



ZH vacuum Pumps/Generator Basic



Features

- Compact and lightweight design for easy installation.
- Offers quick-connect and threaded connections.
- Provides rapid vacuum generation, high vacuum flow, and excellent stability.
- Widely applicable across various industries, including electronics, packaging, printing, plastics, food, and woodworking machinery.



Order Code

ZH 07 B S - 06 - 06

ZH 07 D S - 01 - 01 - 01

① ② ③ ④ ⑤

① Nozzle diameter (mm)

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

② Maximum vacuum level

S	-88kPa
L	-48kPa

③ (Note) SUP. Port

Connection Diameter

Symbol	Dimensions	Form
06	Ø6	Quick-change fitting
08	Ø8	Quick-change fitting
10	Ø10	Quick-change fitting
12	Ø12	Quick-change fitting
01	Rc1/8	Threaded screw-in
02	Rc1/4	Threaded screw-in
03	Rc3/8	Threaded screw-in

④ (Note) VAC. Port Connection Diameter

Symbol	Dimensions	Form
06	Ø6	Quick-change fitting
10	Ø10	Quick-change fitting
12	Ø12	Quick-change fitting
16	Ø16	Quick-change fitting
01	Rc1/8	Threaded screw-in
02	Rc1/4	Threaded screw-in
03	Rc3/8	Threaded screw-in
04	Rc1/2	Threaded screw-in

⑤ (Note) EXH. Port Connection Diameter

Symbol	Dimensions	Form
06	Ø6	Quick-change fitting
08	Ø8	Quick-change fitting
10	Ø10	Quick-change fitting
12	Ø12	Quick-change fitting
16	Ø16	Quick-change fitting
01	Rc1/8	Threaded screw-in
02	Rc1/4	Threaded screw-in
03	Rc3/8	Threaded screw-in
04	Rc1/2	Threaded screw-in

Technical specifications

Model	Nozzle diameter ①1mm	Main body form	Maximum vacuum level(kPa)		Maximum vacuum flow rate(l/min)		Air consumption rate(l/min)	Connection type (Quick-change fitting/threaded screw-in)		
			S type	L type	S type	L type	S type/L type	SUP	VAC	EXH
ZH05B □	0.5	Box-type (With built-in silencer)	-88	-48	5	9	13.5	Ø6/Rc1/8	Ø6/Rc1/8	--
ZH07B □	0.7				12	22	23.5			
ZH10B □	1.0				24	34	46			
ZH13B □	1.3				40	75	78	Ø8/Rc1/8	Ø10/Rc1/4	
ZH05D □	0.5	Direct piping type (Without silencer)	-88	-48	7.5	9	13.5	Ø6/Rc1/8	Ø6/Rc1/8	Ø6/Rc1/8
ZH07D □	0.7				12	22	23.5			
ZH10D □	1.0				24	34	46			
ZH13D □	1.3				40	75	78	Ø8/Rc1/8	Ø10/Rc1/4	Ø10/Rc1/4
ZH15D □	1.5	Direct piping type (Without silencer)	-88	-53	60	80	97	Ø10/Rc1/4	Ø12/Rc3/8	Ø12/Rc3/8
ZH18D □	1.8				70	110	150	Ø12/Rc3/8		
ZH20D □	2.0				85	140	185	Ø12/Rc3/8	Ø16/Rc1/2	Ø16/Rc1/2

