flow of single stack of AZQ-Bx7
 28NL/min is the max.allowed passing flow of single stack of AZQ-Bx8

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	φ6	-	-
AZQ-T	3.0~6.0	4.5	84	16	15.5	64~70	75.4	φ6	φ6	-	-
AZQ-B	3.0~6.0	-	-	35(Note)	-	-	78.2	φ4	φ6	φ6	φ6

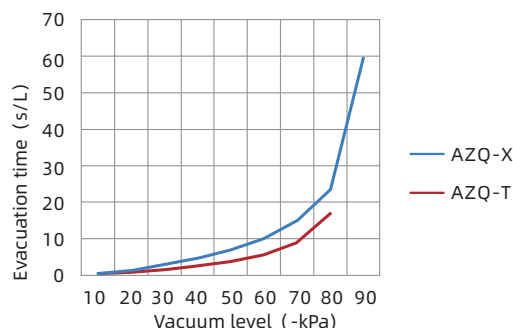
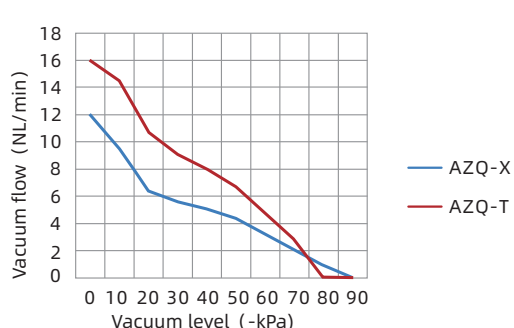
◇ Note: 35NL/min is the max.allowed passing flow of single stack of AZQ-Bx6

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



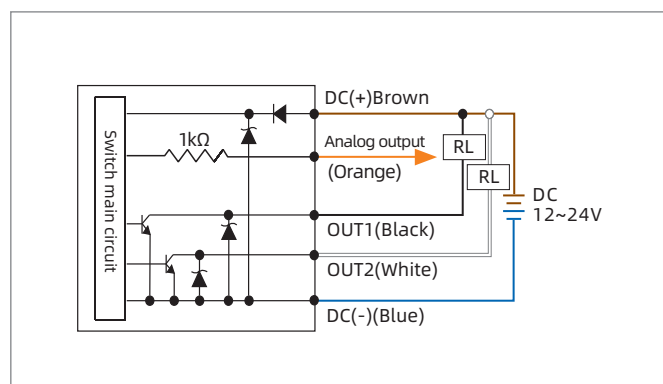
AZQ Series

Mini Integrated Vacuum Generator

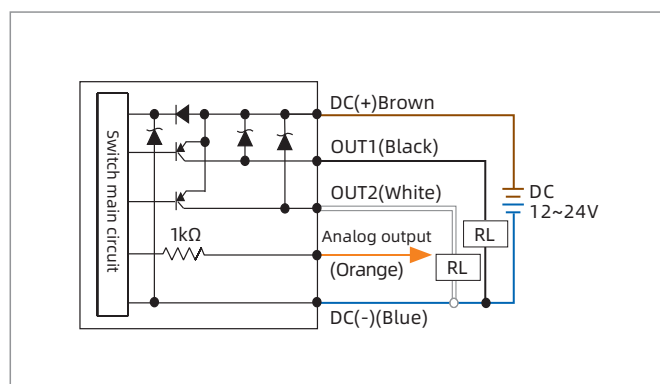
Technical parameters - Pressure switch

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)

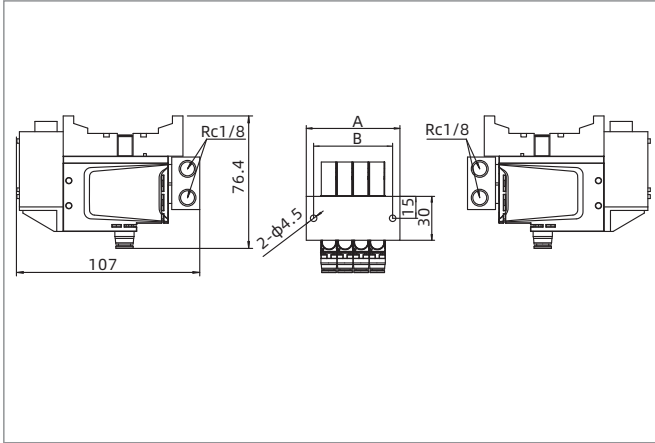


ZPDC-P 2PNP+1 Analog voltage output (1-5V)

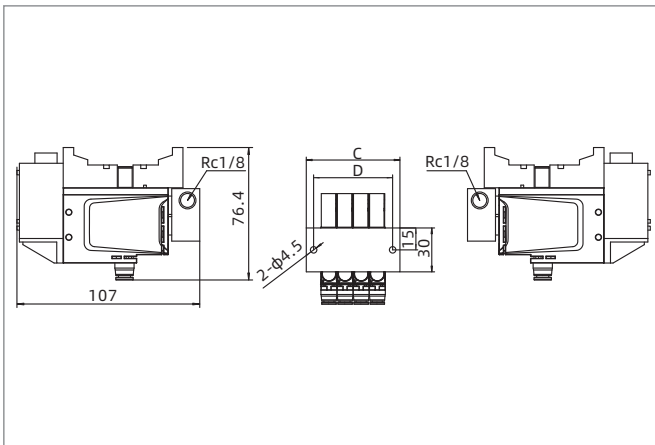
AZQ Series

Mini Integrated Vacuum Generator

Centralized air supply dimensions(mm)



Vacuum pump type

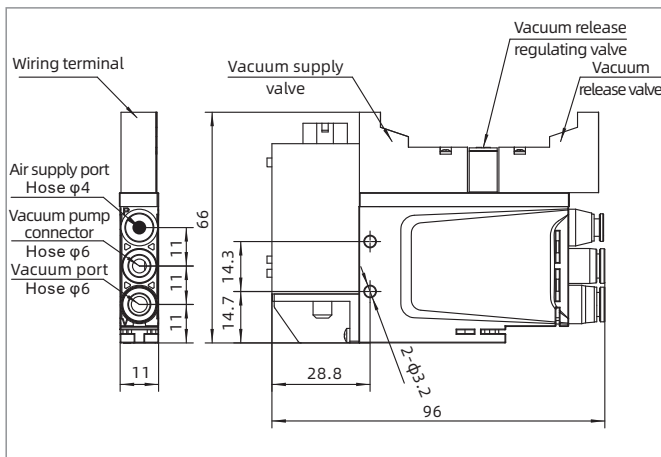


Vacuum generator type

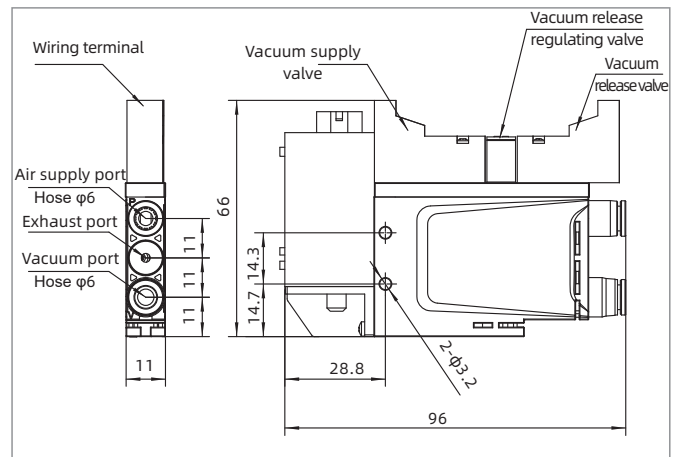
Stack	A	B	C	D
2	45.5	32.5	45.5	32.5
4	68.5	55.5	68.5	55.5
6	91.5	78.5	91.5	78.5
8	114.5	101.5	114.5	101.5
10	-	-	137.5	124.5

- ◇ Note: 1. 31NL/min is the max. allowed passing flow of single stack of AZQ-Bx7
- 2. 28NL/min is the max. allowed passing flow of single stack of AZQ-Bx8
- 3. 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.
- 4. While using 5 pieces or more AZQ-B for integrating, recommend air supply on both sides

Dimensions(mm)



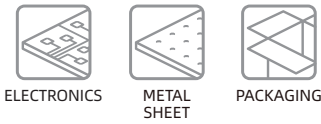
AZQ-B-□ Single body of vacuum pump type



AZQ-□-□ Single body of vacuum generator type

AGX 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 G1/4 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

① Series	② Specification
AGX	S32-3 (-75kPa) X40-3 (-95kPa)

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

AGX Series

Vacuum Generator

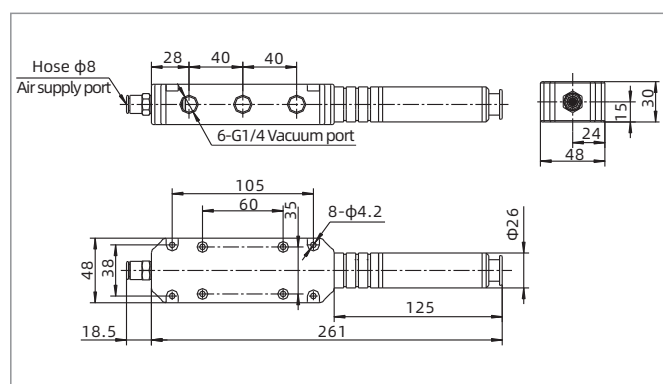
Vacuum flow(NL/min) at different vacuum levels(-kPa)

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)

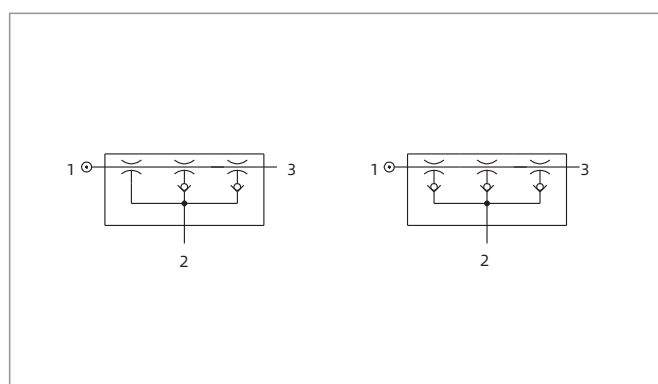
Model	Air supply pressure bar	Air consumption NL/min	10	20	30	40	50	60	70	80	90	Max. vacuum level -kPa
AGX-S32-3	4.0	120	0.03	0.08	0.15	0.26	0.44	11.5	-	-	-	60
	5.0	125	0.03	0.07	0.13	0.23	0.38	27.3	1.07	-	-	70
	6.0	130	0.03	0.05	0.10	0.18	0.36	30.3	0.87	-	-	75
AGX-X40-3	4.5	120	0.03	0.07	0.13	0.23	0.38	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

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

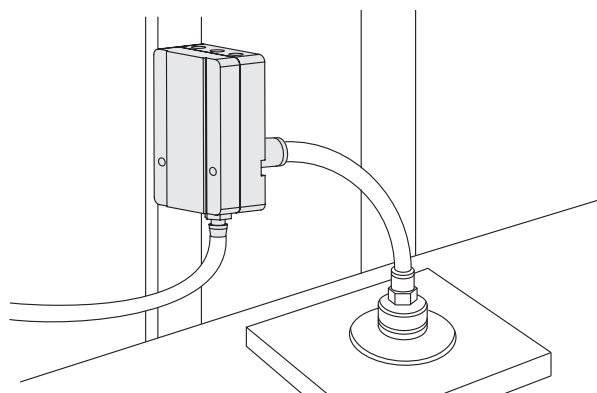
Advantages

- ◇ 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

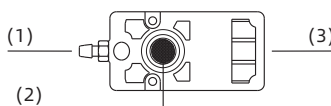
- ◇ Universal vacuum generator, widely used in all kinds of vacuum systems
- ◇ Suitable for metal plate handling, packaging machinery, injection molding and industrial robot technology field



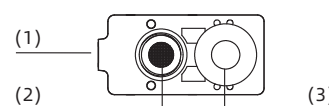
Structure

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

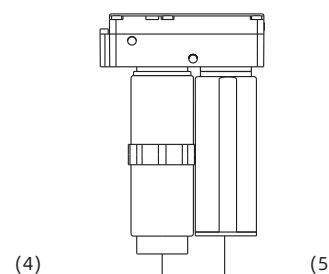
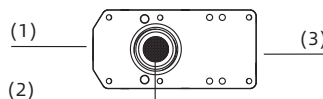
A NA type



C NC type



B NB type



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

ABM/ABX Series

Mini Vacuum Generator



How to order

ABM 10 - B - F
 ① ② ③ ④

① Series	Specification	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

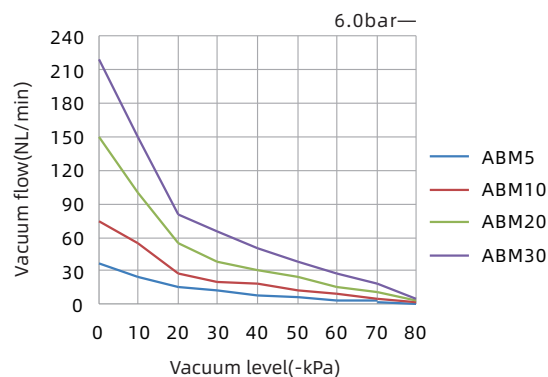
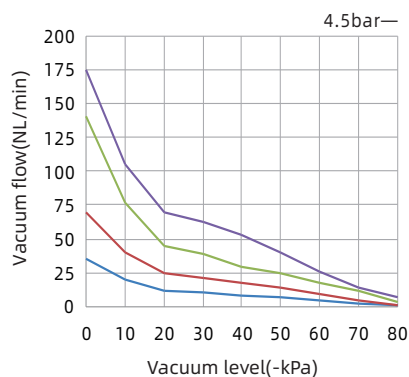
Technical parameters - ABX

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	0	10	20	30	40	50	60	70	80	Max. vacuum level -kPa
			Vacuum level(-kPa)									
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



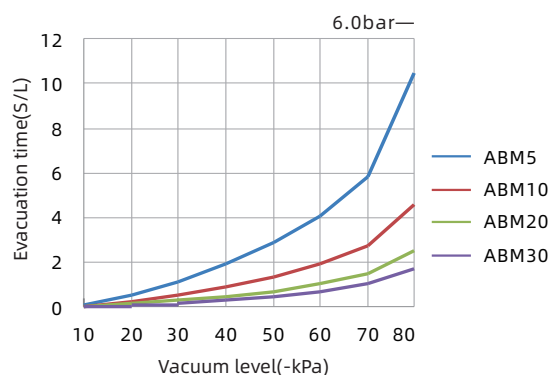
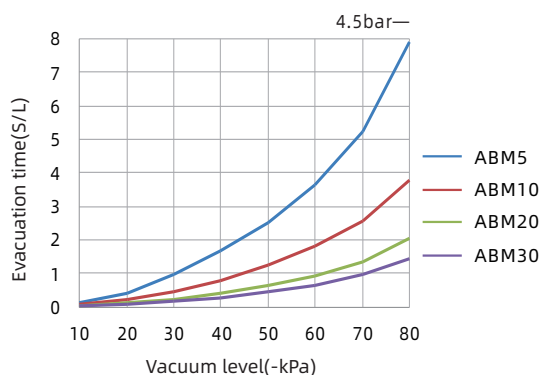
ABM/ABX Series

Mini Vacuum Generator



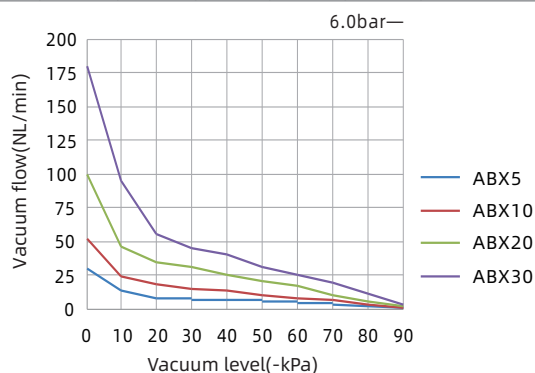
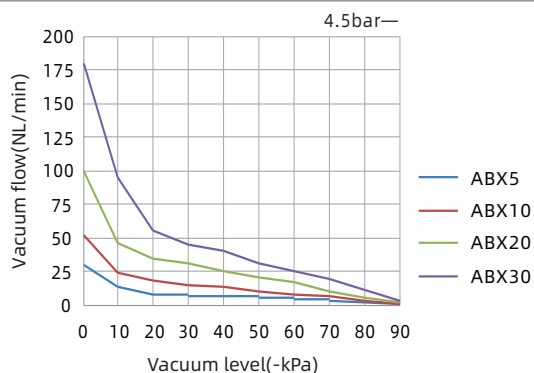
Evacuation time(s/L) to reach different vacuum levels(-kPa)

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



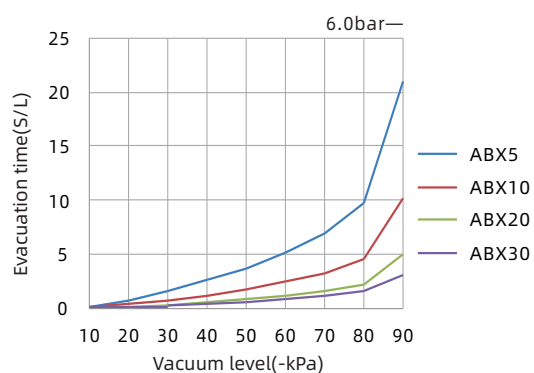
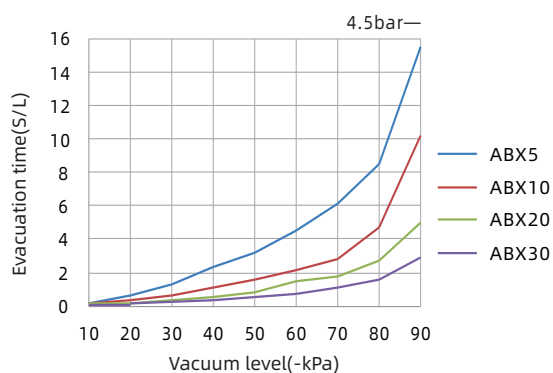
ABM/ABX Series

Mini Vacuum Generator

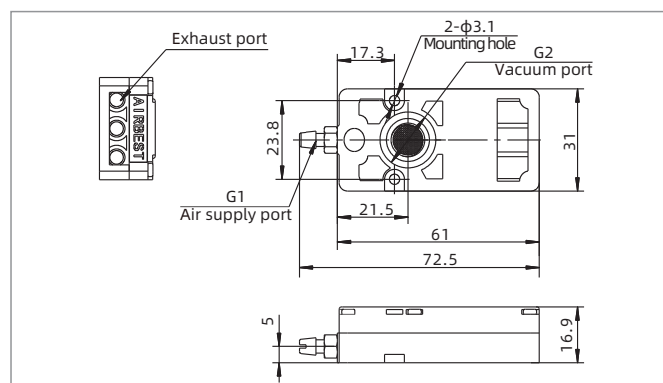


Evacuation time(s/L) to reach different vacuum levels(-kPa)

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

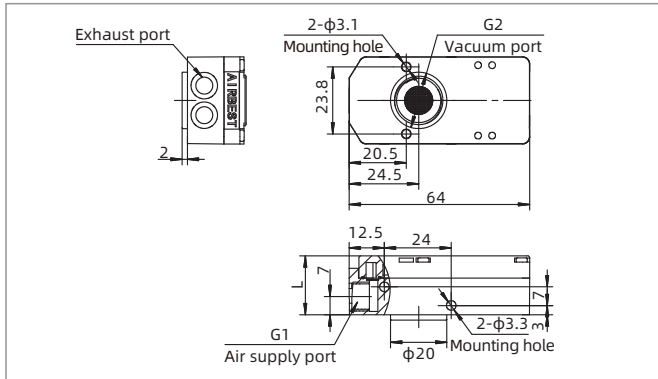
Model/size	G1	G2	Weight g
ABM/ABX5-A	φ6	G1/8	58
ABM/ABX5-NA	φ6	NPSF1/8	58
ABM/ABX10-A	φ6	G1/8	59
ABM/ABX10-NA	φ6	NPSF1/8	59

ABM/ABX Series

Mini Vacuum Generator

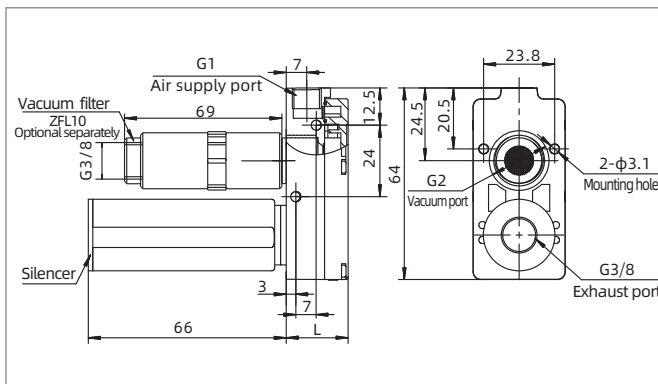


Dimensions(mm)



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

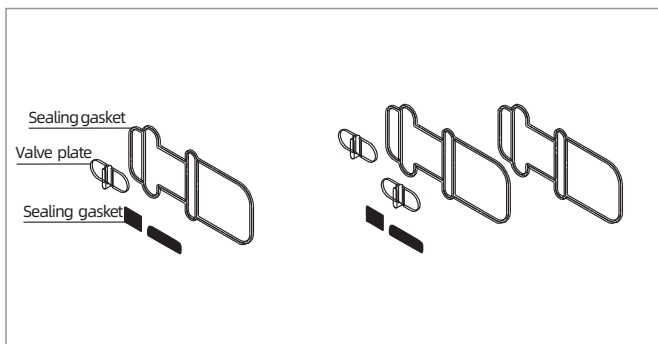
Model/size	G1	G2	L	Weight g
ABM/ABX5-B	G1/8	G3/8	20.7	64
ABM/ABX5-NB	NPSF1/8	NPSF3/8	20.7	64
ABM/ABX10-B	G1/8	G3/8	20.7	64
ABM/ABX10-NB	NPSF1/8	NPSF3/8	20.7	64
ABM/ABX20-B	G1/8	G3/8	28	77
ABM/ABX20-NB	NPSF1/8	NPSF3/8	28	77
ABM/ABX30-B	G1/8	G3/8	35	89
ABM/ABX30-NB	NPSF1/8	NPSF3/8	35	89



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

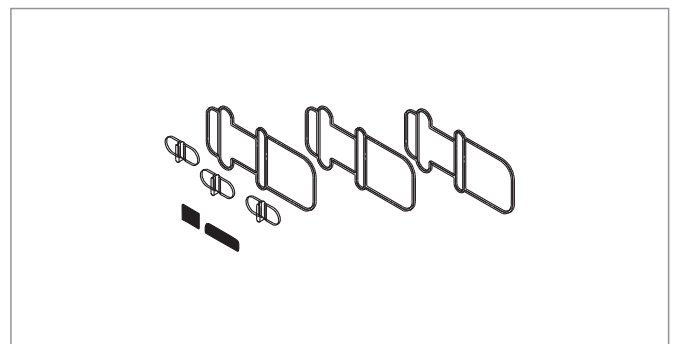
Model/size	G1	G2	L	Weight g
ABM/ABX5-C	G1/8	G3/8	20.7	84
ABM/ABX5-NC	NPSF1/8	NPSF3/8	20.7	84
ABM/ABX10-C	G1/8	G3/8	20.7	87
ABM/ABX10-NC	NPSF1/8	NPSF3/8	20.7	87
ABM/ABX20-C	G1/8	G3/8	28	100
ABM/ABX20-NC	NPSF1/8	NPSF3/8	28	100
ABM/ABX30-C	G1/8	G3/8	35	112
ABM/ABX30-NC	NPSF1/8	NPSF3/8	35	112

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

AMC Series

Multistage Vacuum Generator



METAL SHEET



PACKAGING



WOOD



COMPOSITE MATERIAL



Features

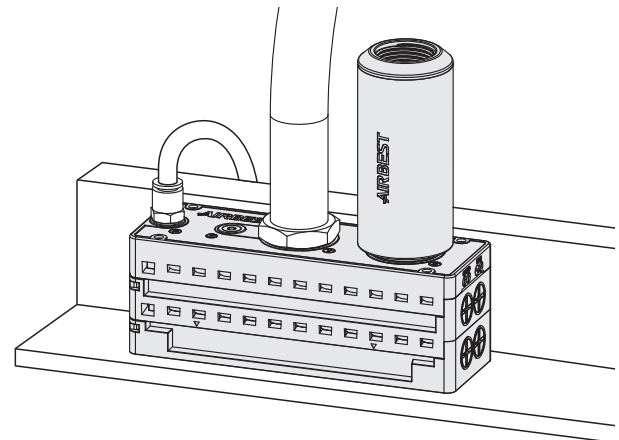
- ◇ High efficient and energy-saving multistage nozzle design
- ◇ Large vacuum flow
- ◇ Internal vacuum cartridges can be stacked assembly
- ◇ Various specifications of air supply port and vacuum port
- ◇ Energy-saving control device is optional

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

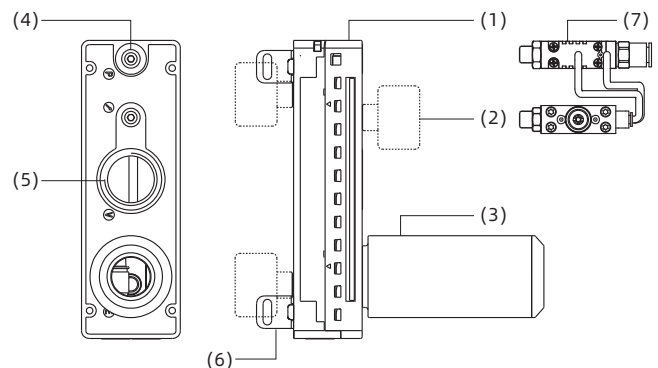
Applications

- ◇ 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

① Series	② Specification	③ 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)

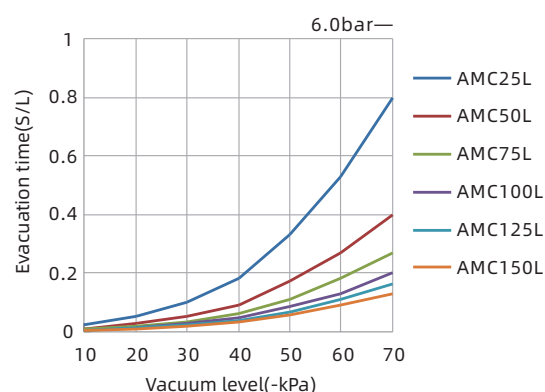
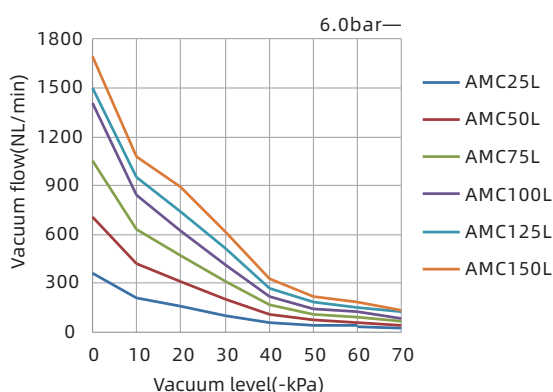
Model	Air supply pressure bar	Air consumption NL/min	0	10	20	30	40	50	60	70	Max. vacuum level -kPa
AMC25L	6.0	130	360	210	156	102	54	36	30	21	75
AMC50L	6.0	260	710	420	312	204	108	72	60	42	75
AMC75L	6.0	390	1,050	630	468	306	162	108	90	66	75
AMC100L	6.0	520	1,410	840	624	408	216	144	120	84	75
AMC125L	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)

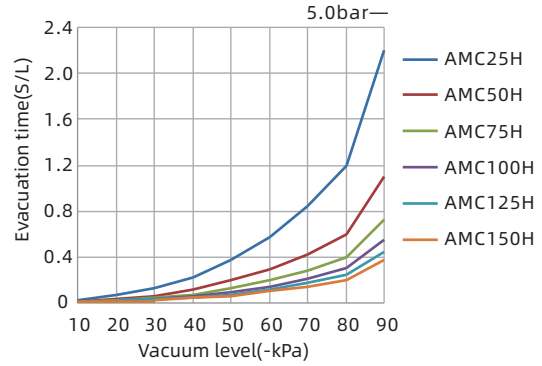
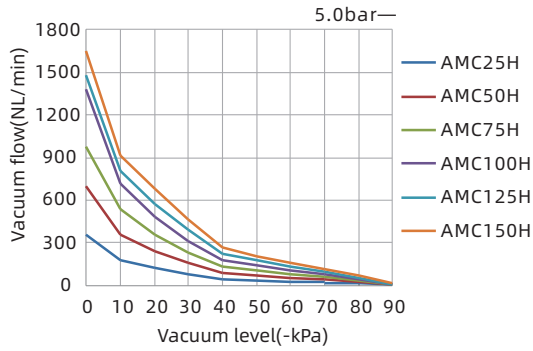
Model	Air supply pressure bar	Air consumption NL/min	0	10	20	30	40	50	60	70	80	90	Max. vacuum level -kPa
AMC25H	5.0	135	354	180	120	78	43.8	34.8	25.8	19.2	10.8	1.8	95
AMC50H	5.0	270	700	360	240	156	87.6	69.6	51.6	38.4	21.6	3.6	95
AMC75H	5.0	405	980	540	360	234	131.4	104.4	77.4	57.6	32.4	5.4	95
AMC100H	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)

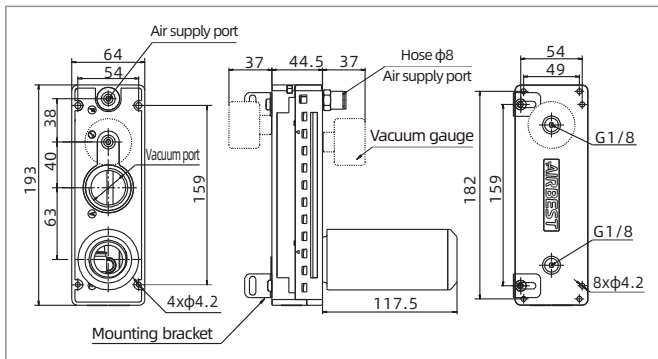
Model	Air supply pressure bar	Air consumption NL/min	10	20	30	40	50	60	70	80	90	Max. vacuum level -kPa
AMC25H	5.0	135	0.022	0.062	0.120	0.220	0.37	0.57	0.84	1.20	2.20	95
AMC50H	5.0	270	0.011	0.031	0.060	0.110	0.19	0.29	0.42	0.60	1.10	95
AMC75H	5.0	405	0.007	0.021	0.040	0.070	0.12	0.19	0.28	0.40	0.73	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

AMC Series

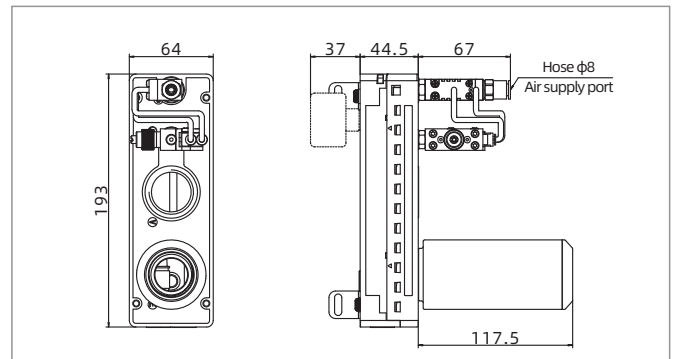
Multistage Vacuum Generator



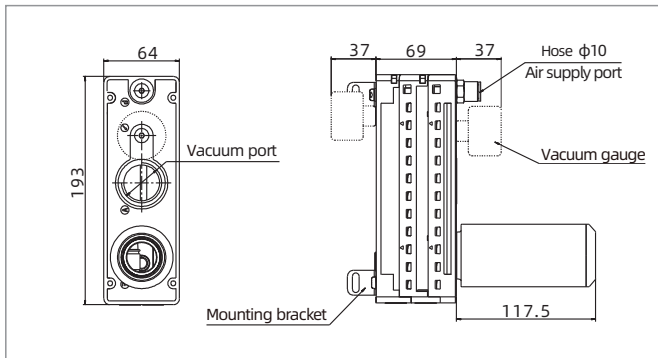
Dimensions(mm)



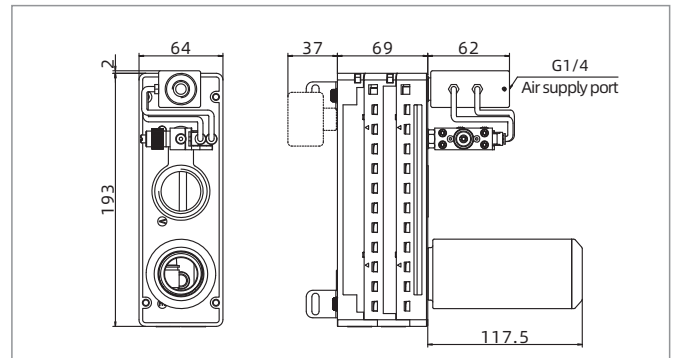
AMC25-50



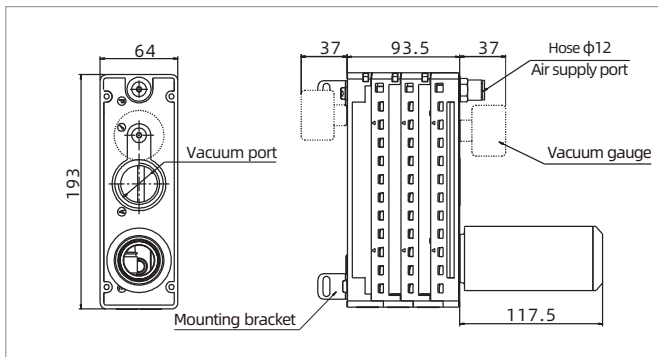
AMC25□-□-V-ES AMC50□-□-V-ES



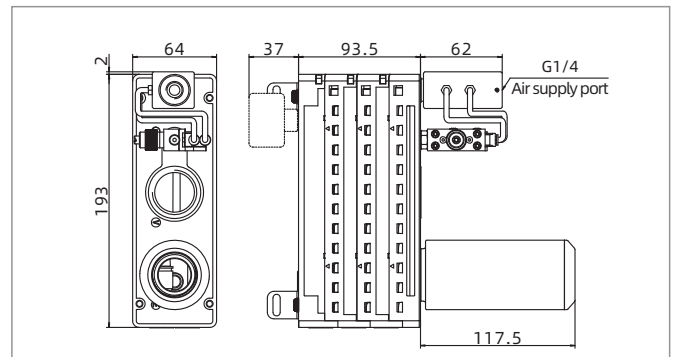
AMC75-100



AMC75□-□-V-ES AMC100□-□-V-ES



AMC125-150



AMC125□-□-V-ES AMC150□-□-V-ES

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

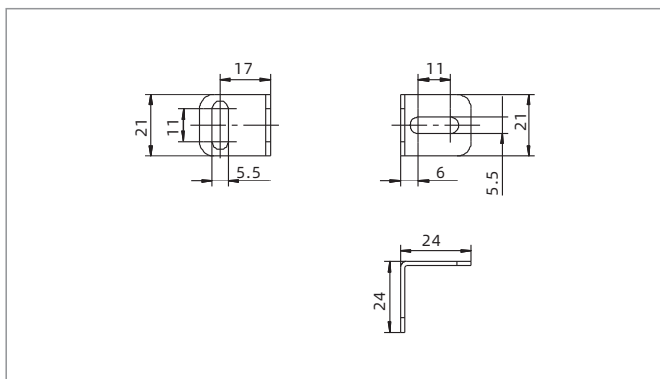
Mounting Parts

Vacuum Accessories

AMC Series

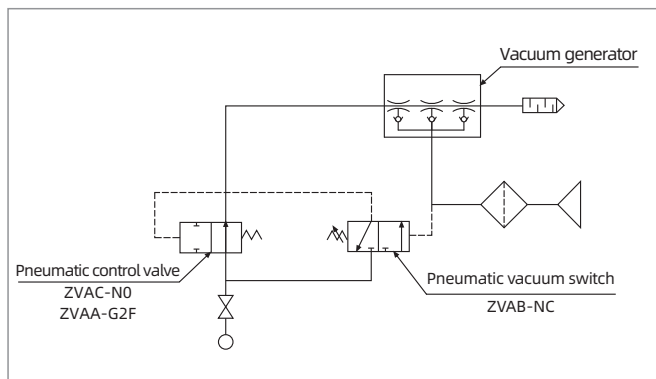
Multistage Vacuum Generator

Dimensions(mm)



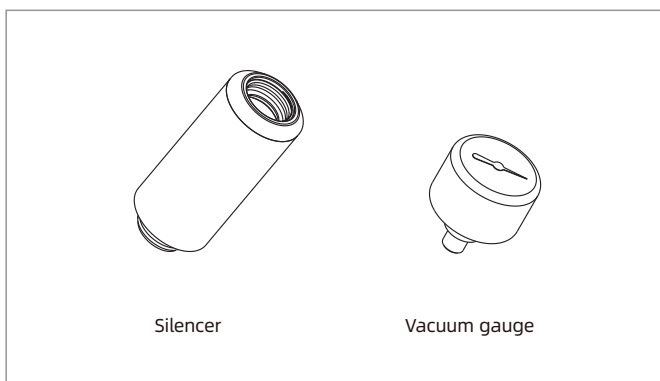
L type Mounting bracket

Air circuit schematic diagram

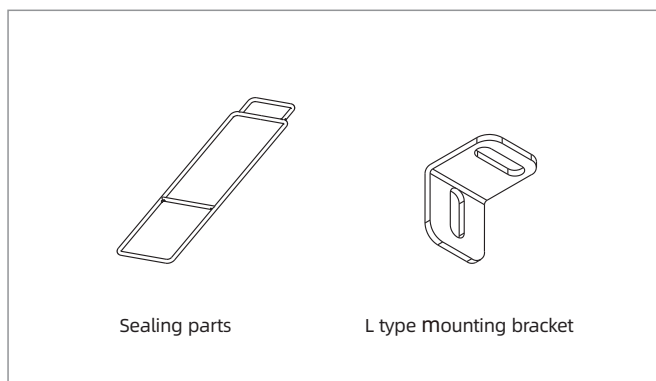


ES Energy saving system

Accessory selection



Mounting accessories



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

RoHS

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

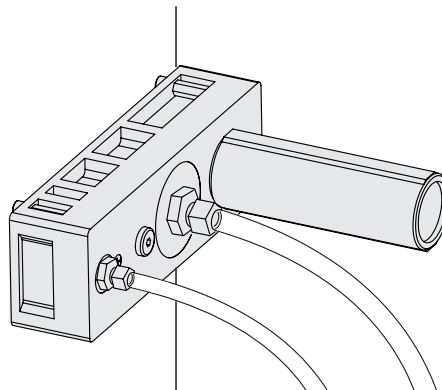
Advantages

- ◇ 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



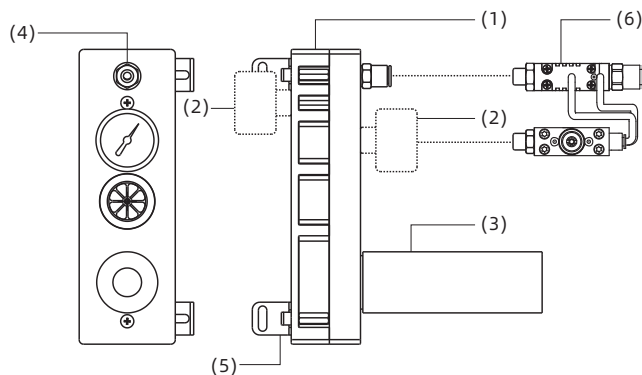
Applications

- ◇ 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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

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		ES - Energy-saving system only for AM-25L/50L
AH - High vacuum level type (-100.8kPa)	40 120	(Refer to table1)			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/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

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

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.) (Wired hose inner dia.) Air supply port 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

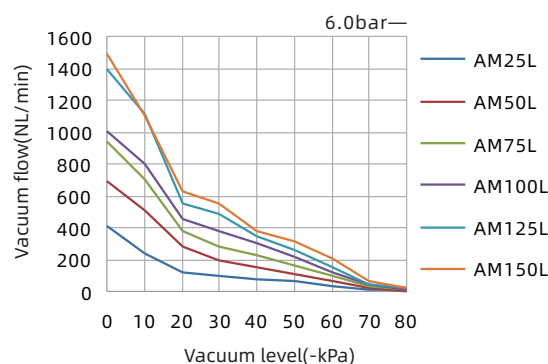
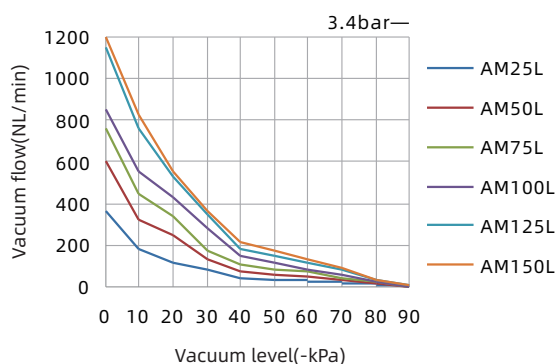


Technical parameters

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



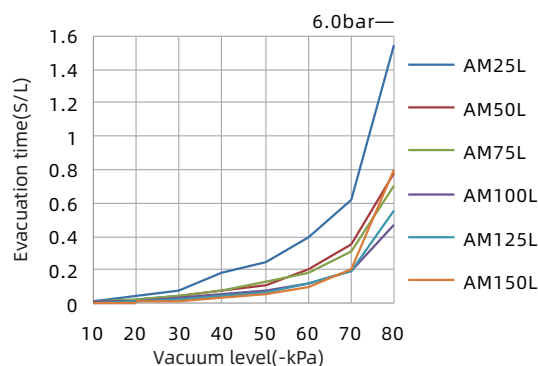
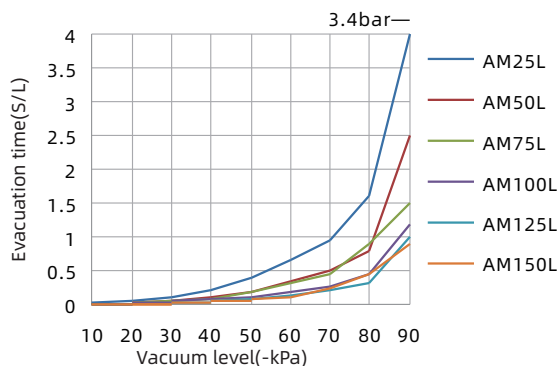
AM/AL/AH Series

