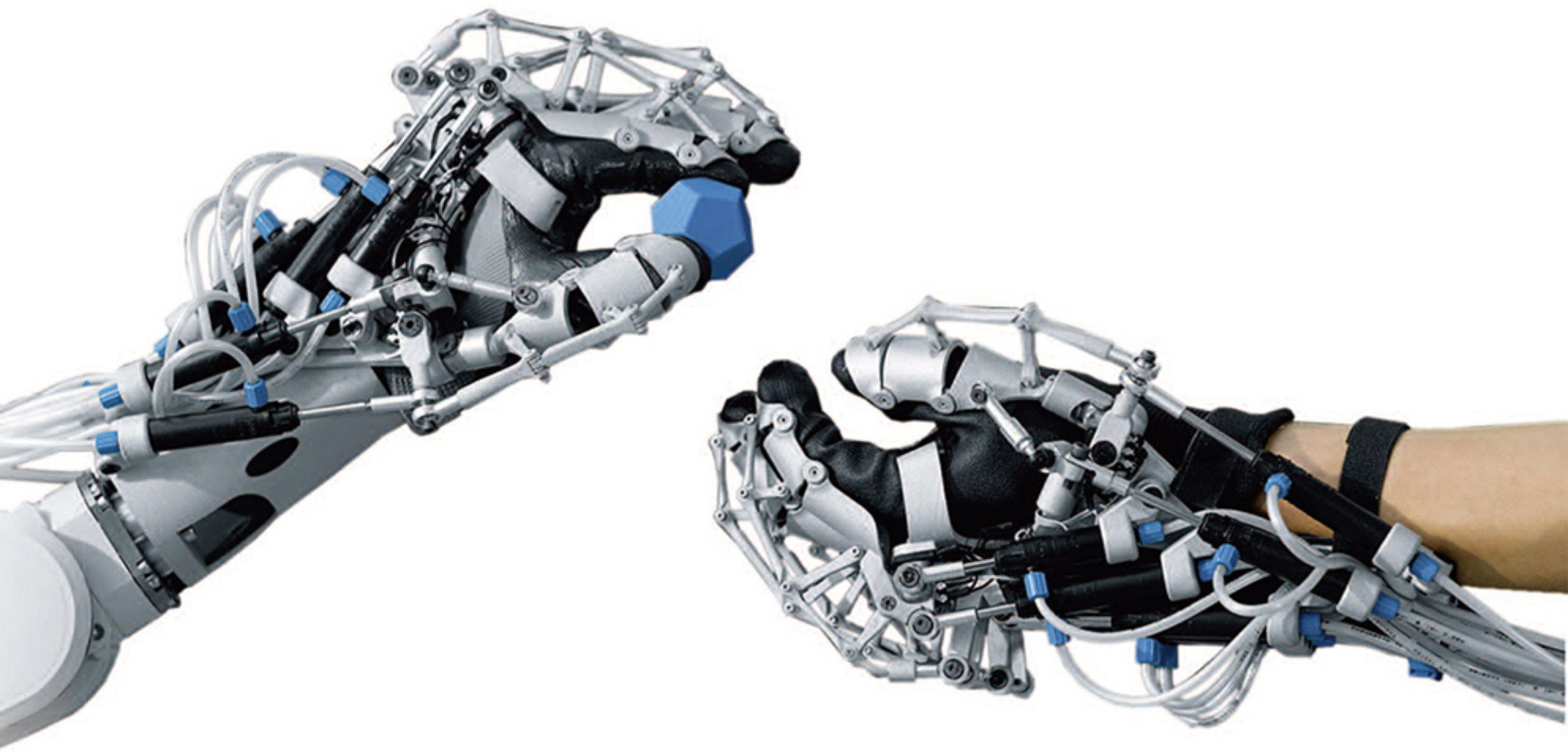
FONRAY®

FESTO

工廠自動化和過程自動化的
全球合作夥伴



FONRAY®

真空產生器
VACUUM GENERATORS

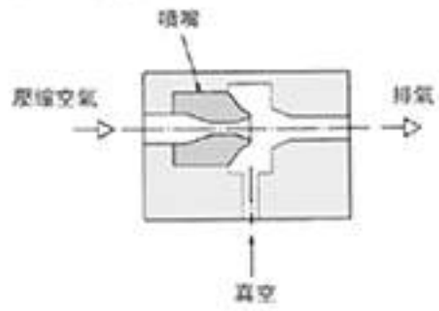
FT 真空產生器
FT VACUUM EJECTOR
FAM 多級真空產生器
FAM MULTI-DEGREE VACUUM EJECTOR
FAL 多級真空產生器
FAL MULTI-DEGREE VACUUM EJECTOR
FVM 迷你型真空產生器
FVM MINI VACUUM EJECTOR
FVX 迷你型真空產生器
FVX MINI VACUUM EJECTOR
FACP 輸送型真空產生器
FACP TRANSPORTATION VACUUM EJECTOR
FCPF 輸送型真空產生器
FCPF TRANSPORTATION VACUUM EJECTOR
FAZH 基本型真空產生器
FAZH STANDARD VACUUM EJECTOR
FAZU 基本型真空產生器
FAZU STANDARD VACUUM EJECTOR
FVF 真空產生器
FVF VACUUM EJECTOR
FVH 多級真空產生器
FVH UNIVERSAL PUMP
FVM5 組合式真空產生器
FVM5 COMBINED TYPE VACUUM PUMP
FVX5 組合式真空產生器
FVX5 COMBINED TYPE VACUUM PUMP
FVZL112 多級真空產生器
FVZL112 MULTISTAGE VACUUM PUMP
FVZL212 多級真空產生器
FVZL212 MULTISTAGE VACUUM PUMP
FSBP 基本型真空產生器
FSBP BASIC VACUUM PUMP
VFU / VFUN 真空過濾器
VFU / VFUN VACUUM FILTER
FLF 線性真空過濾器
FLF LINE VACUUM FLITER
FXC 大面積真空吸具系統
FXC LARGE AREA VACUUM SUCTION SYSTEM