Table①: Combinations of Connection Types

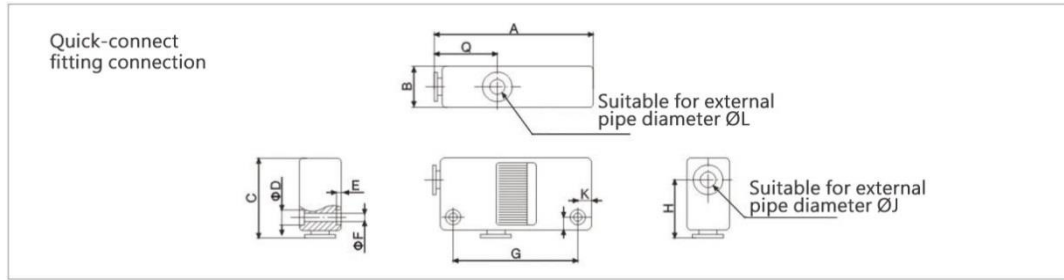
Main body form		SUP	VAC	EXH
Box-type (With built-in silencer)	①	Quick-change fitting	Quick-change fitting	--
	②	Quick-change fitting	Threaded screw-in	--
	③	Threaded screw-in	Threaded screw-in	--
Direct piping type (Without silencer)	①	Quick-change fitting	Quick-change fitting	Quick-change fitting
	②	Quick-change fitting	Threaded screw-in	Quick-change fitting
	③	Threaded screw-in	Threaded screw-in	Threaded screw-in

Table②: Combinations of Connection Types

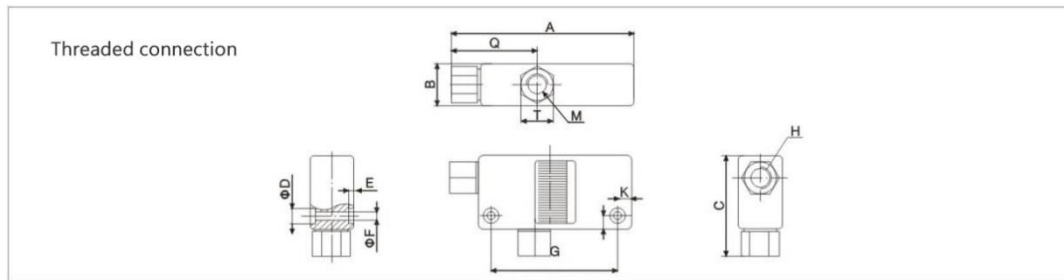
Model	SUP	VAC	EXH
ZH05B	Ø6/Rc1/8	Ø6/Rc1/8	--
ZH07B			
ZH10B			
ZH13B	Ø8/Rc1/8	Ø10/Rc1/4	
ZH05D	Ø6/Rc1/8	Ø6/Rc1/8	Ø6/Rc1/8
ZH07D			
ZH10D	Ø6/Rc1/8	Ø6/Rc1/8	Ø8/Rc1/8
ZH13D	Ø8/Rc1/8	Ø10/Rc1/4	Ø10/Rc1/4
ZH15D	Ø10/Rc1/4	Ø12/Rc3/8	Ø12/Rc3/8
ZH18D	Ø12/Rc3/8		
ZH20D	Ø12/Rc3/8	Ø16/Rc1/2	Ø16/Rc1/2



Box-type(With built-in silencer)

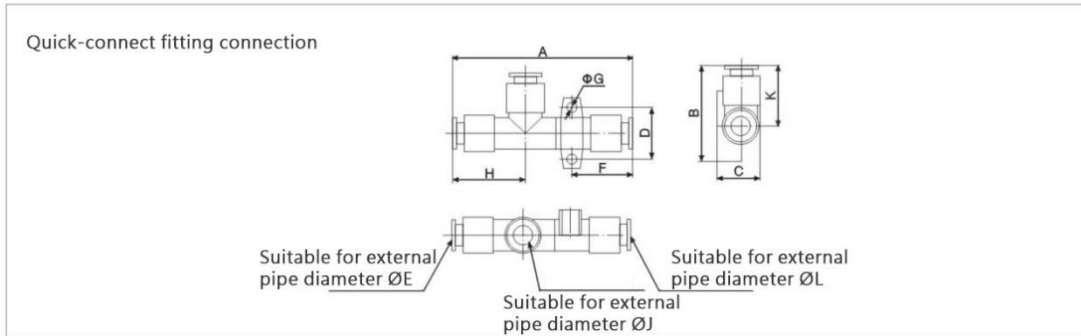


Model	A	B	C	D	E	F	G	H	Q	L	K	J
ZH05B-06-06	60	16	31	5.8	2	3.2	47	22	24	6	5	6
ZH07B-06-06	60	16	31	5.8	2	3.2	47	22	24	6	5	6
ZH10B-06-06	63	18	32	5.8	2	3.2	50	23	26	6	5	6
ZH13B-08-10	78	23	38.5	7.5	3	4.2	61	27.5	28	10	7	8