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

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

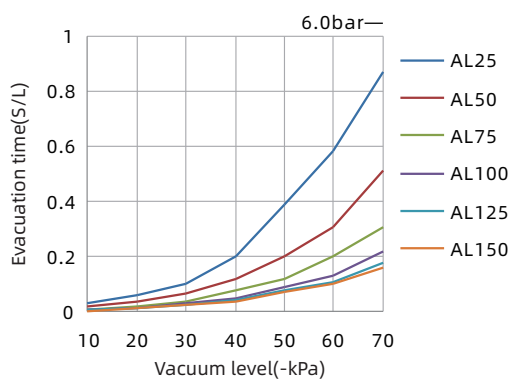
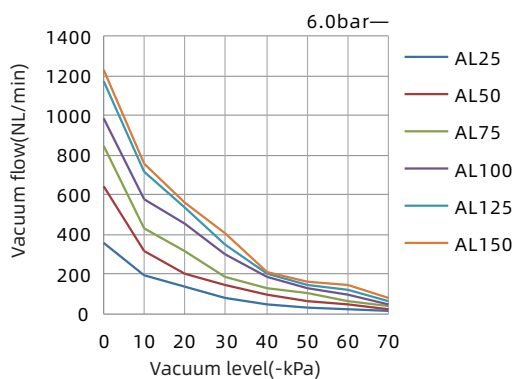
AM/AL/AH Series

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

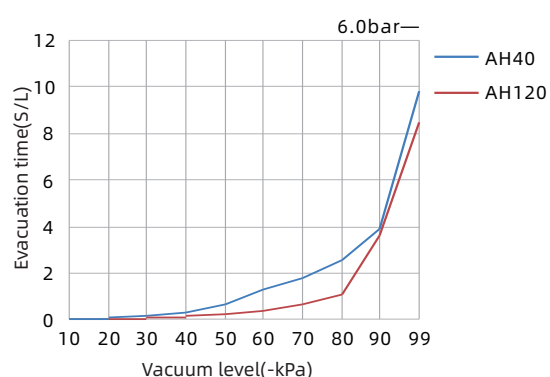
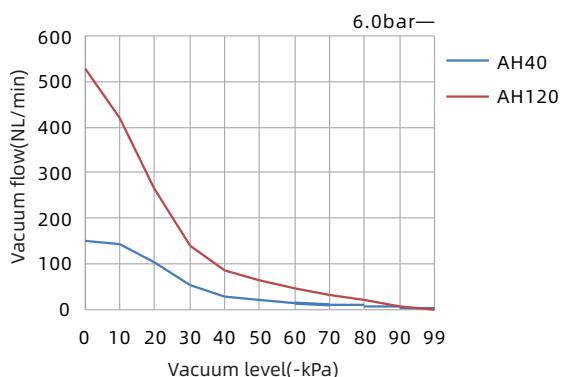


Vacuum flow(NL/min) at different vacuum levels(-kPa)

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

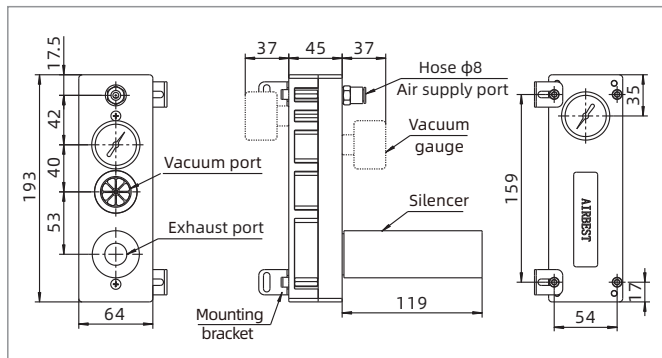


AM/AL/AH Series

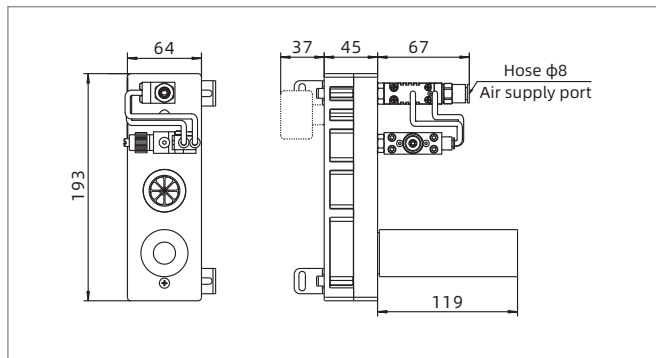
Multistage Vacuum Generator



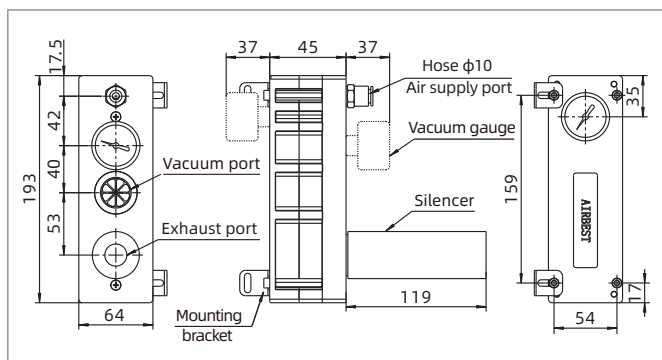
Dimensions(mm)



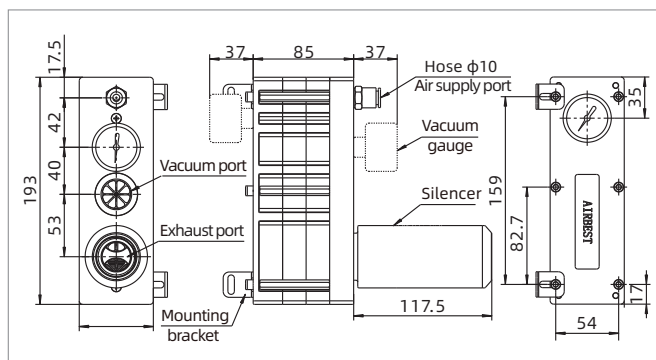
AM/AL25-50 AH40



AM/AL25-50-□-N-A-ES



AM/AL75-100



AM/AL125-150

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

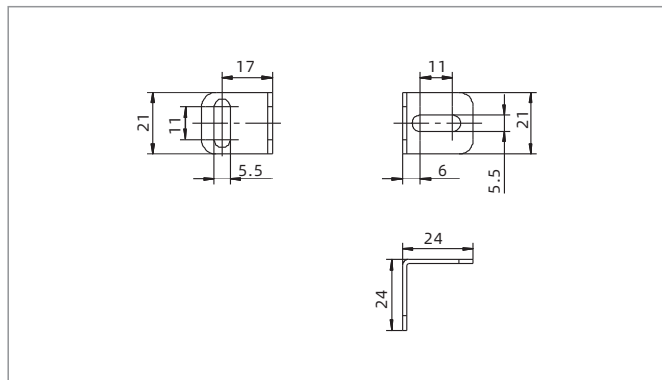
Mounting Parts

Vacuum Accessories

AM/AL/AH Series

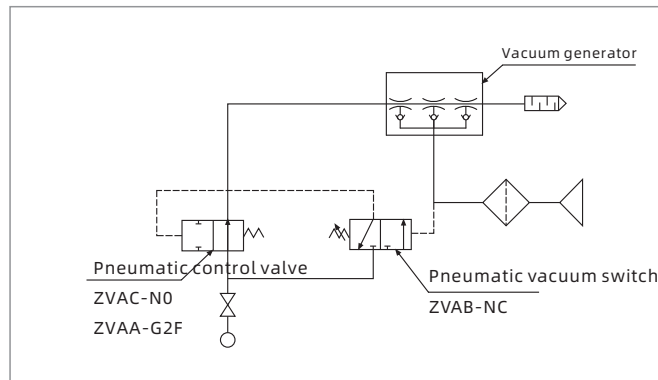
Multistage Vacuum Generator

Dimensions(mm)



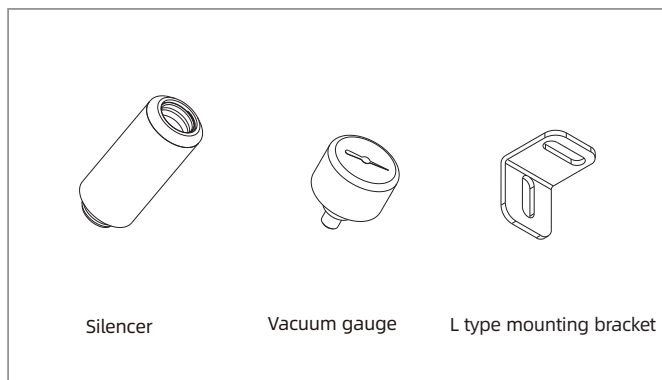
L type mounting bracket

Air circuit schematic diagram

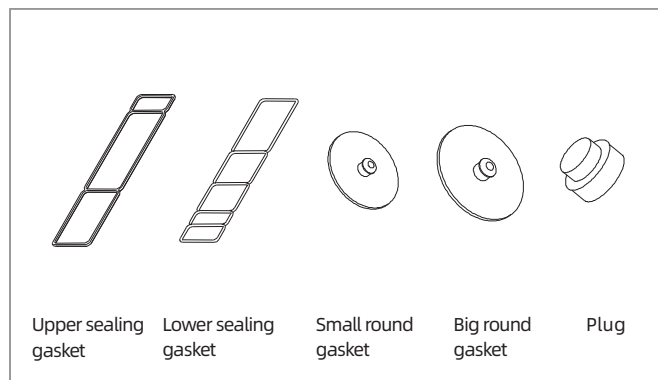


ES Energy-saving system

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

AZR Series

Mini Vacuum Generator

AIRBEST



ELECTRONICS



PLASTIC



Features

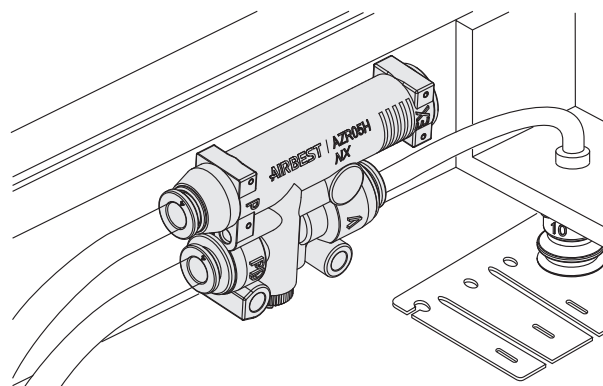
- ◇ Small size, light weight
- ◇ High vacuum level type and large vacuum flow type are optional
- ◇ The generator has vacuum breaking function itself
- ◇ Separate vacuum filter and mounting bracket are optional

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

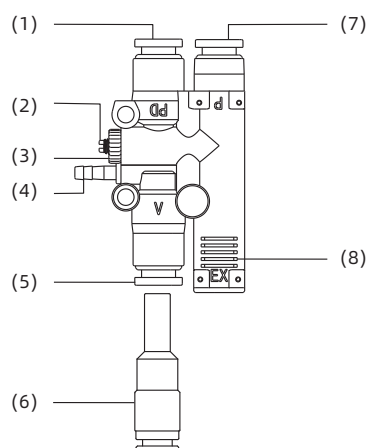
Applications

- ◇ 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

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

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	80	19	ϕ 4	ϕ 4
AZR07H	5.0	88	12.5	40	22	80	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.

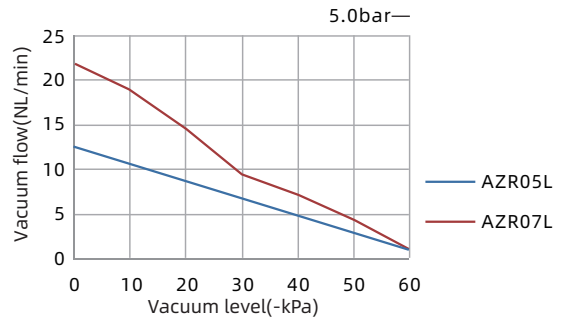
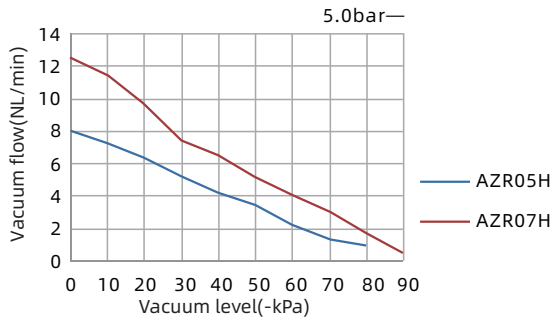
Vacuum flow(NL/min) at different vacuum levels(-kPa)

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

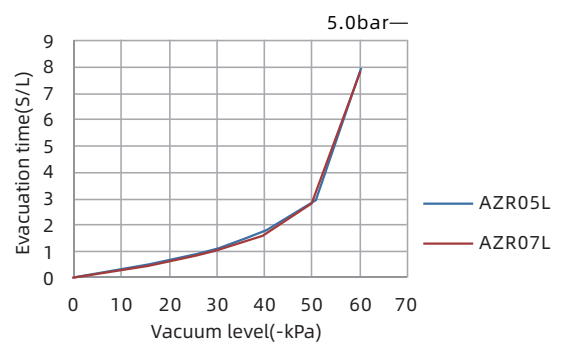
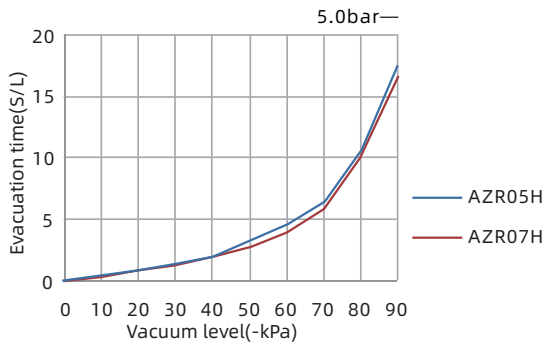
Mini Vacuum Generator

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

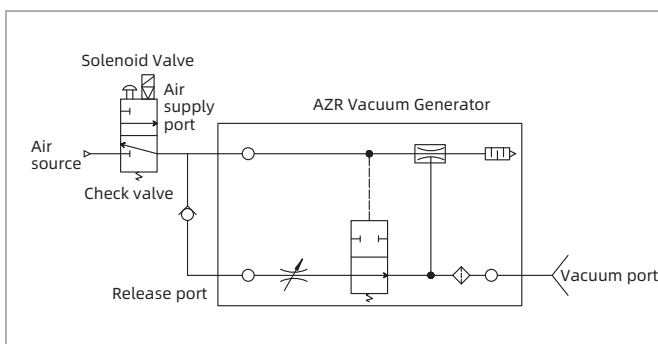


Evacuation time(s/L) to reach different vacuum levels(-kPa)

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



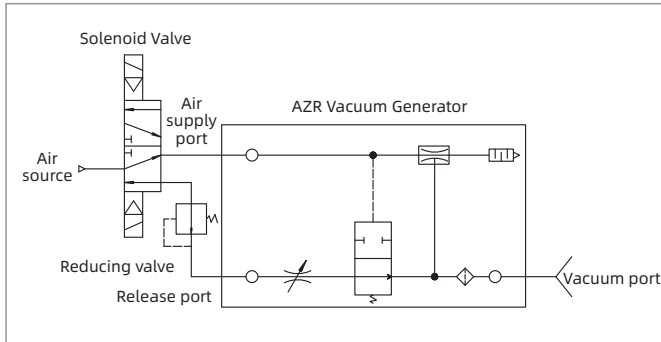
Vacuum release principle and attentions:

- ◇ 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

AZR Series

Mini Vacuum Generator

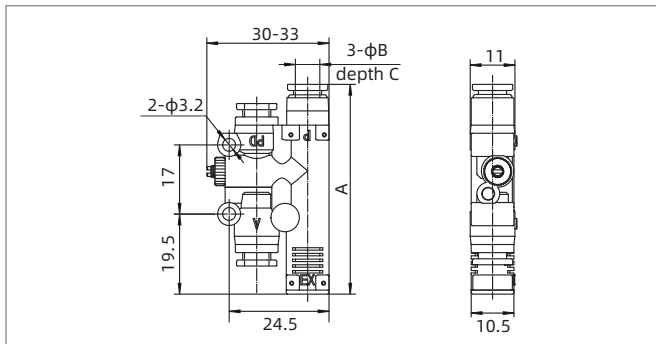
Air circuit schematic diagram



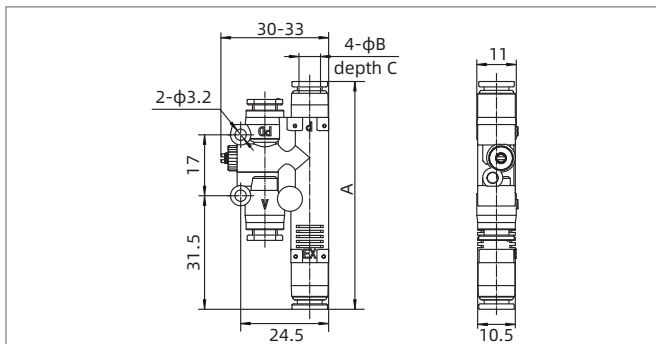
Vacuum release principle and attentions:

- ◇ 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

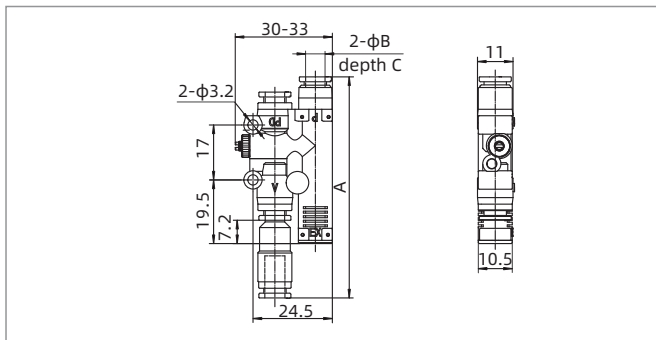
Dimensions(mm)



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

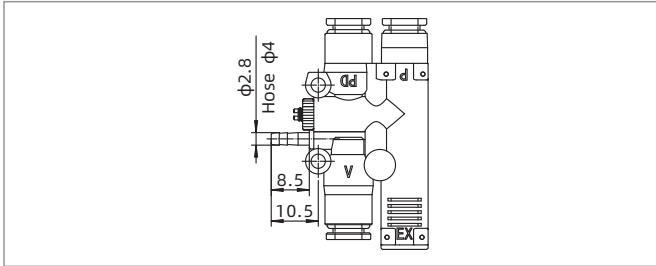
Model/Size	A	B	C
AZR05H-F	65.5	4	10
AZR05L-F	65.5	4	10
AZR07H-F	68.8	6	12.5
AZR07L-F	68.8	6	12.5

◇ Note:"C" is insert depth

AZR Series

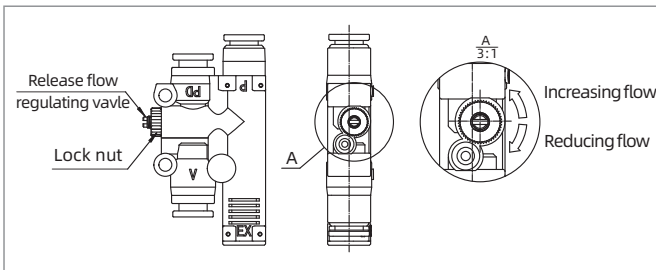
Mini Vacuum Generator

Dimensions(mm)



AZR□□-V

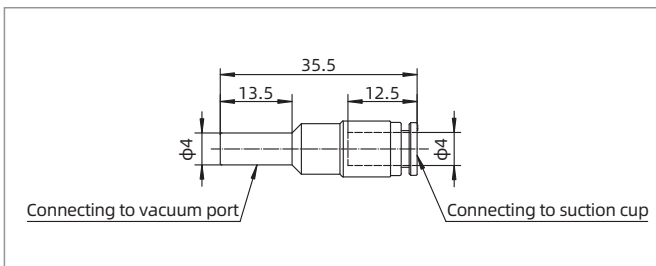
Vacuum release function



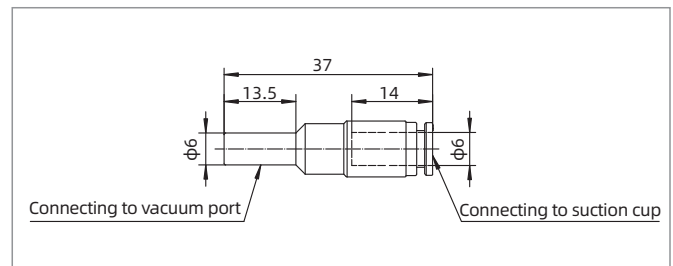
Vacuum releasing flow regulation:

- ◇ 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

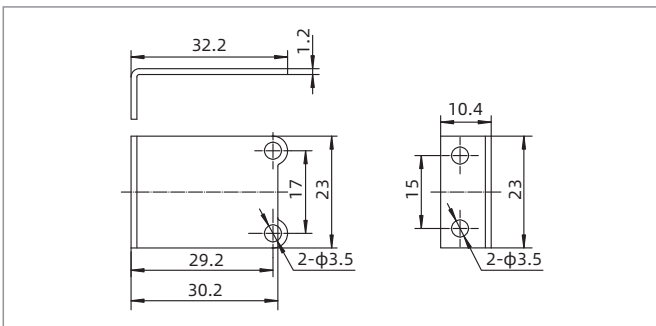
Repair kits dimensions(mm)



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

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

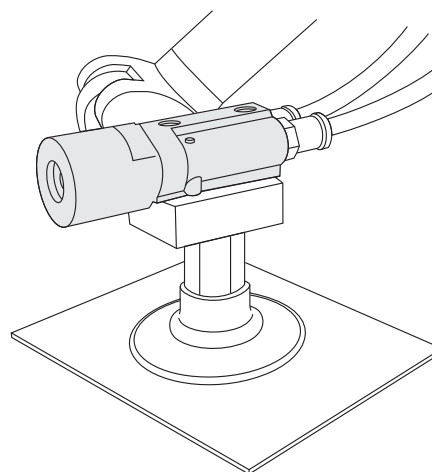
Advantages

- ◇ 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



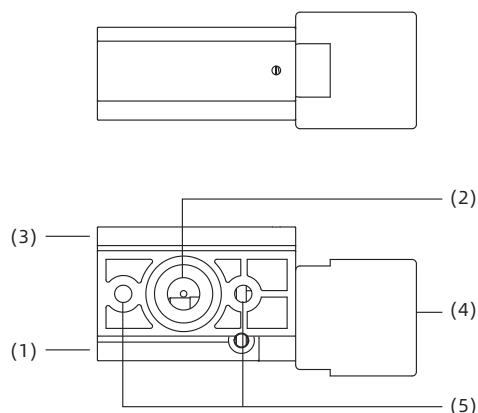
Applications

- ◇ 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



How to order

AEVC 10 - S - G2F
①
②
③
④

① Series	② Nozzle diameter	③ Mounting type	④ 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 Nil - Without mounting block	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

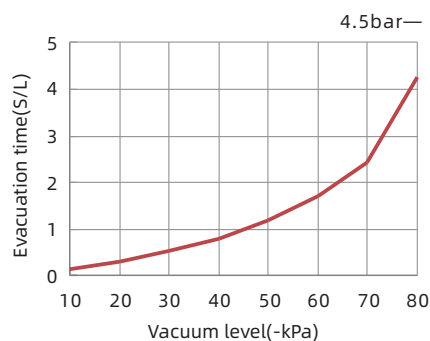
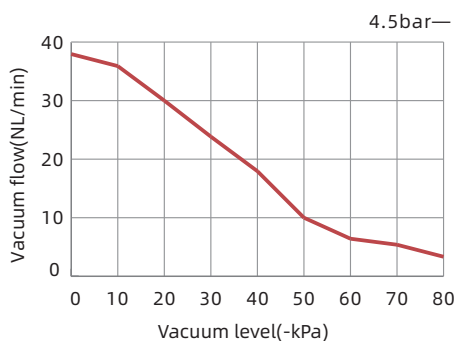
Model	Rated air supply pressure bar	Max. vacuum level -kPa	Max.vacuum flow NL/min	Air consumption NL/min	Noise level dB(A)	Weight g
AEVC10	4.5	85	35	48.5	73.5	64

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

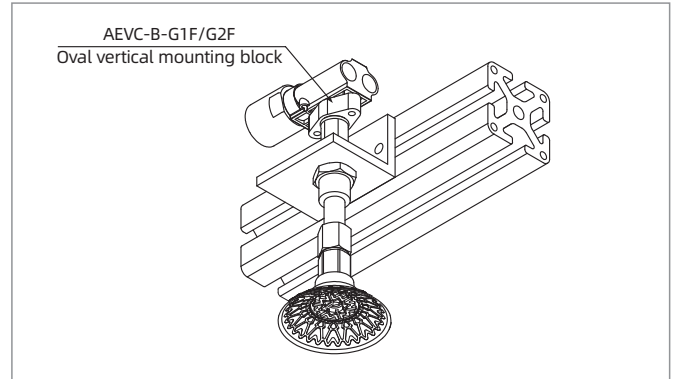
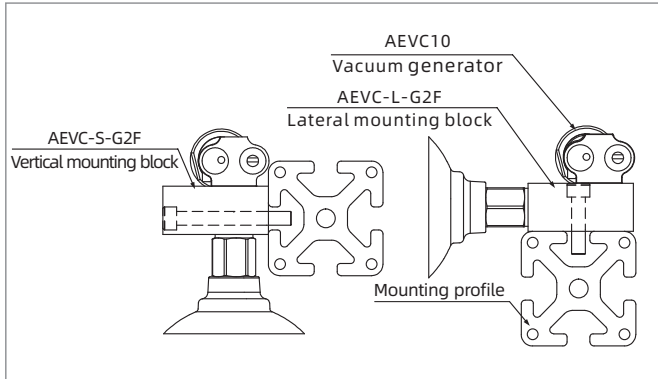


AEVC Series

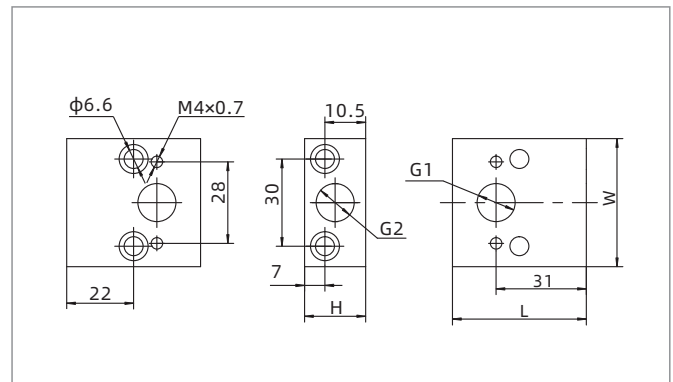
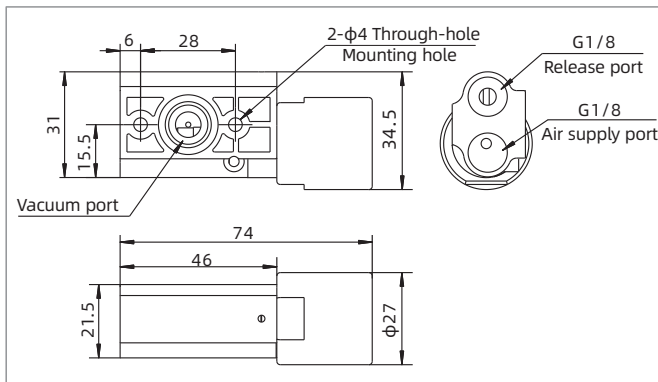
Vacuum Generator with Fast Blow-off



Installation instruction

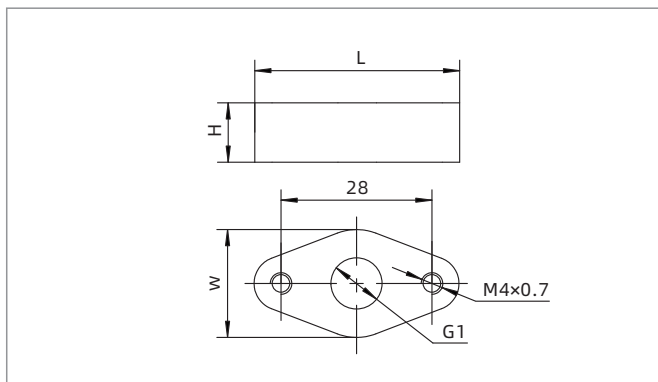


Dimensions(mm)



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

AZL Series

Multistage Vacuum Generator

AIRBEST

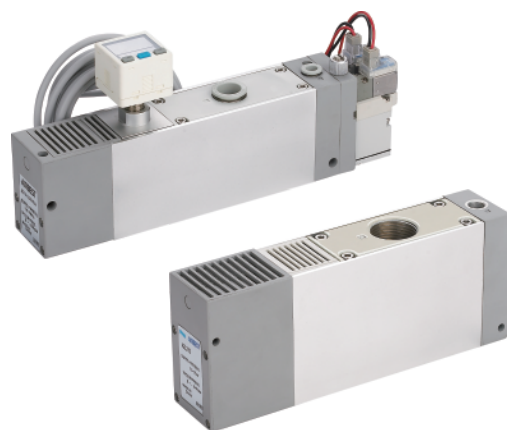


Features

- ◇ 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

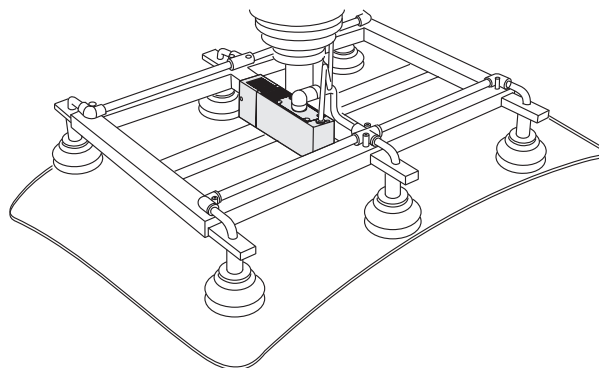
Advantages

- ◇ 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



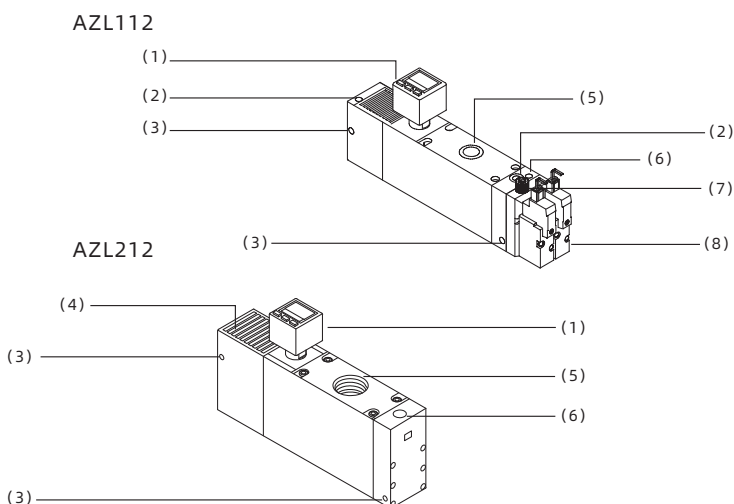
Applications

- ◇ 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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

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.

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

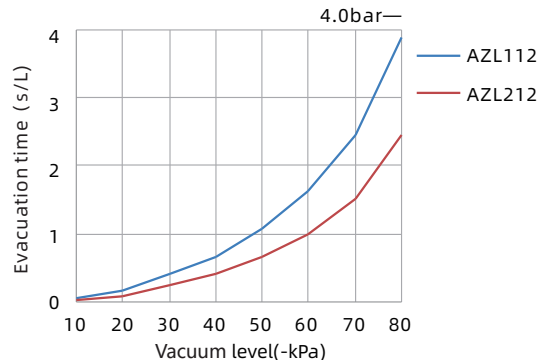
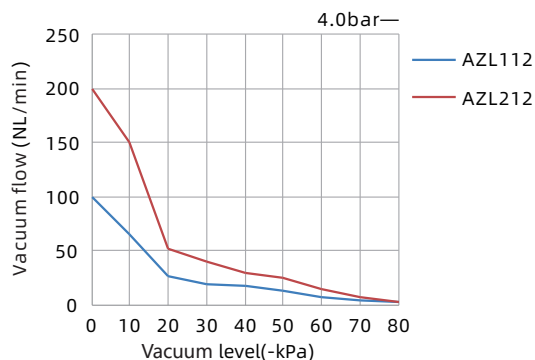
Model	Air supply pressure bar	Air consumption NL/min	0	10	20	30	40	50	60	70	80	Max. vacuum level -kPa
			100.0	65.0	26.0	20.0	18.5	13.0	8.0	5.0	2.8	
AZL112	4.0	63	100.0	65.0	26.0	20.0	18.5	13.0	8.0	5.0	2.8	84
AZL212	4.0	126	200.0	150.0	52.0	40.0	30.0	25.0	15.0	8.0	3.0	84

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
			0.05	0.17	0.40	0.67	1.07	1.63	2.46	3.9	
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

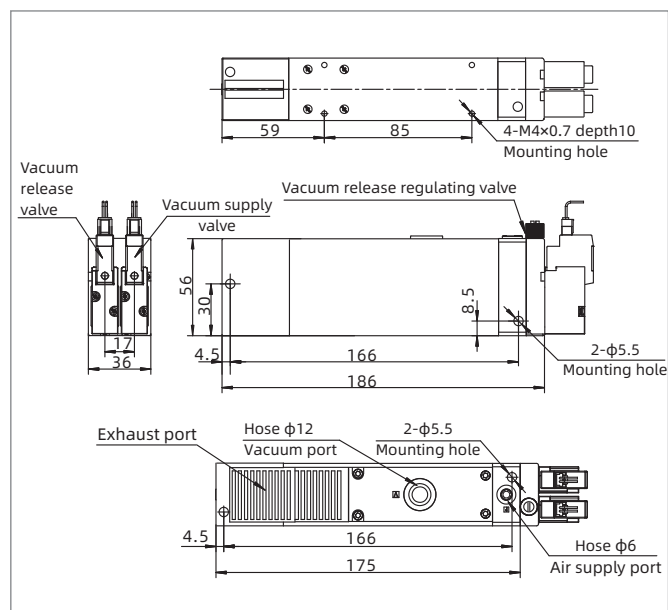


Technical parameters- Control valve

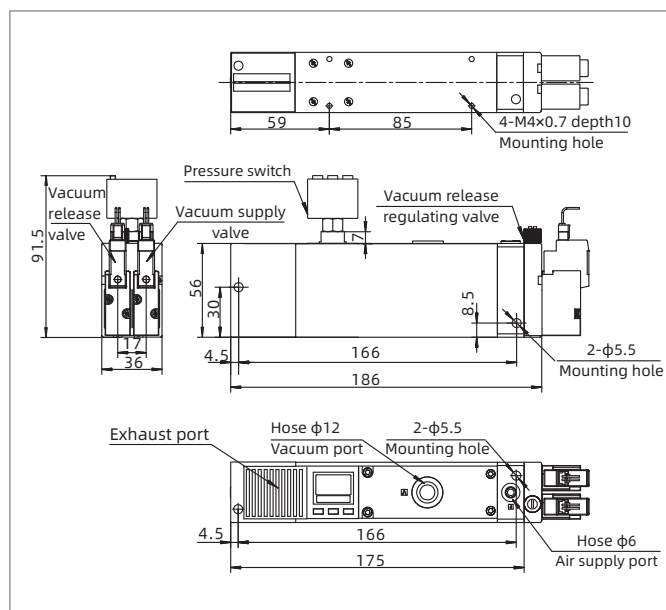
Type of valve actuation	Internal pilot type NC (normally closed)
Operating pressure range	2.0~5.0bar
Rated voltage	24V
Ambient and fluid temperature	5~50°C
Response time(at 0.5Mpa)	25ms below
Max. operating frequency	5Hz
Manual operation	Slotted locking type

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



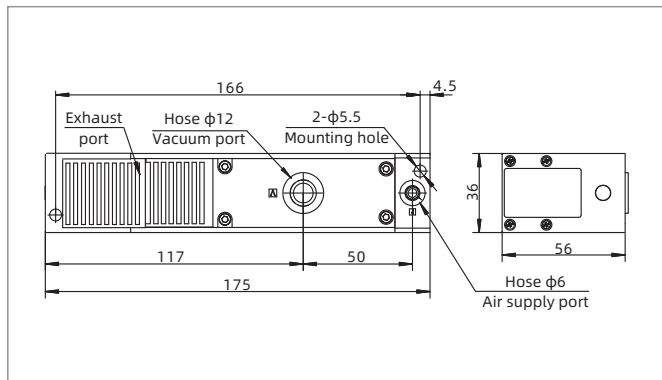
AZL112-A-DCN AZL112-A-DCP

AZL Series

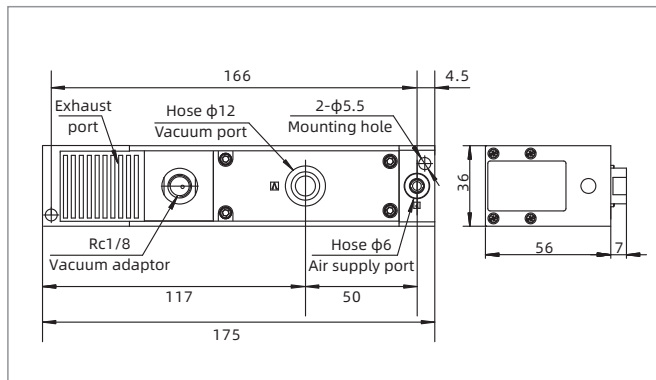
Multistage Vacuum Generator



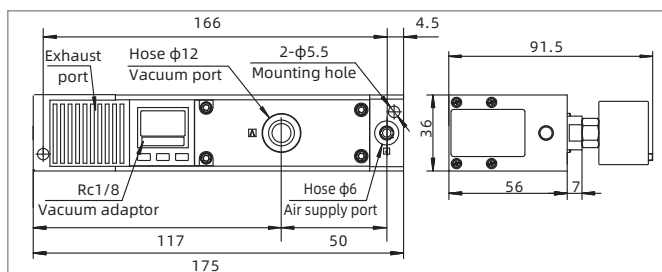
Dimensions(mm)



AZL112

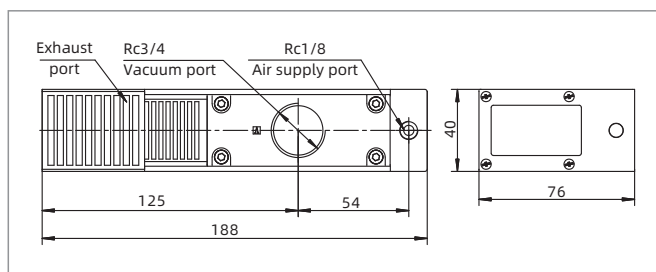


AZL112-NP

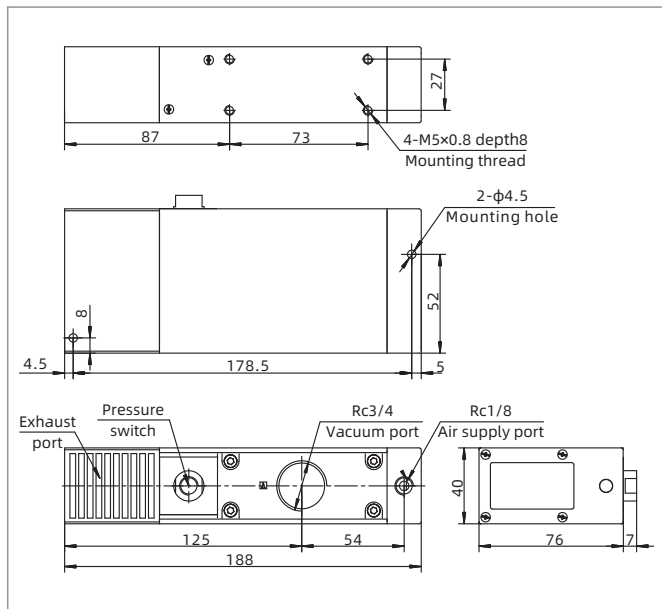


AZL112-DCN

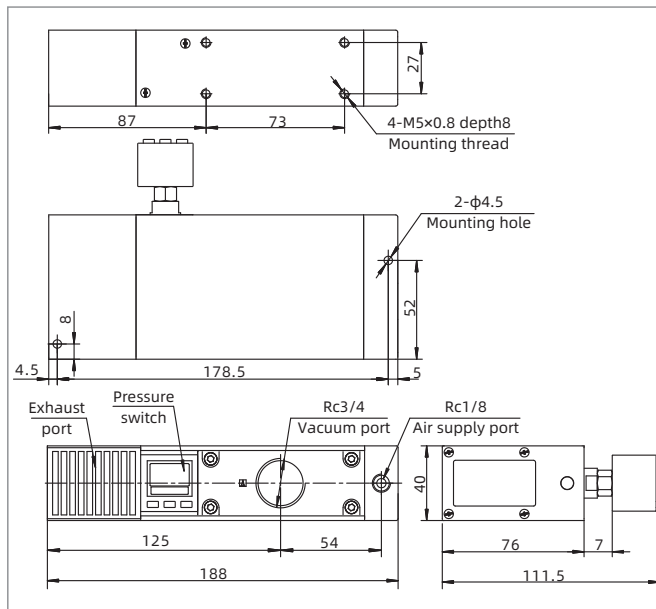
AZL112-DCP



AZL212



AZL212-NP



AZL212-DCN

AZL212-DCP

ALH Series

Mini Vacuum Generator



UNIVERSAL

Features

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

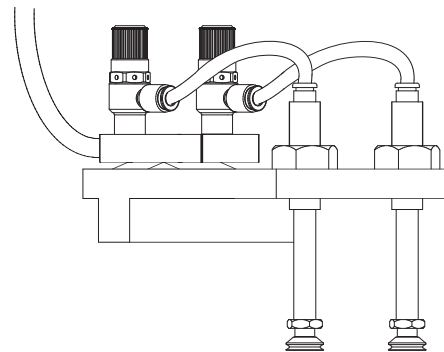
Advantage

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



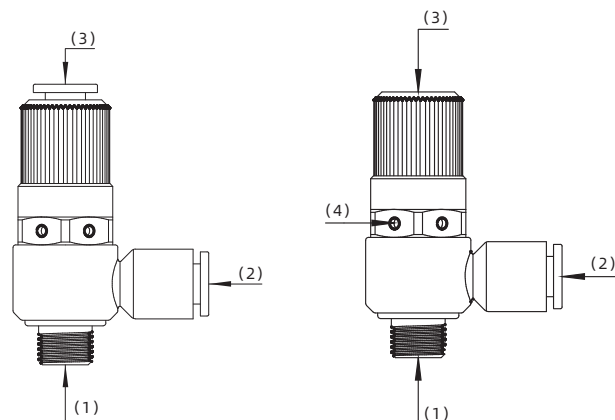
Application

- ◇ Suitable for handling electronic components and other small workpieces



Structure

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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