FONRAY®

真空產生器 (標準型)

真空產生器 (附檢知型)

■ 真空發生器定義說明



當壓縮空氣經過噴嘴，產生高速排放，經轉換產生側面吸引之作用。

規格 Specification

型號 Model	FT-050	FT-100	FT-150	FT-200
使用流體 Operating Fluid	空氣 / Air			
使用溫度範圍 Range of Operating Temperature	0 ~ 60℃			
給油 Lubrication	不要 / No			
使用壓力範圍 Working-pressure Range	0.1 ~ 1.6 (1.0 ~ 6.0kgf/cm²)			
噴嘴直徑 Nozzle Diameter(mm)	Φ0.5	Φ1.0	Φ1.5	Φ2.0
到達真空度 Max. Vacuum Value	-91.8kpa(-680mmHg)			
接管口徑 Port Size	M5	1/8PT	1/4PT	3/4PT

訂購代號 Ordering Code

FT 150 – C – K

型號
Model

噴嘴口徑
Nozzle Diameter
05: 0.5mm
10: 1.0mm
15: 1.5mm
20: 2.0mm

附開關
With Switch
空白 : 標準型
C: 附微動開關
Blank: Standard type
C: With micro-switch

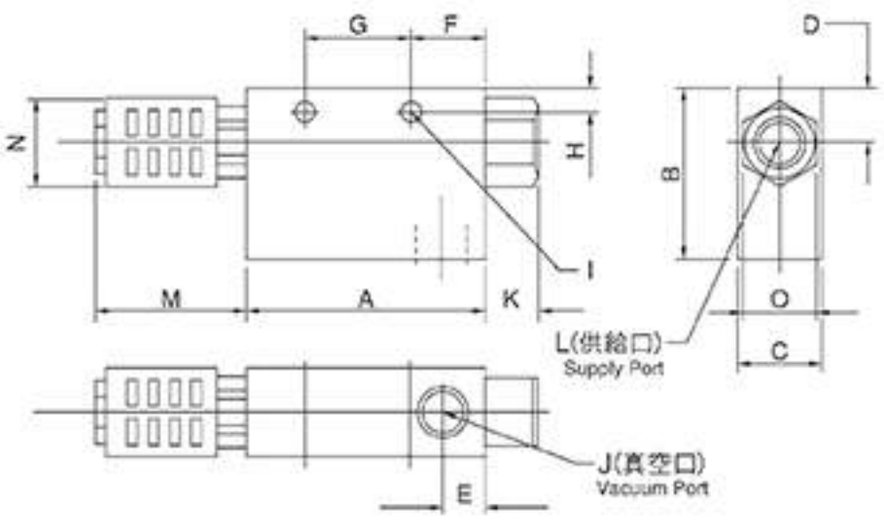
附可調式
With Adjustable Type
空白 : 標準型
K: 附可調式
Blank: Standard type
K: With adjustable type

真空信號確認裝置 (附開關及調整)
Vacuum Signal Confirmation Device (With Switch and Adjustable)

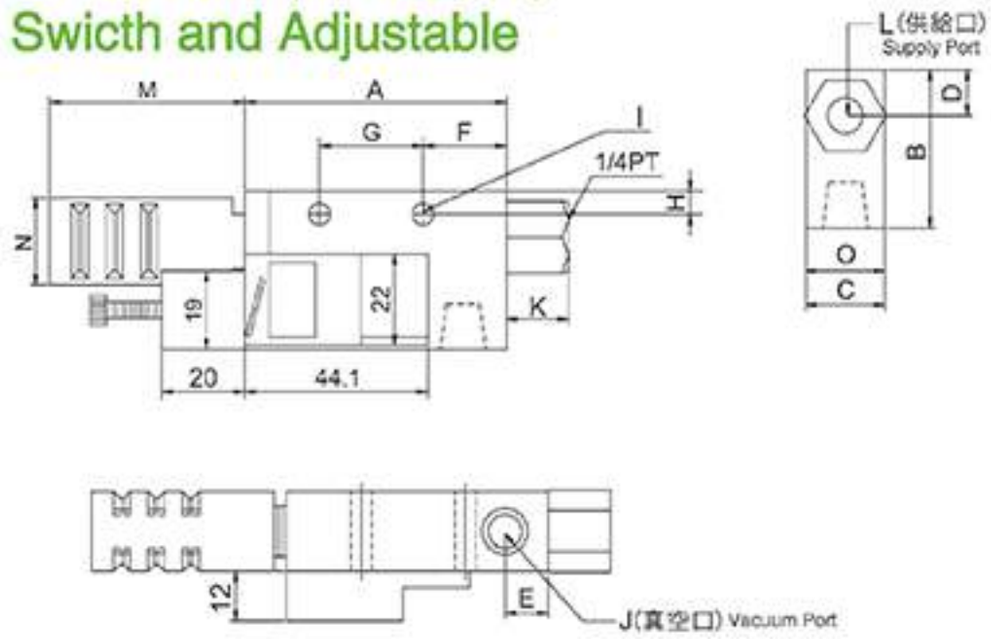
型號 Model	C 固定型	CK 可調整型
約定範圍 Setting Range	-39.9 (-300mmHg)	-20.0~-53.2 (-150~-400mmHg)
出荷時定值 Setting Value Betore Operational (kpa)	-39.9 (-300mmHg)	-46.6(-350mmHg)
動作精度 Accuracy	± 5.3 (± -40mmHg)	
感應差 Hysteresis	4.0~13.3 (30~100mmHg)	
電器規格 Electrical Rating (When resistance is applied)	AC125V:5A, AC250V:3A	
使用溫度範圍 Range of Operating Temperature	0~60℃	

