

Vacuum Generator

HZL

Maximum vacuum flow: Four types 192/372/384/744L/Min (ARN)

HANWHA



General

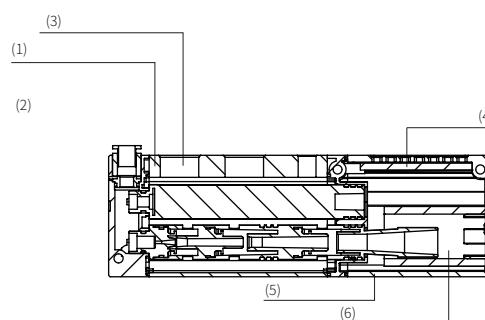
Product characteristics

- * In the field of industrial automation, machinery, electronics, packaging, printing, plastics and robots are widely used.
- * A variety of vacuum flow options, improve the vacuum reaction time.
- * Suitable for adsorption of fragile, soft, thin non-iron, non-metallic materials or spherical objects.
- * Three kinds of vacuum pressure detection unit.



Product structure

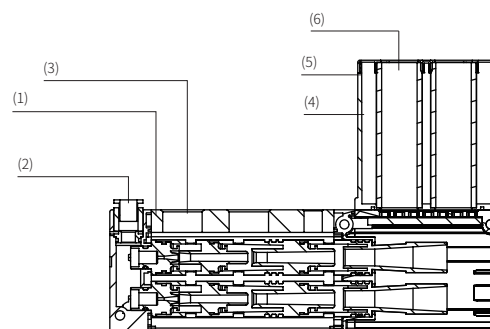
- * (1) Aluminum alloy (anodized) body
- * (2) Ø8 Quick Plug
- * (3) Vacuum port
- * (4) Resin silencer material
- * (5) Muffler housing
- * (6) Non-woven silencer material



HZL2/HZL4

Product structure

- * (1) Aluminum alloy (anodized) body
- * (2) Ø8 Quick Plug
- * (3) Vacuum port
- * (4) Silencer housing
- * (5) Muffler cover
- * (6) Non-woven silencer material



HZL3/HZL6

Vacuum Generator HZL



General

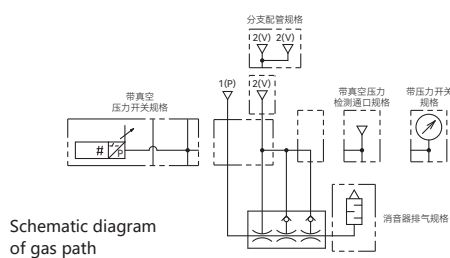
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Product advantages

* Special multi-stage Venturi tube structure design, nozzle and aerodynamic technology make the multi-stage vacuum pump has good performance.

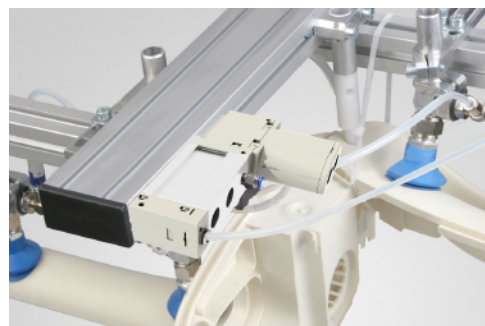


* Examples of vacuum generator HZL2/HZL3

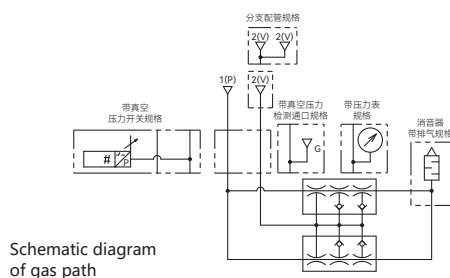


HZL2/HZL3

* Easier piping in branch piping, quick change joints can be connected without the use of bushings.