ALH Series

Mini Vacuum Generator

How to order

ALH 07 E - A6 - J
 ① ② ③ ④ ⑤

① Series	② 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

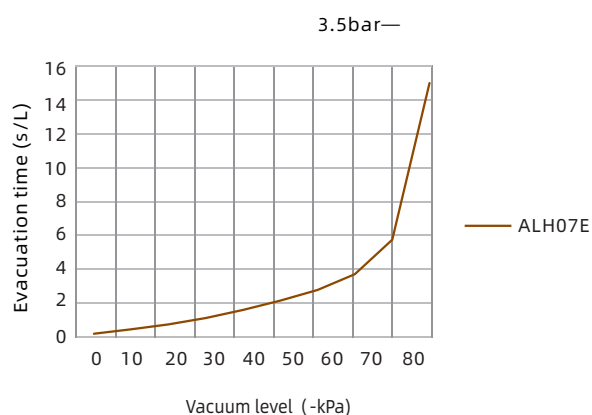
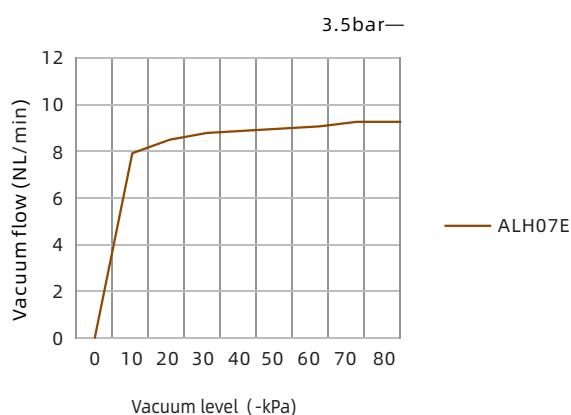
Model	Rated air supply pressure bar	Air supply pressure range bar	Max. vacuum level -kPa	Max. vacuum flow NL/min	Air consumption NL/min	Noise level dB(A)	Weight g
ALH07E-A6	3.5	3.0~6.0	90	9.5	20	70	37
ALH07E-A6-J	3.5	3.0~6.0	90	9.5	20	-	40

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)

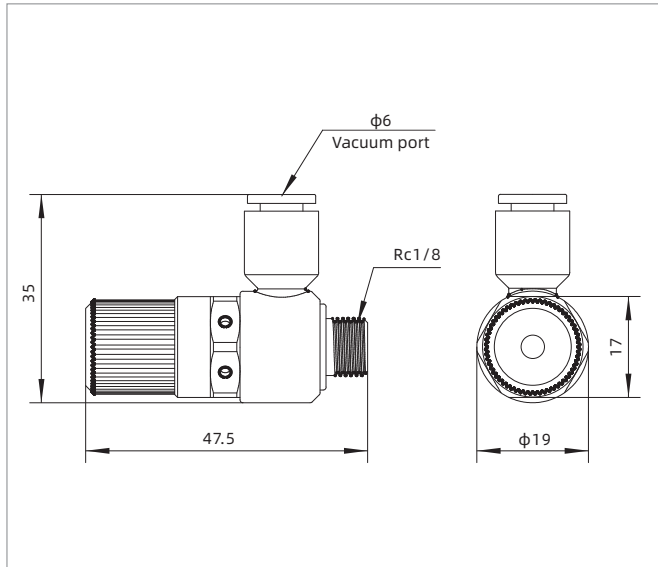
Model	0	10	20	30	40	50	60	70	80	Max. vacuum level -kPa
ALH07E	0	0.7	1.5	2.5	3.8	5.3	7	9.5	15	90



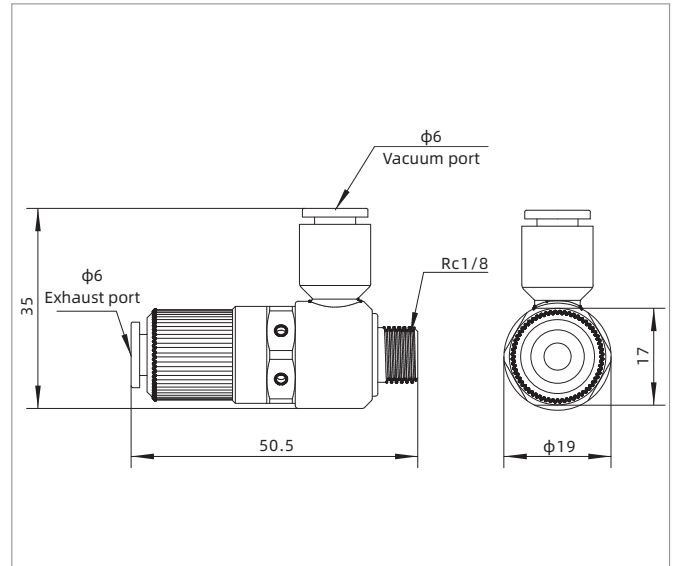
ALH Series

Mini Vacuum Generator

Dimensions (mm)



ALH07E-A6



ALH07E-A6-J

AZH Series

Basic Vacuum Generator

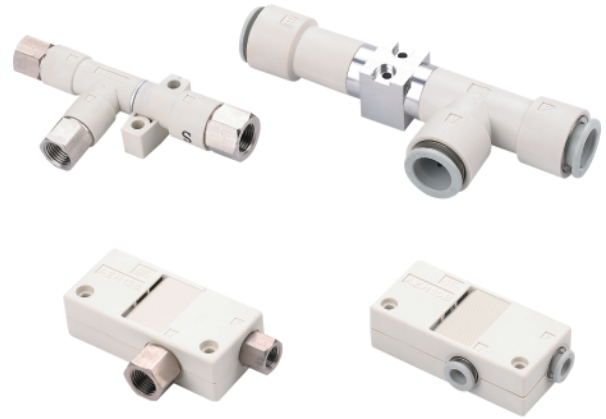


Features

- ◇ 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

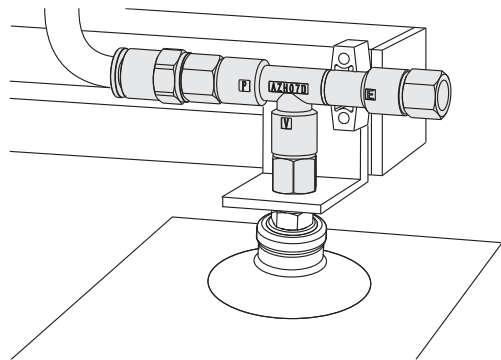
Advantages

- ◇ 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

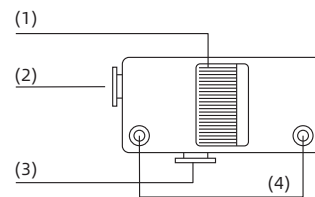
- ◇ Widely used in all kinds of vacuum systems
- ◇ Suitable for various handling operations such as automotive, metal sheet, wood, food and packaging, etc.
- ◇ High vacuum type and large flow type for different occasions



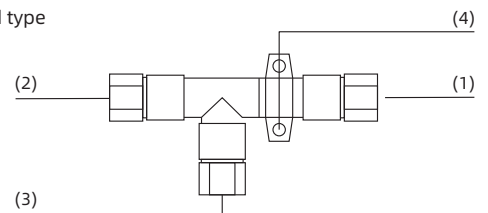
Structure

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

B - Box type



D - Body ported type



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 (-88kPa)	06 - φ6 One-touch fitting	06 - φ6 One-touch fitting	06 - φ6 One-touch fitting
	07 - φ0.7mm	D - Body ported type	L - Large vacuum flow type (-48kPa)	08 - φ8 One-touch fitting	10 - φ10 One-touch fitting	08 - φ8 One-touch fitting
	10 - φ1.0mm			10 - φ10 One-touch fitting	12 - φ12 One-touch fitting	10 - φ10 One-touch fitting
	13 - φ1.3mm			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

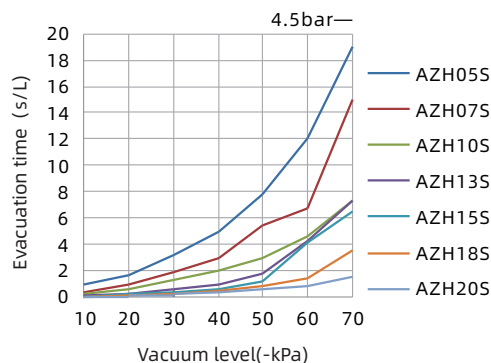
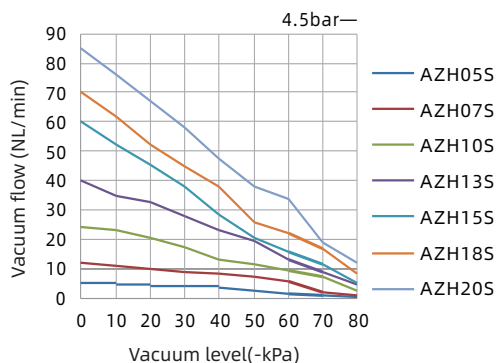
Model	Rated air supply pressure bar	Max. vacuum level -kPa		Max. vacuum flow NL/min		Air consumption NL/min	Noise level dB(A)	Working temperature °C	Weight g	Recommended hose dia.(mm)		
		S	L	S	L					Air supply port S	Vacuum port V	Exhaust port E
AZH05D	4.5	88	48	7.5	9	13.5	75	5~50	11	φ6	φ6	φ6
AZH07D	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	



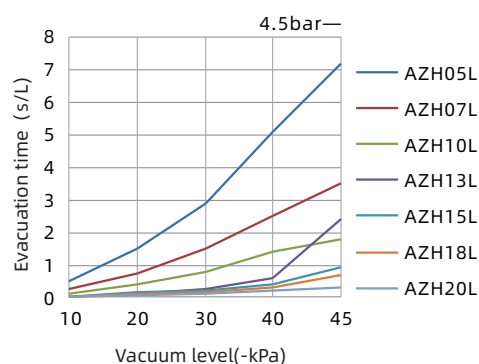
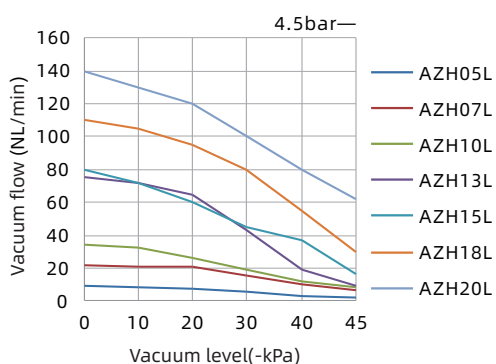
Vacuum flow(NL/min) at different vacuum levels(-kPa)

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

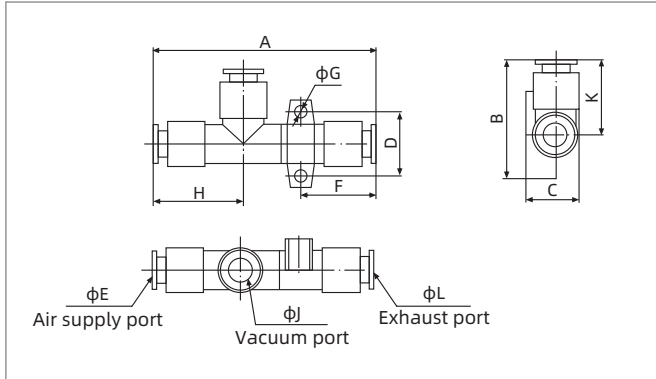
Technical parameters



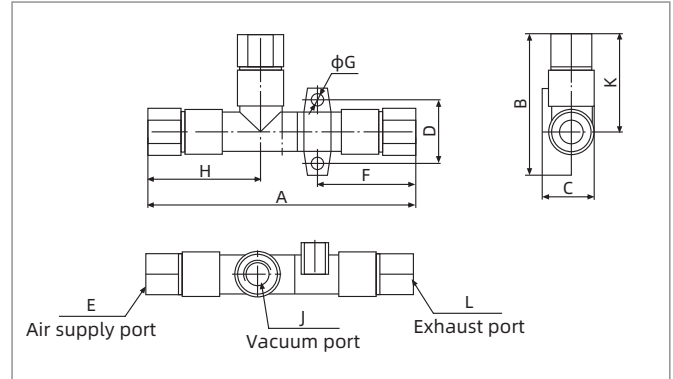
AZH Series

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)

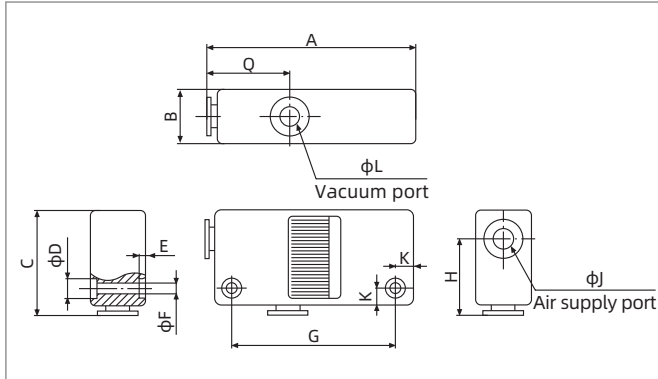
Model/Size	A	B	C	D	E	F	G	H	L	K	J
AZH05DS-01-01-01	73.5	41.5	14.2	17.0	Rc1/8	28.5	3.2	31.5	Rc1/8	29.5	Rc1/8
AZH07DS-01-01-01	76.0	41.5	14.2	17.0	Rc1/8	29.5	3.2	31.5	Rc1/8	29.5	Rc1/8
AZH10DS-01-01-01	82.0	44.5	17.2	20.0	Rc1/8	33.0	4.2	33.5	Rc1/8	30.5	Rc1/8
AZH10DL-01-01-01	86.0	44.5	17.2	20.0	Rc1/8	33.0	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)

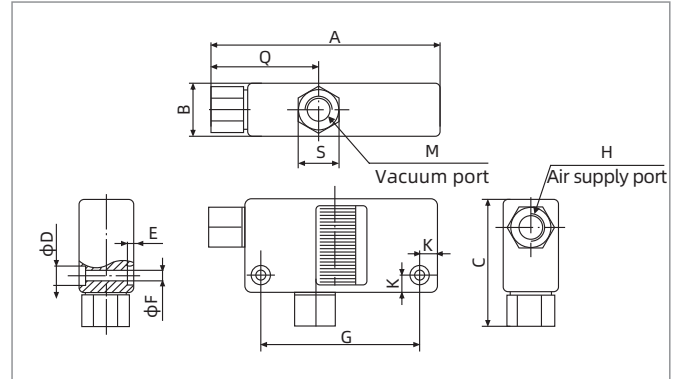
AZH Series

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

AIRBEST



ELECTRONICS



Features

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

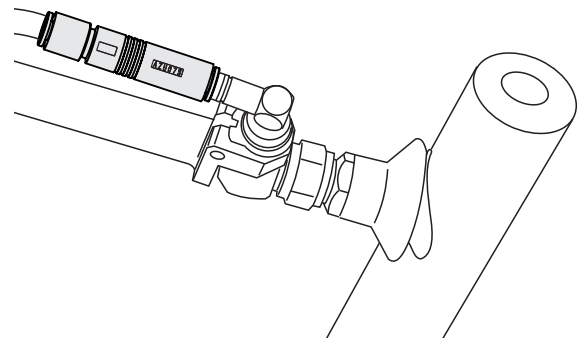
Advantages

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



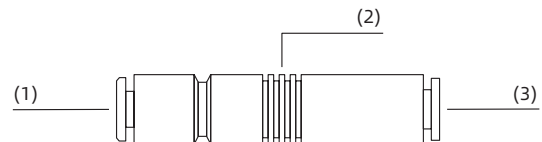
Applications

- ◇ 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



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)

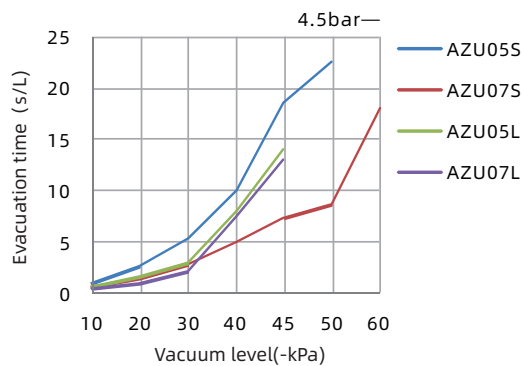
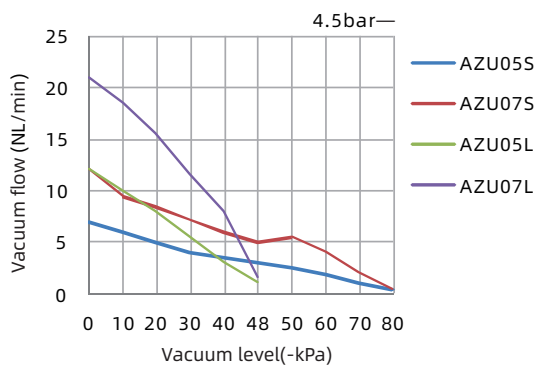
Model	Air supply pressure bar	Air consumption NL/min	Vacuum level (-kPa)											Max. vacuum level -kPa
			0	10	20	30	40	48	50	60	70	80		
AZU05S	4.5	9	7.0	6.0	5.0	4.0	3.5	-	2.5	1.8	1.0	0.4	85	
AZU07S	4.5	19	12.0	9.5	8.5	7.2	6.0	-	5.5	4.0	2.0	0.4	85	
AZU05L	4.5	9	12.0	10.0	8.0	5.5	3.0	1.0	-	-	-	-	48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

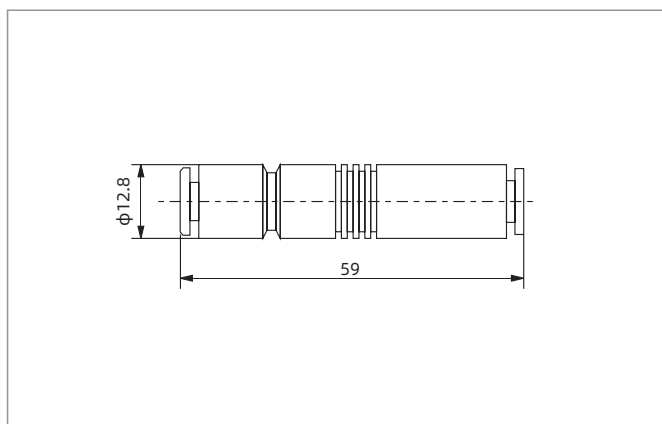
Model	Air supply pressure bar	Air consumption NL/min	Vacuum level (-kPa)								Max. vacuum level -kPa
			10	20	30	40	45	50	60		
AZU05S	4.5	9	0.90	2.6	5.2	10.0	-	22.5	-	85	
AZU07S	4.5	19	0.53	1.4	2.7	5.0	-	8.7	18	85	
AZU05L	4.5	9	0.60	1.5	2.9	8.0	14.0	-	-	48	
AZU07L	4.5	19	0.34	0.9	2.0	7.5	13.0	-	-	48	

AZU Series

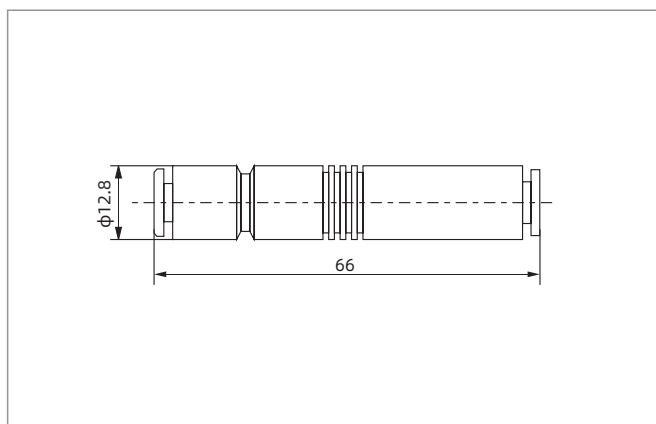
Basic Vacuum Generator



Dimensions(mm)



AZU05



AZU07

ACV Series

Basic Vacuum Generator

AIRBEST



UNIVERSAL



Features

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

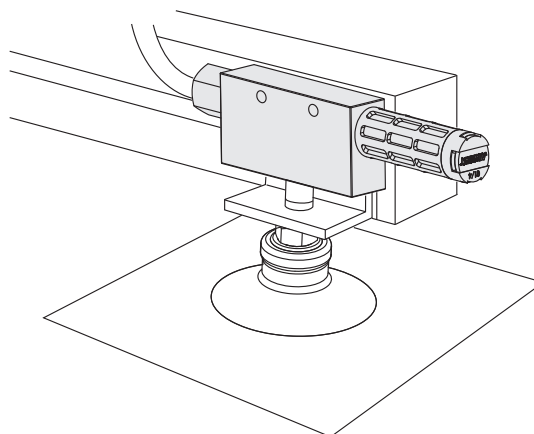


Advantages

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

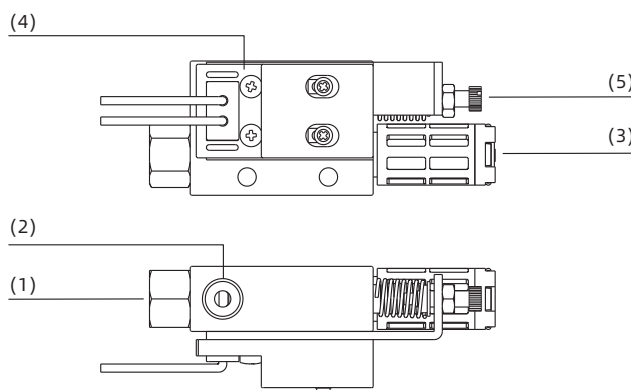
Applications

- ◇ 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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

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

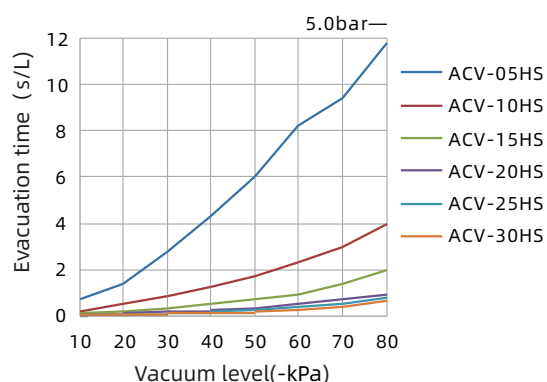
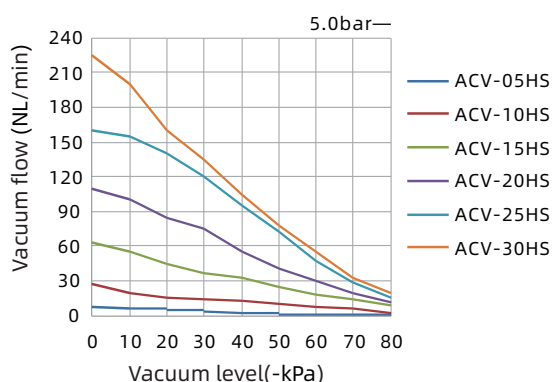
Model	Rated air supply pressure bar	Max. vacuum level -kPa	Max. vacuum flow NL/min	Air consumption NL/min	Noise level dB(A)	Working temperature °C	Weight(g)		Recommended hose dia.(mm)	
							Without switch	CK	Air supply port (P)	Vacuum port (V)
ACV-05HS	5.0	87	7	13	68	0~60	80	120	ϕ 8	ϕ 8
ACV-10HS	5.0	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

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)

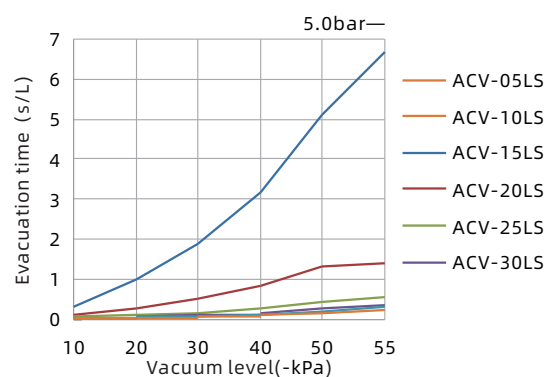
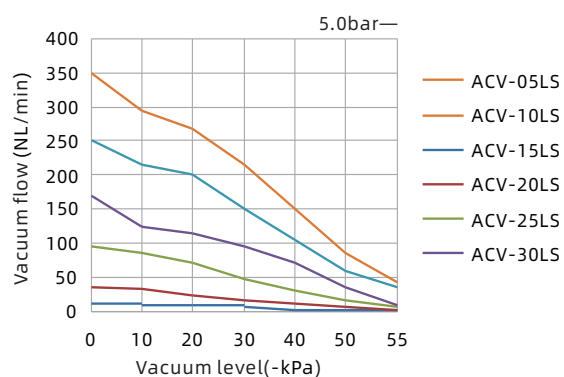
Model	Air supply pressure bar	Air consumption NL/min	0	10	20	30	40	50	55	Max. vacuum level -kPa
ACV-05LS	5.0	13	10.0	9.0	8.0	6.5	2.5	1.8	0.7	57
ACV-10LS	5.0	44	36.0	31.5	23.5	16.5	10.0	6.5	2.5	57
ACV-15LS	5.0	100	95.0	85.0	70.0	47.5	30.5	15.5	5.5	57
ACV-20LS	5.0	180	170.0	125.0	115.0	95.0	70.0	35.5	7.5	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)

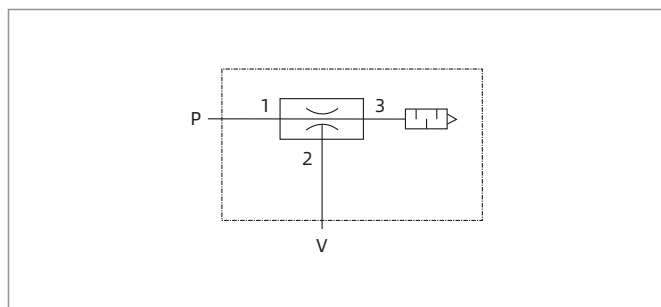
Model	Air supply pressure bar	Air consumption NL/min	10	20	30	40	50	55	Max. vacuum level -kPa
ACV-05LS	5.0	13	0.31	0.98	1.89	3.17	5.12	6.70	57
ACV-10LS	5.0	44	0.12	0.28	0.51	0.83	1.32	1.40	57
ACV-15LS	5.0	100	0.45	0.10	0.15	0.26	0.42	0.56	57
ACV-20LS	5.0	180	0.03	0.06	0.11	0.14	0.25	0.34	57
ACV-25LS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



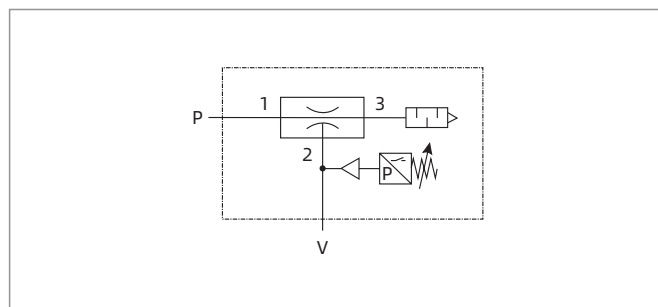
Technical parameters-Pressure switch

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

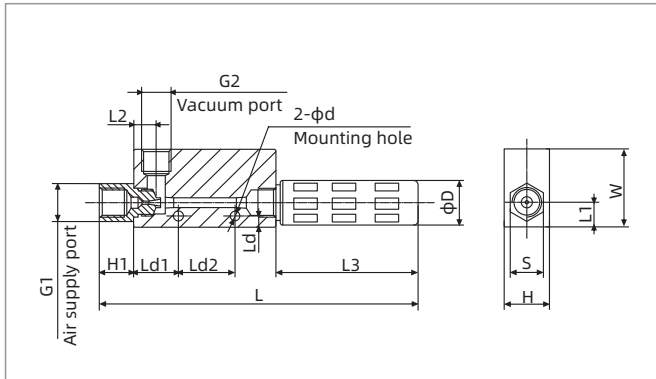


ACV - CK With pressure switch

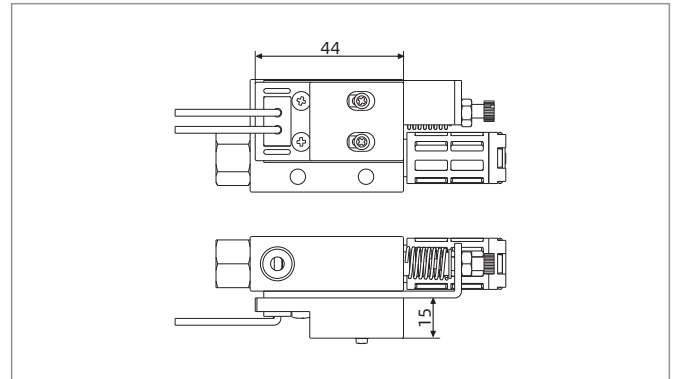
ACV Series

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	Rp3/8	17	20	27	Rp1/2	16	6.0	5.5	20	50	40	119
ACV-30	257	40	60	Rp1/2	20	20	30	Rp3/4	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

SZ Series

Standard Suction Cup

AIRBEST



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



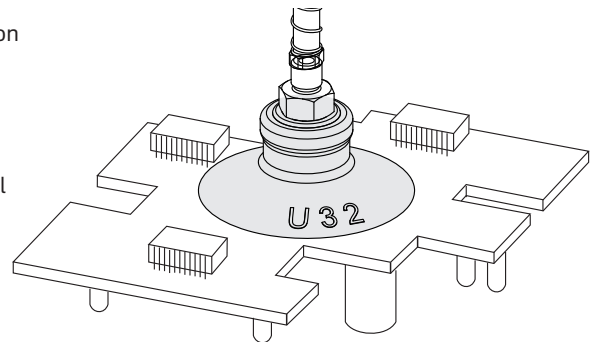
U-Flat type



C-Flat type with ribs

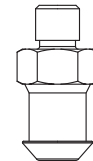
Applications

- ◇ 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

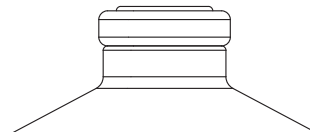


Structure

- ◇ Split structure for easy replacement of wearing parts



Fitting for suction cup



Suction cup

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 Series

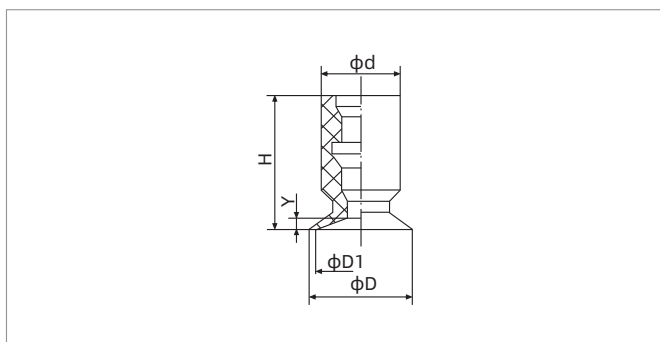
Standard Suction Cup

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

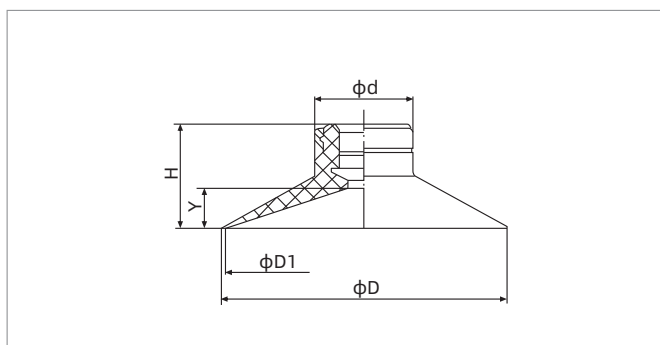
◇ Note: Testing vacuum level -60kPa, workpiece with smooth and clean surface. The data of pull-out force as above are figured out without considering safety factor. The data may be different according to different workpiece surfaces. Recommend the length of vacuum hose to be as short as possible, max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



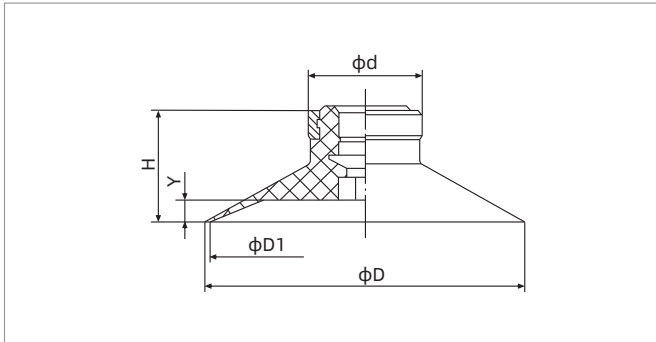
SZU10-50

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

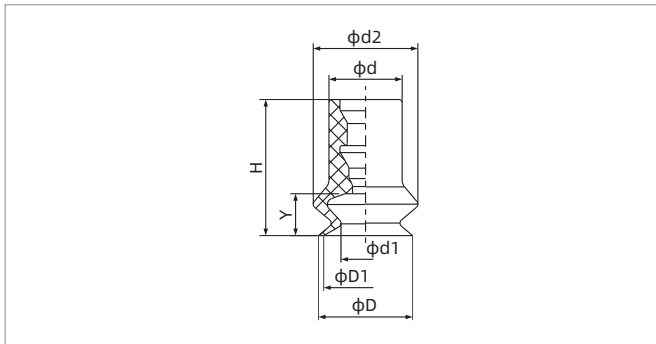
SZ Series

Standard Suction Cup

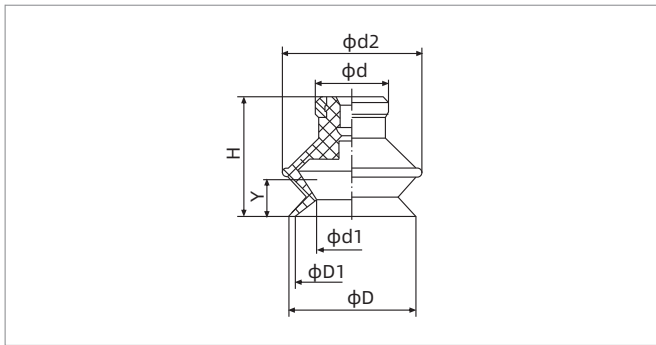
Dimensions(mm)



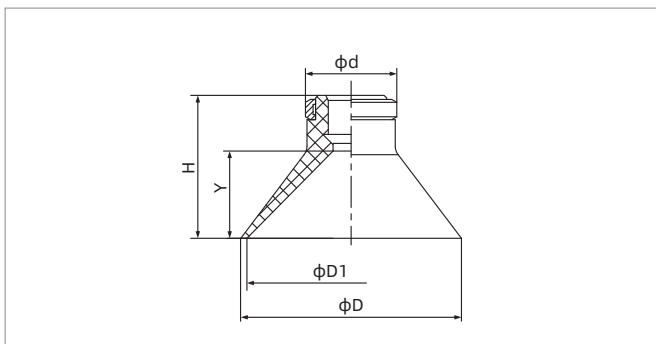
SZC10-50



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	Weight g
SZB6□	7	6	13	7	3.3	9.1	4	0.4
SZB8□	9	8	13	7	4.7	10.1	4	0.4

Model/Size	D	D1	H	d	d1	d2	Y	Weight g
SZB10□	12	10	16	13	5.5	13.8	4	1.1
SZB13□	15	13	18.5	13	8.7	19	4	1.7
SZB16□	18	16	20	13	9.9	21	4	2.1
SZB20□	22	20	23.5	15	12.4	25	4	2.9
SZB25□	27	25	24	15	15.6	28	4	3.9
SZB32□	34	32	29	15	18.9	37	4	6.7
SZB40□	43	40	34	18	24.4	48	4	13.3
SZB50□	53	50	38	18	32.4	57	4	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

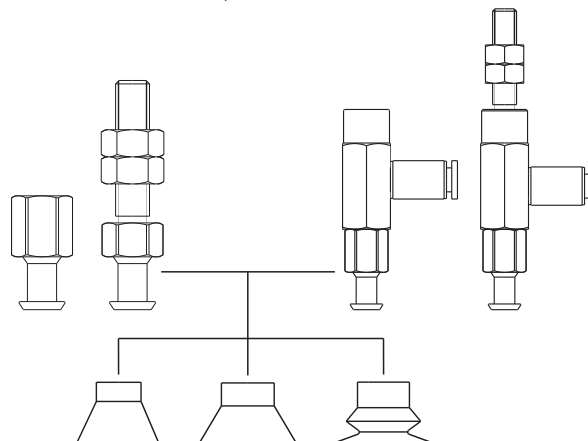
SZ Series

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 64 for suction cup selection

Selection

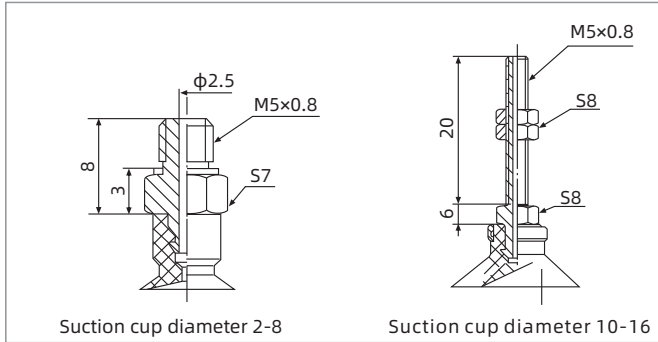
Diameter of suction cup	Vacuum port direction			Mounting thread				
	Nil	LA4	LA6	M5M	M6M	M8M	M5F	M8F
2-8	●	●	●	●	-	-	●	-
10-16	●	●	●	●	-	-	●	-
20-32	●	●	●	-	●	-	●	-
40-50	●	-	●	-	-	●	-	●

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

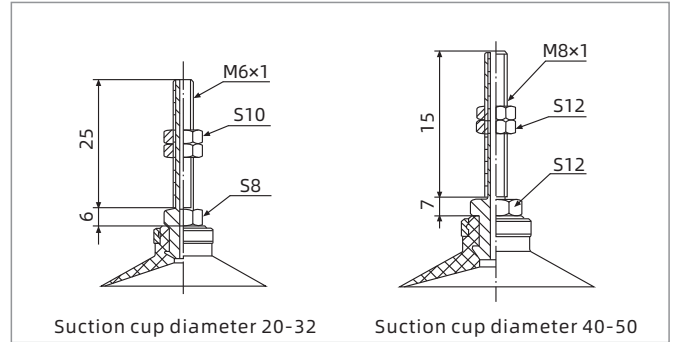
SZ Series

Suction Cup with Locking Fitting

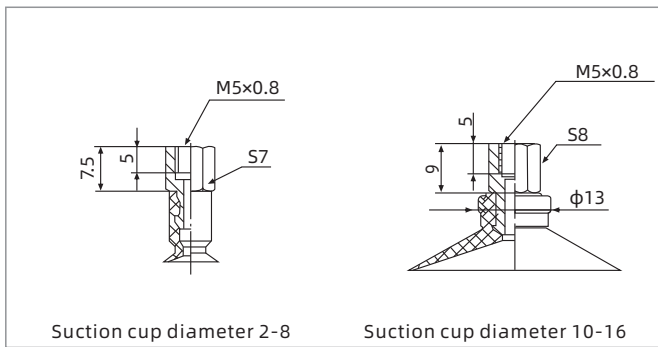
Dimensions(mm)