外觀尺寸 Overall Dimension

真空產生器 (標準型)
Standard Type



真空產生器 (附檢知型)
Swicth and Adjustable



型號 Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N(Φ)	O	消音器 silencer
FT-050(CK)	50	32	16	11	12	19	20	4.5	2-Φ4.2	Rp1/8	5	Rp1/8	44	21.5	14	Rp1/8
FT-100(CK)	50	32	16	11	12	19	20	4.5	2-Φ4.2	Rp1/8	5	Rp1/8	44	21.5	14	Rp1/8
FT-150	70	38	26	13	15	23	25	5	2-Φ4.5	Rp1/4	10	Rp1/4	44	21.5	17	Rp1/4
FT-150(CK)	63	38.5	19.5	11	10.5	20	25	5.5	2-Φ6	Rp1/4	15	Rp3/8	44	21	17	Rp1/2
FT-200(CK)	96	38	30	16	22	32	32	6.5	2-Φ6	Rp3/8	10	Rp1/4	55	28	23.5	Rp1/2
FT-250	100	60	40	20	16	20	50	5.5	2-Φ6	Rp1/2	17	Rp3/8	71	40	28	Rp3/4
FT-300	118	60	40	20	20	33	50	5.5	2-Φ6	Rp3/4	20	Rp1/2	71	40	30	Rp3/4

＊型號 CK 爲附檢知真空產生器。

產品特點 Features

◇中等真空度達到 -90 kPa Medium vacuum levels to -90 kPa
◇在3.4bar的情況下運行 Operates at 3.4bar
◇適用於多孔材料或有泄漏的場合 Good for handling porous materials or if leakage is present
◇節能系統(ES) Energy-Saving(ES)available
◇鋁連接板(AD)和聚苯硫醚復合材料連接板(D) Available with connection plate in aluminium(AD)and composite PPS(D)
◇提供壓縮空氣接口所需的快速接頭，直流消聲器和安裝支架 Supplies with a push-in connector for compressed air,through-flow silencer and mounting brackets

技術規格 Specifications

最大供氣壓力 Air supply pressure max	bar	7
最佳供氣壓力 Air supply pressure(opt)	bar	3.4
噪音 Noise level	dBA	60~65
溫度範圍 Temperature range	℃	-20-80
重量 Weight	g	750-1200
材料 Material		AL, PPS, SS, PA, NBR

產品參數 Technical Parameters

型號 Model	最大真空度 Max.vacuum level -kPa	最大真空流量 Max.vacuum flow l/min	空氣消耗量 Air consumption l/min	重量(PPS材料) Weight(PPS materials) g	最小軟管內徑Φ(2m以內) Min tube innerΦ(with in 2m)		
					供氣 Ari supply	真空 Vacuum	排氣 Exhaust
FAM25L	92	420	116-185	675	>4	>12	>12
FAM50L		700	230-370	675	>6	>15	>15
FAM75L		950	365-610	837	>8	>19	>22
FAM100L		1010	445-720	837	>8	>19	>22
FAM125L		1400	545-780	1075	>10	>25	>32
FAM150L		1500	655-810	1075	>10	>25	>32

訂購碼 How to Order

FAM25L - D - N - A - ES
① ② ③ ④ ⑤

① 型號 Model

FAM25L FAM100L
FAM50L FAM125L
FAM75L FAM150L

③密封材料 Sealing

N	丁腈橡膠 NBR
E	三元乙丙橡膠 EPDM
V	氟橡膠 VITON

④止回閥 Non-Return Valve

A	有Yes
-	無 No

② 連接板 Connection Plate

FAM25L-FAM100L

	供氣口	真空	排氣	材料
D	NPSF1/8"	G3/4"	G3/4"	PPS
B	NPSF1/8"	NPT3/4"	NPT3/4"	PPS
AD	G1/4"	G3/4"	G3/4"	鋁
E	NPT1/4"	NPT3/4"	NPT3/4"	鋁

FVM125L-FVM150L

	供氣口	真空	排氣	材料
D	G1/4"	G1"	G1"	PPS
B	NPT1/4"	NPT1"	NPT1"	PPS
AD	G1/4"	G1"	G1"	鋁
E	NPT1/4"	NPT1"	NPT1"	鋁

⑤控制裝置 Control device

PD	電控供氣	PVD	電控(供氣+破壞真空)組合
PQ	氣控供氣	PVQ	氣控(供氣+破壞真空)組合
VD	電控破壞真空	ES	節能系統
VQ	氣控破壞真空	-	無