* Example of vacuum generator HZL4/HZL6



HZL4/HZL6

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General

HZL Ordering NO

HZL	6	H	F02	S	GN
1	2	3	4	5	6

1-Series	2-Models	Maximum vacuum flow	3-specification	
HZL	2	192L/min	L	coarse vacuum
	3	372L/min	H	high vacuum
	4	384L/min	M	Low admission
	6	744L/min		

4-Vacuum port		5-Exhaust specification	
F02	1XG1/2	S	Built-in silence
F04	2XG1/2	S01	Muffled exhaust port
F06	G3/4		

6-Vacuum pressure measurement	
	GN G1/8
	G mechanical pressure gauge
	E digital pressure gauge

HAL Technical Data

Models	Used fluid	Temperature [°C]	inlet pressure [Mpa]	Air consumption [L/Min]	Vacuum pressure reached [-KPa]	Maximum vacuum flow [L/Min]	Weight [Kg]
HZL-2-L	air	0~60 (non-freezing)	0.5	115	70	192	0.42
HZL-2-H	air	0~60 (non-freezing)	0.5	115	92	168	0.42
HZL-2-M	air	0~60 (non-freezing)	0.31	113	90	168	0.42
HZL-3-L	air	0~60 (non-freezing)	0.5	115	70	342	0.44
HZL-3-H	air	0~60 (non-freezing)	0.5	115	92	372	0.44
HZL-3-M	air	0~60 (non-freezing)	0.31	113	90	336	0.44
HZL-4-L	air	0~60 (non-freezing)	0.5	115	70	384	0.45
HZL-4-H	air	0~60 (non-freezing)	0.5	115	92	336	0.45
HZL-4-M	air	0~60 (non-freezing)	0.31	113	90	336	0.45
HZL-6-L	air	0~60 (non-freezing)	0.5	230	70	684	0.46
HZL-6-H	air	0~60 (non-freezing)	0.5	230	92	744	0.46
HZL-6-M	air	0~60 (non-freezing)	0.31	226	90	672	0.46

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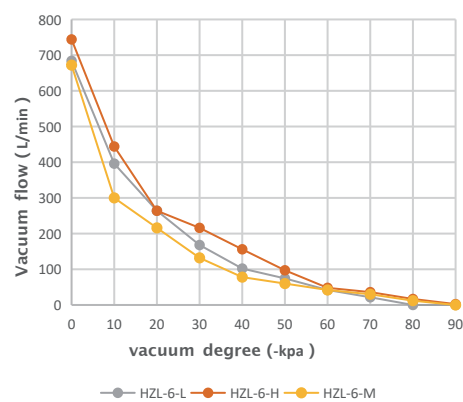
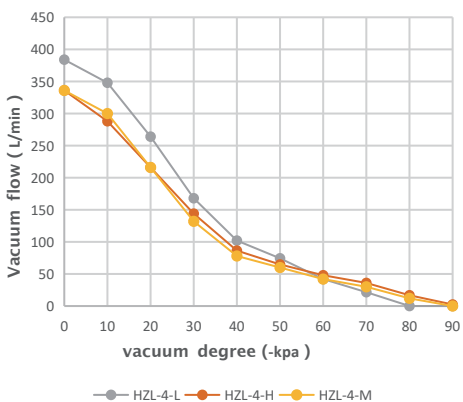
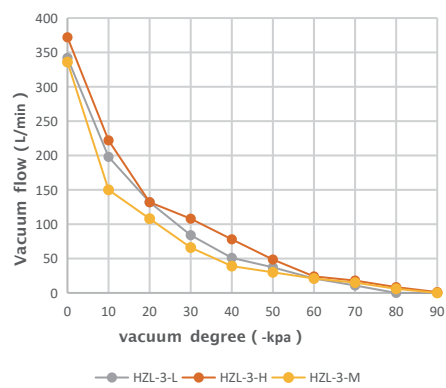
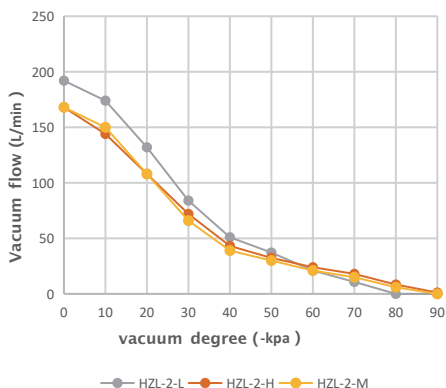


