

Vacuum Ejector

Series ZH

Box Type (Built-in Silencer)/Body Ported Type

Nozzle diameter: $\phi 0.5$, $\phi 0.7$, $\phi 1.0$, $\phi 1.3$, $\phi 1.5$, $\phi 1.8$, $\phi 2.0$

Type S: Standard type

L: Large flow type

ZK2

ZQ

ZR

ZA

ZX

ZM

ZMA

ZL

ZH

ZU

ZYY

ZYX

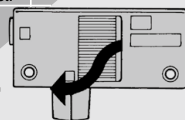
Compact and lightweight

The nozzle and the body, which have been made into a composite resin construction, are compact and lightweight.

Nozzle diameter $\phi 0.5 \sim 28$ g

Box type (Built-in silencer) Body ported

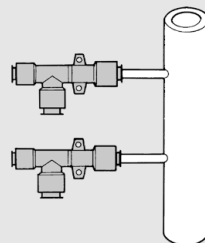
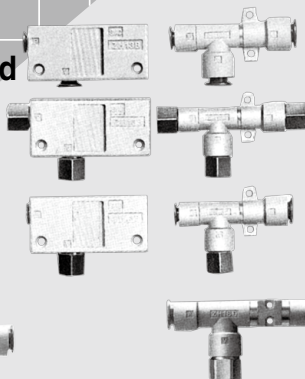
Two types are available in the series: the box type with a silencer exhaust, and the body ported type, with an individual exhaust.



<Silencer exhaust>

One-touch and screw-in connections can be combined.

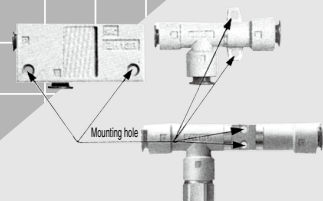
To suit the operating conditions, port connections can be combined with a choice of one-touch and screw-in connections.



<Centralized exhaust>

Body can be mounted and secured.

The body ported type is also provided with mounting holes for securing the body.



Vacuum Ejector Box Type (Built-in Silencer)/Body Ported Type Series ZH

RoHS

How to Order



Note Refer to "Table (1)" and "(2)" for the combination available for SUP, VAC and EXH port connection.

Box type
(Built-in silencer)

Body ported type
(Without silencer)



Nozzle diameter

05	0.5
07	0.7
10	1.0
13	1.3
15	1.5
18	1.8
20	2.0

Maximum vacuum
pressure

S	-88 kPa
L	-48 kPa

SUP. port size ^{Note)}

Symbol	Size	Style
06	6	One-touch
08	8	One-touch
10	10	One-touch
12	12	One-touch
01	Rc 1/8	Screw-in
02	Rc 1/4	Screw-in
03	Rc 3/8	Screw-in
F01	G 1/8	Screw-in
F02	G 1/4	Screw-in
F03	G 3/8	Screw-in

VAC. port size ^{Note)}

Symbol	Size	Style
06	6	One-touch
10	10	One-touch
12	12	One-touch
16	16	One-touch
01	Rc 1/8	Screw-in
02	Rc 1/4	Screw-in
03	Rc 3/8	Screw-in
04	Rc 1/2	Screw-in
F01	G 1/8	Screw-in
F02	G 1/4	Screw-in
F03	G 3/8	Screw-in
F04	G 1/2	Screw-in

EXH. port size ^{Note)}

Symbol	Size	Style
06	6	One-touch
08	8	One-touch
10	10	One-touch
12	12	One-touch
16	16	One-touch
01	Rc 1/8	Screw-in
02	Rc 1/4	Screw-in
03	Rc 3/8	Screw-in
04	Rc 1/2	Screw-in
F01	G 1/8	Screw-in
F02	G 1/4	Screw-in
F03	G 3/8	Screw-in
F04	G 1/2	Screw-in

Note) Do not make the piping diameter smaller, such as by connecting a reducer to the exhaust port, etc., since it may lower the performance.

* The thread ridge shape is conforming to G thread standard (JIS B 0202), but other shapes are not conforming to ISO16030 and ISO1179.