• FAM25L

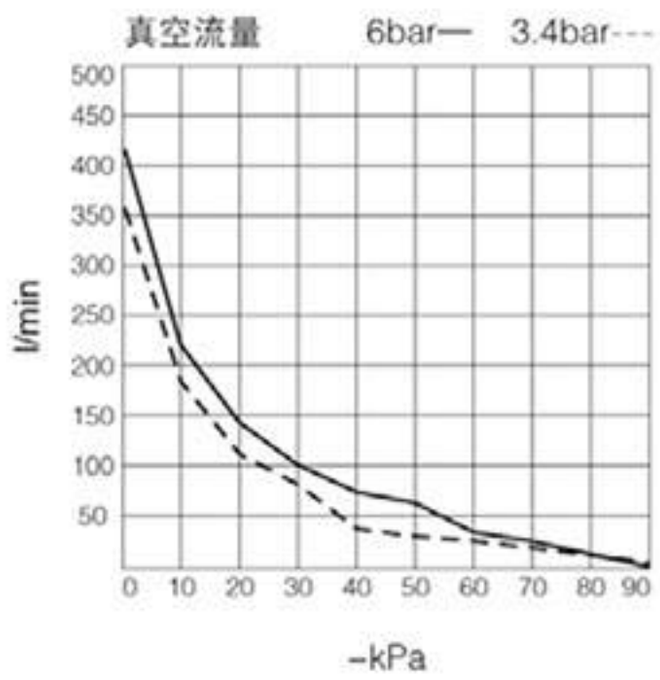
Air consumption
l/min

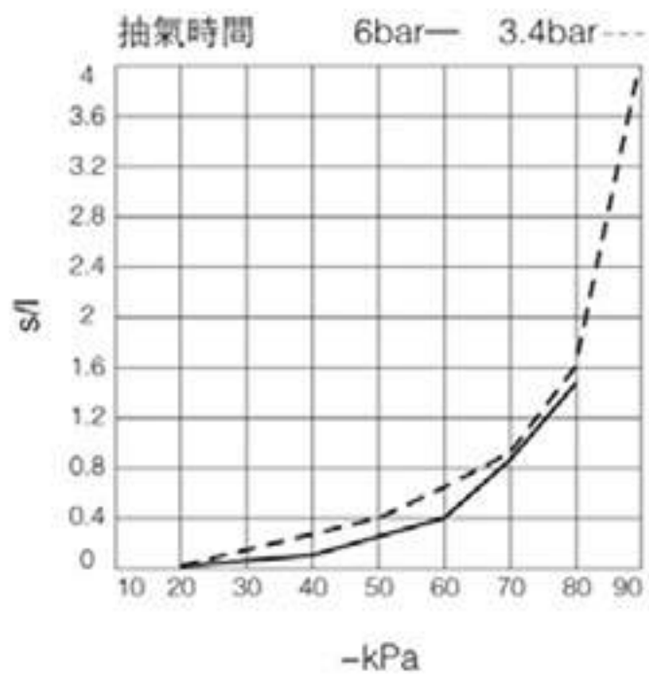
不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)										最大真空度 Max vacuum level -kPa
		0	10	20	30	40	50	60	70	80	90	
3.4	116	360	180	115	80	43	30	22.5	15.5	7.5	1.2	92
6	185	420	240	125	100	82	65	38	12.5	3.5	—	89

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)									最大真空度 Max vacuum level -kPa
		10	20	30	40	50	60	70	80	90	
3.4	116	0.022	0.06	0.11	0.21	0.4	0.65	0.95	1.60	4	92
6	185	0.018	0.05	0.08	0.18	0.25	0.40	0.62	1.55	—	89





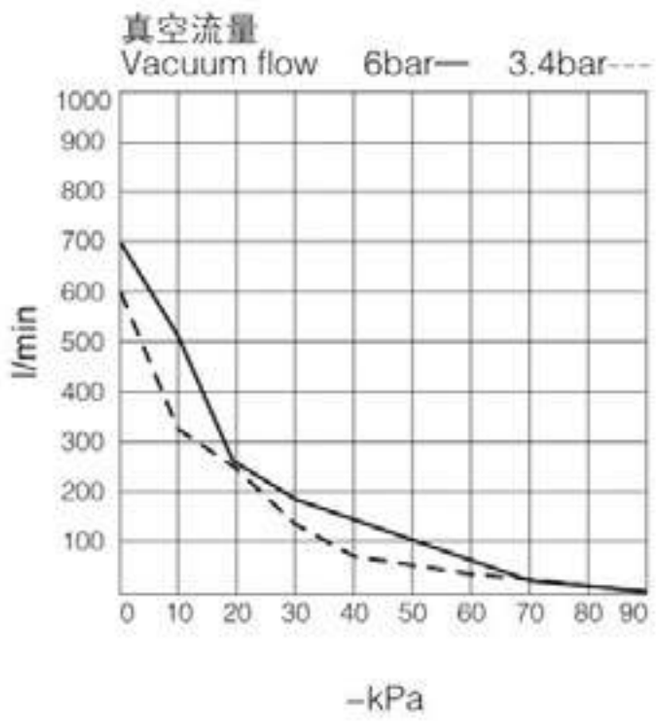
• FAM50L

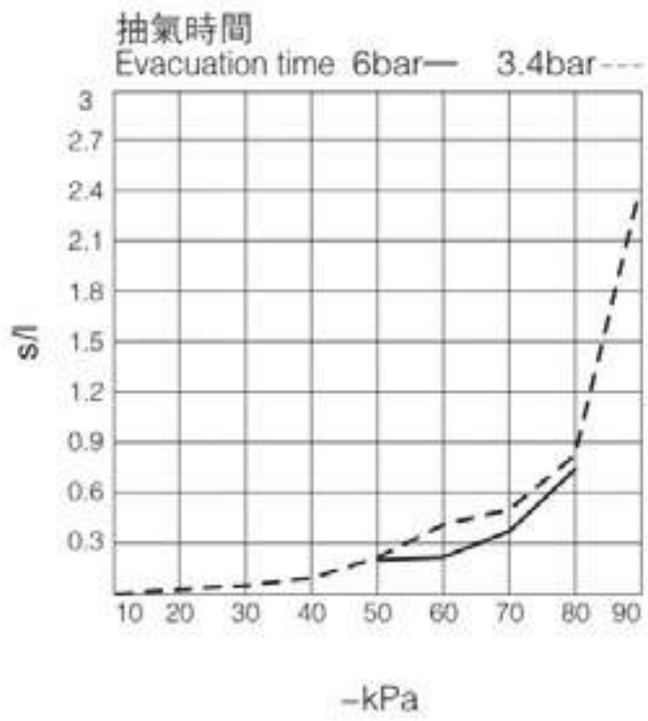
不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