General

Maximum vacuum flow: Four types 192/372/384/744L/Min (ARN)

Vacuum flow (L/min) with different vacuum degree (-kpa)

Models	0	10	20	30	40	50	60	70	80	90
HZL-2-L	192	174	132	84	51	37.2	21	10.8	0	0
HZL-2-H	168	144	108	72	43.2	32.4	24	18	8.4	1.2
HZL-2-M	168	150	108	66	39	30	21	15	6	0
HZL-3-L	342	198	132	84	51	37.2	21	10.8	0	0
HZL-3-H	372	222	132	108	78	48.6	24	18	8.4	1.2
HZL-3-M	336	150	108	66	39	30	21	15	6	0
HZL-4-L	384	348	264	168	102	74.4	42	21.6	0	0
HZL-4-H	336	288	216	144	86.4	64.8	48	36	16.8	2.4
HZL-4-M	336	300	216	132	78	60	42	30	12	0
HZL-6-L	684	396	264	168	102	74.4	42	21.6	0	0
HZL-6-H	744	444	264	216	156	97.2	48	36	16.8	2.4
HZL-6-M	672	300	216	132	78	60	42	30	12	0



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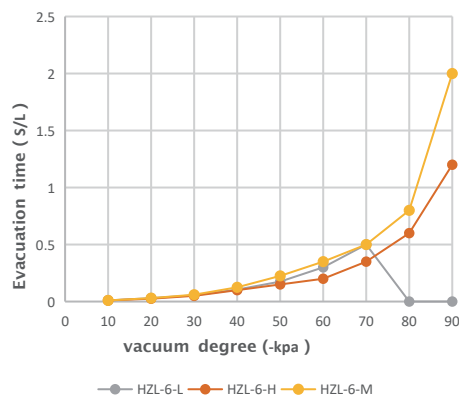
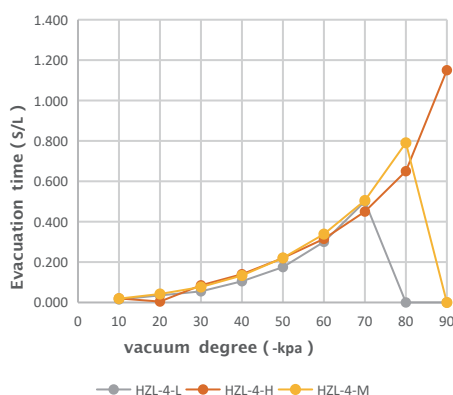
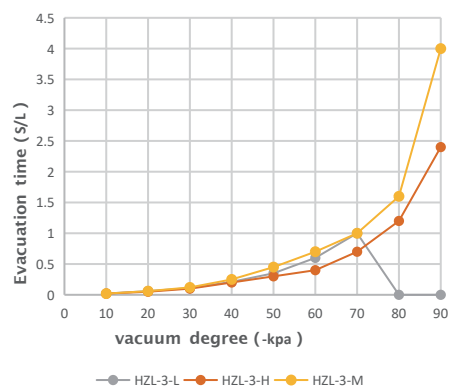
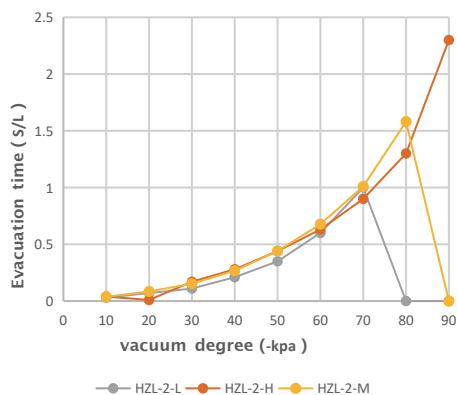
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General

Pumping time with different vacuum (-kpa) (S/L)