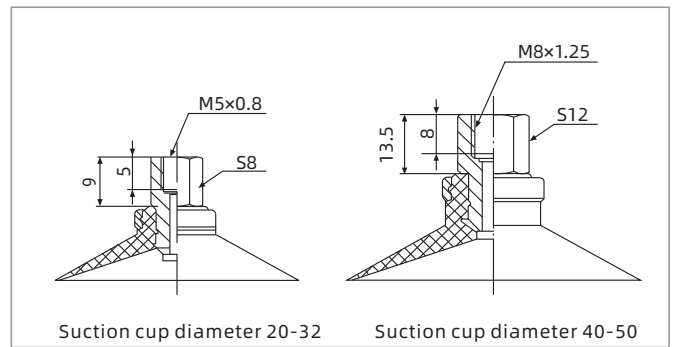
Vertical-Male thread connection



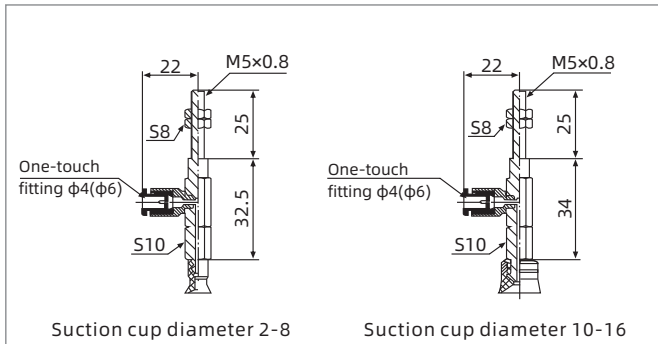
Vertical-Male thread connection



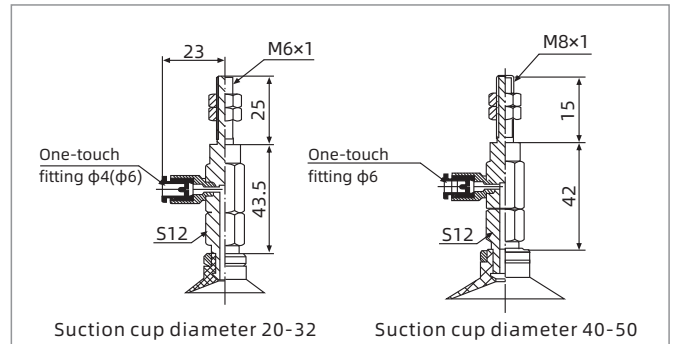
Vertical-Female thread connection



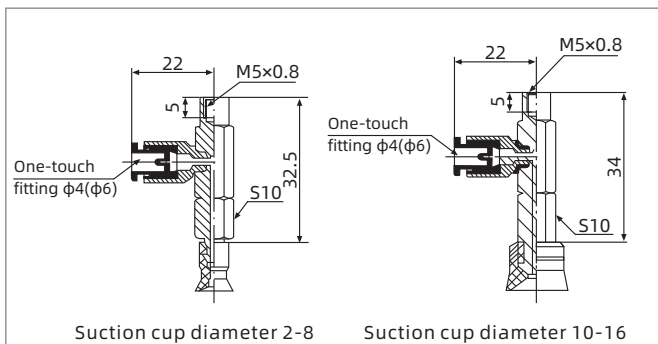
Vertical-Female thread connection



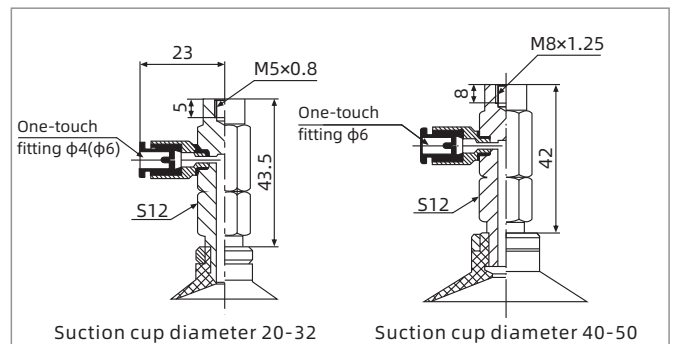
Lateral-Male thread connection



Lateral-Male thread connection



Lateral-Female thread connection



Lateral-Female thread connection

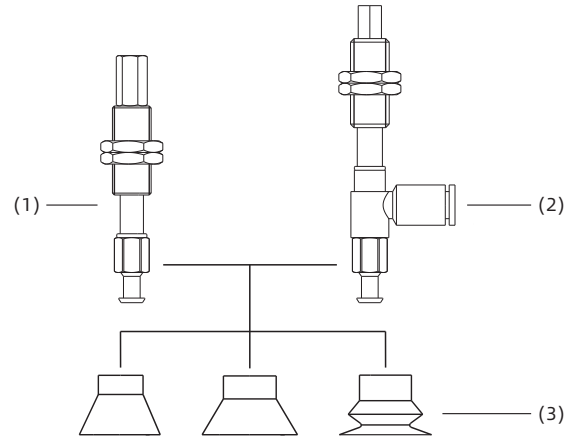
SZ Series

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 64 for suction cup selection

Selection

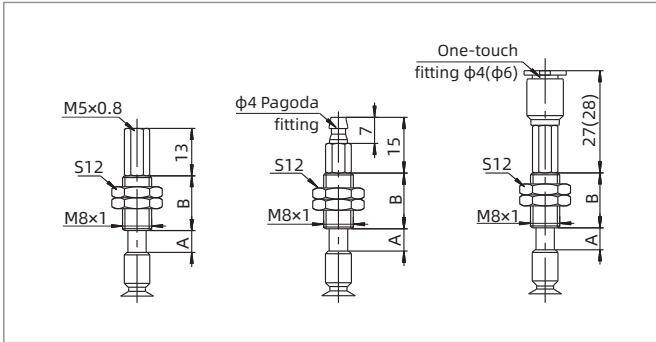
Diameter of suction cup	Buffer stroke	Rotary type				Vacuum port connection					Mounting thread
		Nil	R	L	B	Nil	A4	A6	B4	B6	
2-8	6, 10, 15, 25	●	●	●	●	●	●	●	●	-	M8
10-32	10, 20, 30, 40, 50	●	●	●	●	●	●	●	-	●	M10
40-50	10, 20, 30, 50	●	-	-	-	●	-	-	-	-	M14

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

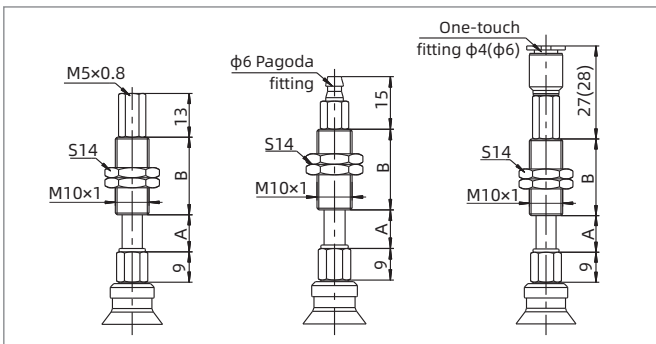
SZ Series

Suction Cup with Level Compensator

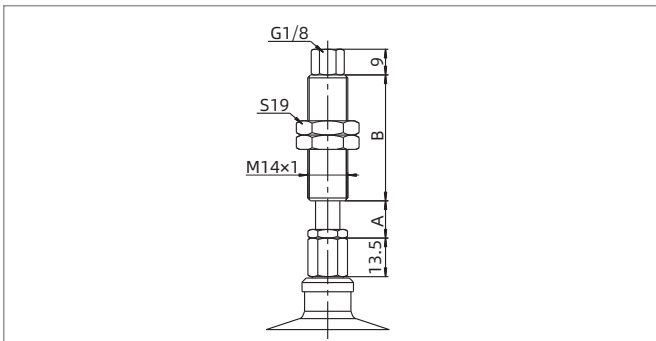
Dimensions(mm)



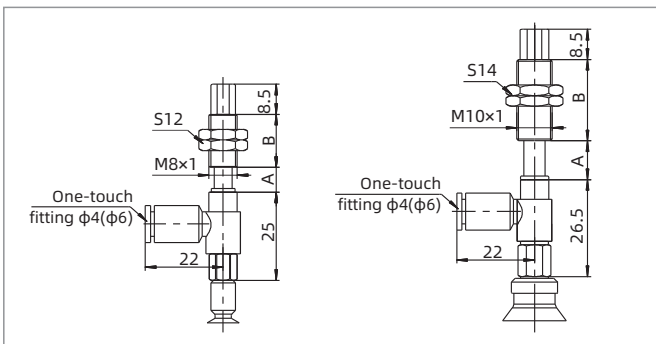
Vertical direction Suction cup diameter 2-8



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

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

SP3 Series

Suction Cup



ELECTRONICS



Features

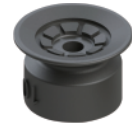
- ◇ Suction cups of same diameter among U/C/B types use same fitting
- ◇ Small size, short height
- ◇ Available in conductive material

Advantages

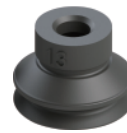
- ◇ Used in various occasions, suction cups are interchangeable
- ◇ Suitable for occasions with limited space
- ◇ Discharge static electricity gently to protect workpieces from damage



U-Flat



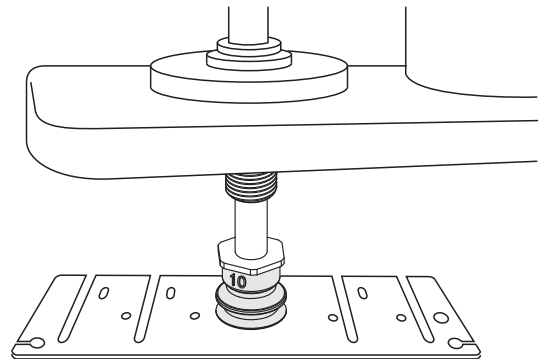
C-Flat with ribs



B-1.5 bellows

Applications

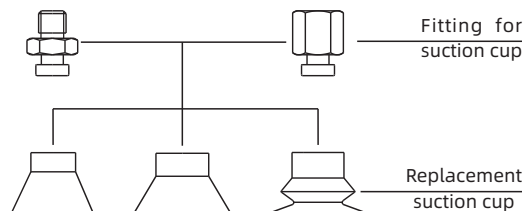
- ◇ U type suitable for workpieces with even surface and without deformation
- ◇ C type suitable for easily deformed workpieces
- ◇ B type suitable for workpieces with inclined surface
- ◇ Suitable for handling of workpieces with small size and light weight
- ◇ Conductive material suitable for 3C industry



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 \times 0.5 female thread
	B - 1.5 Bellows	10 - ϕ 10mm 6 - ϕ 6mm	CN - Conductive NBR 55	M5F - M5 \times 0.8 female thread
		13 - ϕ 13mm 8 - ϕ 8mm	CS - Conductive silicone 55	M3M - M3 \times 0.5 male thread
		16 - ϕ 16mm	HP - Mark free rubber 55	M5M - M5 \times 0.8 male thread

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

Selection

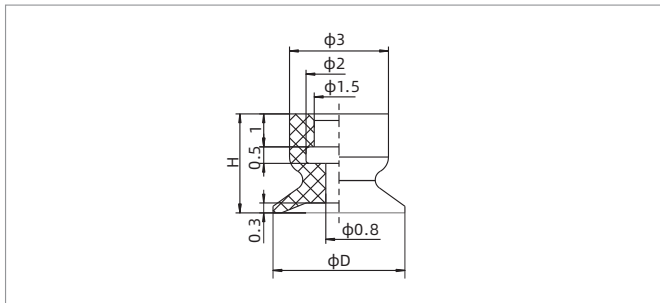
Diameter of suction cup	Suction cup type			Connection thread				MPQ pcs
	U	C	B	M3F	M3M	M5F	M5M	
ϕ 1.5	●	-	-	●	●	-	-	10
ϕ 2	●	-	-	●	●	-	-	10
ϕ 3.5	●	-	-	●	●	-	-	10
ϕ 4	-	●	●	-	-	●	●	10
ϕ 6	-	●	●	-	-	●	●	10
ϕ 8	-	●	●	-	-	●	●	10
ϕ 10	-	●	●	-	-	●	●	10
ϕ 13	-	●	●	-	-	●	●	10
ϕ 16	-	●	●	-	-	●	●	10

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

SP3 Series

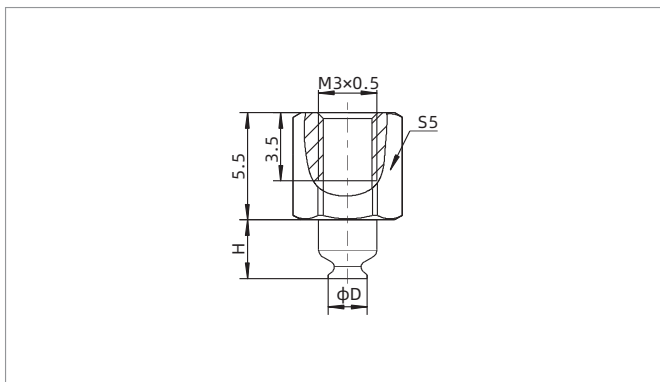
Suction Cup

Dimensions(mm) - U type



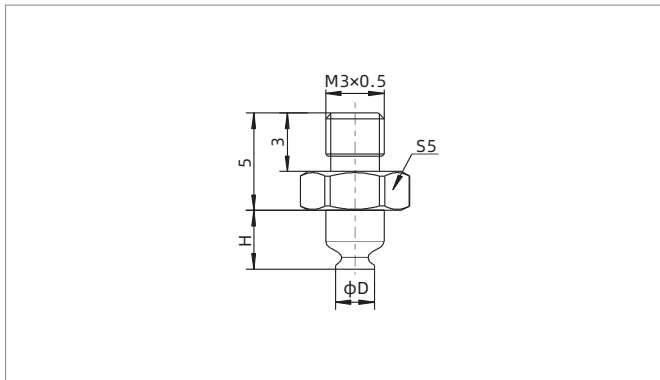
SP3U1.5-3.5

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



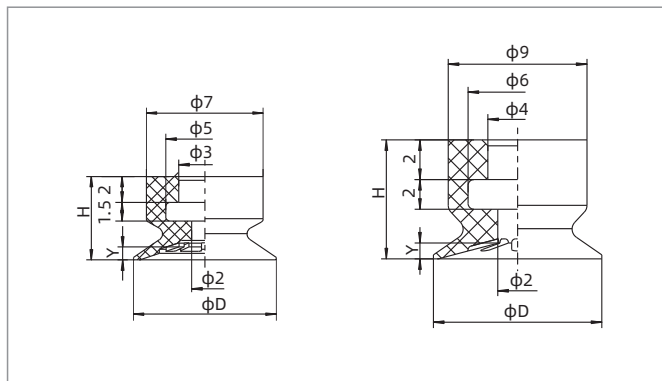
SP3U1.5-3.5 M - Male thread connection

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

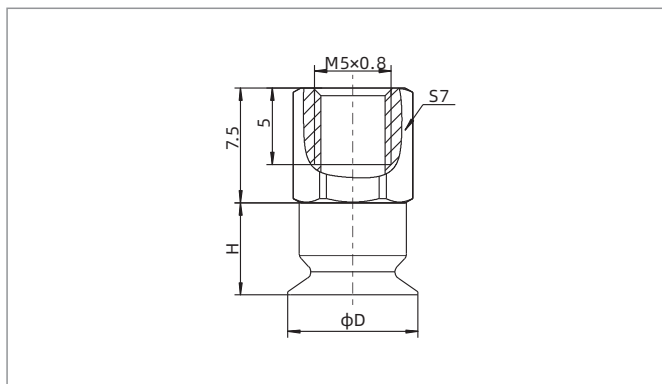
Dimensions(mm) - C type



SP3C4-8

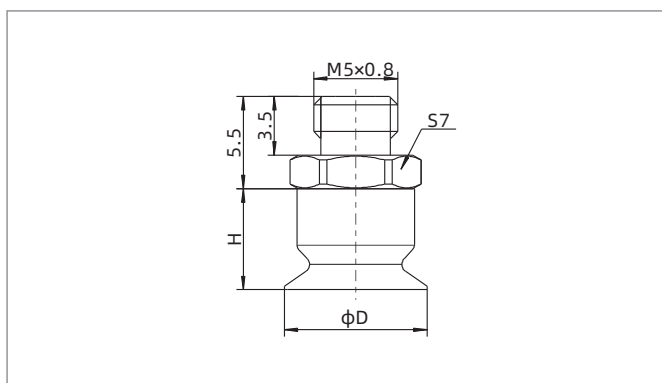
SP3C10-16

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



SP3C4-16 F - Female thread connection

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



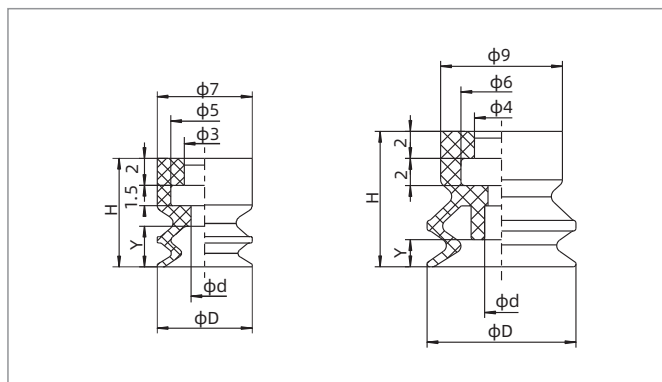
SP3C4-16 M - Male thread connection

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

SP3 Series

Suction Cup

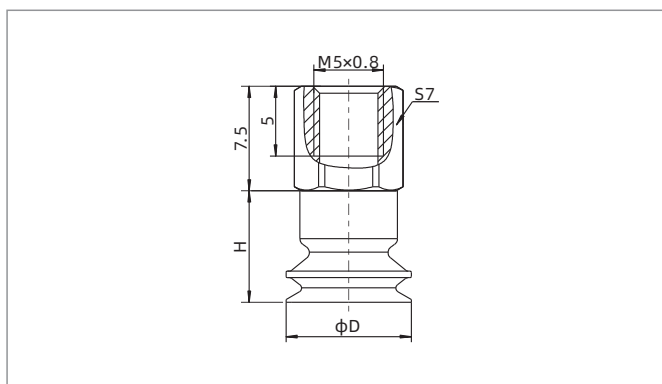
Dimensions(mm) - B type



SP3B4-8

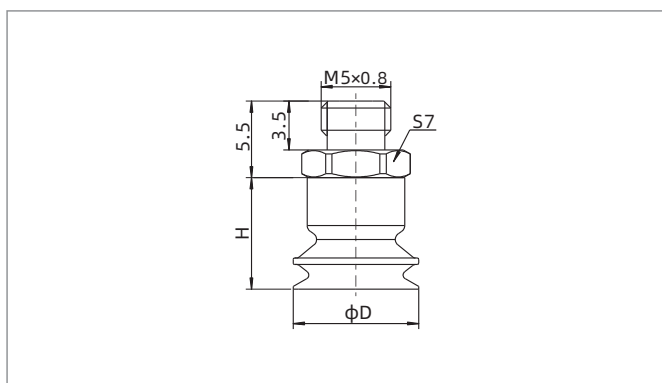
SP3B10-16

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	Weight g
SP3B4□-M5F	4.5	8.0	2.3
SP3B6□-M5F	7.0	8.0	2.3
SP3B8□-M5F	9.0	8.0	2.4
SP3B10□-M5F	11.0	10.0	5.9
SP3B13□-M5F	14.0	10.0	6.1
SP3B16□-M5F	17.0	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	Weight g
SP3B4□-M5M	4.5	8.0	1.7
SP3B6□-M5M	7.0	8.0	1.7
SP3B8□-M5M	9.0	8.0	1.8
SP3B10□-M5M	11.0	10.0	3.2
SP3B13□-M5M	14.0	10.0	3.4
SP3B16□-M5M	17.0	10.0	3.5

Mounting parts

Item	Model		Applicable suction cup
	Female thread	Male thread	
Fitting for suction cup	PJS-M3F-ST0.5	PJS-M3M-ST0.5	SP3U1.5, 2, 3.5
	PJS-M5F-ST1.5	PJS-M5M-ST1.5	SP3C4, 6, 8; SP3B4, 6, 8
	PJS-M5F-ST2	PJS-M5M-ST2-A	SP3C10, 13, 16; SP3B10, 13, 16

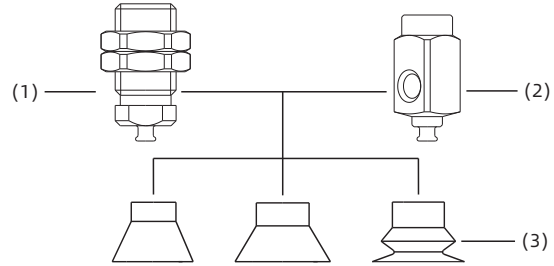
SP3 Series

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 72 for suction cup selection

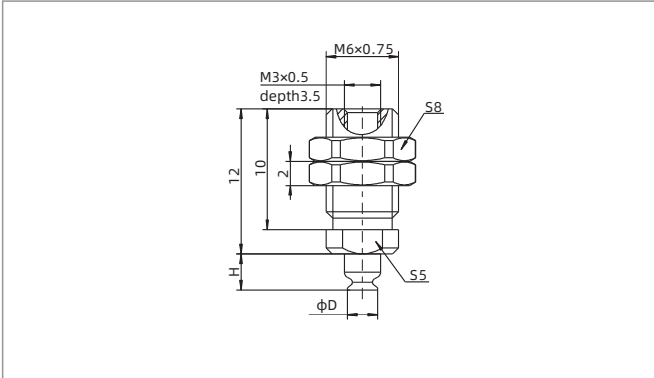
Selection

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

SP3 Series

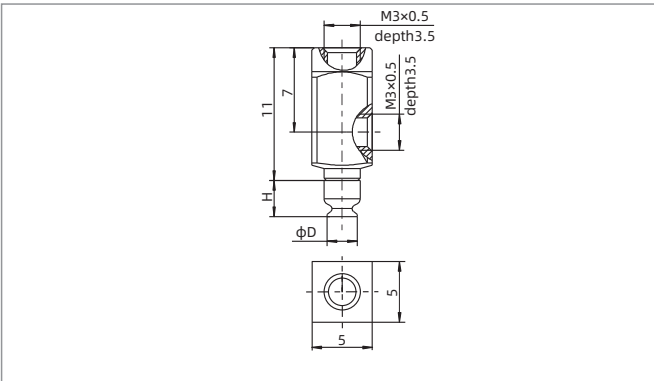
Suction Cup with Locking Fitting

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



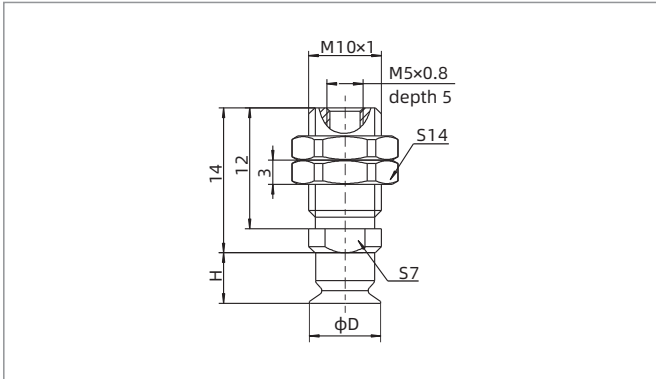
SP3U1.5-3.5 Lateral-Female thread connection

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

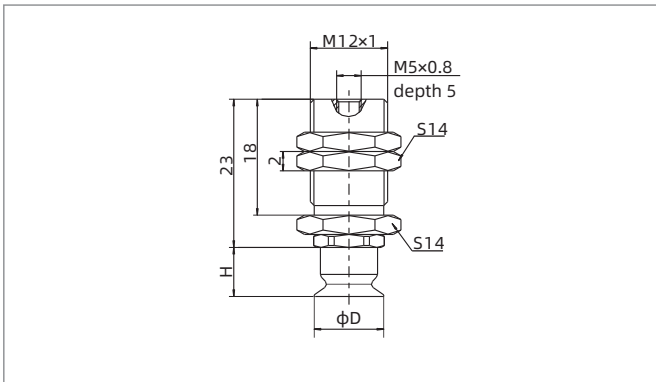
SP3 Series

Suction Cup with Locking Fitting

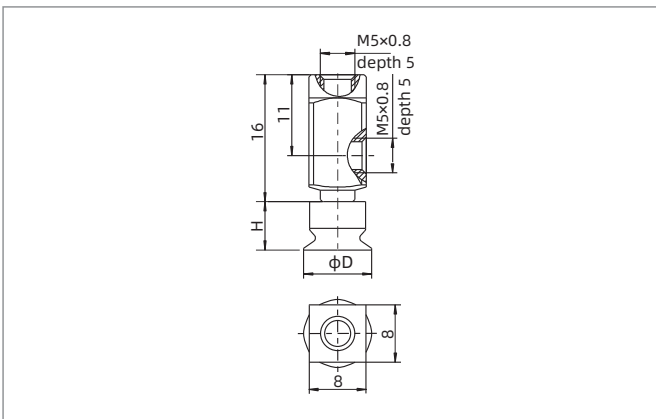
Dimensions(mm) - C type



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

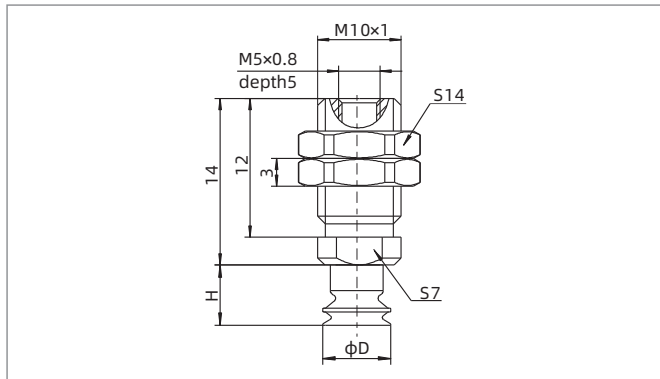
Model/Size	D	H	Weight g
SP3C4□-LM5F-M5F	4.5	6.0	7.0
SP3C6□-LM5F-M5F	6.5	6.0	7.0
SP3C8□-LM5F-M5F	8.5	6.0	7.0
SP3C10□-LM5F-M5F	11.0	7.0	7.7
SP3C13□-LM5F-M5F	14.0	7.0	7.8
SP3C16□-LM5F-M5F	17.0	7.0	7.9

SP3 Series

Suction Cup with Locking Fitting

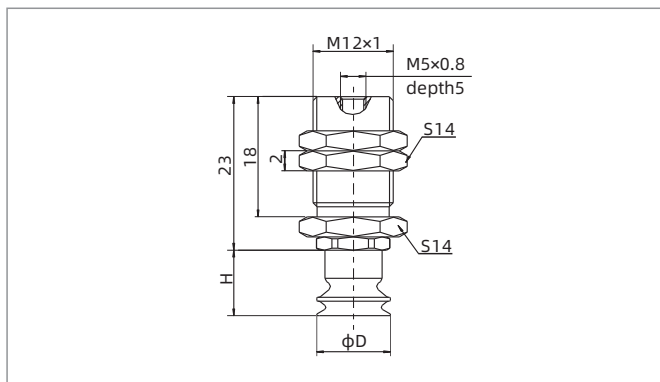


Dimensions(mm) -B type



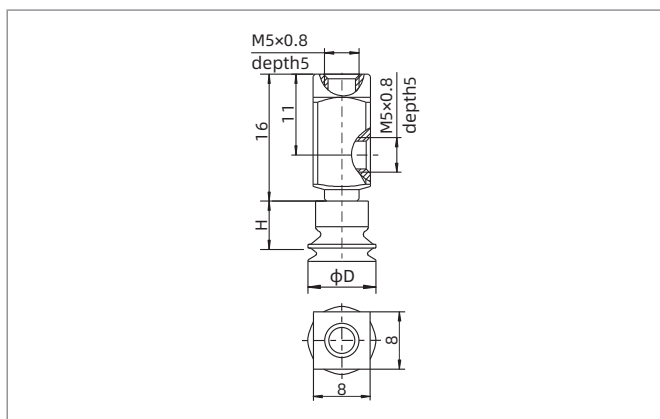
SP3B□□-M5F-M10M

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

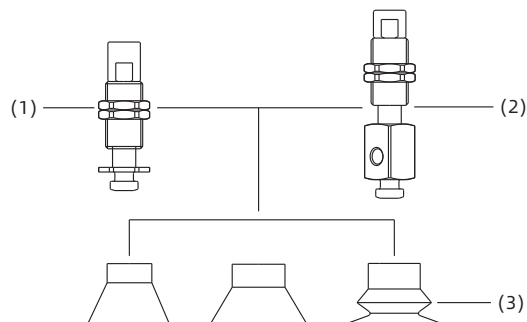
SP3 Series

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 72 for suction cup selection

Selection

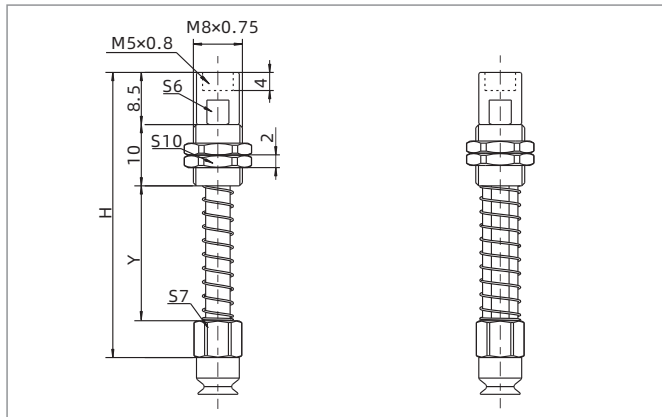
Model	Vacuum port direction		Rotary type		Buffer stroke	Mounting thread
	I-Vertical	L-Lateral	Nil-Rotating	R-Non-rotating		
SP3U1.5-3.5	●	●	●	-	3 6	M6
SP3U1.5-3.5	●	●	-	●	3 6	M8
SP3C4-16	●	●	●	●	3 6 10 15 20	M8
SP3B4-16	●	●	●	●	3 6 10 15 20	M8

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

SP3 Series

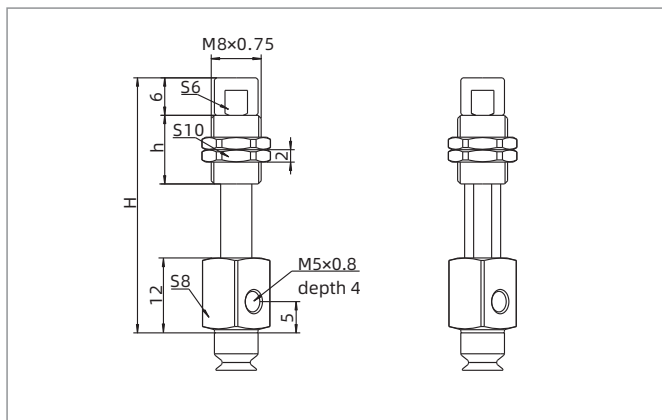
Suction Cup with Level Compensator

Dimensions(mm) -C type



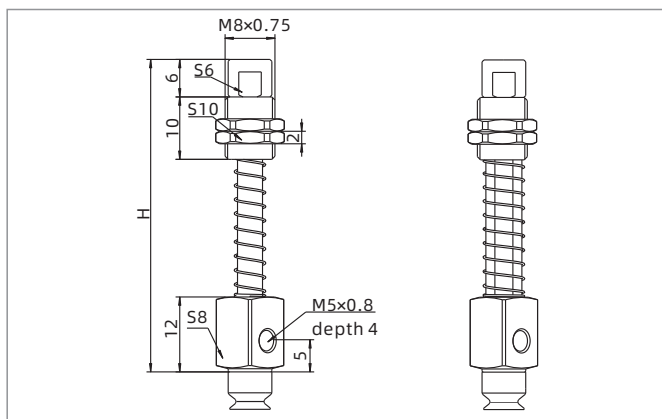
SP3C4-16 Vertical rotating

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	Weight g
SP3C□-I15-M8	49.0	24.5	15	0.2	0.5	10.3
SP3C□-I15R-M8	49.0	24.5	15	0.2	0.5	12.3
SP3C□-I20-M8	56.5	32.0	20	0.2	0.5	10.9
SP3C□-I20R-M8	56.5	32.0	20	0.2	0.5	13.4

Model/Size	H	h	Buffer stroke	F1 N	F2 N	Weight g
SP3C□-L3-M8	33.0	11.0	3	0.2	0.5	12.8
SP3C□-L3R-M8	33.0	11.0	3	0.2	0.5	12.2
SP3C□-L6-M8	39.5	14.5	6	0.2	0.5	14.2
SP3C□-L6R-M8	39.5	14.5	6	0.2	0.5	13.4
SP3C□-L10-M8	49.5	20.5	10	0.2	0.5	16.6
SP3C□-L10R-M8	49.5	20.5	10	0.2	0.5	15.4

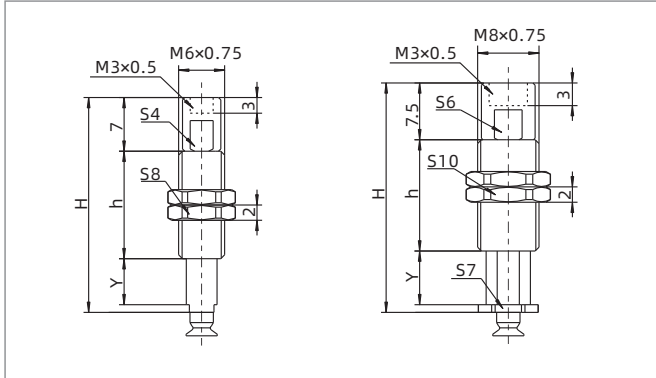
Model/Size	H	Buffer stroke	F1 N	F2 N	Weight g
SP3C□-L15-M8	52.5	15	0.2	0.5	16.3
SP3C□-L15R-M8	52.5	15	0.2	0.5	15.5
SP3C□-L20-M8	60.0	20	0.2	0.5	15.1
SP3C□-L20R-M8	60.0	20	0.2	0.5	16.6

◇ Note: 1. Please refer to page 163 for suction cup selection
 2. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

SP3 Series

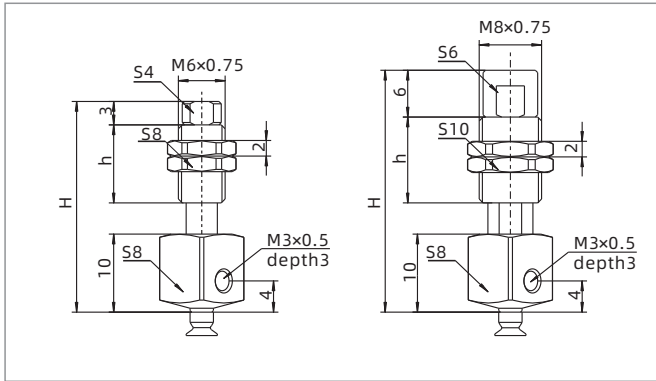
Suction Cup with Level Compensator

Dimensions(mm) -U type



SP3U1.5-3.5 Vertical rotating

SP3U1.5-3.5 Vertical non-rotating



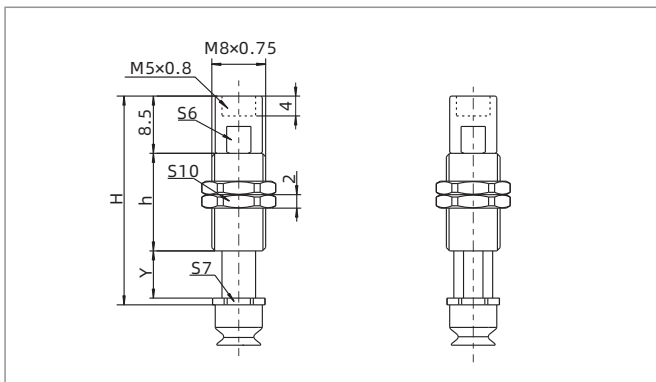
SP3U1.5-3.5 Lateral rotating

SP3U1.5-3.5 Lateral non-rotating

Model/Size	H	h	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3U□-I3-M6	21.0	10.0	3.0	3	0.2	0.4	3.4
SP3U□-I3R-M8	23.5	11.0	3.0	6	0.2	0.5	6.8
SP3U□-I6-M6	28.0	14.0	6.0	3	0.2	0.5	4.4
SP3U□-I6R-M8	30.0	14.5	6.0	6	0.2	0.5	8.2

Model/Size	H	h	Buffer stroke	F1 N	F2 N	Weight g
SP3U□-L3-M6	27.0	10.0	3	0.2	0.4	7.7
SP3U□-L3R-M8	31.0	11.0	6	0.2	0.5	11.0
SP3U□-L6-M6	34.0	14.0	3	0.2	0.5	8.6
SP3U□-L6R-M8	37.5	14.5	6	0.2	0.5	12.2

Dimensions(mm) -C type



SP3C4-16 Vertical rotating

SP3C4-16 Vertical non-rotating

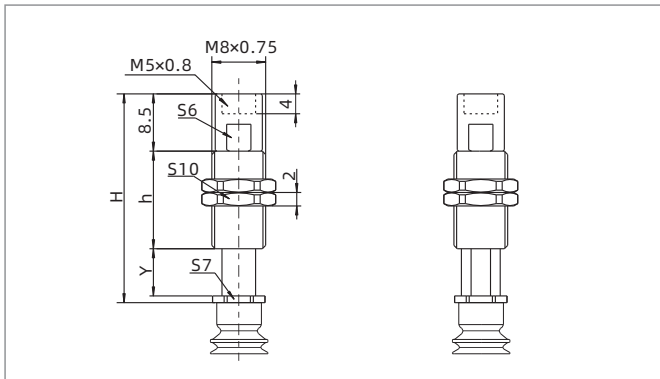
Model/Size	H	h	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3C□-I3-M8	24.5	11.0	4.0	3	0.2	0.5	7.4
SP3C□-I3R-M8	24.5	11.0	4.0	3	0.2	0.5	7.3
SP3C□-I6-M8	31.0	14.5	7.0	6	0.2	0.5	8.6
SP3C□-I6R-M8	31.0	14.5	7.0	6	0.2	0.5	8.6
SP3C□-I10-M8	41.0	20.5	11.0	10	0.2	0.5	10.5
SP3C□-I10R-M8	41.0	20.5	11.0	10	0.2	0.5	10.5

◇ Note: 1. Please refer to page 72 for suction cup selection
2. "F1" means spring force at 0 stroke, "F2" means spring force at max. stroke

SP3 Series

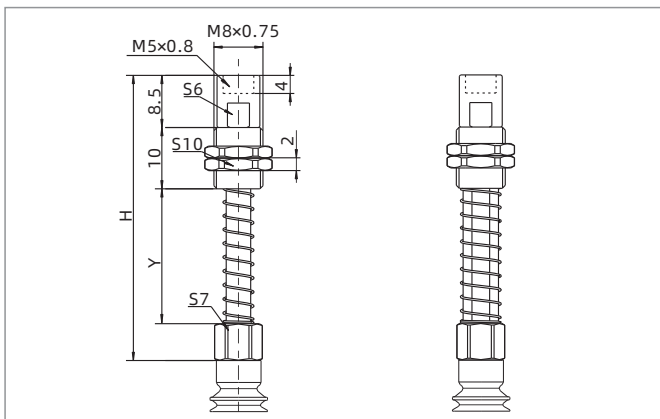
Suction Cup with Level Compensator

Dimensions(mm) -B type



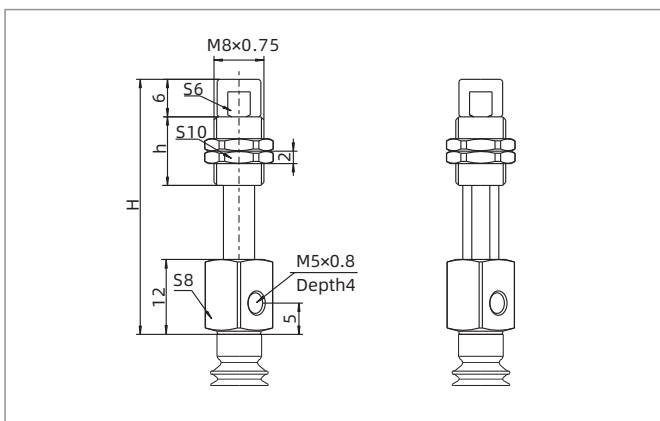
SP3B4-16 Vertical rotating

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	Weight g
SP3B□-I3-M8	24.5	11.0	4	3	0.2	0.5	7.4
SP3B□-I3R-M8	24.5	11.0	4	3	0.2	0.5	7.3
SP3B□-I6-M8	31.0	14.5	7	6	0.2	0.5	8.6
SP3B□-I6R-M8	31.0	14.5	7	6	0.2	0.5	8.6
SP3B□-I10-M8	41.0	20.5	11	10	0.2	0.5	10.5
SP3B□-I10R-M8	41.0	20.5	11	10	0.2	0.5	10.5

Model/Size	H	Y	Buffer stroke	F1 N	F2 N	Weight g
SP3B□-I15-M8	49.0	24.5	15	0.2	0.5	10.3
SP3B□-I15R-M8	49.0	24.5	15	0.2	0.5	12.3
SP3B□-I20-M8	56.5	32.0	20	0.2	0.5	10.9
SP3B□-I20R-M8	56.5	32.0	20	0.2	0.5	13.4

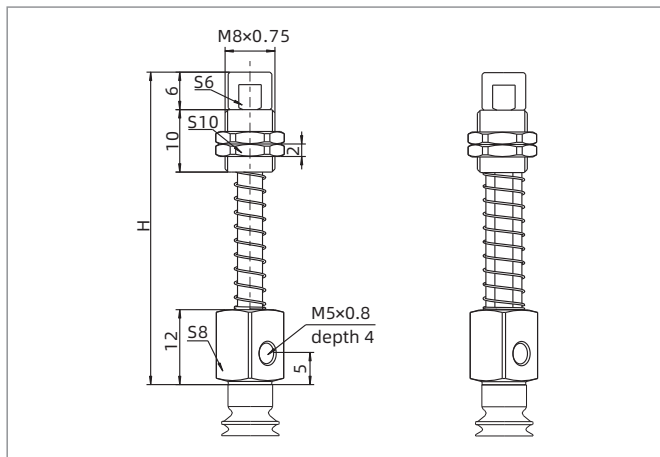
Model/Size	H	h	Buffer stroke	F1 N	F2 N	Weight g
SP3B□-L3-M8	33.0	11.0	3	0.2	0.5	12.8
SP3B□-L3R-M8	33.0	11.0	3	0.2	0.5	12.2
SP3B□-L6-M8	39.5	14.5	6	0.2	0.5	14.2
SP3B□-L6R-M8	39.5	14.5	6	0.2	0.5	13.4
SP3B□-L10-M8	49.5	20.5	10	0.2	0.5	16.6
SP3B□-L10R-M8	49.5	20.5	10	0.2	0.5	15.4

◇ Note: 1. Please refer to page 72 for suction cup selection
 2. "F1" means spring force at 0 stroke, "F2" means spring force at max. 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	Weight g
SP3B□-L15-M8	52.5	15	0.2	0.5	16.3
SP3B□-L15R-M8	52.5	15	0.2	0.5	15.5
SP3B□-L20-M8	59.5	20	0.2	0.5	15.1
SP3B□-L20R-M8	59.5	20	0.2	0.5	16.6

◇ Note: 1. Please refer to page 72 for suction cup selection
2. "F1" means spring force at 0 stroke, "F2" means spring force at max. 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	