供氣壓力 Air supply pressure	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)										最大真空度 Max vacuum level -kPa
		0	10	20	30	40	50	60	70	80	90	
3.4	230	600	320	250	135	75	60	46	30	13	1.5	92
6	370	700	510	290	195	160	115	70	22	8	—	89

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)									最大真空度 Max vacuum level -kPa
		10	20	30	40	50	60	70	80	90	
3.4	230	0.014	0.031	0.06	0.10	0.20	0.34	0.50	0.80	2.5	92
6	370	0.01	0.022	0.048	0.08	0.11	0.20	0.35	0.78	—	89





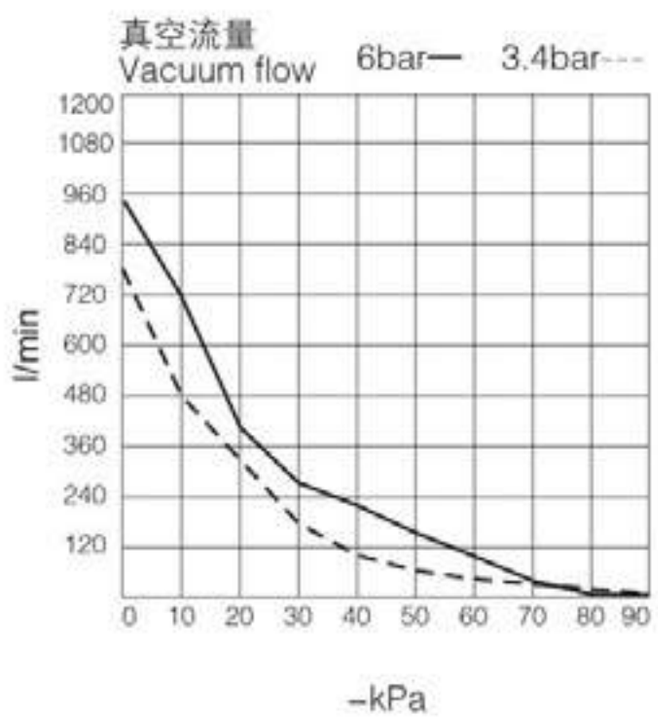
• FAM 75L

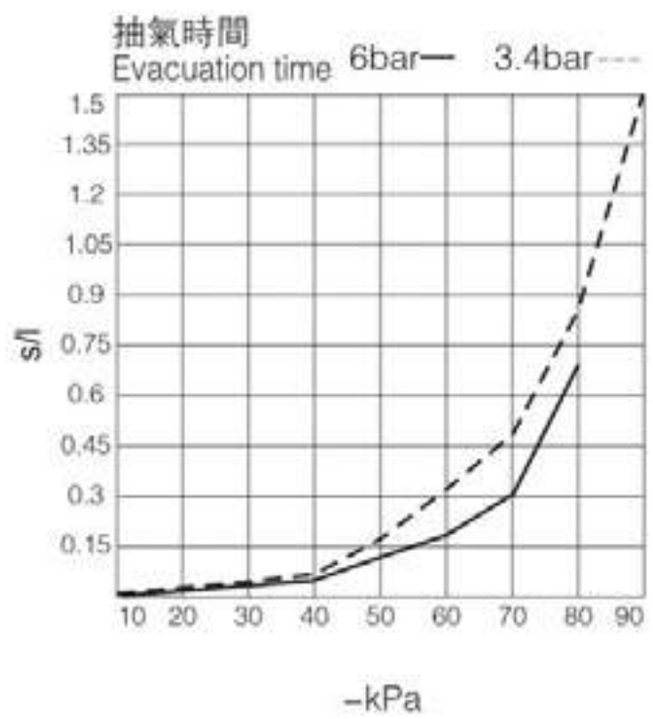
不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)										最大真空度 Max vacuum level -kPa
		0	10	20	30	40	50	60	70	80	90	
3.4	365	760	445	340	175	110	85	70	43	20	1.8	92
6	610	950	710	380	285	230	170	100	32	11	—	89

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度(-kPa)的抽氣時間(s/l) Vacuum flow (l/min) at different vacuum levels(-kPa)									最大真空度 Max vacuum level -kPa
		10	20	30	40	50	60	70	80	90	
3.4	365	0.012	0.029	0.058	0.095	0.18	0.31	0.46	0.89	1.5	92
6	610	0.009	0.019	0.045	0.075	0.13	0.18	0.31	0.70	—	89