Models	10	20	30	40	50	60	70	80	90
HZL-2-L	0.03	0.07	0.11	0.21	0.35	0.6	1	0	0
HZL-2-H	0.04	0.009	0.17	0.28	0.44	0.63	0.9	1.3	2.3
HZL-2-M	0.038	0.0084	0.153	0.267	0.441	0.677	1.01	1.581	0
HZL-3-L	0.02	0.06	0.11	0.21	0.35	0.6	1	0	0
HZL-3-H	0.02	0.05	0.1	0.2	0.3	0.4	0.7	1.2	2.4
HZL-3-M	0.02	0.06	0.12	0.25	0.45	0.7	1	1.6	4
HZL-4-L	0.015	0.035	0.055	0.105	0.175	0.300	0.500	0	0
HZL-4-H	0.020	0.005	0.085	0.140	0.220	0.315	0.450	0.650	1.150
HZL-4-M	0.019	0.042	0.077	0.134	0.221	0.339	0.505	0.	0
HZL-6-L	0.01	0.03	0.055	0.105	0.175	0.3	0.5	0	0
HZL-6-H	0.01	0.025	0.05	0.1	0.15	0.2	0.35	0.6	1.2
HZL-6-M	0.01	0.03	0.06	0.125	0.225	0.35	0.5	0.8	2



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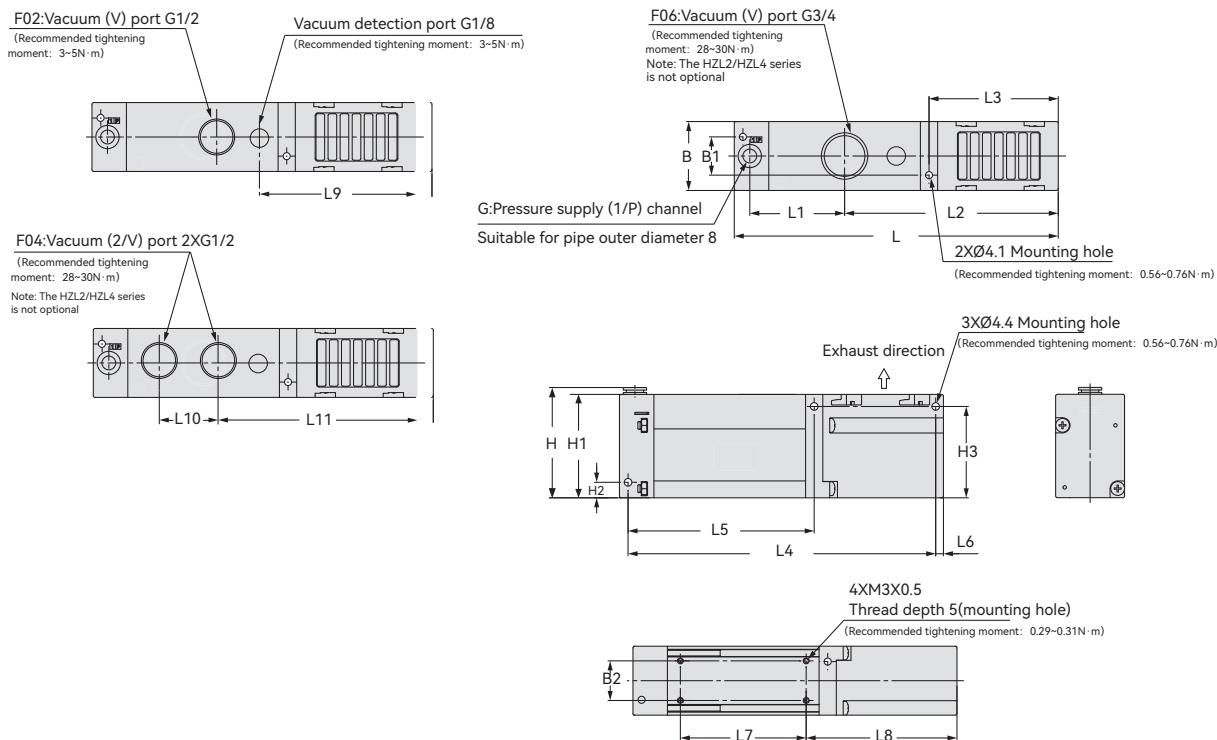
HZL



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HZL Design Data



Size[mm]