Table (1) Combination of Connection

Body type		SUP	VAC	EXH
Box type (Built-in silencer)	1	One-touch	One-touch	—
	2	One-touch	Screw-in	—
	3	Screw-in	Screw-in	—
Body ported type (Without silencer)	1	One-touch	One-touch	One-touch
	2	One-touch	Screw-in	One-touch
	3	Screw-in	Screw-in	Screw-in

Table (2) Port Size

Model	Connection (One-touch/Screw-in)			
	SUP	VAC	EXH	
ZH05B	ø6, Rc 1/8 G 1/8	ø6, Rc 1/8 G 1/8	—	
ZH07B				
ZH10B				
ZH13B	ø8, Rc 1/8 G 1/8	ø10, Rc 1/4 G 1/4	—	
ZH05D	ø6, Rc 1/8 G 1/8	ø6, Rc 1/8 G 1/8		
ZH07D				
ZH10D				
ZH13D	ø8, Rc 1/8 G 1/8	ø10, Rc 1/4 G 1/4	ø10, Rc 1/4 G 1/4	
ZH15D	ø10, Rc 1/4 G 1/4	ø12, Rc 3/8 G 3/8	ø12, Rc 3/8 G 3/8	
ZH18D	ø12, Rc 3/8 G 3/8			
ZH20D	ø12, Rc 3/8 G 3/8			
		ø16, Rc 1/2 G 1/2	ø16, Rc 1/2 G 1/2	

Vacuum Ejector Box Type (Built-in Silencer)/Body Ported Type **Series ZH**

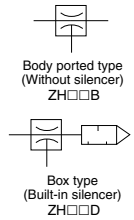


Box type: Type B



Body ported type: Type D

Ejector Symbol



Model

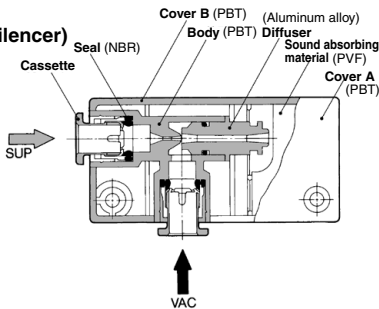
Model	Nozzle diameter (mm)	Body type	Max. vacuum pressure * (kPa)		Maximum suction flow rate (L/min (ANR))		Air consumption (L/min (ANR))	Connection (One-touch/Screw-in)			Weight (g)			
			Type S	Type L	Type S	Type L	Type S/Type L	SUP	VAC	EXH				
ZH05B□	0.5	Box type (Built-in silencer)	-88	-48	5	8	13	ø6, Rc 1/8 G 1/8	ø6, Rc 1/8 G 1/8	-	28			
ZH07B□	0.7				12	20	23				28			
ZH10B□	1.0				24	34	46				33			
ZH13B□	1.3				40	70	78				66			
ZH05D□	0.5	Body ported type (Without silencer)	-88	-48	5	8	13	ø6, Rc 1/8 G 1/8	ø6, Rc 1/8 G 1/8	ø6, Rc 1/8 G 1/8	11			
ZH07D□	0.7				12	20	23				12			
ZH10D□	1.0				24	34	46				ø6, Rc 1/8 G 1/8	ø6, Rc 1/8 G 1/8	ø8, Rc 1/8 G 1/8	16
ZH13D□	1.3				40	70	78				ø8, Rc 1/8 G 1/8	ø10, Rc 1/4 G 1/4	ø10, Rc 1/4 G 1/4	27
ZH15D□	1.5	Body ported type (Without silencer)	-88	-53	55	75	95	ø10, Rc 1/4 G 1/4	ø12, Rc 3/8 G 3/8	ø12, Rc 3/8 G 3/8	43			
ZH18D□	1.8				65	110	150	ø12, Rc 3/8 G 3/8			55			
ZH20D□	2.0				85	135	185	ø12, Rc 3/8 G 3/8	ø16, Rc 1/2 G 1/2	ø16, Rc 1/2 G 1/2	95			

Fluid: Air, Operating temperature: 5 to 50 °C, Max. operating pressure: 0.6 MPa. Standard supply pressure: 0.45 MPa

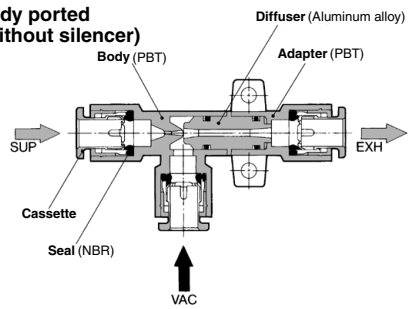
* Supply pressure: 0.45 MPa.