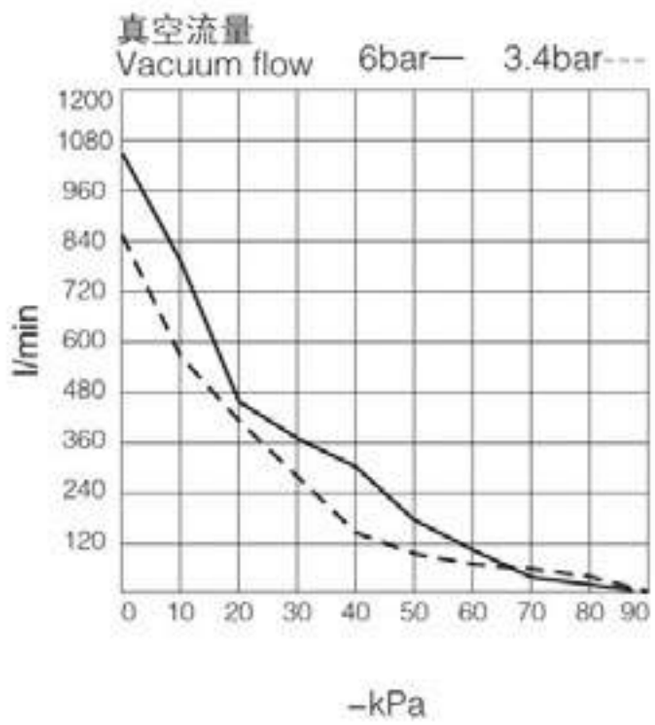
• FAM **100L**

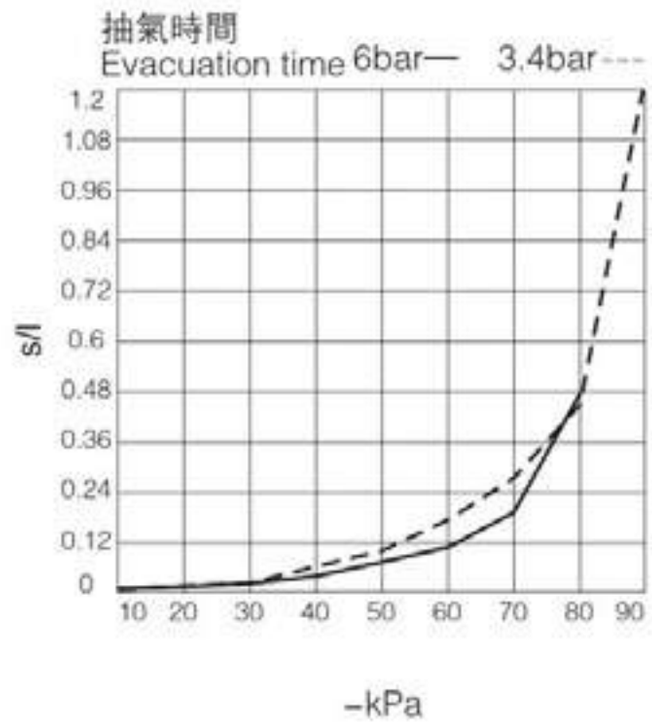
不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)										最大真空度 Max vacuum level -kPa
		0	10	20	30	40	50	60	70	80	90	
3.4	445	850	550	430	280	145	115	85	60	28	2.2	92
6	720	1010	800	460	385	310	215	125	42	15.5	—	89

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar		不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)									最大真空度 -kPa
		10	20	30	40	50	60	70	80	90	
3.4	455	0.010	0.025	0.043	0.075	0.11	0.19	0.27	0.45	1.2	92
6	720	0.007	0.018	0.038	0.055	0.08	0.12	0.19	0.47	—	89





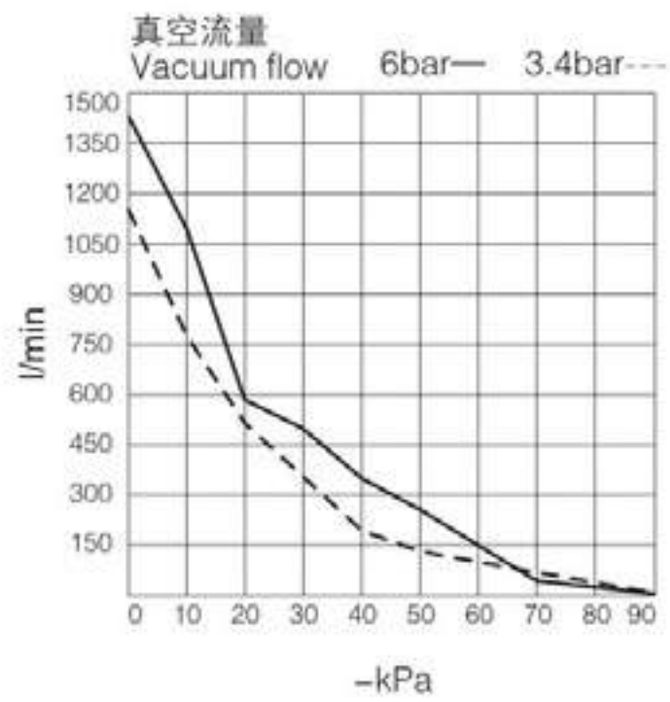
• FAM**125L**

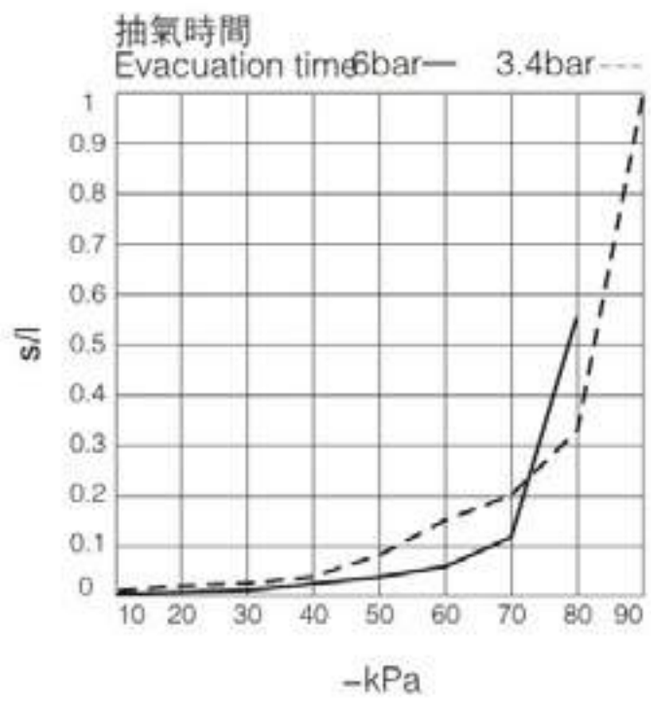
不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)										最大真空度 Max vacuum level -kPa
		0	10	20	30	40	50	60	70	80	90	
3.4	545	1150	760	530	350	180	148	115	78	34.5	3.5	92
6	780	1400	1120	560	490	355	260	150	50	25	—	89