SAN Series

Nozzle Suction Cup



ELECTRONICS



Features

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

Advantages

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

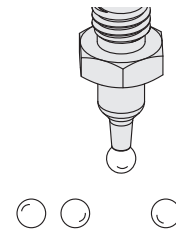


Applications

- ◇ 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

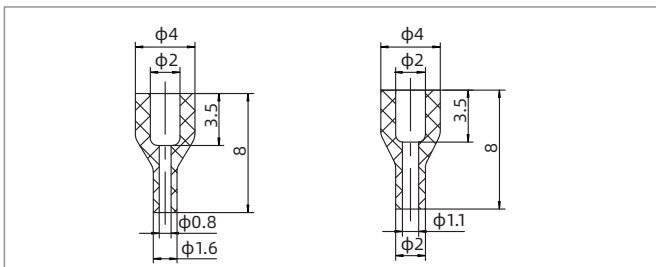
SAN 1.1 N - M5M

① ② ③ ④

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

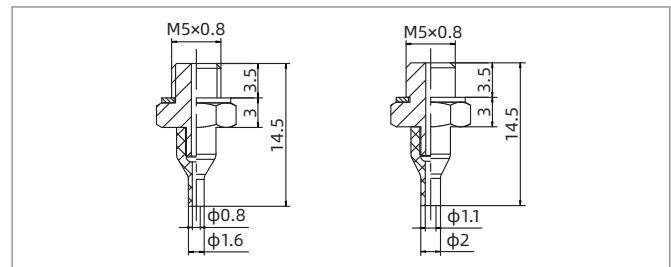
◇ Note: Min. package: 10pcs/bag

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

SAO Series

Oval Flat Suction Cup



ELECTRONICS

RoHS

Features

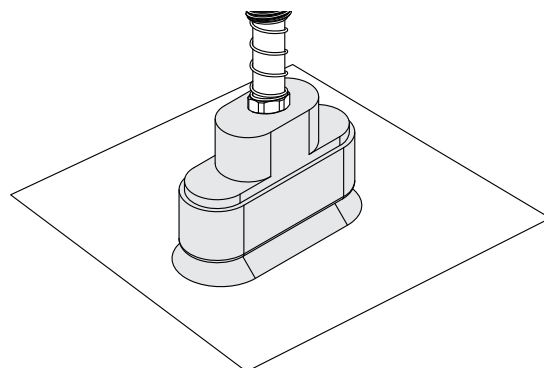
- ◇ Oval and Flat structure
- ◇ Conductive material available
- ◇ Various sizes available

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

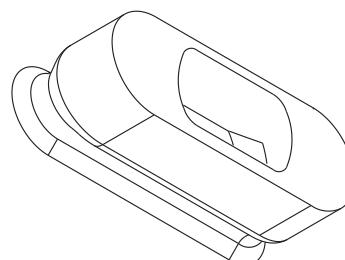
Applications

- ◇ 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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

SAO Series

Oval Flat Suction Cup

How to order

SAO 8x20 N

① ② ③

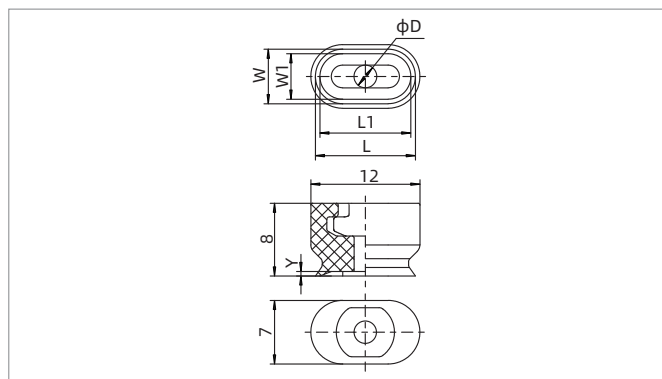
① Series	② Size	③ Material & Hardness
SAO	3.5x7 6x20	N - NBR 55
	4x10 8x20	WS - White silicone 50
	5x10 4x30	CN - Conductive NBR 55
	6x10 5x30	CS - Conductive silicone 55
	4x20 6x30	
	5x20 8x30	

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)



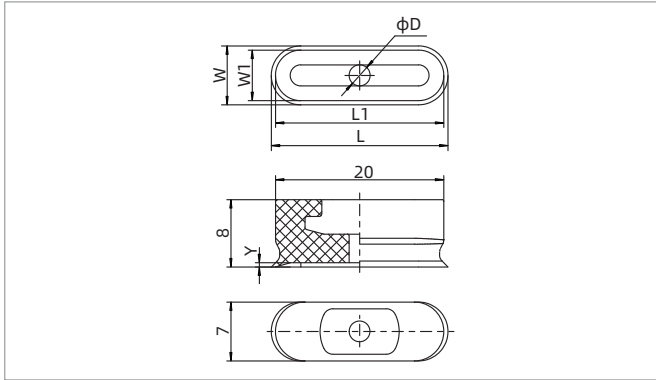
Model/Size	W	L	W1	L1	D	Y
SAO3.5x7 □	4.5	8	3.5	7	2-1.5	0.5
SAO4x10 □	5	11	4	10	2-1.5	0.5
SAO5x10 □	6	11	5	10	2.5	0.5
SAO6x10 □	7	11	6	10	2.5	0.5

SAO

SAO Series

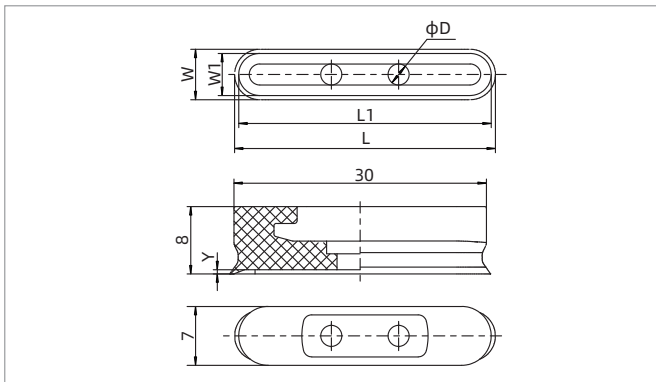
Oval Flat Suction Cup

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

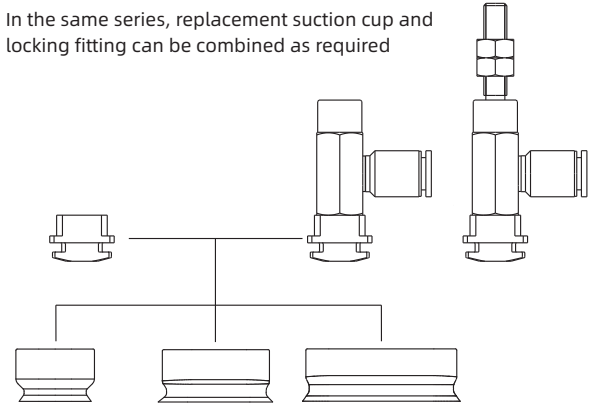
Suction Cup with Locking Fitting



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 φ4 hose LA6 - Lateral, one-touch fitting φ6 hose	M5M - M5×0.8 male thread M5F - M5×0.8 female thread

◇ Please refer to page 87 for suction cup selection

Selection

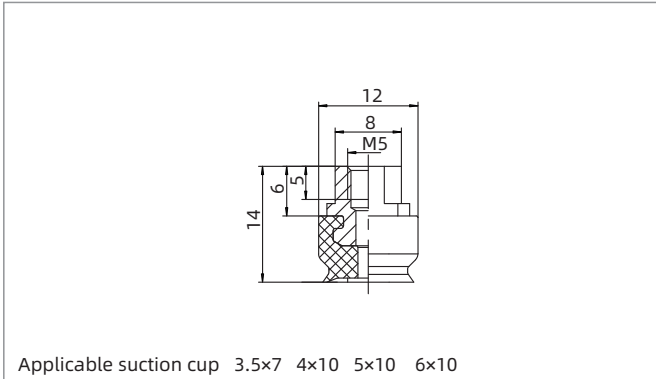
Connection thread M - Male thread		F - Female thread		
SAO3.5×7□-LA4-M5M	SAO3.5×7□-LA6-M5M	SAO3.5×7□-LA4-M5F	SAO3.5×7□-LA6-M5F	SAO3.5×7□-M5F
SAO4×10□-LA4-M5M	SAO4×10□-LA6-M5M	SAO4×10□-LA4-M5F	SAO4×10□-LA6-M5F	SAO4×10□-M5F
SAO5×10□-LA4-M5M	SAO5×10□-LA6-M5M	SAO5×10□-LA4-M5F	SAO5×10□-LA6-M5F	SAO5×10□-M5F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

SAO Series

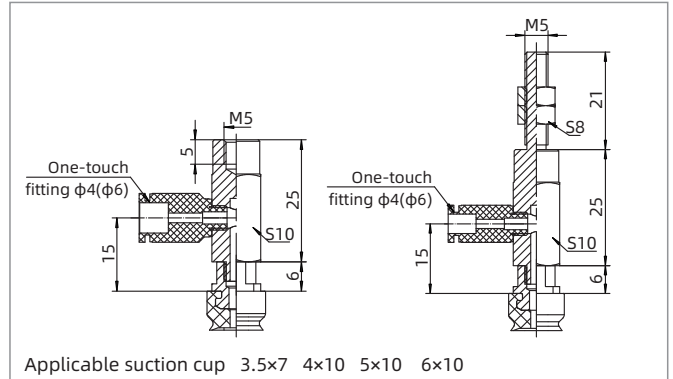
Suction Cup with Locking Fitting



Dimensions(mm)

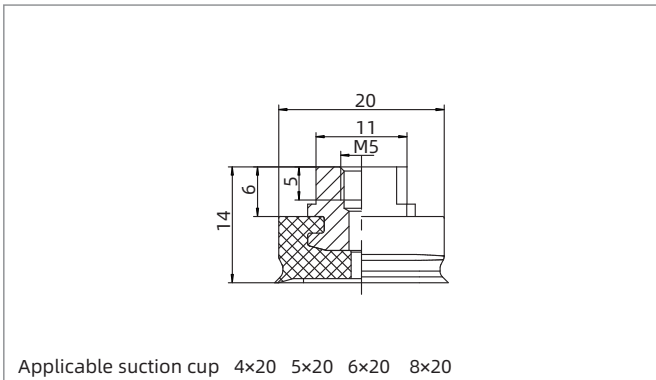


Vertical-Female thread connection

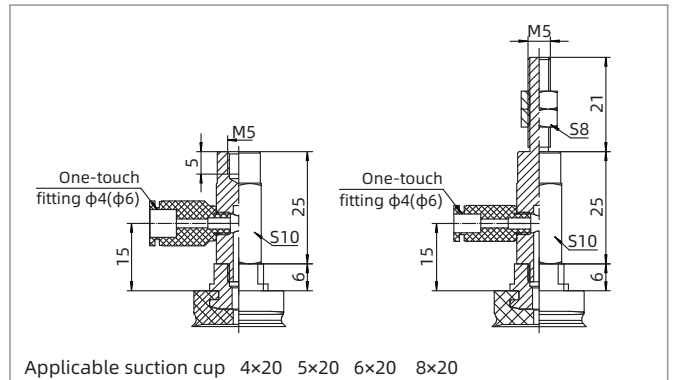


Lateral-Female thread connection

Lateral-Male thread connection

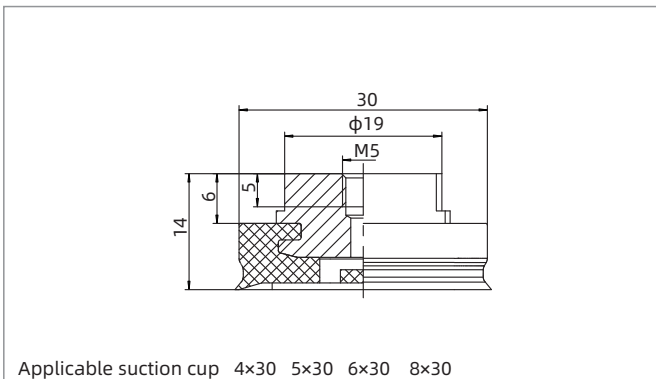


Vertical-Female thread connection

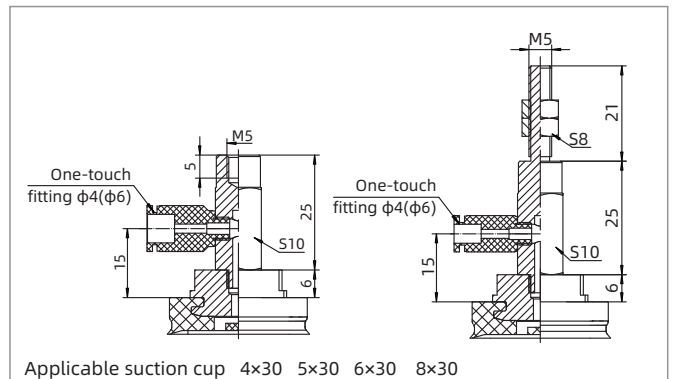


Lateral-Female thread connection

Lateral-Male thread connection



Vertical-Female thread connection



Lateral-Female thread connection

Lateral-Male thread connection

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

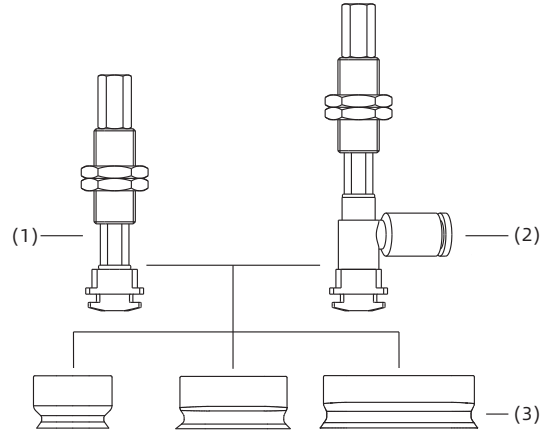
SAO Series

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 87 for suction cup selection

Selection

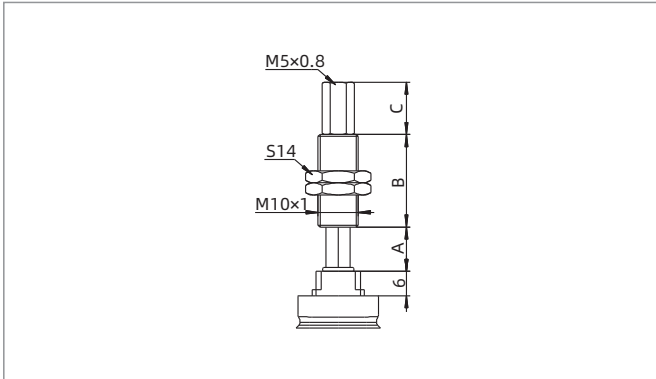
Rotary type/ Vacuum port connection	Nil	A4	A6
R - Vertical non-rotating	●	●	●
B - Lateral non-rotating	-	●	●

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

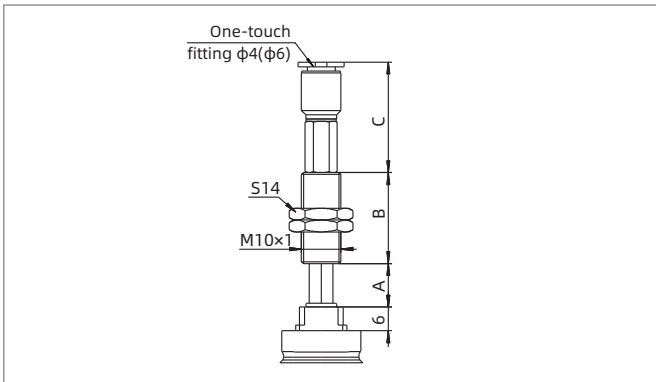
SAO Series

Suction Cup with Level Compensator

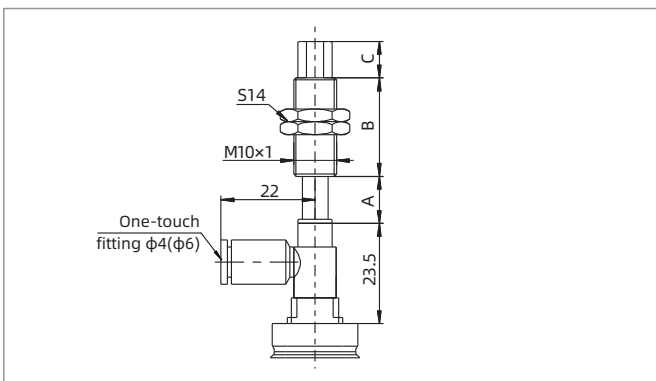
Dimensions(mm)



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 87 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

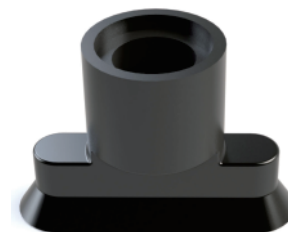


Features

- ◇ Oval Flat suction cup

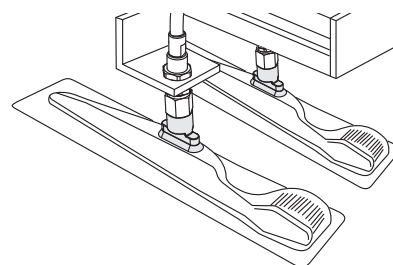
Advantages

- ◇ 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

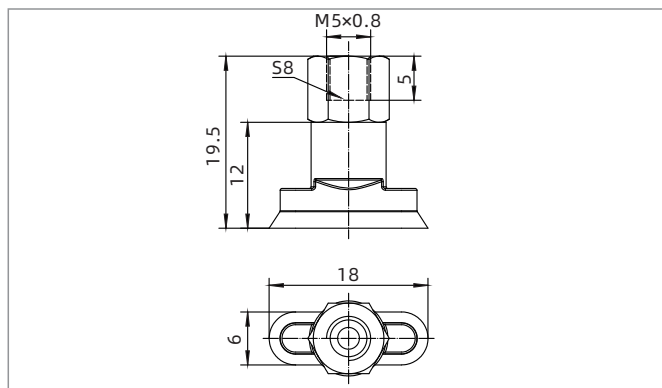
SOFA 6×18 N - M5F

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)



SOFA6x18-M5F

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

SP2F Series

Thin Lip Flat Suction Cup

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Features

- ◇ Thin lip, flat and short stroke
- ◇ With support structure at the bottom

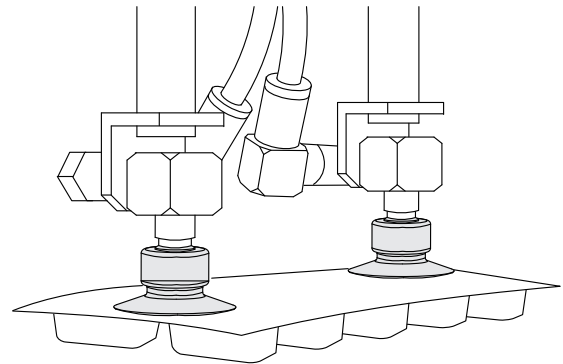
Advantages

- ◇ Good sealing for handling of thin and flat workpieces
- ◇ Prevents fold during handling of paper and thin film



Applications

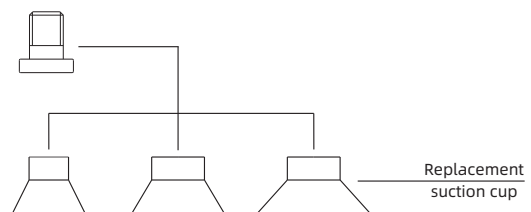
- ◇ Suitable for occasions that has high requirements for mark on product surface during handling, such as paper, plastic film, aluminum foil and copper foil



Structure

- ◇ Split structure for easy replacement of wearing parts

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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

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

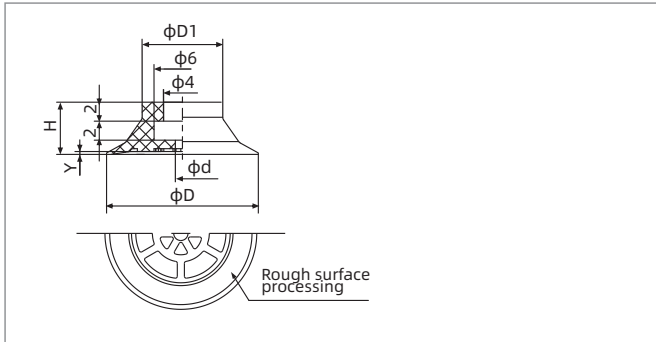
Model	Pull-out force N	Inner volume cm ³	Weight g	Recommended hose dia. mm	MPQ pcs
SP2F10	3.2	<0.1	0.3	4	10
SP2F15	7.5	<0.1	0.36	4	10

◇ 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.

SP2F Series

Thin Lip Flat Suction Cup

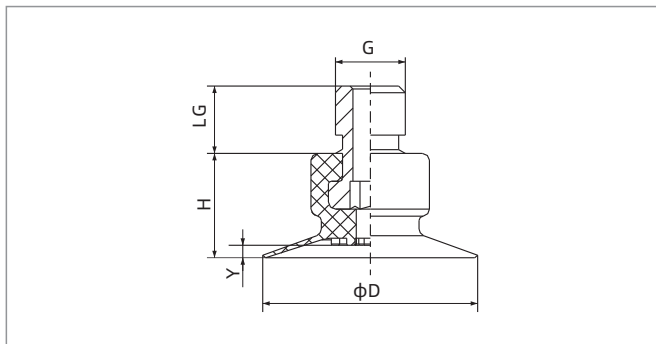
Dimensions(mm) - Suction cup only



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

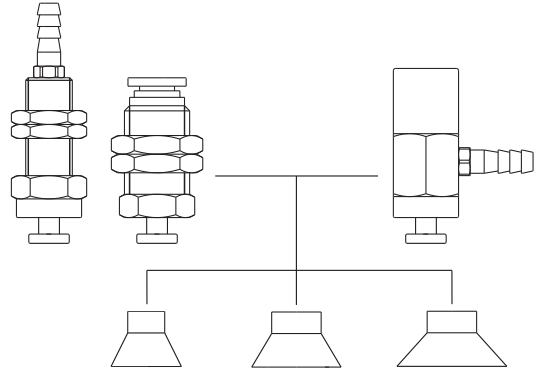
SP2F Series

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
SP2F10□	Nil - Vertical direction	A4 - One-touch fitting ϕ 4 hose	M4F - M4x0.7 female thread
	L - Lateral direction	A6 - One-touch fitting ϕ 6 hose	M8M - M8x1 male thread
		B6 - Pagoda fitting ϕ 6 hose	M12M - M12x1 male thread

◇ Please refer to page 95 for suction cup selection

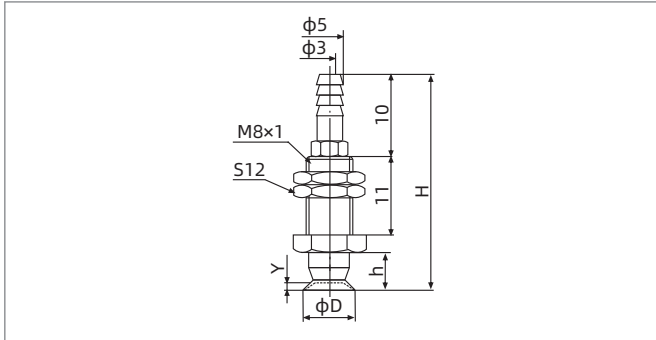
Selection

Model	Vacuum port direction Vertical - Pagoda fitting	Vertical - One-touch fitting	Lateral - Pagoda fitting
SP2F10□	SP2F10□-B6-M8M	SP2F10□-A4-M12M	SP2F10□-LB6-M4F
SP2F15□	SP2F15□-B6-M8M	SP2F15□-A4-M12M	SP2F15□-LB6-M4F

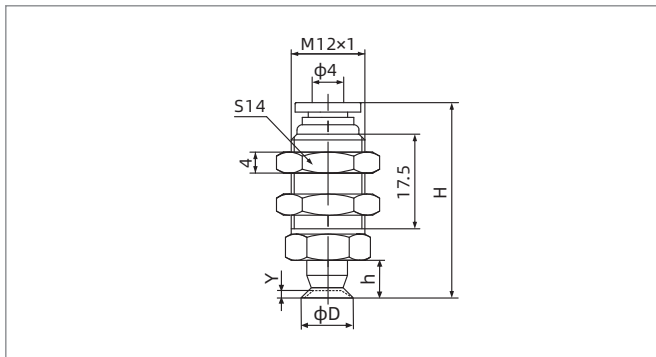
SP2F Series

Suction Cup with Locking Fitting

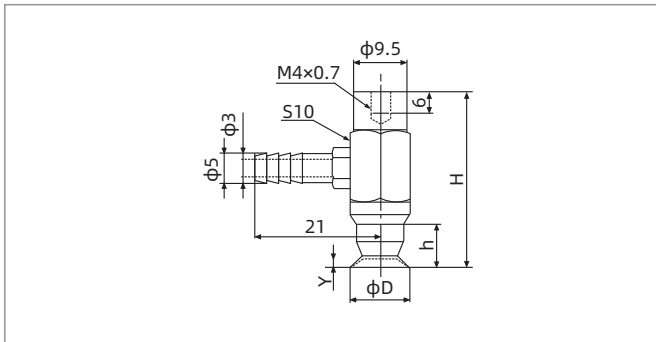
Dimensions(mm)



SP2F10-15 Vertical-Pagoda fitting



SP2F10-15 Vertical - One-touch fitting



SP2F10-15 Lateral-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

Model/Size	D	H	h	Y
SP2F10□-A4-M12M	11	33	5.5	0.3
SP2F15□-A4-M12M	16	33	5.5	0.3

Model/Size	D	H	h	Y
SP2F10□-LB6-M4F	11	28	5.5	0.3
SP2F15□-LB6-M4F	16	28	5.5	0.3

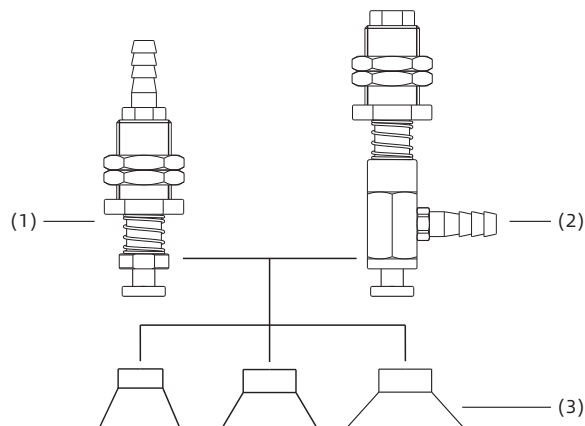
SP2F Series

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

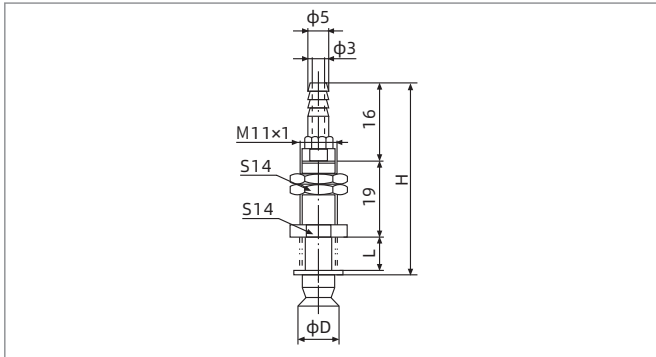
Selection

Model	Vacuum port direction Vertical - Pagoda fitting		Lateral - Pagoda fitting	
	Vertical - Pagoda fitting	Lateral - Pagoda fitting	Vertical - Pagoda fitting	Lateral - Pagoda fitting
SP2F10□	SP2F10□-FE4B6-M11	SP2F10□-FE10B6-M11	SP2F10□-FE4LB6-M11	SP2F10□-FE10LB6-M11
SP2F15□	SP2F15□-FE4B6-M11	SP2F15□-FE10B6-M11	SP2F15□-FE4LB6-M11	SP2F15□-FE10LB6-M11

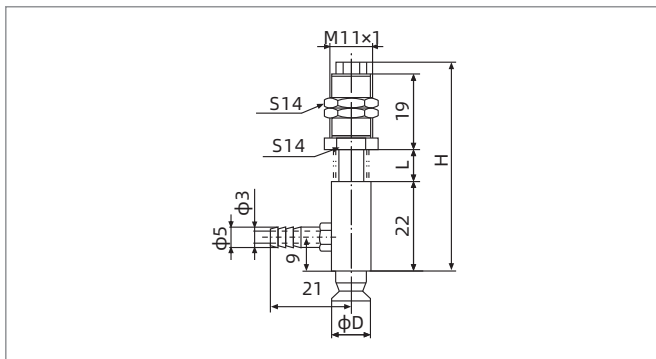
SP2F Series

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

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Features

- ◇ Thin lip, flat and short stroke
- ◇ With support structure at the bottom
- ◇ Available in various sizes

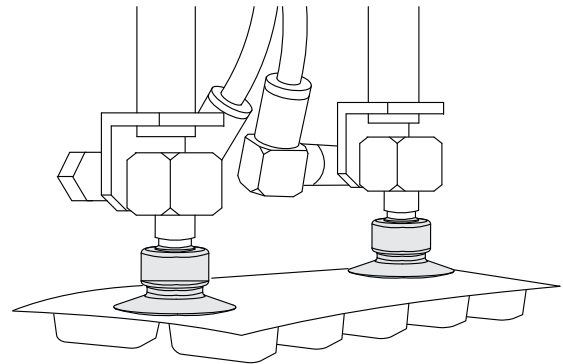
Advantages

- ◇ 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

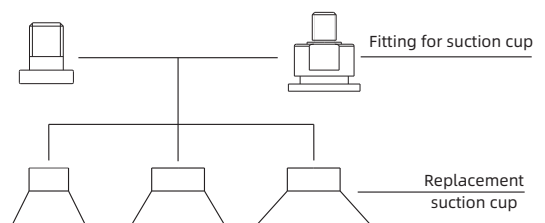
- ◇ Suitable for occasions that has high requirements for mark on product surface during handling, such as paper, plastic film, aluminum foil and copper foil
- ◇ B type suction cup is flat and with thin lip, which is more suitable for handling thin workpieces that are easy to wrinkle, such as aluminum 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



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 - M5x0.8 male thread M6M - M6x1 male thread M8M - M8x1 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

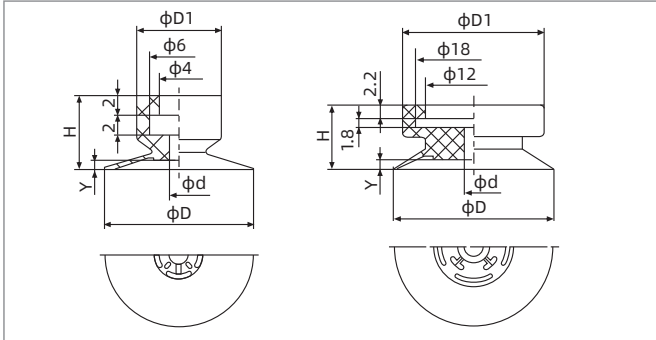
Model	Pull-out force N	Inner volume cm ³	Weight g	Recommended hose dia. mm	MPQ pcs
SPA10A	3.5	<0.1	0.3	4	10
SPA10B	3.5	<0.1	0.56	4	10
SPA15A	8	<0.1	0.28	4	10
SPA15B	8	<0.1	0.4	4	10
SPA15D	8	<0.1	0.28	4	10
SPA20A	15	0.3	0.8	4	5
SPA20B	15	<0.1	0.7	4	5
SPA25A	22	0.6	2.0	4	5
SPA30A	32	1.1	2.6	4	5
SPA30B	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

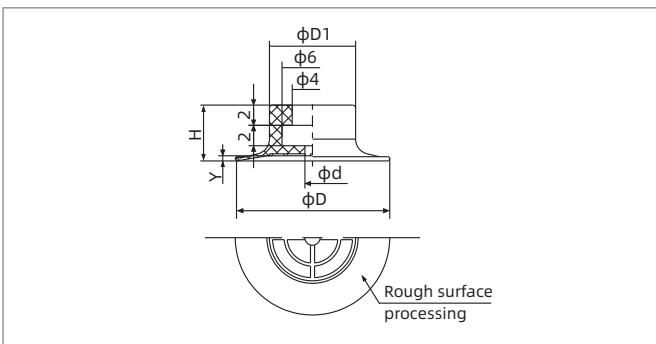
Thin Lip Flat Suction Cup

Dimensions(mm) - Suction cup only

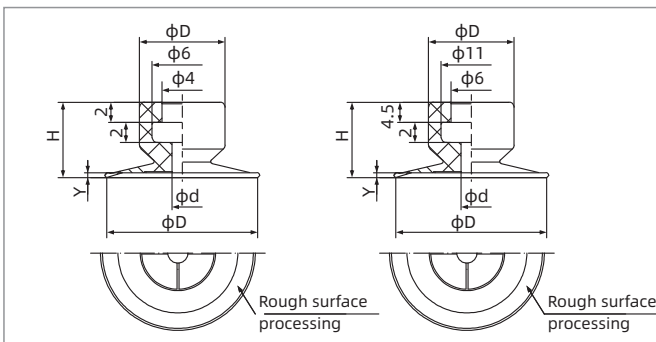


SPA10A-20A

SPA25A-50A



SPA15D



SPA10B-20B

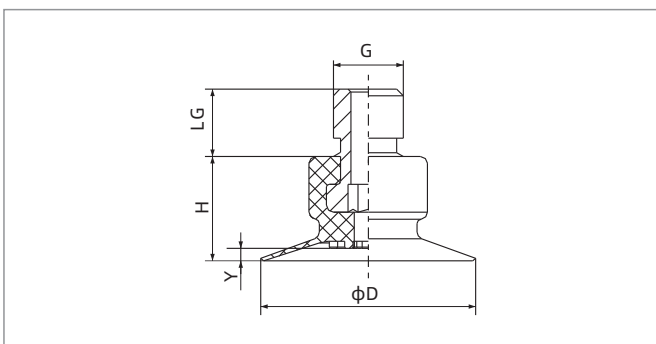
SPA30B

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

Dimensions(mm) - Suction cup with fitting



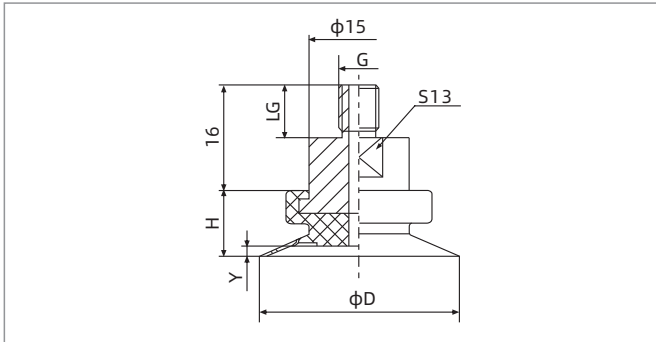
SPA10-30 Male thread connection

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

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

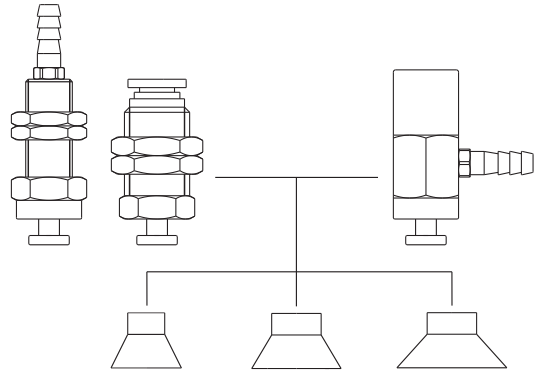
SPA Series

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	A4 - One-touch fitting ϕ 4 hose	M4F - M4×0.7 female thread
	L - Lateral direction	A6 - One-touch fitting ϕ 6 hose B6 - Pagoda fitting ϕ 6 hose	M6F - M6×1 female thread M8M - M8×1 male thread M10M - M10×1 male thread M12M - M12×1 male thread M14M - M14×1 male thread

◇ Please refer to page 102 for suction cup selection

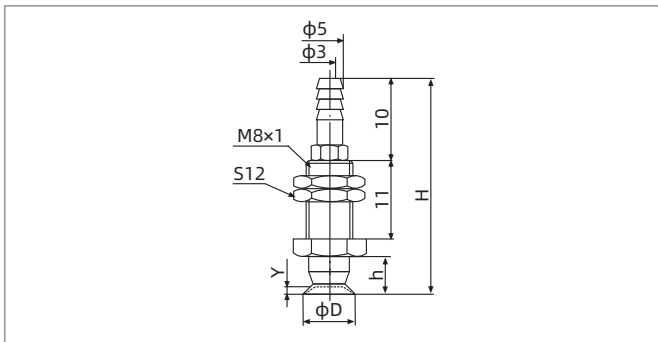
Selection

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

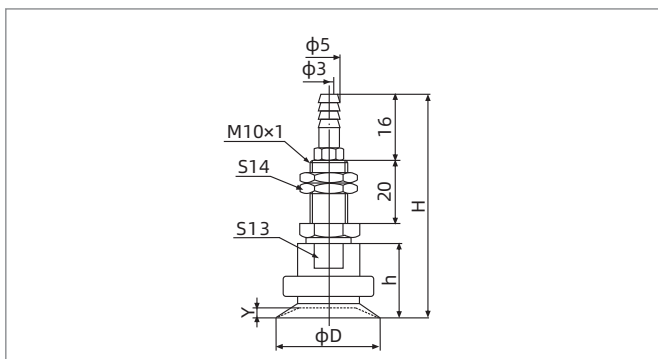
SPA Series

Suction Cup with Locking Fitting

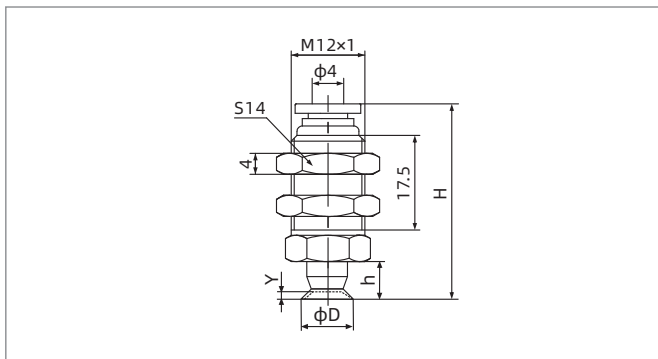
Dimensions(mm)



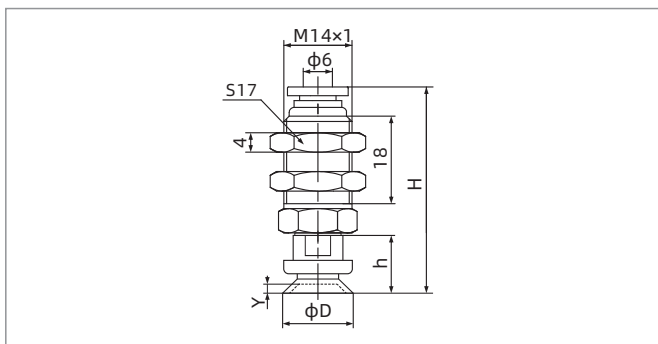
SPA10-20 Vertical-Pagoda fitting



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

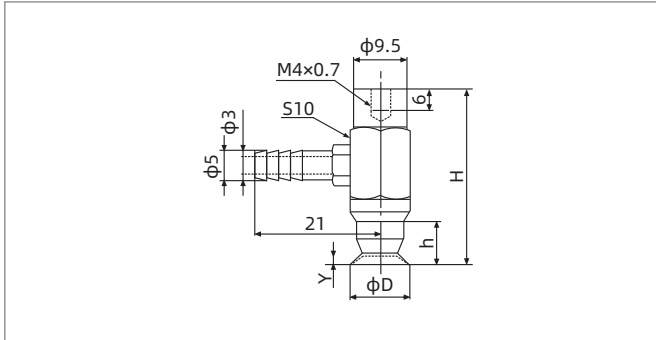
Model/Size	D	H	h	Y
SPA10A□-A4-M12M	10	35	7.5	0.6
SPA10B□-A4-M12M	10	35	7.5	0.3
SPA15A□-A4-M12M	15	35	7.5	0.9
SPA15B□-A4-M12M	15	35	7.5	0.5
SPA15D□-A4-M12M	15	33	5.5	0.5
SPA20A□-A4-M12M	20	37.5	10	12
SPA20B□-A4-M12M	20	37.5	10	0.8

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

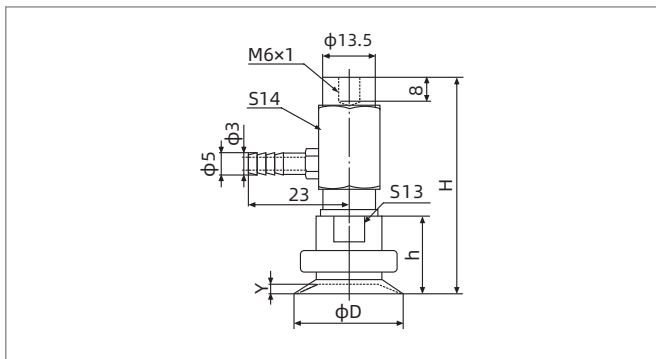
SPA Series

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

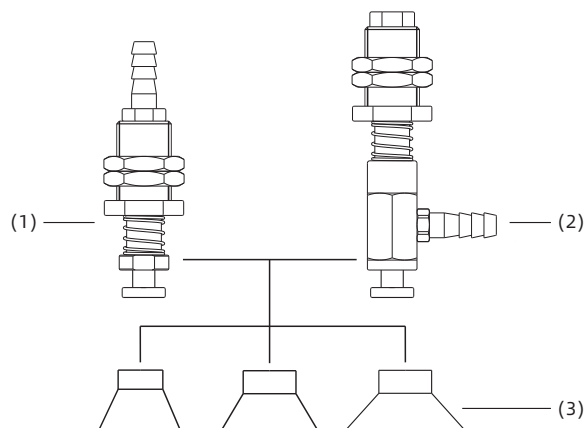
SPA Series

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 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 10 15	B6 - Vertical, pagoda fitting φ6 hose LB6 - Lateral, pagoda fitting φ6 hose	M11 - M11×1 M14 - M14×1