Construction

Box type (Built-in silencer)



Body ported (Without silencer)



⚠ Precautions

- Be sure to read before handling.
- Refer to front matter 35 for Safety Instructions and pages 899 to 901 for Vacuum Equipment Precautions.

⚠ Caution

Mounting

Make sure that an excessive amount of load or moment is not applied to the ejector body due to pipe connections or installation.

Exhaust piping

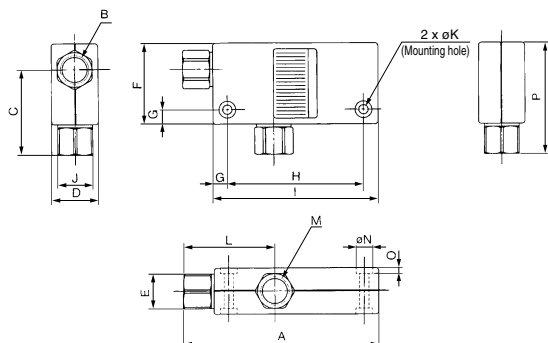
On the ZH□□□□ models, keep exhaust ports open on at least one side. Make sure that the back pressure of the exhaust pipe on the ZH□□□□ models is 0.005 MPa or less. (Reference: Using tubing with an applicable diameter, its length must be 0.5 m or less.)
(Port indication: P: supply port; V: vacuum port; E: exhaust port.)

Selection and sizing

Refer to the vacuum equipment model selection on pages 877 to 898.

Box Type (Built-in silencer): ZH□B_L^S-□-□

Screw-in connection



Model	A	B	C	D	E	F	G	H
ZH05BS-01-01								
ZH05BL-01-01	67.5	Rc 1/8	29.5	16	12	28	5	47
ZH07BS-01-01								
ZH07BL-01-01								
ZH10BS-01-01	70.5	Rc 1/8	30.5	18	12	29	5	50
ZH10BL-01-01								
ZH13BS-01-02	86.5	Rc 1/8	38.5	23	14	35	7	61
ZH13BL-01-02								
ZH05BS-F01-F01								
ZH05BL-F01-F01	67.5	G 1/8	29.5	16	12	28	5	47
ZH07BS-F01-F01								
ZH07BL-F01-F01								
ZH10BS-F01-F01	70.5	G 1/8	30.5	18	12	29	5	50
ZH10BL-F01-F01								
ZH13BS-F01-F02	86.3	G 1/8	39	23	14	35	7	61
ZH13BL-F01-F02								

Model	I	J	øK	L	M	øN	O	P
ZH05BS-01-01								
ZH05BL-01-01	57	12	3.2	31.5	Rc 1/8	5.8	2	38.5
ZH07BS-01-01								
ZH07BL-01-01								
ZH10BS-01-01	60	12	3.2	33.5	Rc 1/8	5.8	2	39.5
ZH10BL-01-01								
ZH13BS-01-02	75	17	4.2	36.3	Rc 1/4	7.5	3	49.5
ZH13BL-01-02								
ZH05BS-F01-F01								
ZH05BL-F01-F01	57	12	3.2	31.5	G 1/8	5.8	2	38.5
ZH07BS-F01-F01								
ZH07BL-F01-F01								
ZH10BS-F01-F01	60	12	3.2	33.5	G 1/8	5.8	2	39.5
ZH10BL-F01-F01								
ZH13BS-F01-F02	75	17	4.2	36.3	G 1/4	7.5	3	50
ZH13BL-F01-F02								

* Please contact SMC for combinations other than listed above.

ZK2

ZQ

ZR

ZA

ZX

ZM

ZMA

ZL

ZH

ZU

ZYY

ZYX