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)									最大真空度 Max vacuum level -kPa
		10	20	30	40	50	60	70	80	90	
3.4	545	0.006	0.015	0.029	0.052	0.085	0.145	0.202	0.330	1	92
6	780	0.005	0.013	0.026	0.045	0.062	0.115	0.194	0.56	—	89





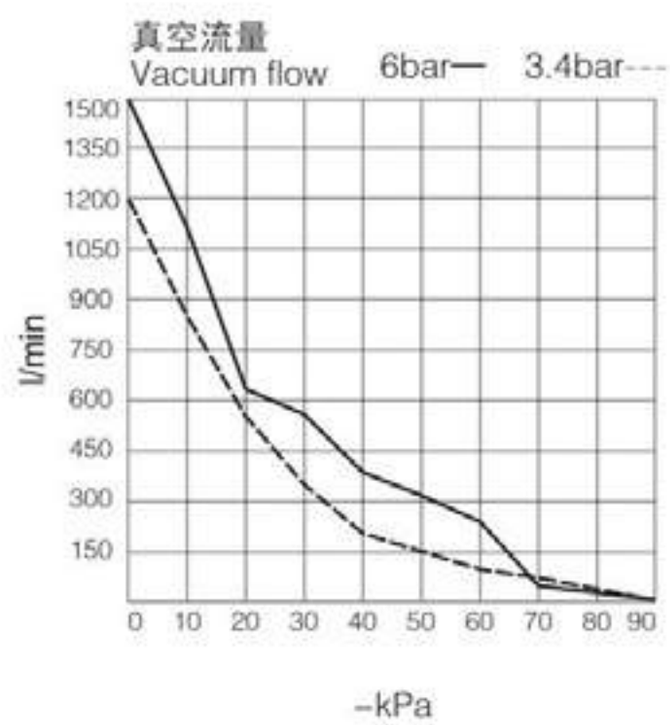
• FAM150L

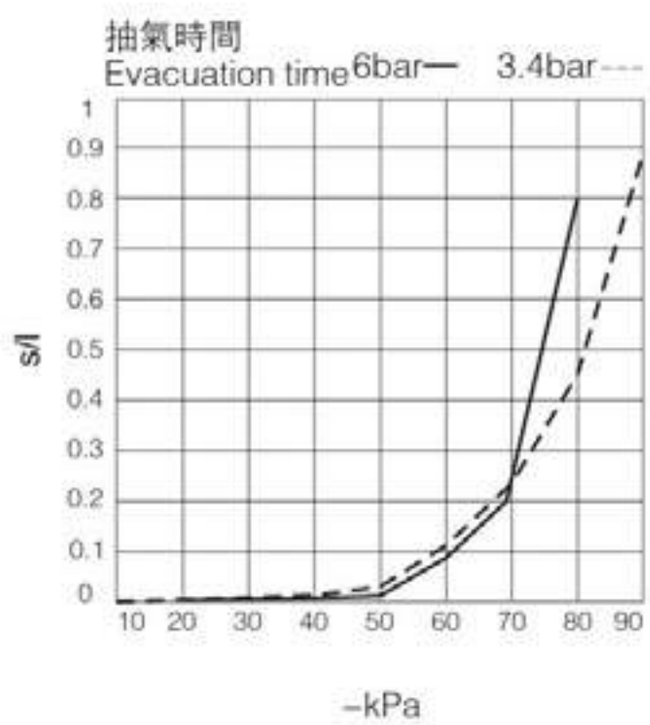
不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)										最大真空度 Max vacuum level -kPa
		0	10	20	30	40	50	60	70	80	90	
3.4	655	1200	830	550	360	215	170	130	90	36	5	92
6	810	1500	1110	630	560	385	315	210	65	26	—	89