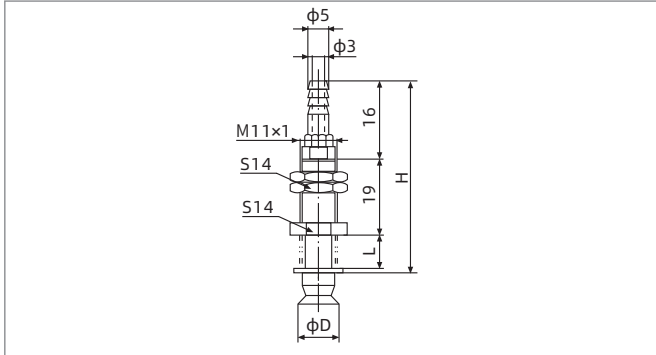
Selection

Model	Vacuum port direction Vertical - Pagoda fitting		Lateral - Pagoda fitting	
	Vertical - Pagoda fitting	Lateral - Pagoda fitting	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

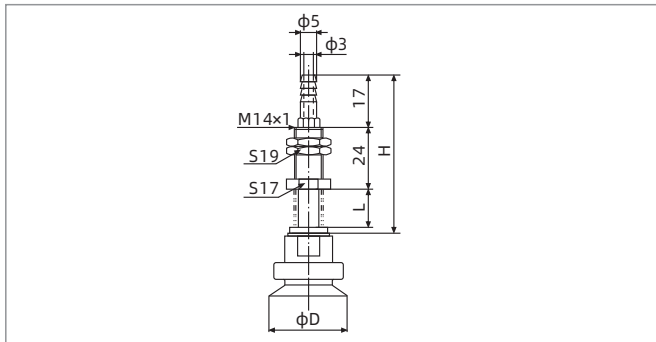
SPA Series

Suction Cup with Level Compensator

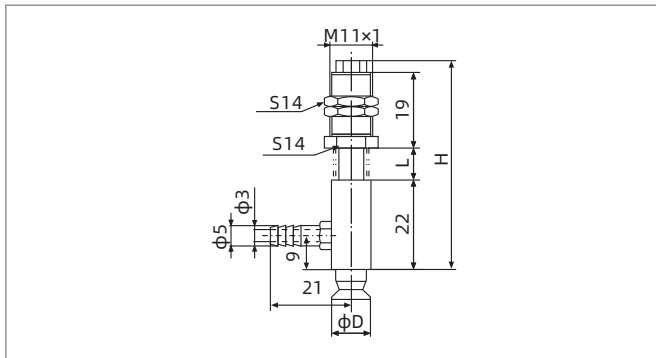
Dimensions(mm)



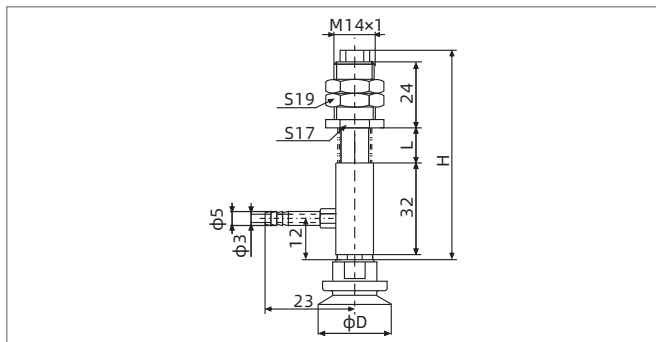
SPA10-20 Vertical-Pagoda fitting



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

SPD Series

Thin Lip Flat Suction Cup



Features

- ◇ Thin lip

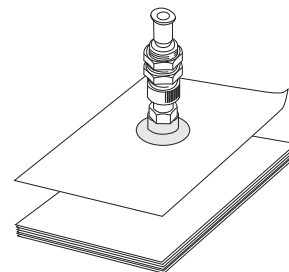
Advantages

- ◇ 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	N - NBR 50	Nil - Suction cup only
	15 - ϕ 15mm	WS - White silicone 50	M5M - M5x0.8 male thread

Selection

Model	M5M
SPD10	SPD10□-M5M
SPD15	SPD15□-M5M

Technical parameters

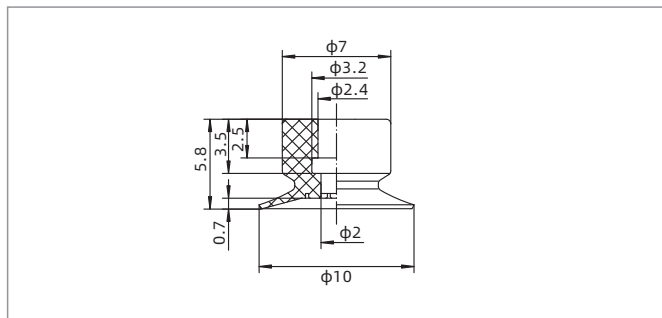
Model	Pull-out force (N)	Inner volume cm^3	Weight g	Recommended hose Dia. mm	MPQ pcs
SPD10	3.5	< 0.1	0.2	4	10
SPD15	7.5	< 0.1	0.3	4	10

◇ 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

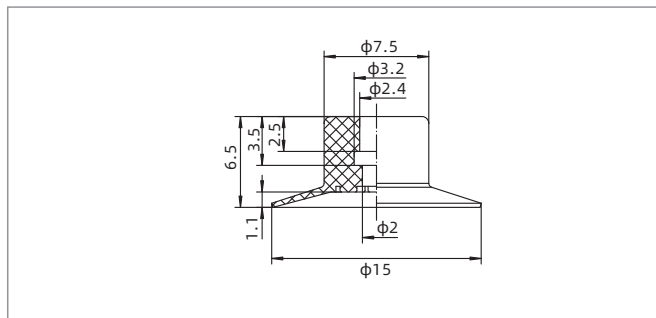
SPD Series

Thin Lip Flat Suction Cup

Dimensions (mm) - Suction cup only

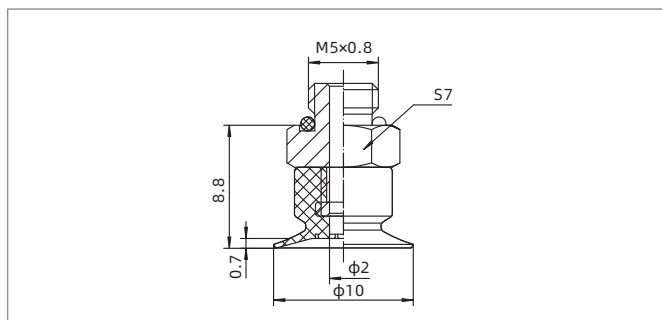


SPD10

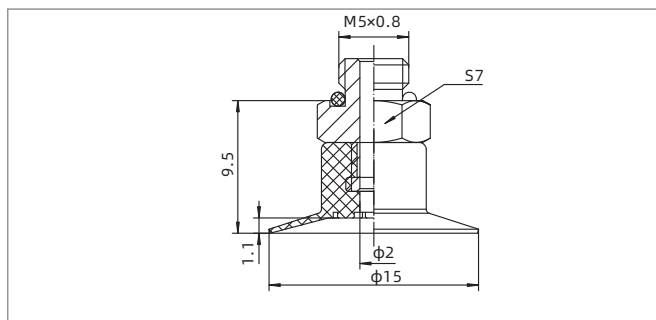


SPD15

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

SPF Series

Flat Suction Cup

AIRBEST



UNIVERSAL

RoHS

Features

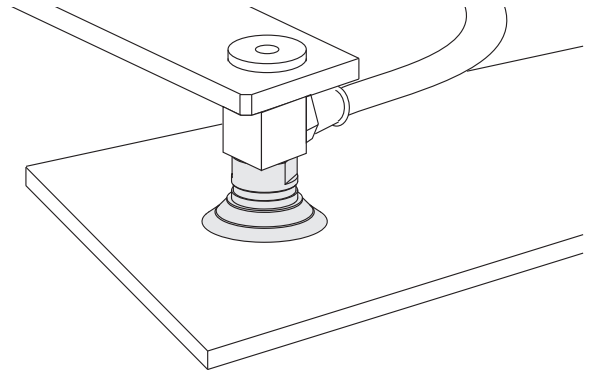
- ◇ With support structure at the bottom
- ◇ Optimal design
- ◇ Small inner volume
- ◇ Available in various sizes

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

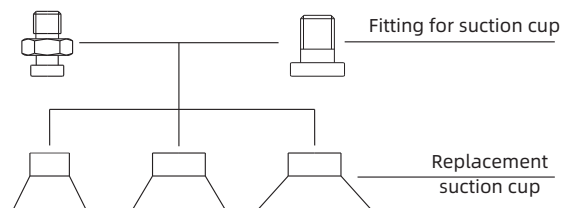
- ◇ Handling of flat workpieces with smooth or slightly rough surface such as wood, metal plate, plywood and plastic plate
- ◇ Suitable for handling electronic components, conductive material can effectively prevent electrostatic damage to electronic components



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



Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

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 - ϕ 2mm	35 - ϕ 35mm	N - NBR 55	Nil - Suction cup only
	3.5 - ϕ 3.5mm	40 - ϕ 40mm	WS - White silicone 50	M3M - M3×0.5 male thread
	5 - ϕ 5mm	50 - ϕ 50mm	CN - Conductive NBR 55	M5M - M5×0.8 male thread
	6 - ϕ 6mm	60 - ϕ 60mm	CS - Conductive silicone 55	M8M - M8×1.25 male thread
	8 - ϕ 8mm	80 - ϕ 80mm		M10F - M10×1.25 female thread
	10 - ϕ 10mm	95 - ϕ 95mm		
	15 - ϕ 15mm	120 - ϕ 120mm		
	20 - ϕ 20mm	150 - ϕ 150mm		
	25 - ϕ 25mm	200 - ϕ 200mm		
	30 - ϕ 30mm			

Selection

Model	Connection thread M - Male thread
SPF2□	SPF2□-M3M
SPF3.5□	SPF3.5□-M3M
SPF5□	SPF5□-M5M
SPF6□	SPF6□-M5M
SPF8□	SPF8□-M5M
SPF10□	SPF10□-M5M
SPF15□	SPF15□-M5M
SPF20□	SPF20□-M5M

Model	Connection thread M - Male thread
SPF25□	SPF25□-M5M
SPF30□	SPF30□-M5M
SPF35□	SPF35□-M5M
SPF40□	SPF40□-M5M
SPF50□	SPF50□-M8M
SPF60□-M10F	-
SPF80□-M10F	-
SPF95□-M10F	-

Technical parameters

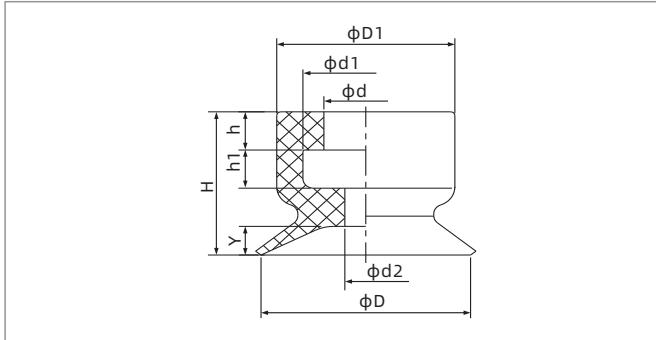
Model	Pull-out force N	Inner volume cm ³	Weight g	Recommended hose dia. mm	MPQ pcs
SPF2	0.15	<0.1	0.1	4	10
SPF3.5	0.4	<0.1	0.1	4	10
SPF5	0.9	<0.1	0.2	4	10
SPF6	1.2	<0.1	0.2	4	10
SPF8	2.2	<0.1	0.2	4	10
SPF10	3.5	<0.1	0.3	4	10
SPF15	8	0.2	0.4	6	10
SPF20	15	0.5	1.6	6	5
SPF25	24	1.1	2.5	6	5
SPF30	32	1	3.3	6	5

Model	Pull-out force N	Inner volume cm ³	Weight g	Recommended hose dia. mm	MPQ pcs
SPF35	43	2.4	6.6	6	5
SPF40	60	3.4	8.4	6	5
SPF50	92	5.7	10.4	8	1
SPF60	127	11	23.2	8	1
SPF80	226	25.3	48.2	8	1
SPF95	319	38	70.3	10	1
SPF120	510	81	159.5	10	1
SPF150	800	171	322.4	12	1
SPF200	1,410	364	521.5	12	1

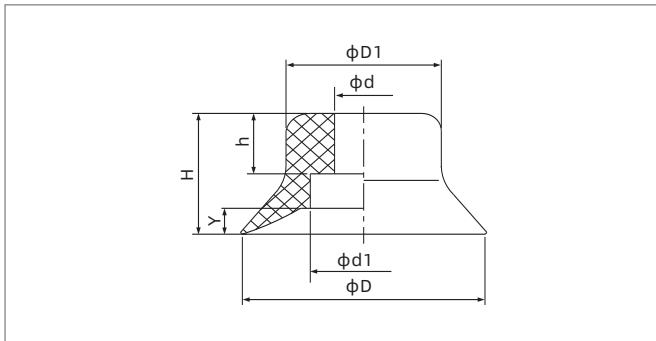
SPF Series

Flat Suction Cup

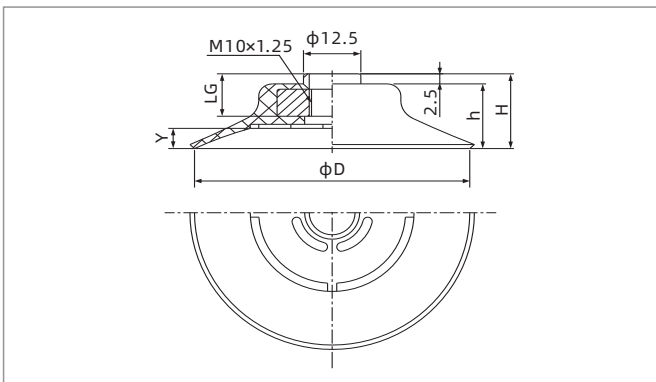
Dimensions(mm) - Suction cup only



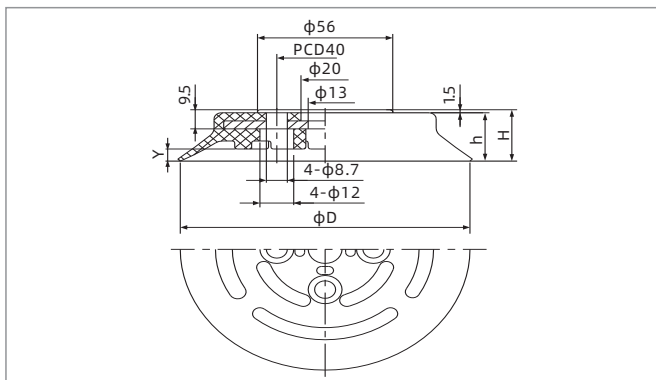
SPF2-15



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

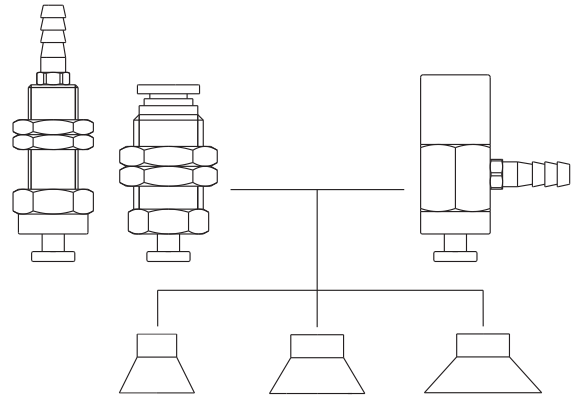
SPF Series

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 113 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

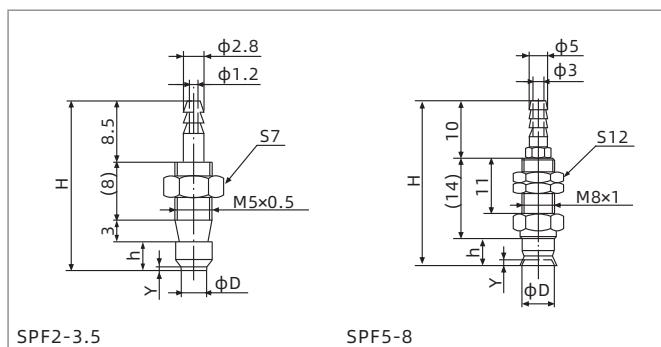
SPF Series

Suction Cup with Locking Fitting

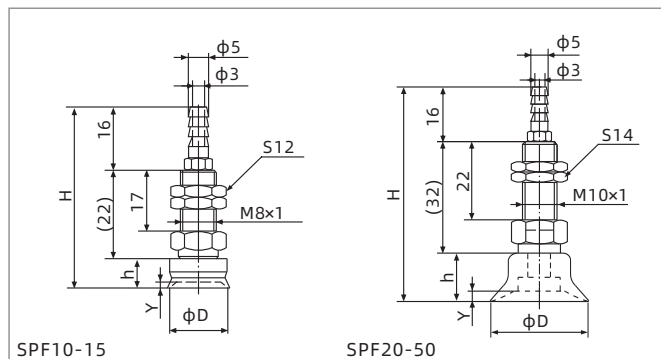
Selection

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

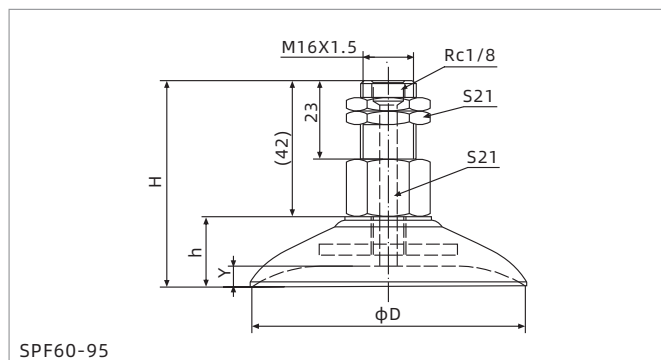
Dimensions(mm)



Vertical-Pagoda fitting



Vertical-Pagoda fitting



Vertical-Female thread connection

Model/Size	D	H	h	Y
SPF2□-B4-M5M	2	23.5	4	0.5
SPF3.5□-B4-M5M	3.5	23.5	4	0.5
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

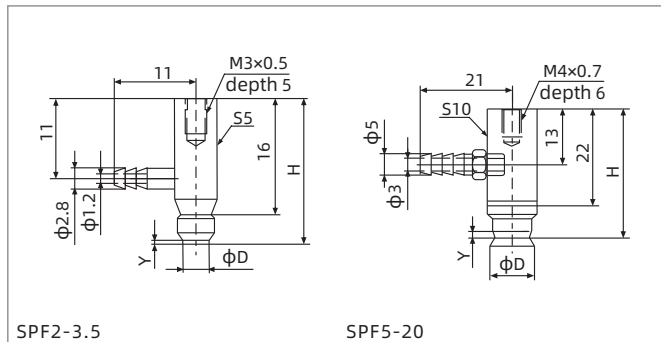
Model/Size	D	H	h	Y
SPF10□-B6-M8M	10	45.5	7.5	1.5
SPF15□-B6-M8M	15	46	8	1.9
SPF20□-B6-M10M	20	58	10	2.3
SPF25□-B6-M10M	25	62	14	3
SPF30□-B6-M10M	30	60	12	2
SPF35□-B6-M10M	35	62	14	3
SPF40□-B6-M10M	40	62	14	3.5
SPF50□-B6-M10M	50	63	15	4

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

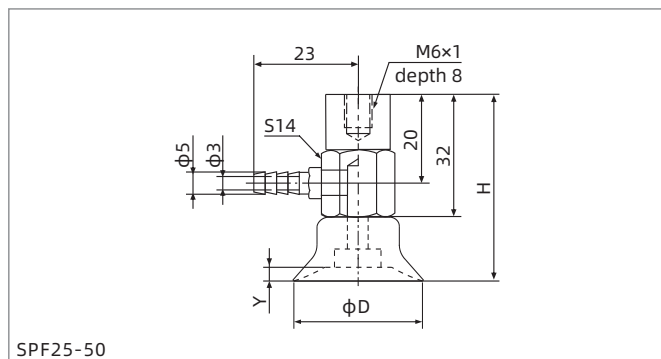
SPF Series

Suction Cup with Locking Fitting

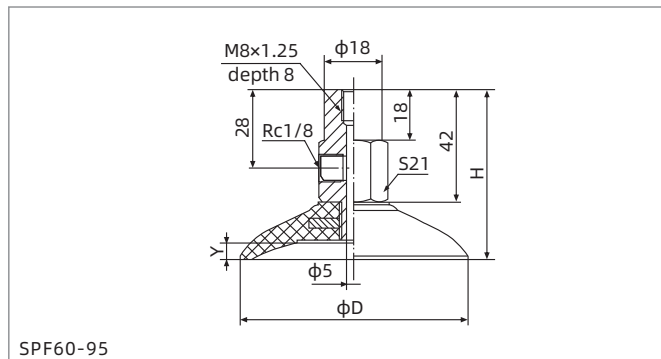
Dimensions(mm)



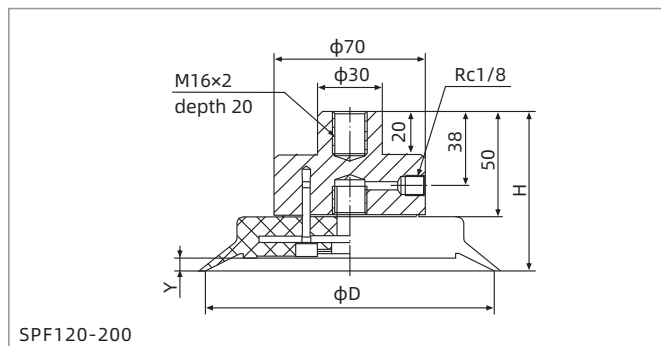
Lateral-Pagoda fitting



Lateral-Pagoda fitting



Lateral-Female thread connection



Lateral-Female thread connection

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

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

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

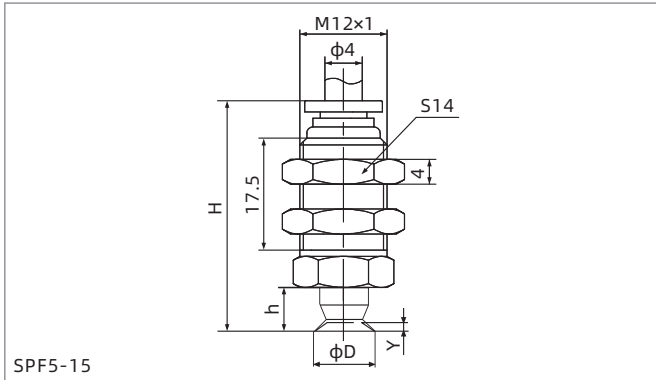
Mounting Parts

Vacuum Accessories

SPF Series

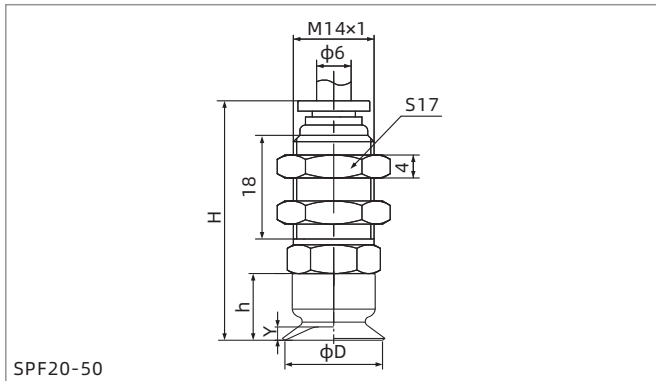
Suction Cup with Locking Fitting

Dimensions(mm)



SPF5-15

Vertical-One-touch fitting



SPF20-50

Vertical-One-touch fitting

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	40	2.3
SPF25□-A6-M14M	25	44	3
SPF30□-A6-M14M	30	42	2
SPF35□-A6-M14M	35	44	3
SPF40□-A6-M14M	40	44	3.5
SPF50□-A6-M14M	50	45	4

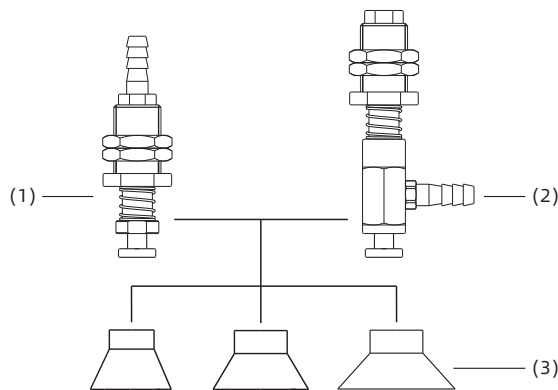
SPF Series

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 φ4 hose	M5 - M5×0.5
			3 10	B6 - Vertical, Pagoda fitting φ6 hose	M9 - M9×1
			4 15	LB4 - Lateral, Pagoda fitting φ4 hose	M11 - M11×1
			6 30	LB6 - Lateral, Pagoda fitting φ6 hose	M14 - M14×1
				LR1 - Lateral, Rc1/8 female thread	M16 - M16×1.5

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

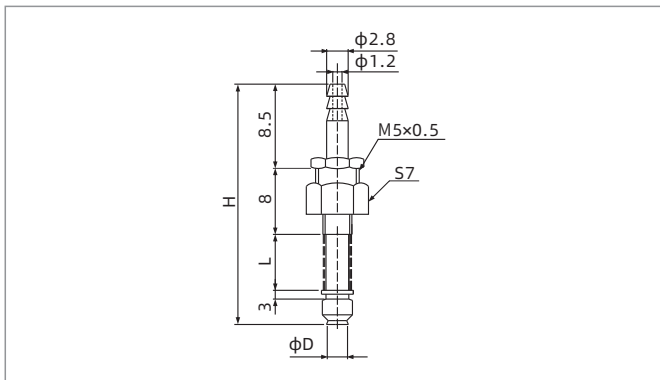
SPF Series

Suction Cup with Level Compensator

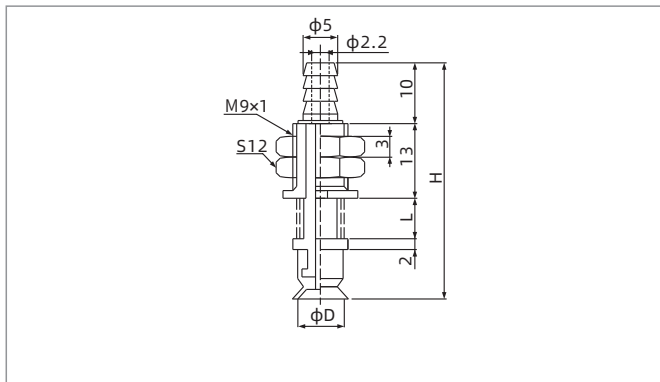
Selection

Model	Vacuum port direction	Lateral-Pagoda fitting	
	Vertical-Pagoda fitting		
SPF60□	-	SPF60□-FE10LR1-M16	SPF60□-FE30LR1-M16
SPF80□	-	SPF80□-FE10LR1-M16	SPF80□-FE30LR1-M16
SPF95□	-	SPF95□-FE10LR1-M16	SPF95□-FE30LR1-M16

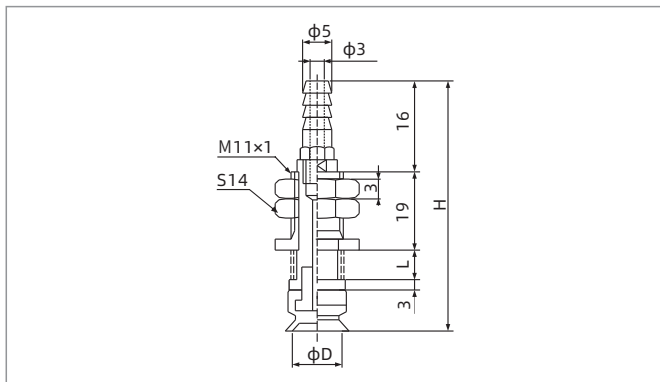
Dimensions(mm)



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

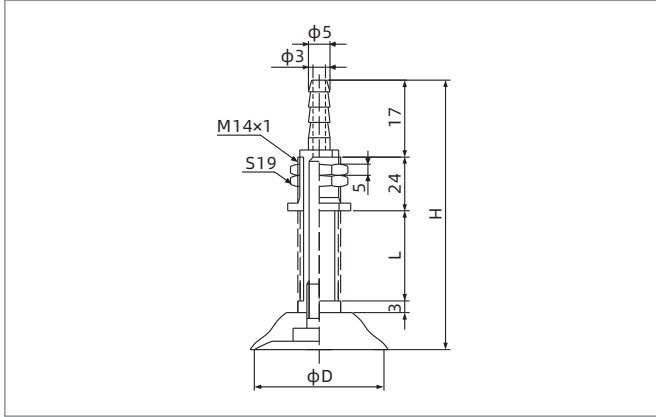
Model/Size	D	H	L	Buffer stroke
SPF5□-FE3B6-M9	5	37.5	6	3
SPF5□-FE10B6-M9	5	51.5	20	10
SPF6□-FE3B6-M9	6	37.5	6	3
SPF6□-FE10B6-M9	6	51.5	20	10
SPF8□-FE3B6-M9	8	38	6	3
SPF8□-FE10B6-M9	8	52	20	10

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

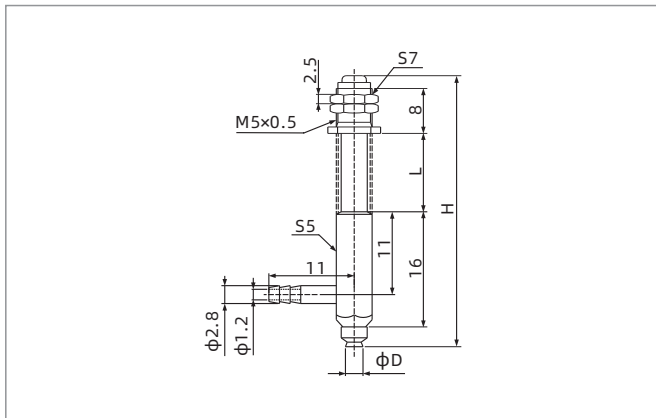
SPF Series

Suction Cup with Level Compensator

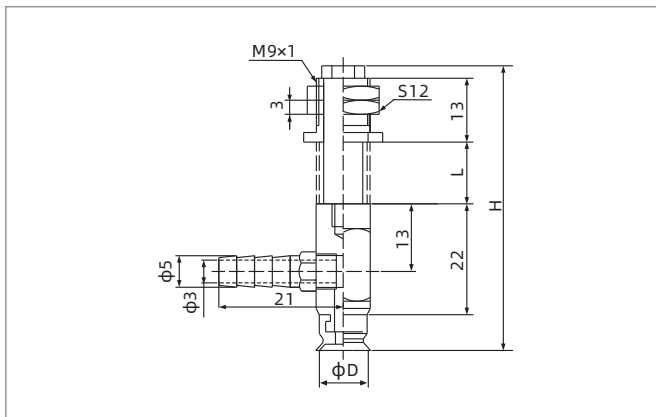
Dimensions(mm)



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

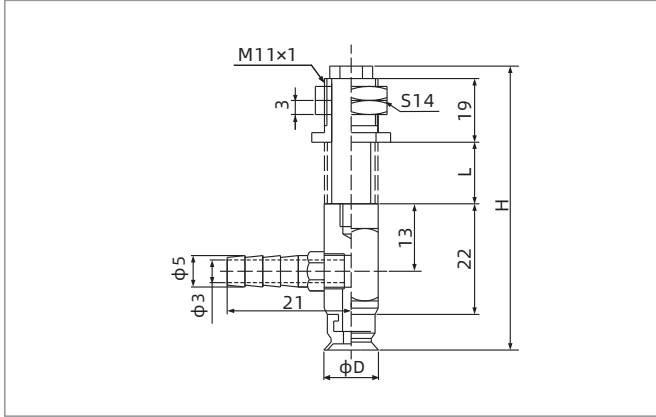
Model/Size	D	H	L	Buffer stroke
SPF5□-FE3LB6-M9	5	50.5	6	3
SPF5□-FE10LB6-M9	5	64.5	20	10
SPF6□-FE3LB6-M9	6	50.5	6	3
SPF6□-FE10LB6-M9	6	64.5	20	10
SPF8□-FE3LB6-M9	8	51	6	3
SPF8□-FE10LB6-M9	8	65	20	10

SPF Series

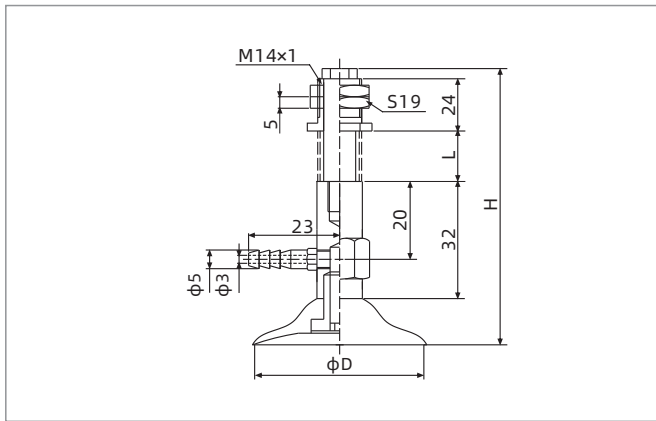
Suction Cup with Level Compensator



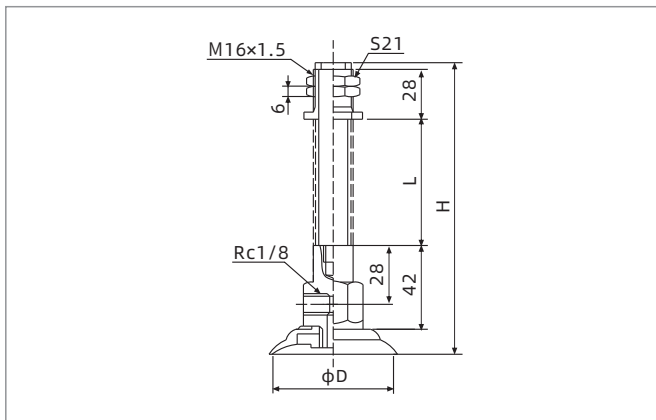
Dimensions(mm)



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

SPC Series

Bellows Suction Cup



Features

- ◇ 2.5 bellows
- ◇ Soft and tapered lips
- ◇ Available in various sizes

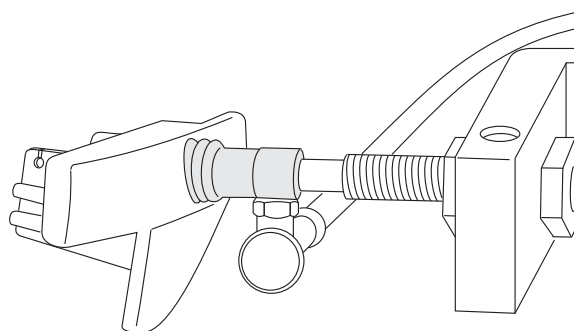
Advantages

- ◇ 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

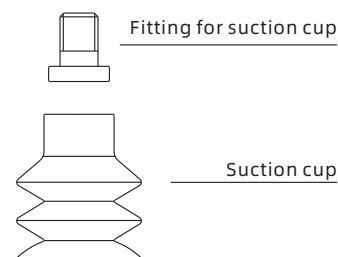
- ◇ Handling of fragile workpieces such as electronic components and injection molding parts
- ◇ Handling of workpieces with uneven surface such as paper and pipes



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	Nil - Suction cup only
	5 - ϕ 5mm	25 - ϕ 25mm	WS - White silicone 50	M5M - M5×0.8 male thread
	7 - ϕ 7mm	30 - ϕ 30mm	CN - Conductive NBR 55	M8M - M8×1.25 male thread
	10 - ϕ 10mm	40 - ϕ 40mm	CS - Conductive silicone 55	G1M - G1/8 male thread
	12 - ϕ 12mm	60 - ϕ 60mm		M3M - M3×0.5 male thread
	15 - ϕ 15mm	90 - ϕ 90mm		
	18 - ϕ 18mm			

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		

Technical parameters

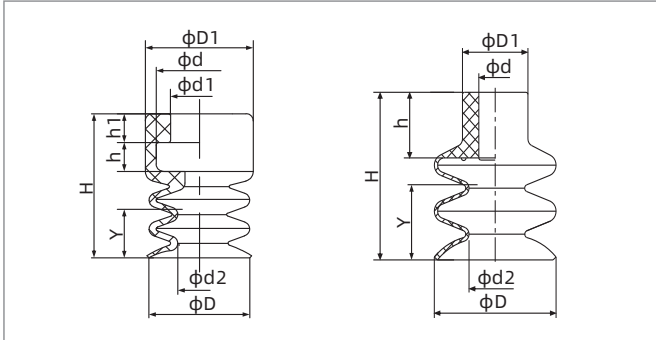
Model	Pull-out force N	Inner volume cm ³	Min. Curve radius of workpiece mm	Weight g	Recommended hose dia. mm	MPQ pcs
SPC3	0.5	<0.1	4	0.2	4	10
SPC5	0.9	<0.1	7.5	0.2	4	10
SPC7	1.7	<0.1	12	0.3	4	10
SPC10	3.5	0.2	13	0.8	6	10
SPC12	5	0.4	13	1.3	6	10
SPC15	8	0.9	15	1.7	6	10
SPC18	11.5	1.5	20	1.8	6	10
SPC20	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.