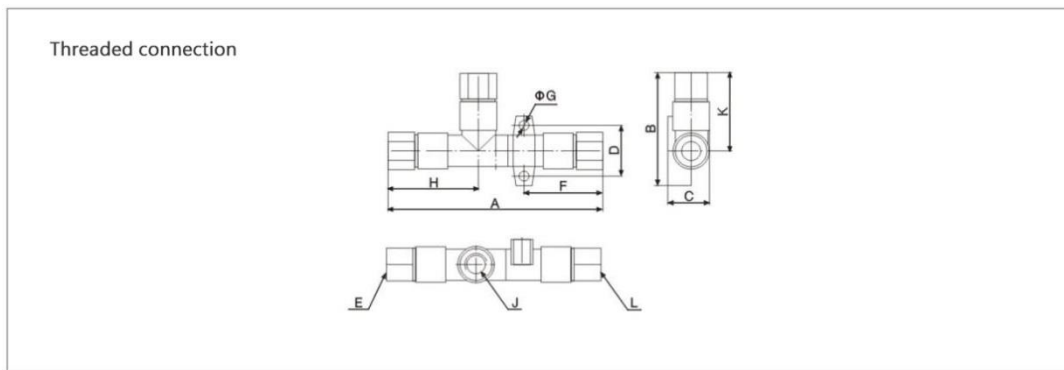


Model	A	B	C	D	E	F	G	H	Q	M	K	T
ZH05B-01-01	67.5	16	38.5	5.8	2	3.2	47	Rc1/8	31.5	Rc1/8	5	12
ZH07B-01-01	67.5	16	38.5	5.8	2	3.2	47	Rc1/8	31.5	Rc1/8	5	12
ZH10B-01-01	70.5	18	39.5	5.8	2	3.2	50	Rc1/8	33.5	Rc1/8	5	12
ZH13B-01-02	86.5	23	50	7.5	3	4.2	61	Rc1/8	36.5	Rc1/4	7	14

Direct piping type(Without silencer)



Model	A	B	C	D	E	F	G	H	L	K	J
ZH05D-06-06-06	58.5	34	14.2	17	6	21	3.2	24	6	22	6
ZH07D-06-06-06	61	34	14.2	17	6	22	3.2	24	6	22	6
ZH10D ^S _L -06-06-08	⁶⁰ ₇₀	37	17.2	20	6	24.5	4.2	26	8	23	6
ZH13D ^S _L -08-10-10	⁷⁴ _{79.5}	42.5	20	22	8	27	4.2	28	10	27.5	10
ZH15D-10-12-12	93.3	47	22.5	27	10	32.8	4.2	31.5	12	29.5	12
ZH18D-12-12-12	114	41	21	10	12	50	3.5	35.5	12	30.5	12
ZH20D-12-16-16	124.6	46	27	12	12	54.3	3.5	38.5	16	32.7	16



Model	A	B	C	D	E	F	G	H	L	K	J
ZH05D-01-01-01	73.5	41.5	14.2	17	Rc1/8	28.5	3.2	31.5	Rc1/8	22	Rc1/8
ZH07D-01-01-01	76	41.5	14.2	17	Rc1/8	29.5	3.2	31.5	Rc1/8	22	Rc1/8
ZH10D ^S _L -01-01-01	⁸² ₈₆	44.5	17.2	20	Rc1/8	33	4.2	33.5	Rc1/8	23	Rc1/8
ZH13D ^S _L -01-02-02	^{94.5} _{99.5}	54	20	22	Rc1/8	38.5	4.2	36.5	Rc1/4	27.5	Rc1/4
ZH15D-02-03-03	116.5	58.5	22.5	27	Rc1/4	44.5	4.2	43	Rc3/8	29.5	Rc3/8
ZH18D-03-03-03	133	52.5	21	10	Rc3/8	57.5	3.5	47	Rc3/8	30.5	Rc3/8
ZH20D-03-04-04	151	61	27	12	Rc3/8	69.3	3.5	50	Rc1/2	32.7	Rc1/2