Models	G	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
HZL-2-L	1/P	157.8	26	114.8	75	148.3	77.8	4.5	42.8	87.5	90	/	/
HZL-2-H	1/P	157.8	26	114.8	75	148.3	77.8	4.5	42.8	87.5	90	/	/
HZL-2-M	1/P	157.8	26	114.8	75	148.3	77.8	4.5	42.8	87.5	90	/	/
HZL-3-L	1/P	188	55	124	75	178.5	108	4.5	73	87.5	90	32	121
HZL-3-H	1/P	188	55	124	75	178.5	108	4.5	73	87.5	90	32	121
HZL-3-M	1/P	188	55	124	75	178.5	108	4.5	73	87.5	90	32	121

Size[mm]

Models	B	B1	B2	H	H1	H2	H3
HZL-2-L	40	22.2	23	65	60	9	53
HZL-2-H	40	22.2	23	65	60	9	53
HZL-2-M	40	22.2	23	65	60	9	53
HZL-3-L	40	22.2	23	65	60	9	53
HZL-3-H	40	22.2	23	65	60	9	53
HZL-3-M	40	22.2	23	65	60	9	53

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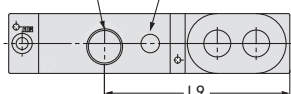
General



HZL Design Data

F02:Vacuum (V) port G1/2
(Recommended tightening moment: 28-30N·m)

Vacuum detection port G1/8
(Recommended tightening moment: 3-5N·m)

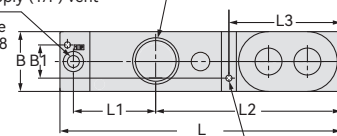


F06:Vacuum (V) port G3/4

(Recommended tightening moment: 0.56-0.76N·m)
Note: The HZL2/HZL4 series is not optional

Air pressure supply (1/P) vent

Suitable for pipe outer diameter 8

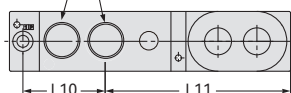


2x \varnothing 4.1 Mounting hole

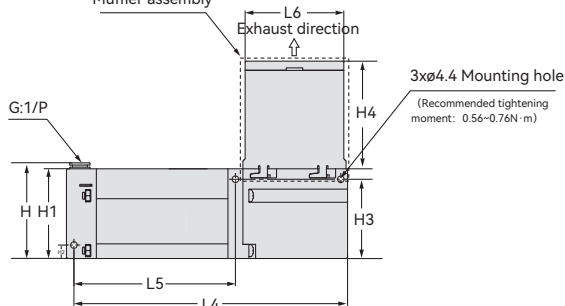
(Recommended tightening moment: 0.56-0.76N·m)

F04:Vacuum (2/V) port 2XG1/2

(Recommended tightening moment: 28-30N·m)
Note: The HZL2/HZL4 series is not optional

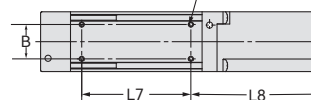


Muffler assembly



3x \varnothing 4.4 Mounting hole
(Recommended tightening moment: 0.56-0.76N·m)

4xM3x0.5 Thread depth 5(mounting hole)
(Recommended tightening moment: 0.29-0.31N·m)



Size[mm]

Models	G	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
HZL-4-L	1/P	157.8	26	114.8	75	148.3	108	66	42.8	87.5	90	/	/
HZL-4-H	1/P	157.8	26	114.8	75	148.3	108	66	42.8	87.5	90	/	/
HZL-4-M	1/P	157.8	26	114.8	75	148.3	108	66	42.8	87.5	90	/	/
HZL-6-L	1/P	188	55	124	75	178.5	108	66	73	87.5	90	32	121
HZL-6-H	1/P	188	55	124	75	178.5	108	66	73	87.5	90	32	121
HZL-6-M	1/P	188	55	124	75	178.5	108	66	73	87.5	90	32	121

Size[mm]

Models	B	B1	B2	H	H1	H2	H3	H4	H5
HZL-4-L	40	22.2	23	65	60	9	53	72	132
HZL-4-H	40	22.2	23	65	60	9	53	72	132
HZL-4-M	40	22.2	23	65	60	9	53	72	132
HZL-6-L	40	22.2	23	65	60	9	53	72	132
HZL-6-H	40	22.2	23	65	60	9	53	72	132
HZL-6-M	40	22.2	23	65	60	9	53	72	132