SPC Series

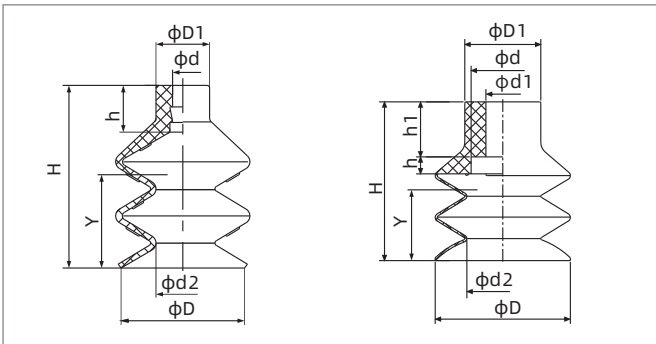
Bellows Suction Cup

Dimensions(mm) - Suction cup only



SPC3-7

SPC10-20



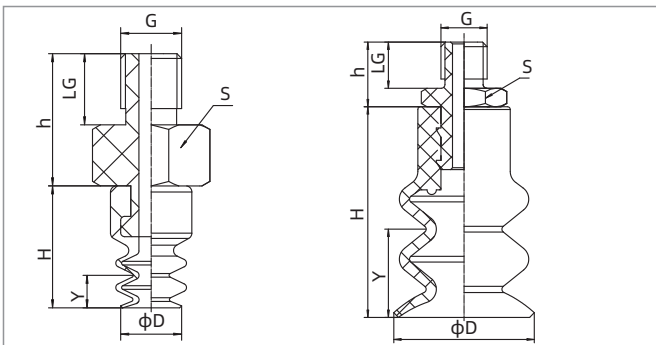
SPC12 SPC25

SPC30-90

Model/Size	D	H	D1	d	h	d1	h1	d2	Y
SPC3□	3	6	4	3	1	2	1.5	1.2	2.5
SPC5□	5	9.5	7.5	6	2	4	2	2	4
SPC7□	7	10	7.5	6	2	4	2	3	5
SPC10□	9	15	9	5	7	-	-	4	6
SPC15□	15.2	22.8	10	5	9	-	-	6	13.8
SPC18□	18.6	23	10	5	9	-	-	8	14
SPC20□	20.6	23	10	5	9	-	-	9.5	14

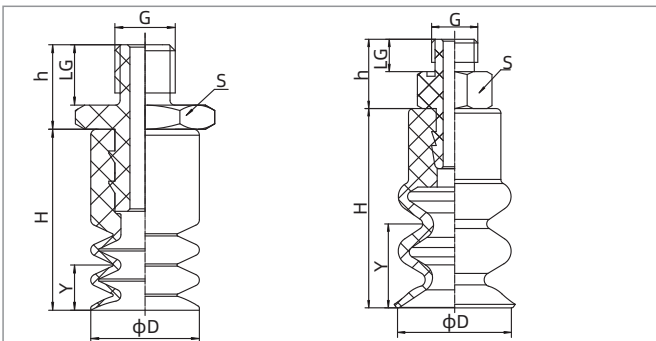
Model/Size	D	H	D1	d	h	d1	h1	d2	Y
SPC12□	13	21.6	10	3.8	8.5	-	-	5	9
SPC25□	24	34	10	3.8	8.5	-	-	10	25.5
SPC30□	32	37.5	18	15	4	8	13	17	20.5
SPC40□	42	46	20	15	4	8	13	16	29
SPC60□	62	55	21.5	15	5	8	13	29	37
SPC90□	88	87.5	25	25	6	12	20	32	61.5

Dimensions(mm) - Suction cup with fitting



SPC3

SPC15-20



SPC10

SPC12-25

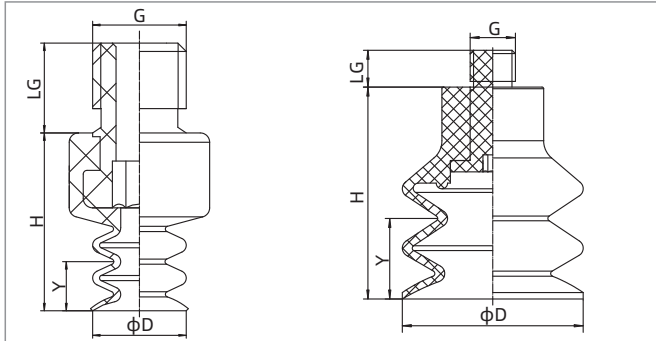
Model/Size	D	H	G	LG	h	s	Y
SPC3□-M3M	3	6	M3×0.5	3.5	6.5	5	2.5
SPC15□-M5M	15.2	22.8	M5×0.8	5	7	8	13.8
SPC18□-M5M	18.6	23	M5×0.8	5	7	8	14
SPC20□-M5M	20.6	23	M5×0.8	5	7	8	14

Model/Size	D	H	G	LG	h	S	Y
SPC10□-M5M	10	15	M5×0.8	5	7	10	6
SPC12□-M5M	13	21.6	M5×0.8	3.5	7.5	7	9
SPC25□-M5M	24	34	M5×0.8	3.5	7.5	7	25.5

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	4
SPC7□-M5M	7	10	M5×0.8	5	5
SPC30□-M8M	32	37.5	M8×1.25	6.5	20.5
SPC40□-M8M	42	46	M8×1.25	6.5	29
SPC60□-M8M	62	55	M8×1.25	6.5	37
SPC90□-G1M	88	87.5	G1/8	7	61.5

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

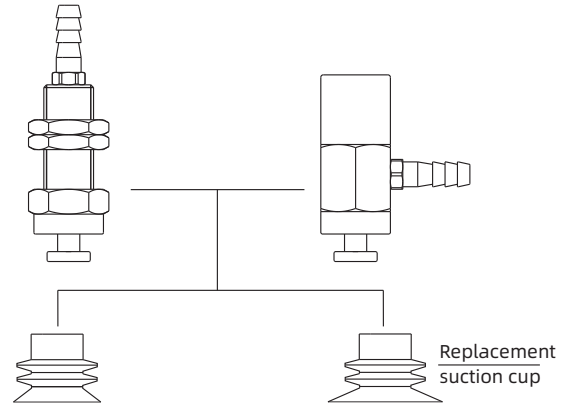
SPC Series

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	B6 - Pagoda fitting ϕ 6 hose	M4F - M4×0.7 female thread
	L - Lateral direction		M6F - M6×1 female thread
			M8M - M8×1 male thread
			M10M - M10×1 male thread

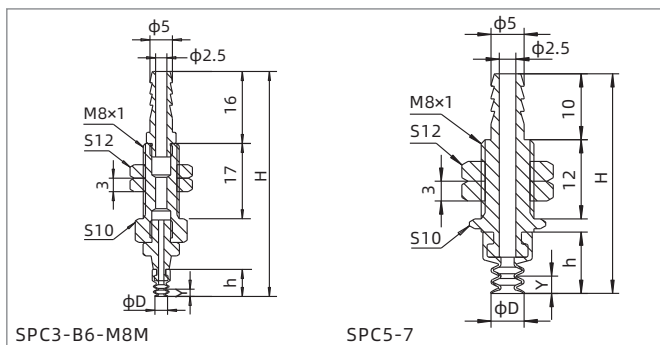
◇ Please refer to page 125 for suction cup selection

Selection

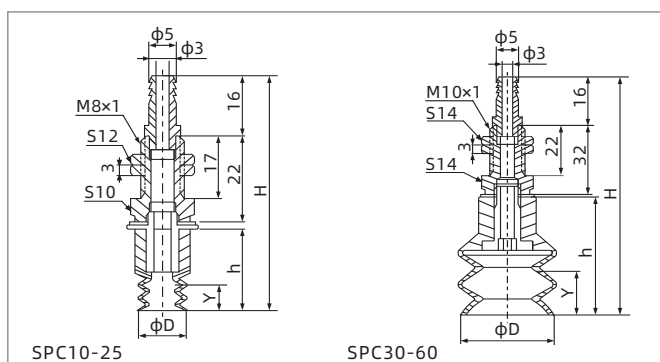
Model	Vacuum port direction Vertical-Pagoda fitting	Lateral-Pagoda fitting
SPC3□	SPC3□-B6-M8M	SPC3□-LB6-M4F
SPC5□	SPC5□-B6-M8M	SPC5□-LB6-M4F
SPC7□	SPC7□-B6-M8M	SPC7□-LB6-M4F
SPC10□	SPC10□-B6-M8M	SPC10□-LB6-M4F
SPC12□	SPC12□-B6-M8M	SPC12□-LB6-M4F
SPC15□	SPC15□-B6-M8M	SPC15□-LB6-M4F
SPC18□	SPC18□-B6-M8M	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

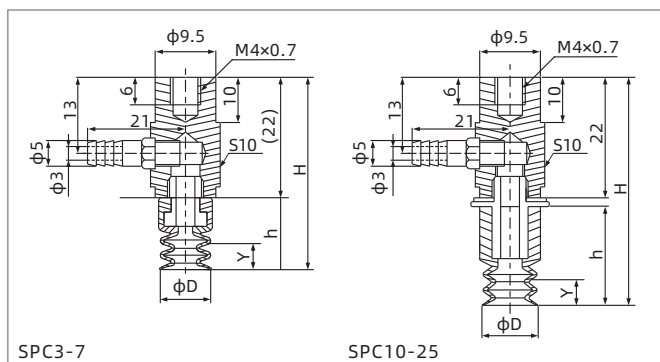
Suction Cup with Locking Fitting



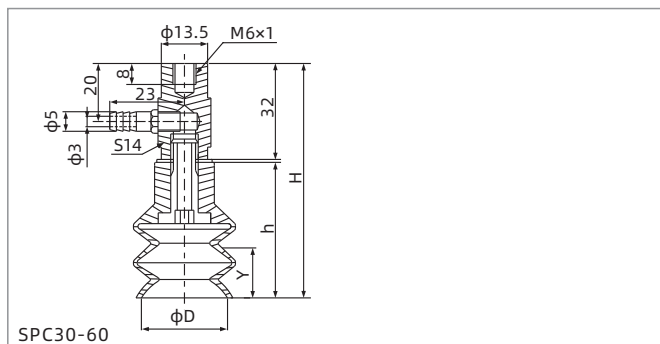
Vertical-Pagoda fitting



Vertical-Pagoda fitting



Lateral-Pagoda fitting



Lateral-Pagoda fitting

Model/Size	D	H	h	Y
SPC3□-B6-M8M	3	50	6	2.5
SPC5□-B6-M8M	5	33.5	9.5	4
SPC7□-B6-M8M	7	34	10	5
SPC10□-B6-M8M	10	55	15	6
SPC12□-B6-M8M	13	63.6	21.6	9
SPC15□-B6-M8M	15.2	62.8	22.8	13.8
SPC18□-B6-M8M	18.6	63	23	14
SPC20□-B6-M8M	20.6	63	23	14
SPC25□-B6-M8M	24	76	34	25.5

Model/Size	D	H	h	Y
SPC30□-B6-M10M	32	85.5	37.5	30.5
SPC40□-B6-M10M	42	94	46	29
SPC60□-B6-M10M	62	103	55	37

Model/Size	D	H	h	Y
SPC3□-LB6-M4F	3	28	6	2.5
SPC5□-LB6-M4F	5	31.5	9.5	4
SPC7□-LB6-M4F	7	32	10	5
SPC10□-LB6-M4F	10	39	15	6
SPC12□-LB6-M4F	13	47.6	21.6	9
SPC15□-LB6-M4F	15.2	46.8	22.8	13.8
SPC18□-LB6-M4F	18.6	47	23	14
SPC20□-LB6-M4F	20.6	47	23	14
SPC25□-LB6-M4F	24	60	34	25.5

Model/Size	D	H	h	Y
SPC30□-LB6-M6F	32	69.5	37.5	20.5
SPC40□-LB6-M6F	42	78	46	29
SPC60□-LB6-M6F	62	87	55	37

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

SPJ Series

Bellows Suction Cup



PACKAGING



PLASTIC



Features

- ◇ 1.5 bellows
- ◇ Soft and tapered lips
- ◇ Mark free plug optional
- ◇ Available in various sizes

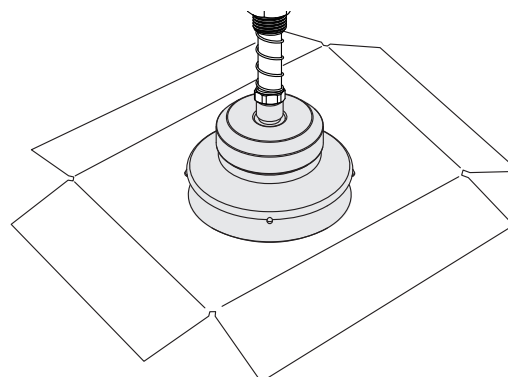
Advantages

- ◇ 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

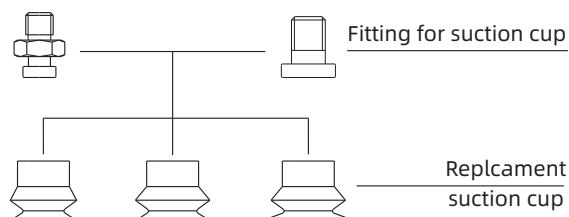
- ◇ Handling workpieces with uneven surface such as cartons, paper board and sheet, workpieces with curved surface
- ◇ Handling fragile workpieces such as electronic components and injection molding parts
- ◇ Suction cup with mark free plug is suitable for handling sensitive electronic material or display 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
SPJ4□	SPJ4□-M3M	SPJ30□	SPJ30□-M5M
SPJ6□	SPJ6□-M5M	SPJ30□-PK	SPJ30□-M5M-PK
SPJ8□	SPJ8□-M5M	SPJ35□	SPJ35□-M5M
SPJ8□-PK	SPJ8□-M5M-PK	SPJ35□-PK	SPJ35□-M5M-PK
SPJ10□	SPJ10□-M5M	SPJ40□	SPJ40□-M5M
SPJ10□-PK	SPJ10□-M5M-PK	SPJ40□-PK	SPJ40□-M5M-PK
SPJ15□	SPJ15□-M5M	SPJ50□	SPJ50□-M8M
SPJ15□-PK	SPJ15□-M5M-PK	SPJ50□-PK	SPJ50□-M8M-PK
SPJ20□	SPJ20□-M5M	SPJ60□	-
SPJ20□-PK	SPJ20□-M5M-PK	SPJ70□	-
SPJ25□	SPJ25□-M5M	SPJ80□	-
SPJ25□-PK	SPJ25□-M5M-PK		

Technical parameters

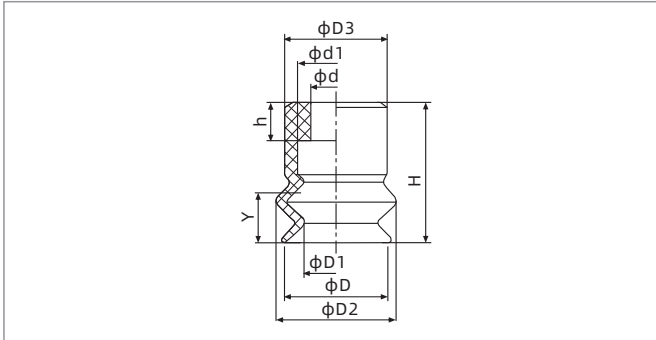
Model	Pull-out force N	Inner volume cm ³	Min. Curve radius of workpiece mm	Weight g	Recommended hose dia. mm	MPQ pcs
SPJ4	0.6	<0.1	4	0.1	4	10
SPJ6	1.2	<0.1	6	0.2	4	10
SPJ8	2.2	<0.1	8	0.3	4	10
SPJ10	3.5	0.2	12	0.8	4	10
SPJ15	8	0.5	20	1.0	6	10
SPJ20	15	1.1	27	1.8	6	5
SPJ25	24	2.2	40	3.0	6	5
SPJ30	32	3	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.

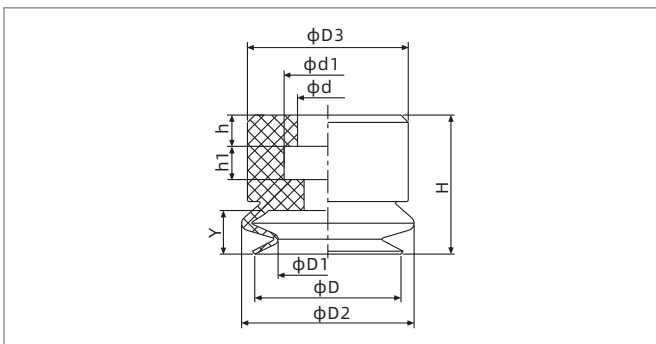
SPJ Series

Bellows Suction Cup

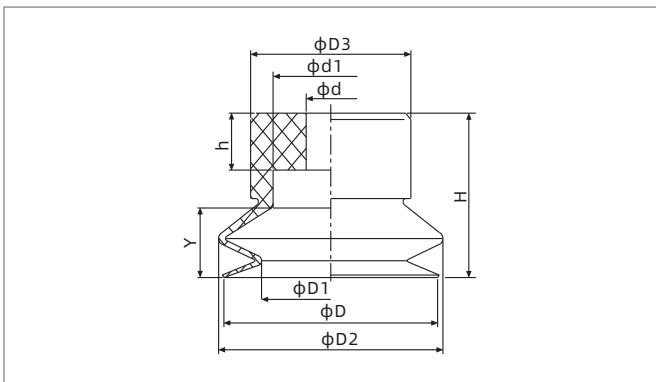
Dimensions(mm) - Suction cup only



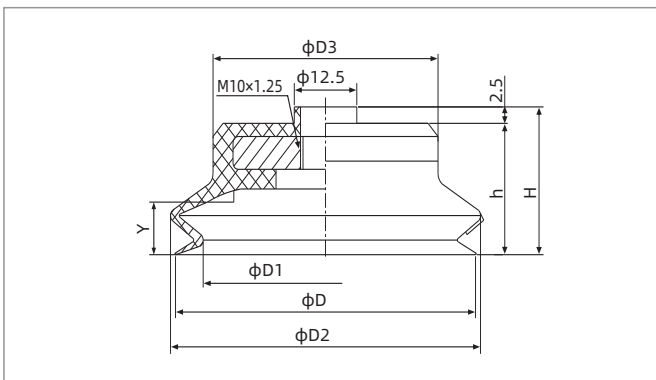
SPJ4-8



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

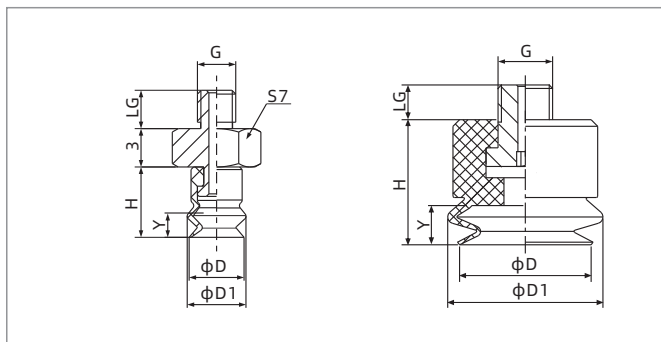
Model/Size	D	H	D1	D2	D3	d	h	d1	Y
SPJ20□	20	13	13	21	15	4.6	4.5	10.8	5.5
SPJ25□	25	15.5	14.5	26	17.5	4.6	4.5	10.8	6.5
SPJ30□	30	18	16	31	20	5.8	7	10.8	7
SPJ35□	35	18	20.5	36	25	5.8	7	10.8	7
SPJ40□	40	18	25	40	30	5.8	7	10.8	7.2
SPJ50□	50	20	32	53	40	7.8	7	19.8	9

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

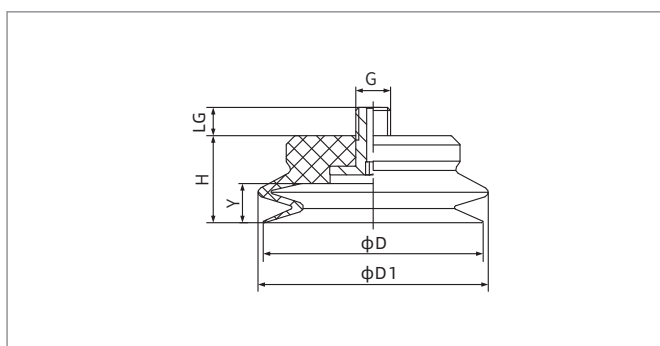
Bellows Suction Cup

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

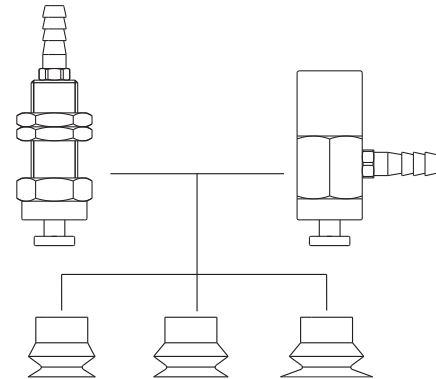
SPJ Series

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 131 for suction cup selection

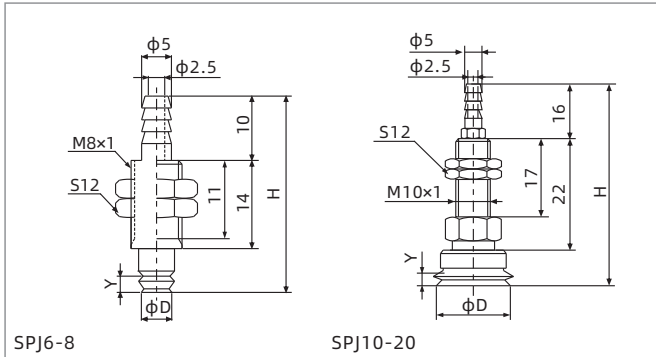
Selection

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

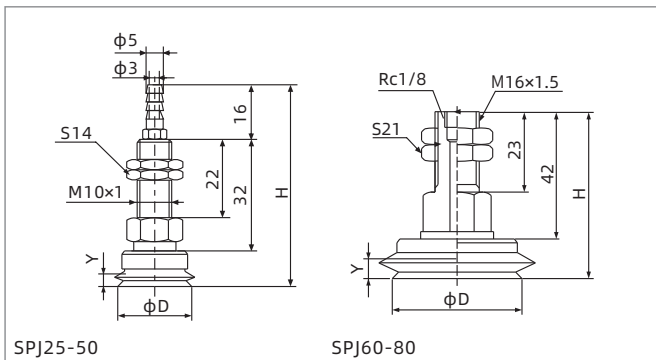
SPJ Series

Suction Cup with Locking Fitting

Dimensions(mm)

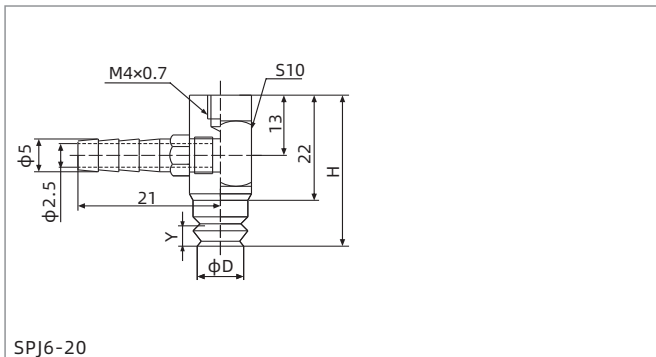


Vertical-Pagoda fitting

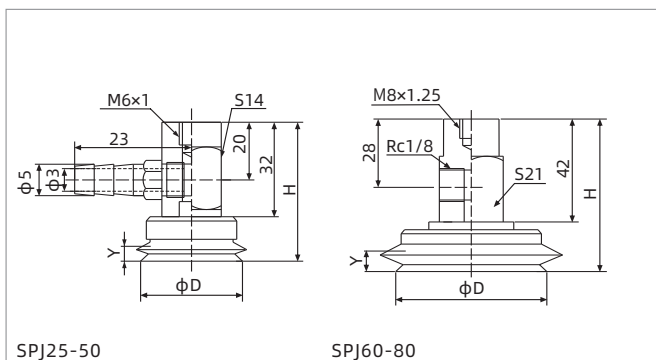


Vertical-Pagoda fitting

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

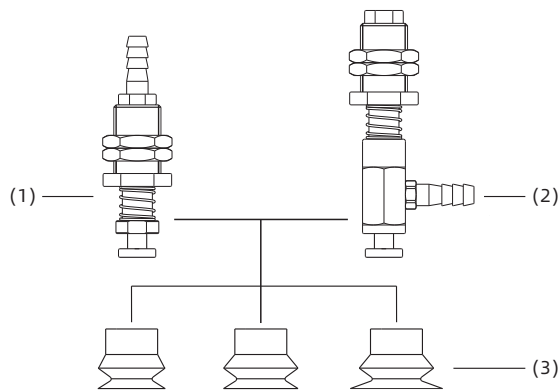
SPJ Series

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 $\phi 6$ hose	M9 - M9 \times 1
			4	15	LB6 - Lateral, Pagoda fitting $\phi 6$ hose	M11 - M11 \times 1
			6	30	LR1 - Lateral, Rc1/8 Female thread	M14 - M14 \times 1
						M16 - M16 \times 1.5

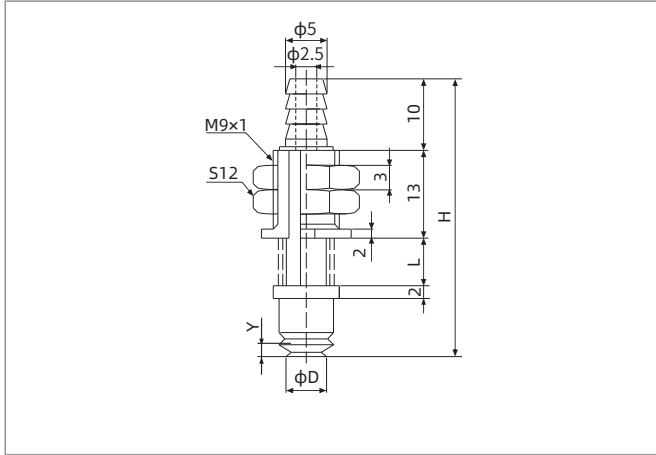
Selection

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

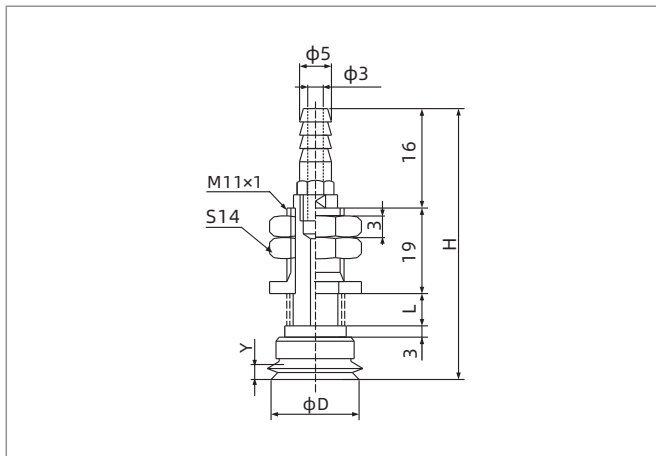
SPJ Series

Suction Cup with Level Compensator

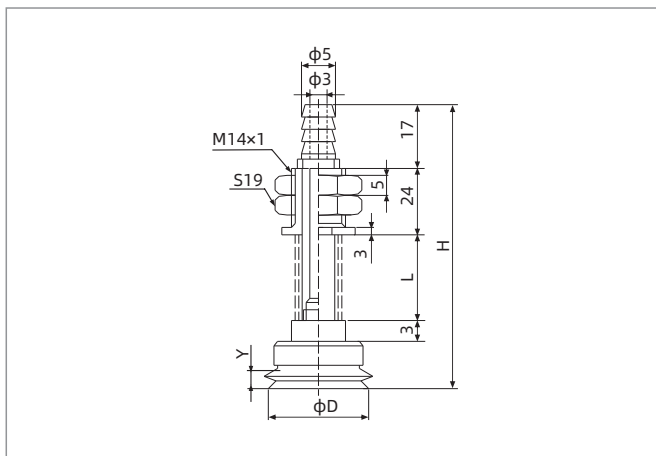
Dimensions(mm)



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

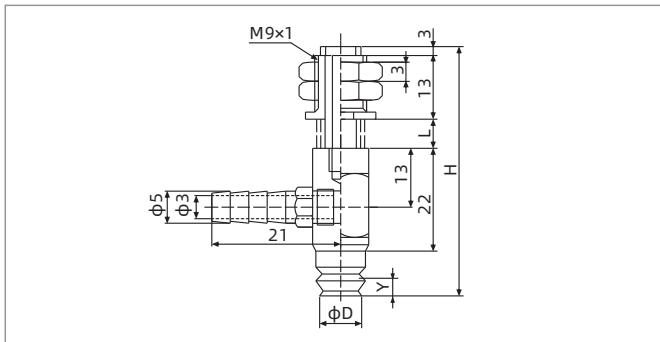
Model/Size	D	H	L	Y	Buffer stroke
SPJ10□-FE4B6-M11	10	55.5	8	3	4
SPJ10□-FE10B6-M11	10	67.5	20	3	10
SPJ15□-FE4B6-M11	15	57	8	3.3	4
SPJ15□-FE10B6-M11	15	69	20	3.3	10
SPJ20□-FE4B6-M11	20	59	8	5.5	4
SPJ20□-FE10B6-M11	20	71	20	5.5	10

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

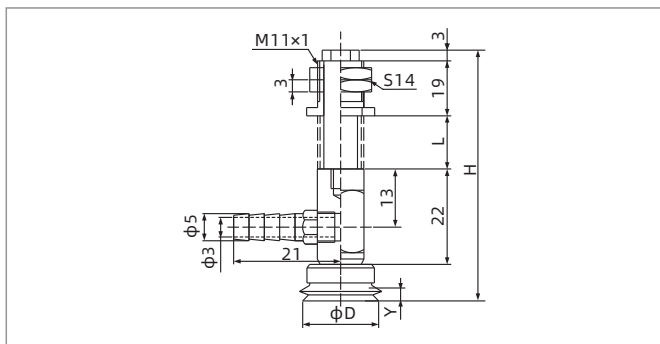
SPJ Series

Suction Cup with Level Compensator

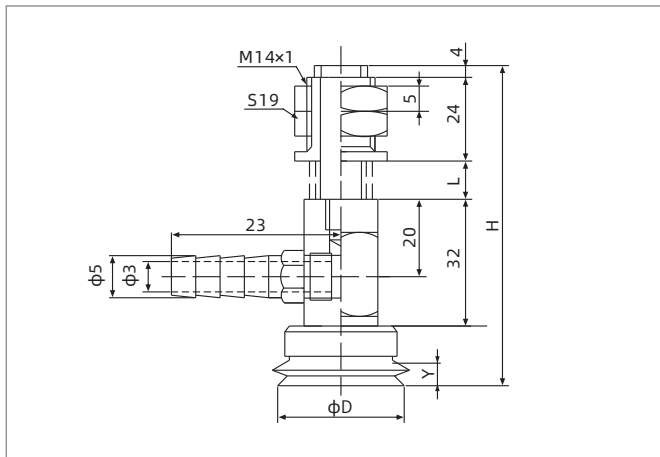
Dimensions(mm)



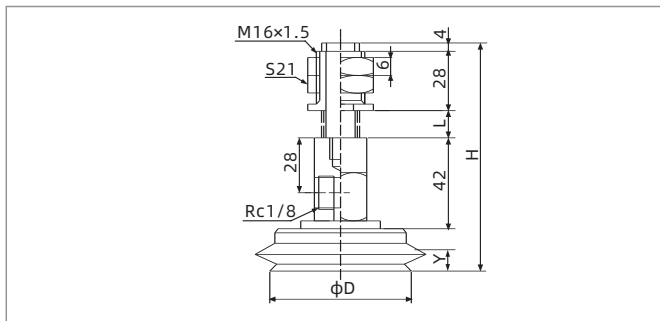
SPJ6-8 Lateral-Pagoda fitting



SPJ10-20 Lateral-Pagoda fitting



SPJ25-50 Lateral-Pagoda fitting



SPJ60-80 Lateral-Female thread connection

Model/Size	D	H	L	Y	Buffer stroke
SPJ6□-FE3LB6-M9	6	53	6	4.2	3
SPJ6□-FE10LB6-M9	6	67	20	4.2	10
SPJ8□-FE3LB6-M9	8	53	6	4	3
SPJ8□-FE10LB6-M9	8	67	20	4	10

Model/Size	D	H	L	Y	Buffer stroke
SPJ10□-FE4LB6-M11	10	61.5	8	3	4
SPJ10□-FE10LB6-M11	10	73.5	20	3	10
SPJ15□-FE4LB6-M11	15	63	8	3.3	4
SPJ15□-FE10LB6-M11	15	75	20	3.3	10
SPJ20□-FE4LB6-M11	20	65	8	5.5	4
SPJ20□-FE10LB6-M11	20	77	20	5.5	10

Model/Size	D	H	L	Y	Buffer stroke
SPJ25□-FE6LB6-M14	25	88.5	13	6.5	6
SPJ25□-FE15LB6-M14	25	105.5	30	6.5	15
SPJ30□-FE6LB6-M14	30	91	13	7	6
SPJ30□-FE15LB6-M14	30	108	30	7	15
SPJ35□-FE6LB6-M14	35	91	13	7	6
SPJ35□-FE15LB6-M14	35	108	30	7	15
SPJ40□-FE6LB6-M14	40	91	13	7.2	6
SPJ40□-FE15LB6-M14	40	108	30	7.2	15
SPJ50□-FE6LB6-M14	50	93	13	9	6
SPJ50□-FE15LB6-M14	50	110	30	9	15

Model/size	D	H	L	Y	Buffer stroke
SPJ60□-FE10LR1-M16	60	114	20	8	10
SPJ60□-FE30LR1-M16	60	154	60	8	30
SPJ70□-FE10LR1-M16	70	115	20	9.5	10
SPJ70□-FE30LR1-M16	70	155	60	9.5	30
SPJ80□-FE10LR1-M16	80	115	20	9.5	10
SPJ80□-FE30LR1-M16	80	155	60	9.5	30

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

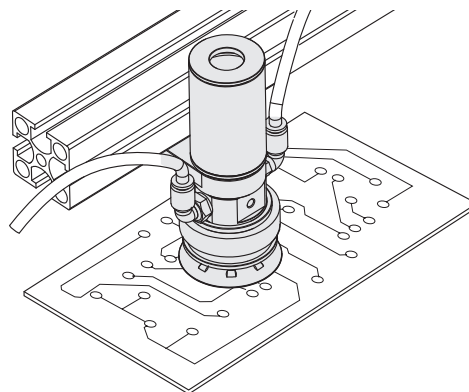
Advantages

- ◇ 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



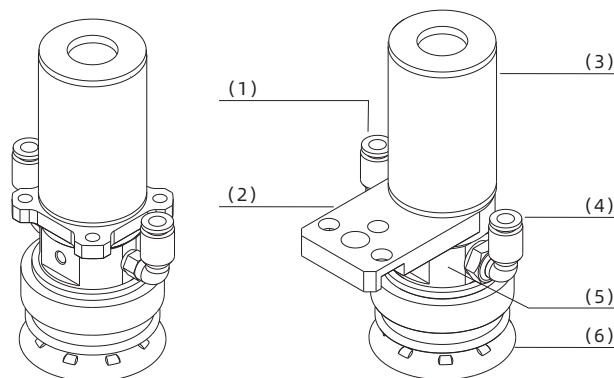
Application

- ◇ 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 T - Vertical + pagoda fitting	D - With vacuum release port	F2 - Vertical, 84x9mm 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	SLB50WS-M10SD-F11
SLB30E-M10SD-F13	SLB50E-M10SD-F13	SLB50WS-M10SD-F13
SLB30E-M10TD-F11	SLB50E-M10TD-F11	SLB50WS-M10TD-F11
SLB30E-M10TD-F13	SLB50E-M10TD-F13	SLB50WS-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

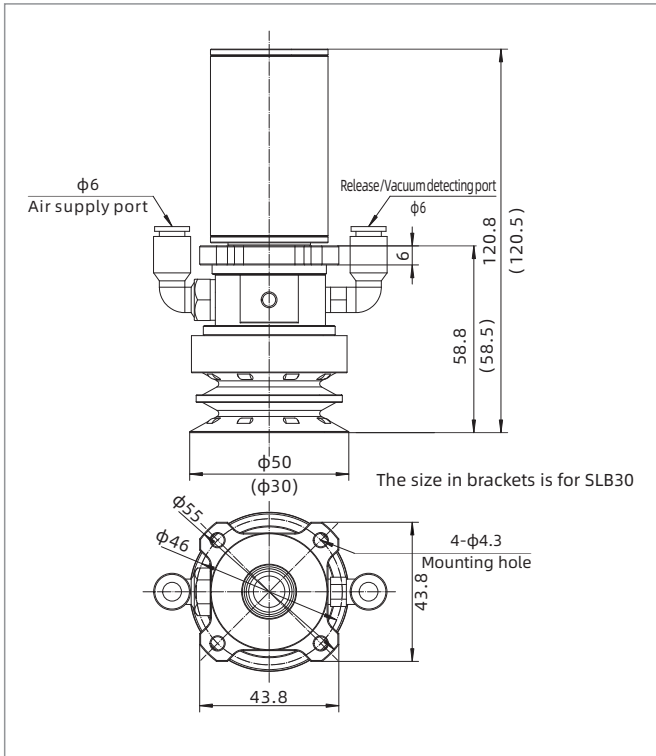
Vacuum flow (NL/min) at different vacuum levels (-kPa)

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

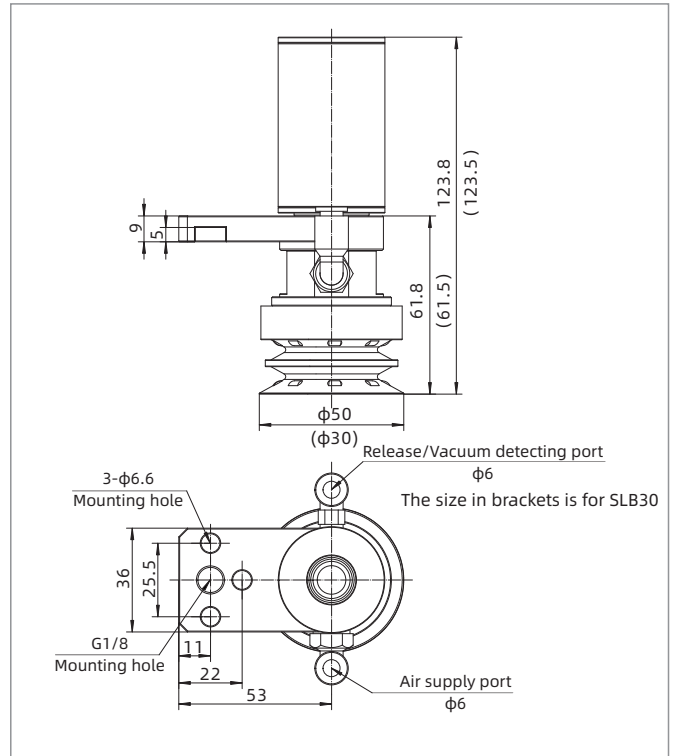
SLB Series

Thin Lip Flow Gripper

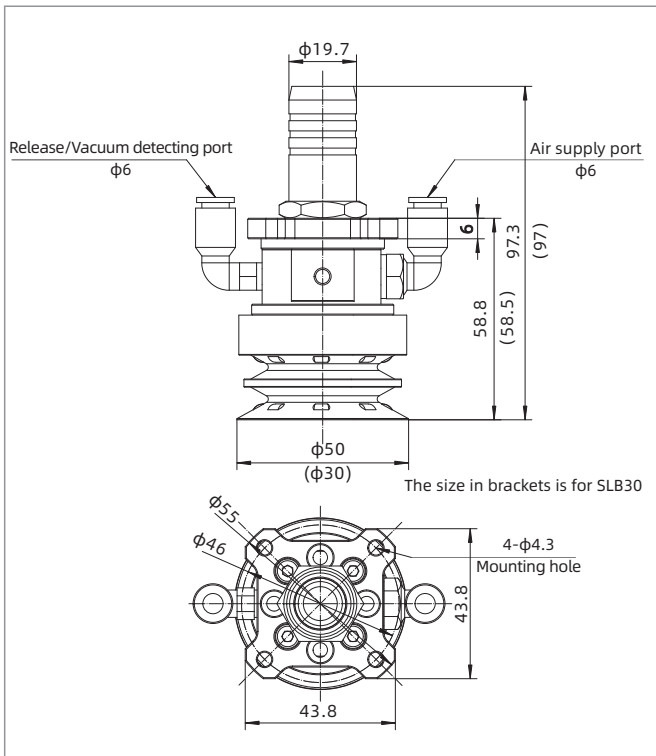
Dimensions(mm)



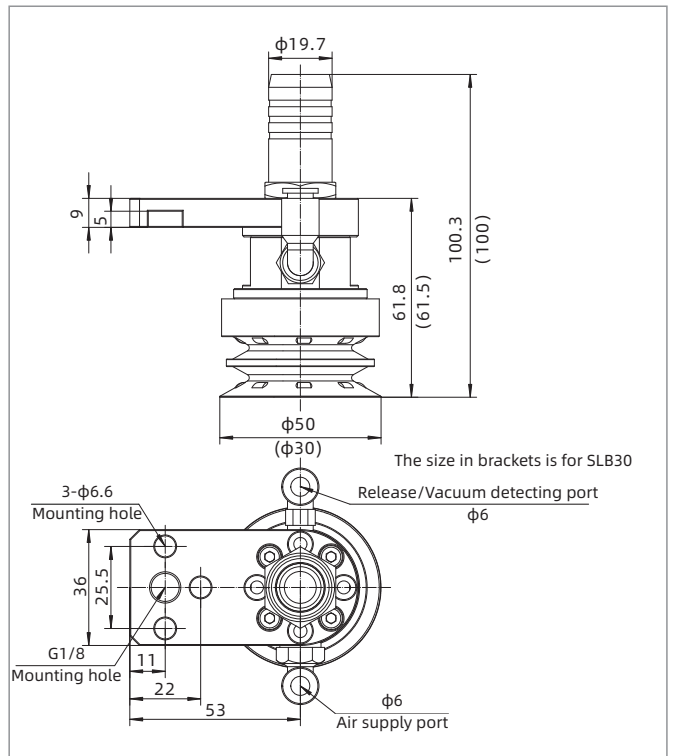
SLB50(30)E-M10SD-F13



SLB50(30)E-M10SD-F11



SLB50(30)E-M10TD-F13



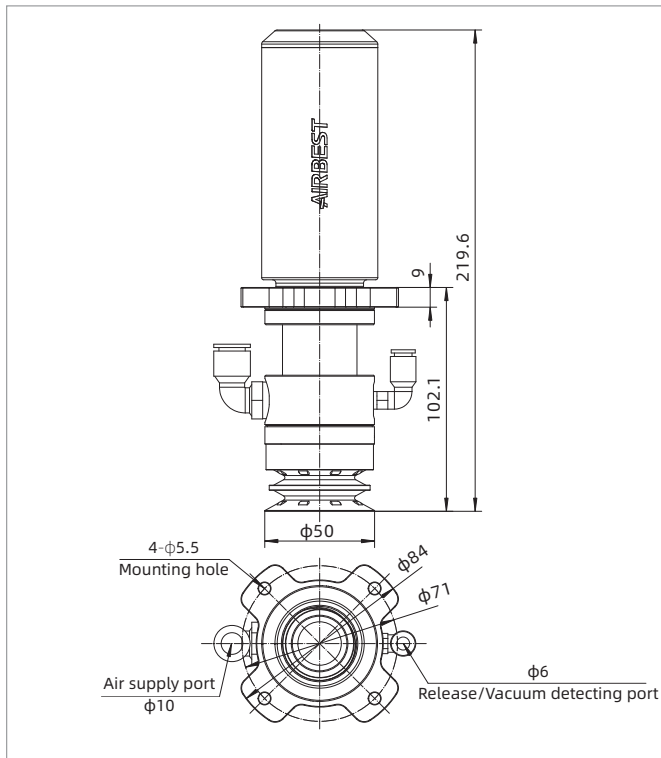
SLB50(30)E-M10TD-F11

SLB Series

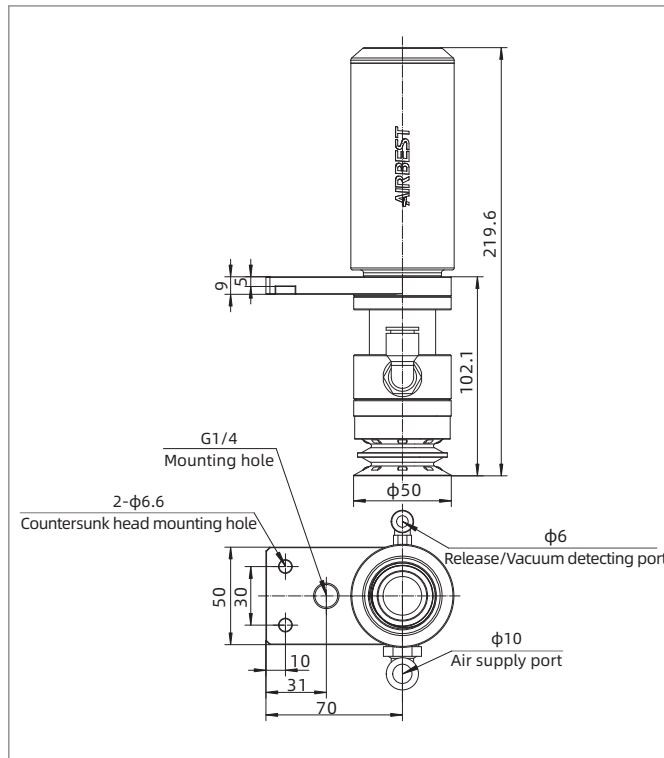
Thin Lip Flow Gripper



Dimensions(mm)



SLB50-M20SD-F2



SLB50-M20SD-F4

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

TXN Series

Vacuum Gripper-Mini Type



ELECTRONICS



PACKAGING

Features

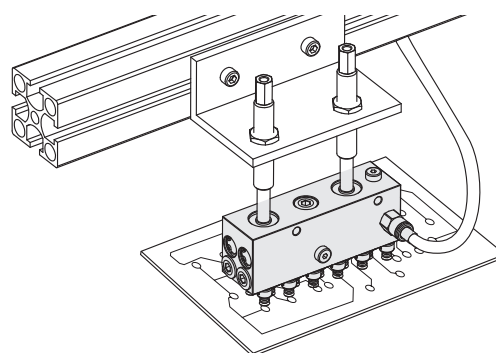
- ◇ Small size, simple structure and light weight
- ◇ Various vacuum sources, can select built-in vacuum generator or external blower
- ◇ Sponge type: Conventional sponge, Mark free sponge, Conductive sponge can be selected
- ◇ Suction cup type: The size, material and rows of suction cups are optional

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



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 - φ3 Single-row suction cup		
	27×90	B5 - φ5 Single-row suction cup		
	60×120	B7 - φ7 Single-row suction cup		
		B3N - φ3 double-row suction cup		
		B5N - φ5 double-row suction cup		
		B7N - φ7 double-row suction cup		
		B3D - φ3 four-row suction cup		
		B5D - φ5 four-row suction cup		
		B7D - φ7 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