Vacuum Flow (l/min) at Different Vacuum Levels (-kPa)

-kPa Model	Supply air pressure	Air consumption rate	0	10	20	30	40	50	60	70	80	Maximum vacuum level
ZH05S	4.5 bar	13.5 l/min	5	4.5	4.1	3.8	3.3	2.3	1.6	0.9	0.3	-88kPa
ZH07S		23.5 l/min	12	11	10	9	8	7	5.5	2.1	0.8	
ZH10S		46 l/min	24	23	20.5	17.5	13	11.5	9.5	7	2.5	
ZH13S		78 l/min	40	35	32.5	28	23	19.5	13	9	4.5	
ZH15S		97 l/min	60	52.5	45.5	38	28.5	20.5	15.5	11.5	5	
ZH18S		150 l/min	70	62	52	45	38	26	22	16.5	8.5	
ZH20S		185 l/min	85	76	67	58	47.5	38	33.5	19	12	

Evacuation Time (s/l) at Different Vacuum Levels (-kPa)

-kPa Model	Supply air pressure	Air consumption rate	10	20	30	40	50	60	70	Maximum vacuum level
ZH05S	4.5 bar	13.5 l/min	0.89	1.7	3.2	5	7.8	12	19	-88kPa
ZH07S		23.5 l/min	0.37	1	1.9	3	5.4	6.7	15	
ZH10S		46 l/min	0.25	0.6	1.25	2	2.9	4.2	6.5	
ZH13S		78 l/min	0.1	0.27	0.53	1	1.75	4.6	7.3	
ZH15S		97 l/min	0.04	0.21	0.35	0.63	1.23	4.1	7.3	
ZH18S		150 l/min	0.02	0.15	0.29	0.46	0.78	1.38	3.51	
ZH20S		185 l/min	0.02	0.12	0.21	0.34	0.55	0.85	1.58	

Vacuum Flow (l/min) at Different Vacuum Levels (-kPa)

-kPa Model	Supply air pressure	Air consumption rate	0	10	20	30	40	45	Maximum vacuum level
ZH05L	4.5bar	13.5 l/min	9	8	7	6	3	1.9	-48kPa
ZH07L		23.5 l/min	22	21	20.5	15.5	10.5	6.8	
ZH10L		46 l/min	34	32	26	19	12	8	
ZH13L		78l/min	75	72	65	43	19	9	

-kPa Model	Supply air pressure	Air consumption rate	0	10	20	30	40	50	Maximum vacuum level
ZH15L	4.5bar	97 l/min	80	72	60	45	36.5	16	-53kPa
ZH18L		150 l/min	110	105	95	80	55	30	
ZH20L		185 l/min	140	130	120	100	80	62	



Evacuation Time (s/l) at Different Vacuum Levels (-kPa)

-kPa Model	Supply air pressure	Air consumption rate	10	20	30	40	45	Maximum vacuum level
ZH05L	4.5bar	13.5 l/min	0.49	1.5	2.9	5.1	7.2	-48kPa
ZH07L		23.5 l/min	0.28	0.75	1.5	2.5	3.5	
ZH10L		46 l/min	0.14	0.4	0.81	1.4	1.8	
ZH13L		78 l/min	0.04	0.12	0.24	0.62	2.4	

-kPa Model	Supply air pressure	Air consumption rate	10	20	30	40	50	Maximum vacuum level
ZH15L	4.5bar	97 l/min	0.03	0.15	0.23	0.4	0.92	-53kPa
ZH18L		150 l/min	0.02	0.1	0.18	0.32	0.67	
ZH20L		185 /l/min	0.01	0.08	0.14	0.2	0.3	