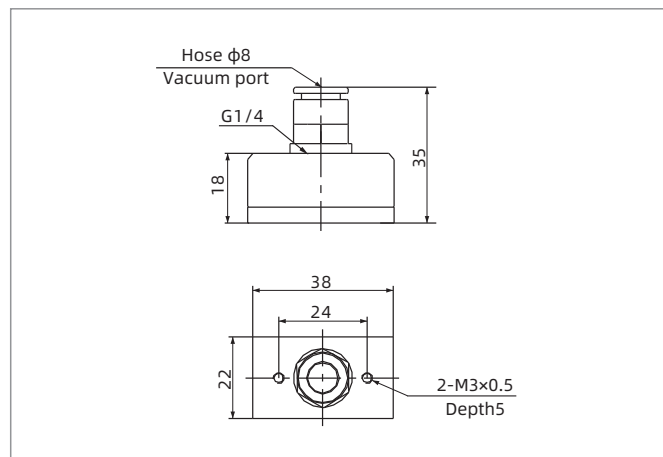


Technical parameters

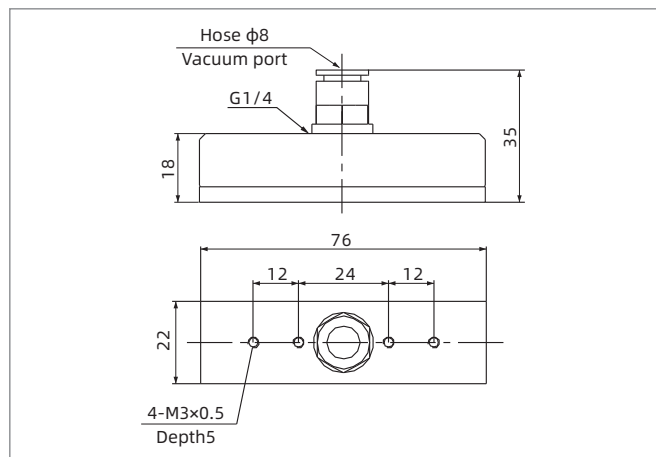
Model	Theoretical suction force N	Recommended min. flow of vacuum generator NL/min	Optional function	Working temperature °C	Weight g	Recommended hose dia.(mm) Vacuum port (V)
TXN22×38	18	≥40	Mark free/Conductive	0-60	45	φ8
TXN22×76	34	≥60	Mark free/Conductive	0-60	68	φ8

- ◇ 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)



TXN22×38



TXN22×76

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

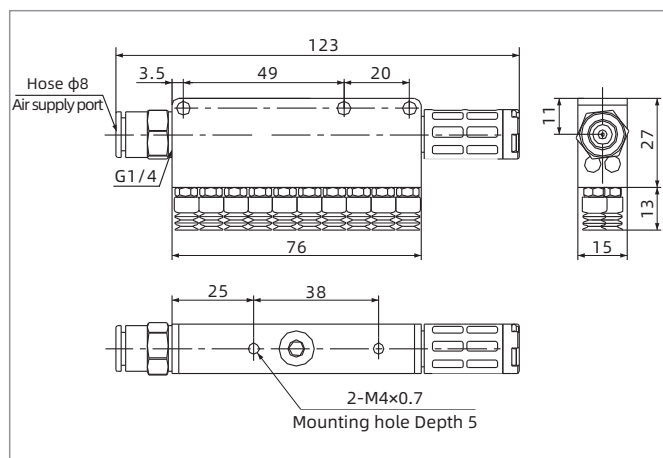
- ◇ The gripper is used in the handling and sorting process of light and small workpieces. It is suitable to handle multihole workpieces and partial leakage workpieces



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	TXN-B5 TXN-B5WS	φ5
TXN suction cup	TXN-B7 TXN-B7WS	φ7

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

Mounting Parts

Vacuum Accessories

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

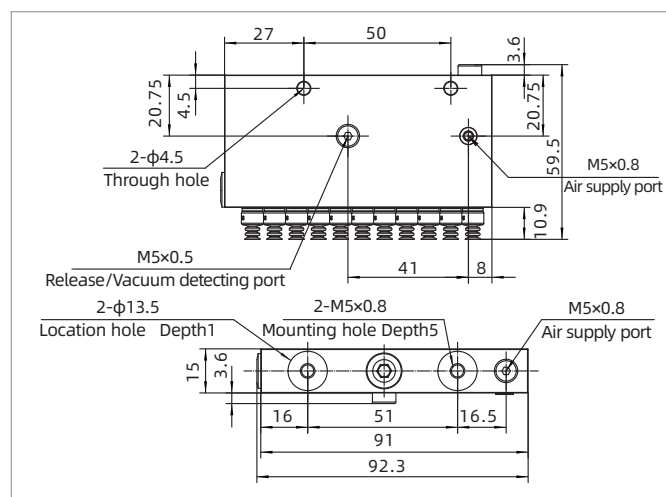


Technical parameters

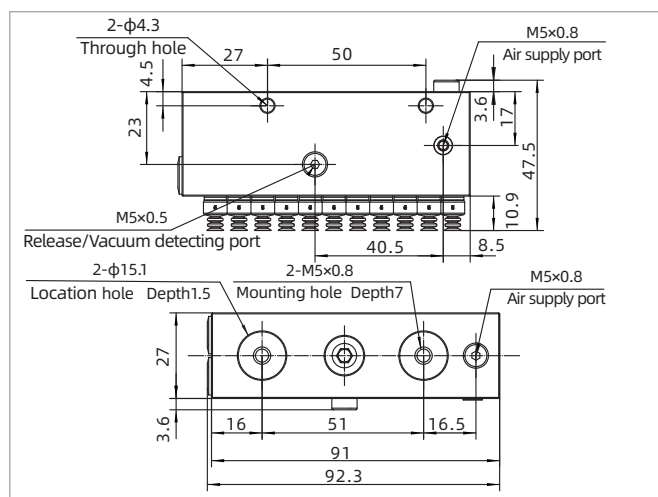
Model	Air supply pressure range bar	Max.vacuum level covered area 100%	Max.vacuum level covered area 25%	Max.vacuum flow NL/min	Air consumption NL/min	Working temperature °C	QTY of suction cup pcs	Weight g
TXN15×90	5.0-6.0	88	50	140	77	0~80	9/11	150
TXN27×90	5.0-6.0	88	25	140	77	0~80	22	190

- ◇ 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



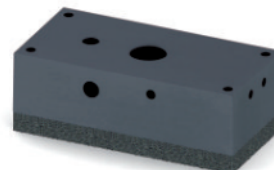
TXN27×90

TXN60×120

Vacuum Gripper-Mini Type

Features

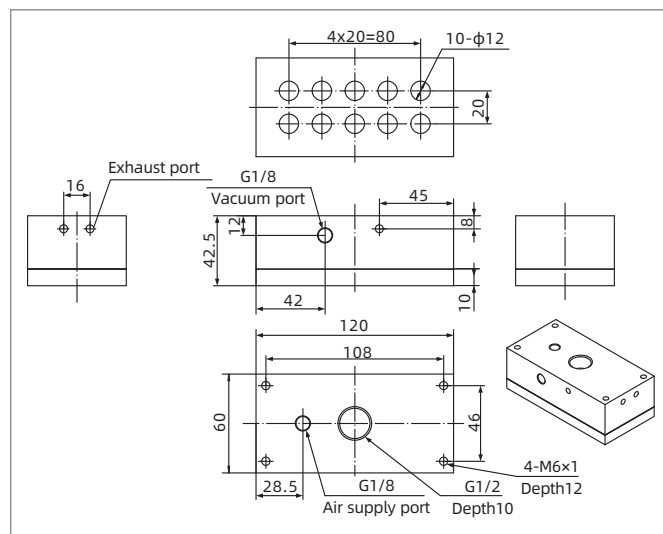
- ◇ The gripper is used in the handling and sorting process of light and small workpieces. It is suitable to handle multihole workpieces and partial leakage workpieces



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	6.0	85	150	75	0-60	G1/8	500

Dimensions(mm)



TXN60×120

Spare parts selection

Item	Model	Dimension mm
60×120 sponge	TXN120-A	60×120×10

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

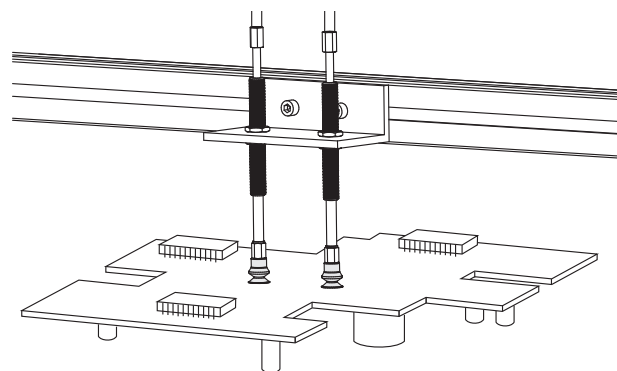
Advantages

- ◇ 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



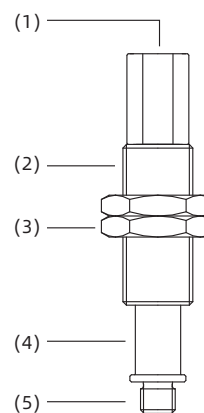
Applications

- ◇ 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

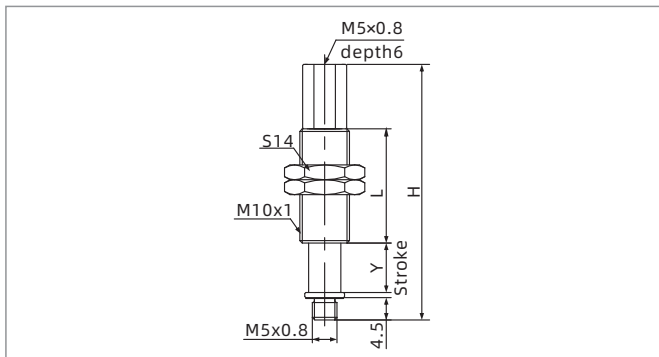
Model/Connection thread LA4M5M	LA6M5M	BA4M5M	BA6M5M
PSPE-I6LA4M5M-M8	PSPE-I6LA6M5M-M8	PSPE-I6BA4M5M-M8	PSPE-I6BA6M5M-M8
PSPE-I10LA4M5M-M8	PSPE-I10LA6M5M-M8	PSPE-I10BA4M5M-M8	PSPE-I10BA6M5M-M8
PSPE-I15LA4M5M-M8	PSPE-I15LA6M5M-M8	PSPE-I15BA4M5M-M8	PSPE-I15BA6M5M-M8
PSPE-I25LA4M5M-M8	PSPE-I25LA6M5M-M8	PSPE-I25BA4M5M-M8	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

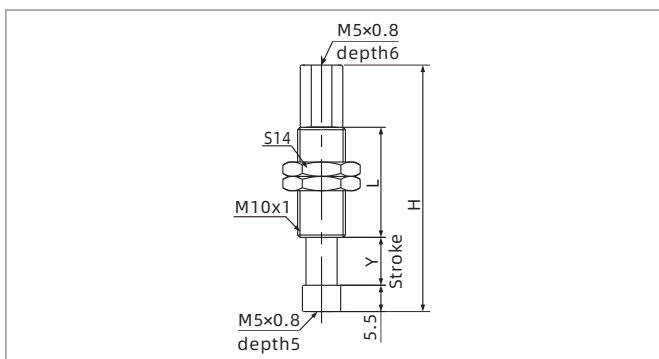
PSPE Series

Small and Light Level Compensator

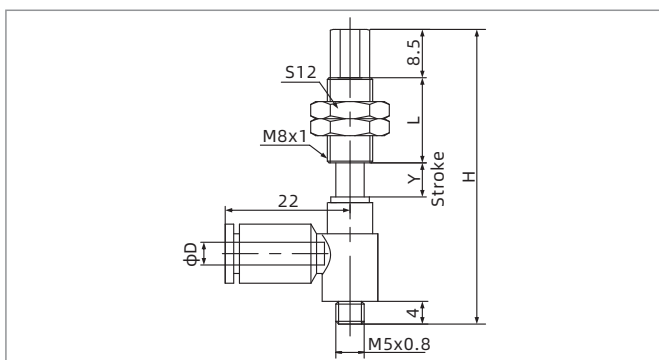
Dimensions(mm)



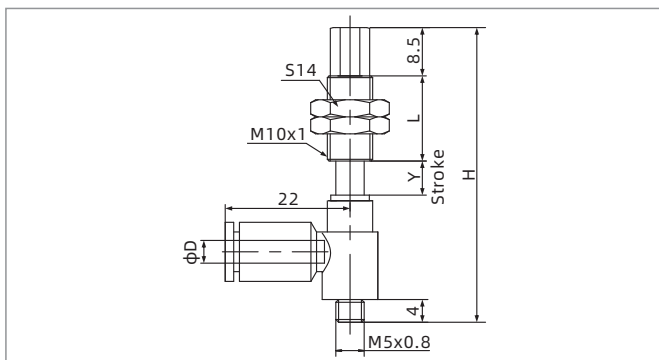
M5M-Vertical male thread connection



M5F-Vertical female thread connection



M5M-Lateral male thread connection



M5M-Lateral male thread connection

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

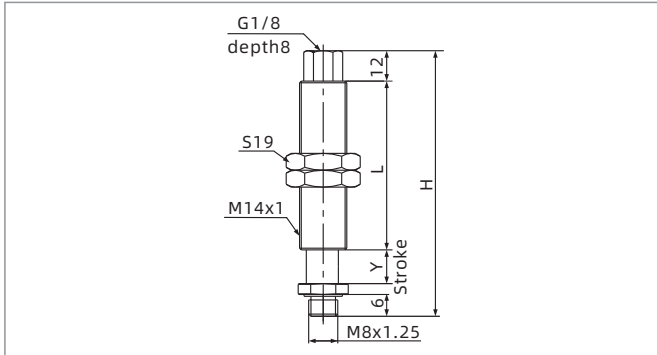
Model/Size	H	L	Y	D	Weight g	F1 N	F2 N
PSPE-I6L(B)A4M5M-M8	52	15	6	4	19	0.8	1.2
PSPE-I6L(B)A6M5M-M8	52	15	6	6	20	0.8	1.2
PSPE-I10L(B)A4M5M-M8	84	43	10	4	26	0.8	1.2
PSPE-I10L(B)A6M5M-M8	84	43	10	6	28	0.8	1.2
PSPE-I15L(B)A4M5M-M8	89	43	15	4	27	0.8	1.2
PSPE-I15L(B)A6M5M-M8	89	43	15	6	29	0.8	1.2
PSPE-I25L(B)A4M5M-M8	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

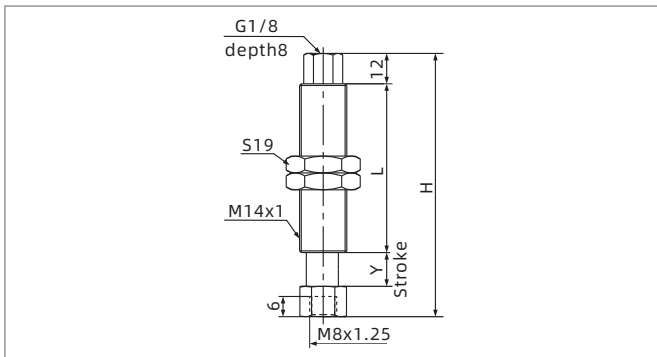
PSPE Series

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

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

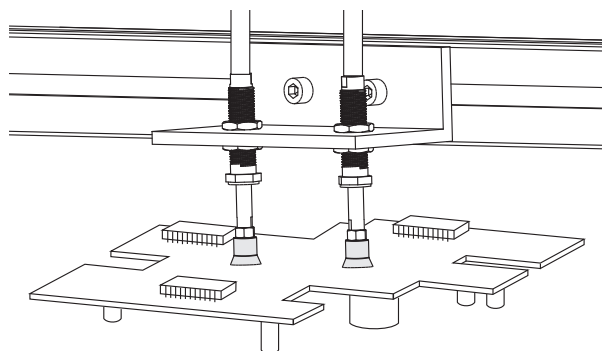
Advantages

- ◇ 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



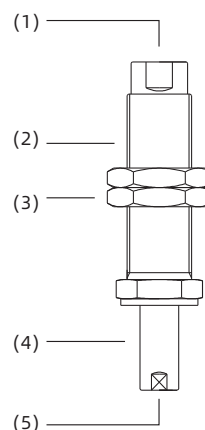
Applications

- ◇ 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

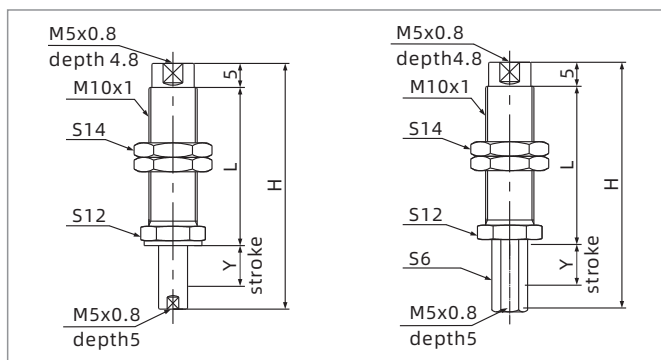
PSPL - I 10 R M5F - M10
 ① ② ③ ④ ⑤ ⑥

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)

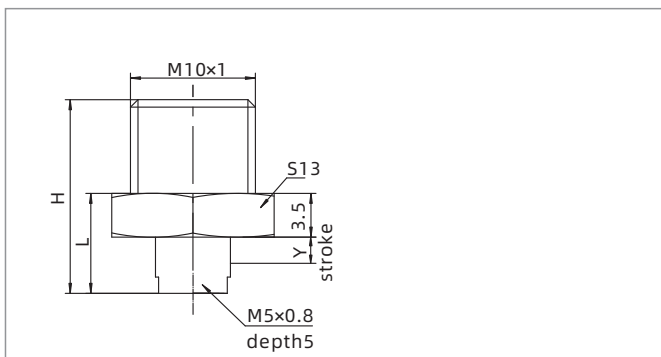


PSPL-I□M5F-M10

PSPL-I□RM5F-M10

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



PSPL-I3M5F-M10

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

PSPT Series

Universal Level Compensator



UNIVERSAL



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

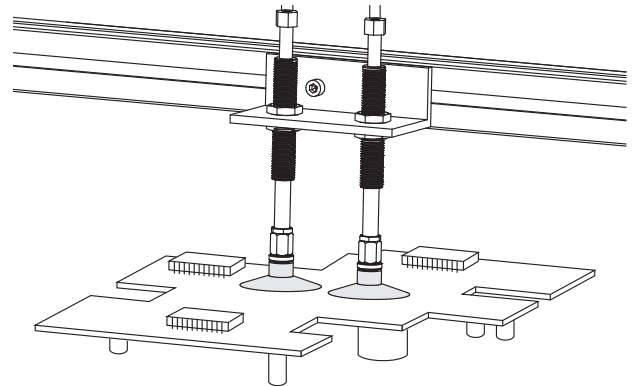
Advantages

- ◇ 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



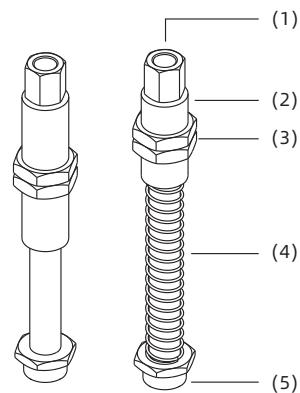
Applications

- ◇ 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



PSPT Series

Universal Level Compensator

How to order

PSPT - I 10 LM5 G1M - M16 - H
 ① ② ③ ④ 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

Vacuum Generator

Suction Cup

Special Vacuum Gripper

Vacuum Gripper

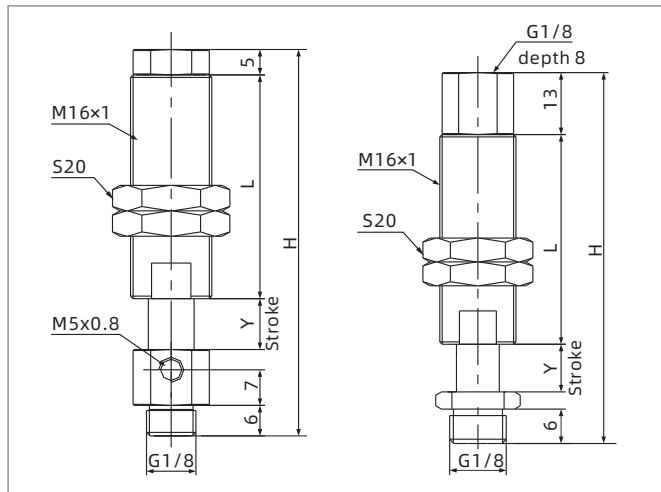
Mounting Parts

Vacuum Accessories

PSPT Series

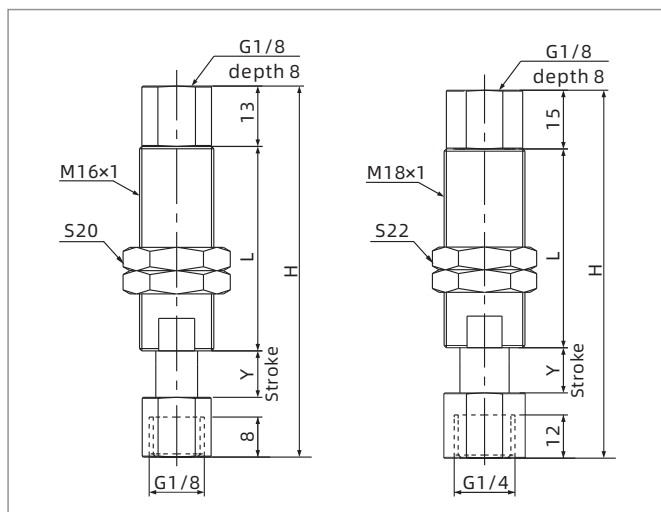
Universal Level Compensator

Dimensions(mm)



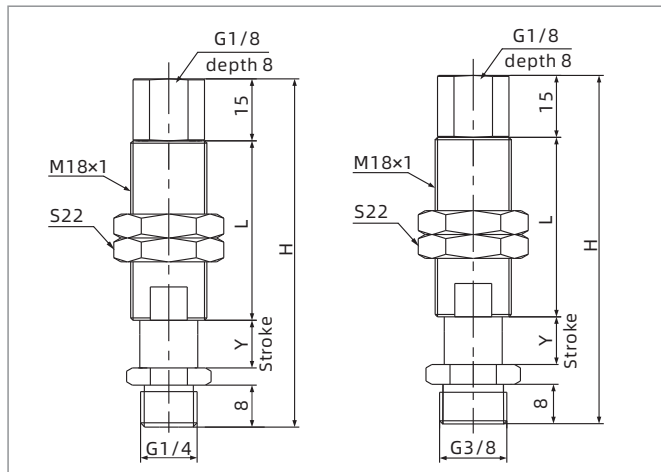
PSPT-I□LM5G1M-M16

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

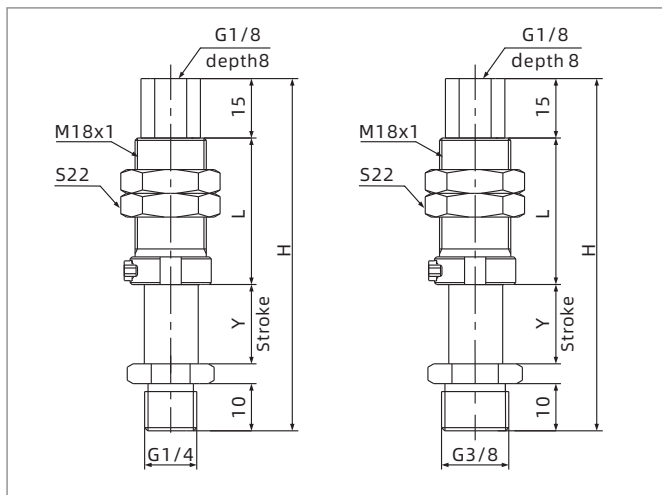
Model/Size	H	L	Y	Weight g	F1 N	F2 N
PSPT-I10G1F-M16	80	44	10	85	2.0	5.5
PSPT-I20G1F-M16	90	44	20	90	2.0	5.5
PSPT-I30G1F-M16	100	44	30	108	2.0	5.5
PSPT-I50G1F-M16	151	75	50	135	2.0	5.5
PSPT-I10G2F-M18	70.5	28	10	93	4.0	7.0
PSPT-I20G2F-M18	90.5	38	20	108	4.0	7.0
PSPT-I30G2F-M18	110.5	48	30	121	4.0	7.0
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

PSPT Series

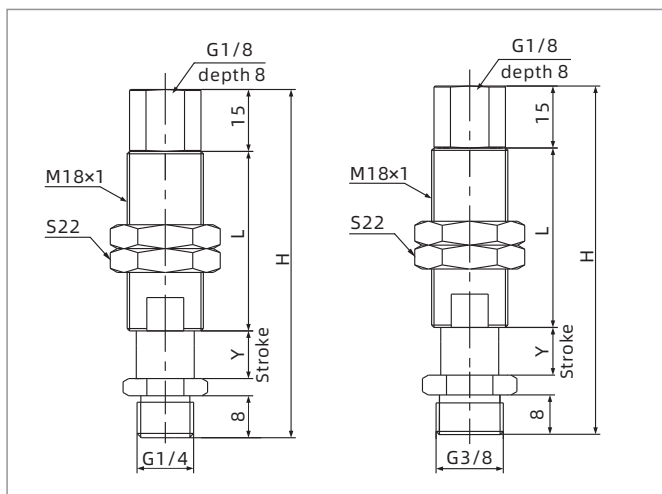
Universal Level Compensator

Dimensions(mm)



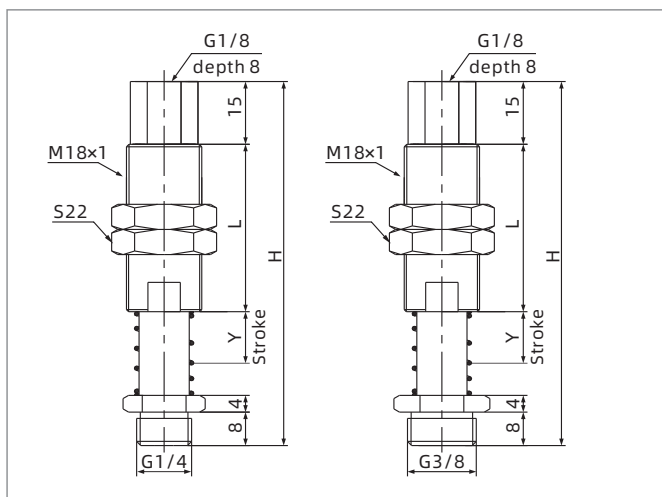
PSPT-I□RG2M-M18

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

PSPF Series

Compact Level Compensator



ELECTRONICS



Features

- ◇ Small size and light weight
- ◇ External buffer spring
- ◇ Different buffer stroke can be selected

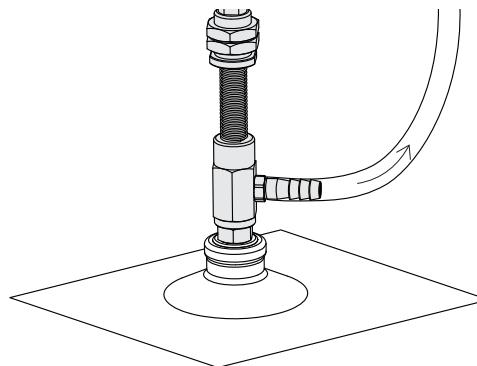
Advantages

- ◇ Especially suitable for electronic industry
- ◇ Flexible contact with fragile workpieces, compensate the height difference of workpieces
- ◇ Suitable for various working conditions



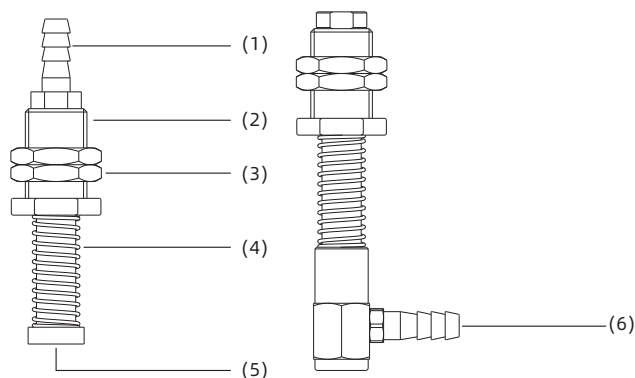
Applications

- ◇ Suitable for handling workpieces with height difference
- ◇ Handle parts sensitive to pressure 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



PSPF Series

Compact Level Compensator

How to order

PSPF - E 6 LB6 M5F - M14
 ① ② ③ ④ ⑤ ⑥

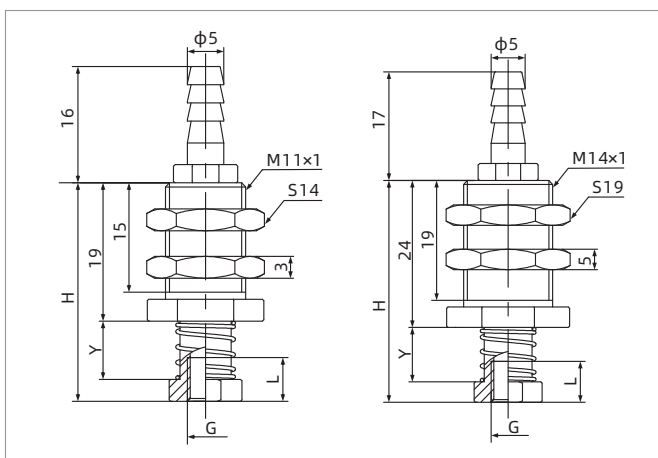
① Series	② Buffer style	③ Buffer stroke	④ Rotary type
PSPF	E - External spring	4 15	B6 - Vertical rotating, pagoda fitting $\phi 6$ hose
		6 30	LB6 - Lateral rotating, pagoda fitting $\phi 6$ hose
		10	LR1 - Lateral rotating, Rc1/8 inside tapered thread
⑤ Connection thread		⑥ Mounting thread	
M5F - M5x0.8 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

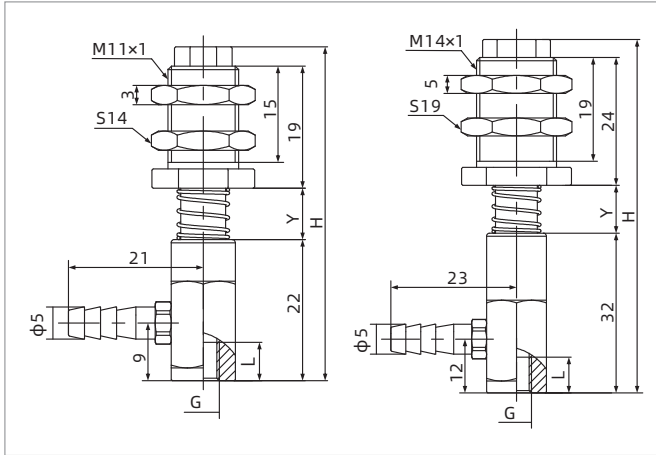
PSPF-E□B6M5F(M8F)-M14

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

PSPF Series

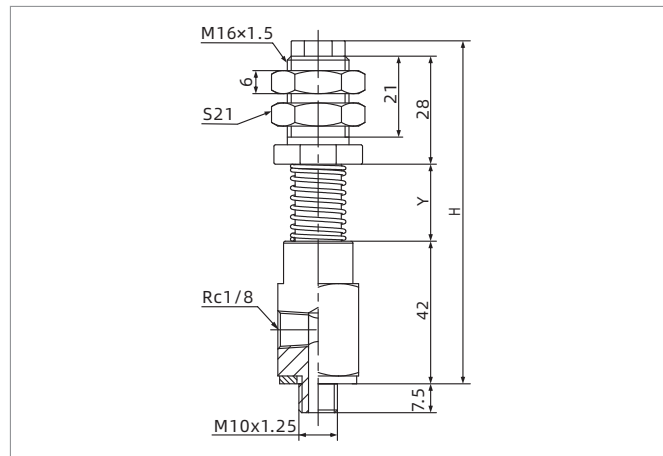
Compact Level Compensator

Dimensions(mm)



PSPF-E□LB6M5F-M11

PSPF-E□LB6M5F(M8F)-M14



PSPF-E□LR1M10M-M16

Model/Size	H	G	L	Y	Stroke	Weight g
PSPF-E4LB6M5F-M11	52	M5×0.8	6	8	4	42
PSPF-E10LB6M5F-M11	64	M5×0.8	6	20	10	61
PSPF-E6LB6M5F-M14	73	M5×0.8	6	13	6	98
PSPF-E15LB6M5F-M14	90	M5×0.8	6	30	15	112
PSPF-E6LB6M8F-M14	73	M8×1.25	8	13	6	96
PSPF-E15LB6M8F-M14	90	M8×1.25	8	30	15	108

Model/Size	H	Y	Stroke	Weight g
PSPF-E10LR1M10M-M16	94	20	10	213
PSPF-E30LR1M10M-M16	134	60	30	256

ZFA Series

Universal Vacuum Filter

AIRBEST



UNIVERSAL

RoHS

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

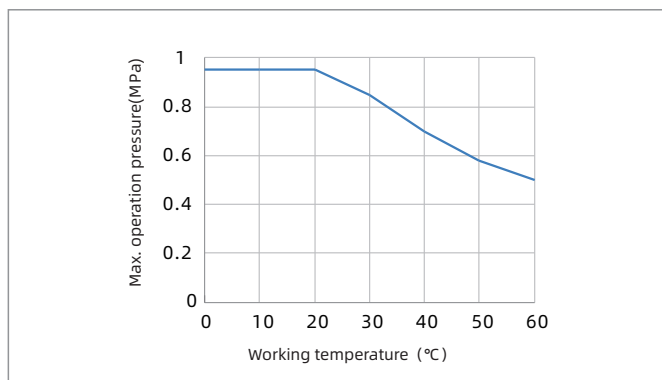
Model	Hose diameter mm	Fluid	Rated operating pressure range MPa	Max. pressure resistance MPa	Positive pressure flow NL/min	Vacuum flow NL/min	Removal efficiency μm	Operating temperature °C	Weight g
ZFA54B	φ4	Air,Nitrogen	-0.1~0.8	1.0	40	10	5	0~60	14
ZFA56B	φ6	Air,Nitrogen	-0.1~0.8	1.0	130	75	5	0~60	13
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

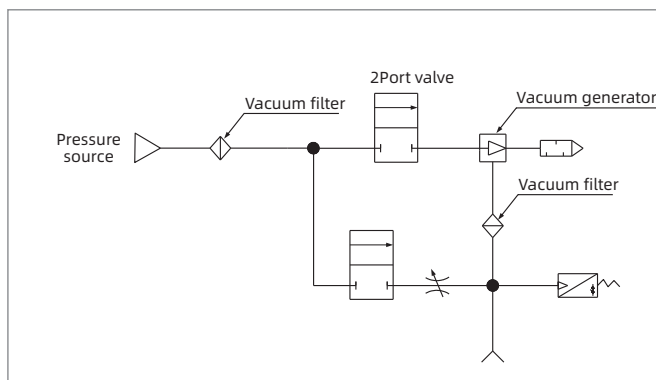
ZFA Series

Universal Vacuum Filter

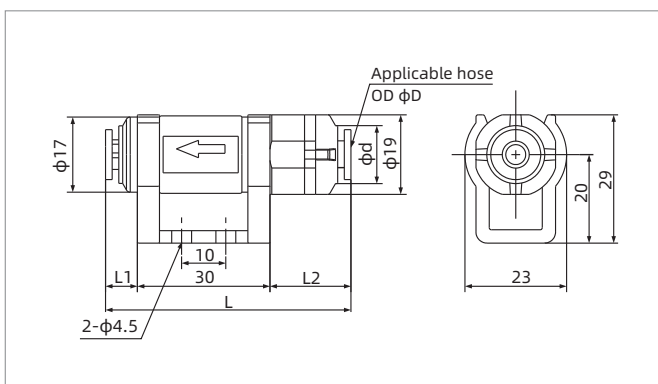
Max. operating pressure and temperature



Application diagram

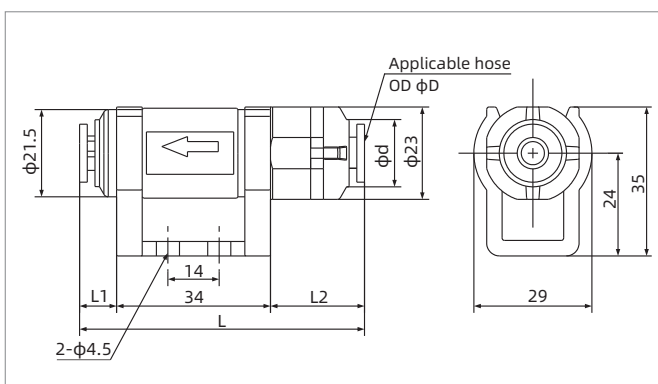


Dimensions (mm)



ZFA5□B

Model/Size	L	L1	D	d
ZFA54B	55.5	8	4	13
ZFA56B	55.5	8	6	13



ZFA7□B

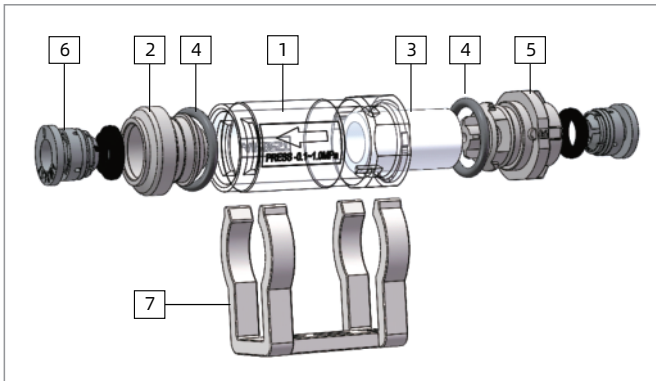
Model/Size	L	L1	D	d
ZFA76B	67	10.5	6	15.5
ZFA78B	69.5	12	8	16
ZFA710B	78.5	17	10	19.5
ZFA712B	78.5	17	12	21

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



Tool

Filter element

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

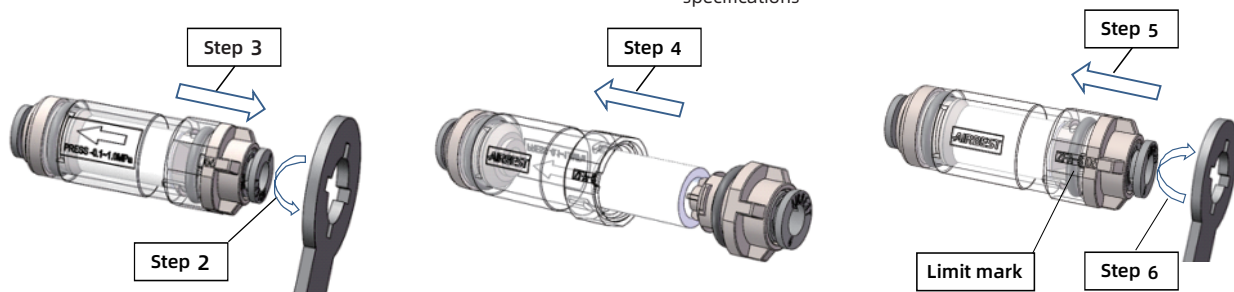
◇ Note: The minimum packing quantity of filter element is 10pcs/bag.

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)

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



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

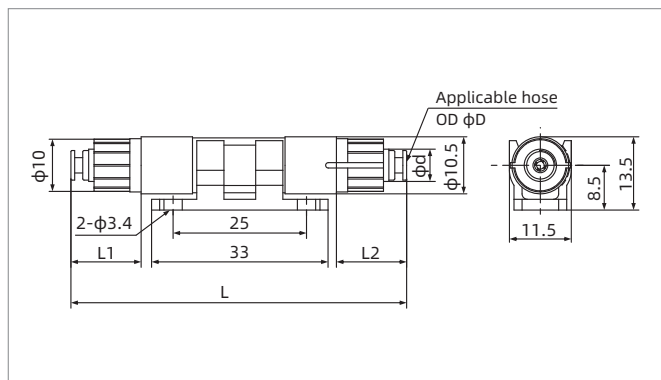
Technical parameters

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

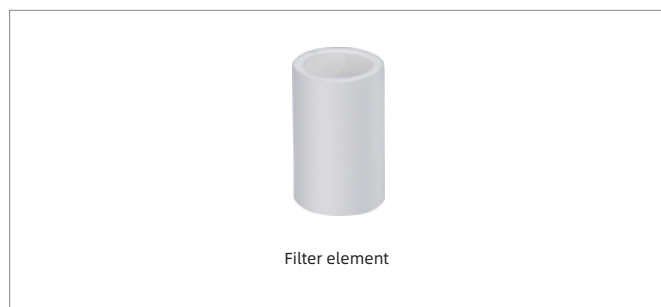
Dimensions (mm)



ZFE-□B

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	-

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

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

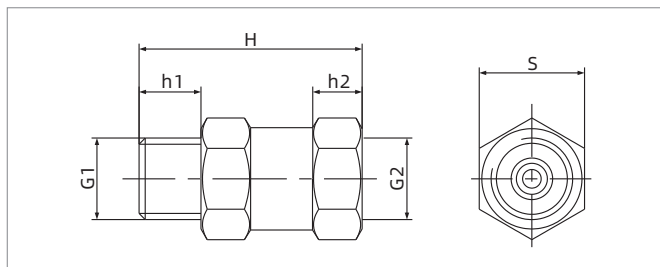
Selection

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

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

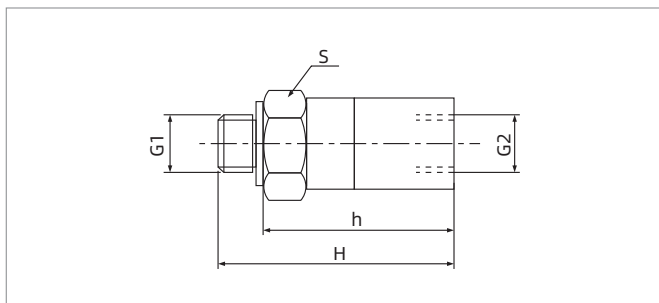
Technical parameters

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



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