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

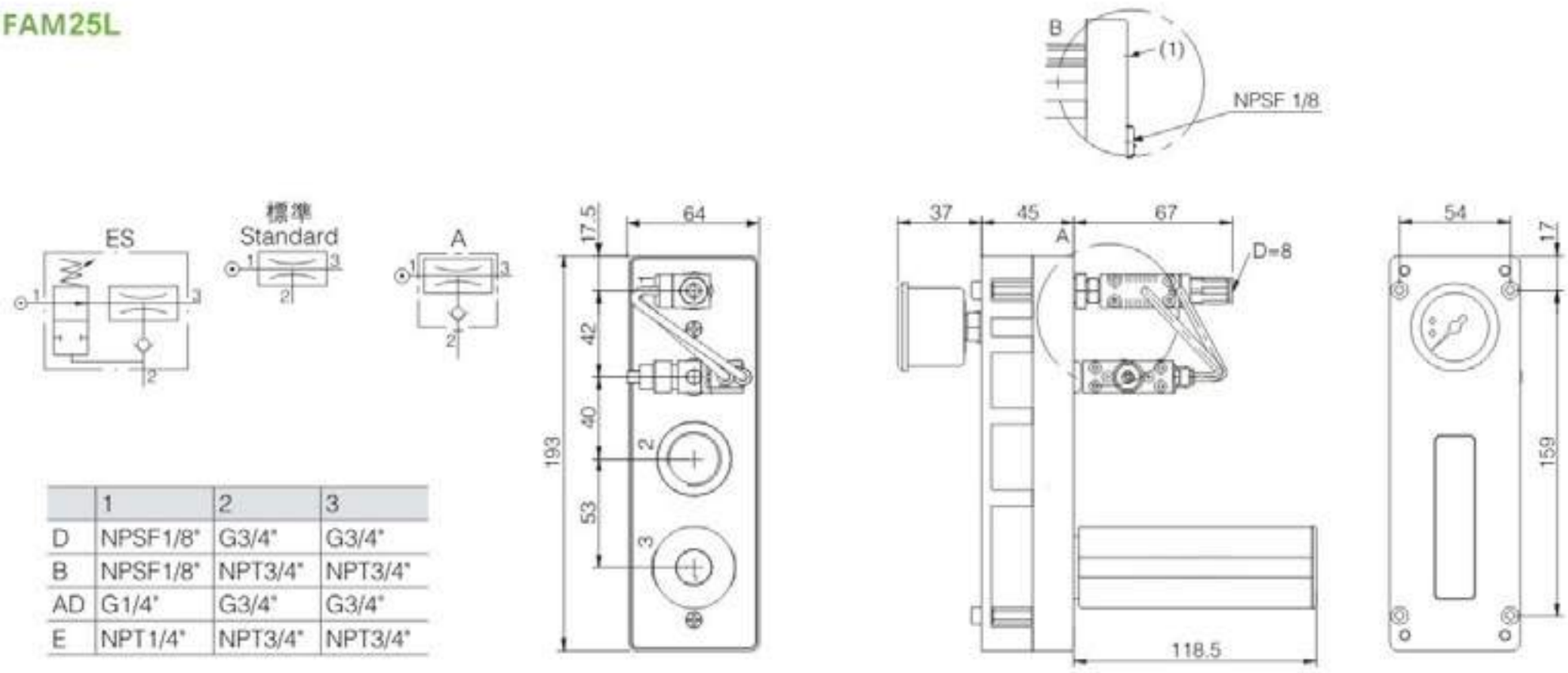
供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)									最大真空度 Max vacuum level -kPa
		10	20	30	40	50	60	70	80	90	
3.4	655	0.005	0.013	0.027	0.045	0.070	0.105	0.23	0.46	0.9	92
6	810	0.003	0.009	0.014	0.030	0.060	0.095	0.20	0.8	—	89





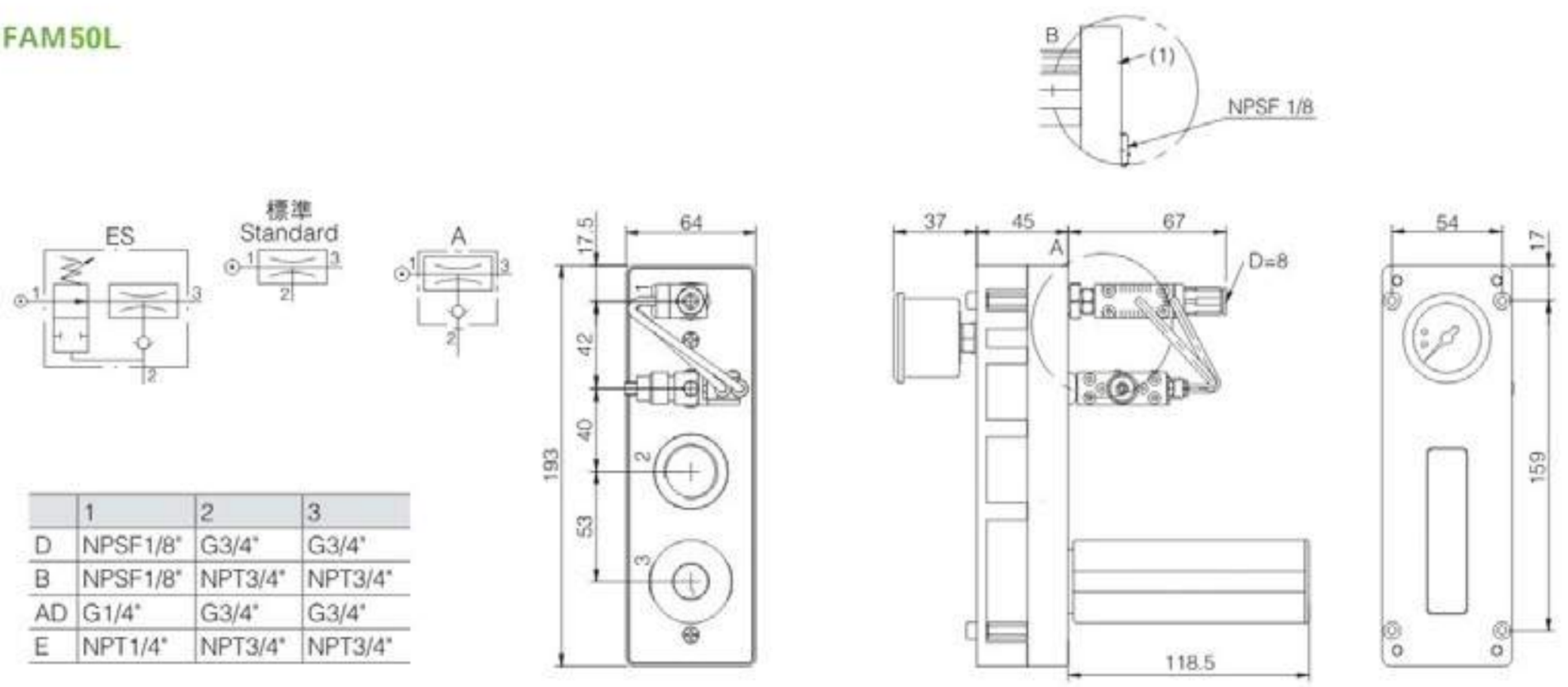
外形尺寸 (mm) Dimensions (mm)

• FAM25L



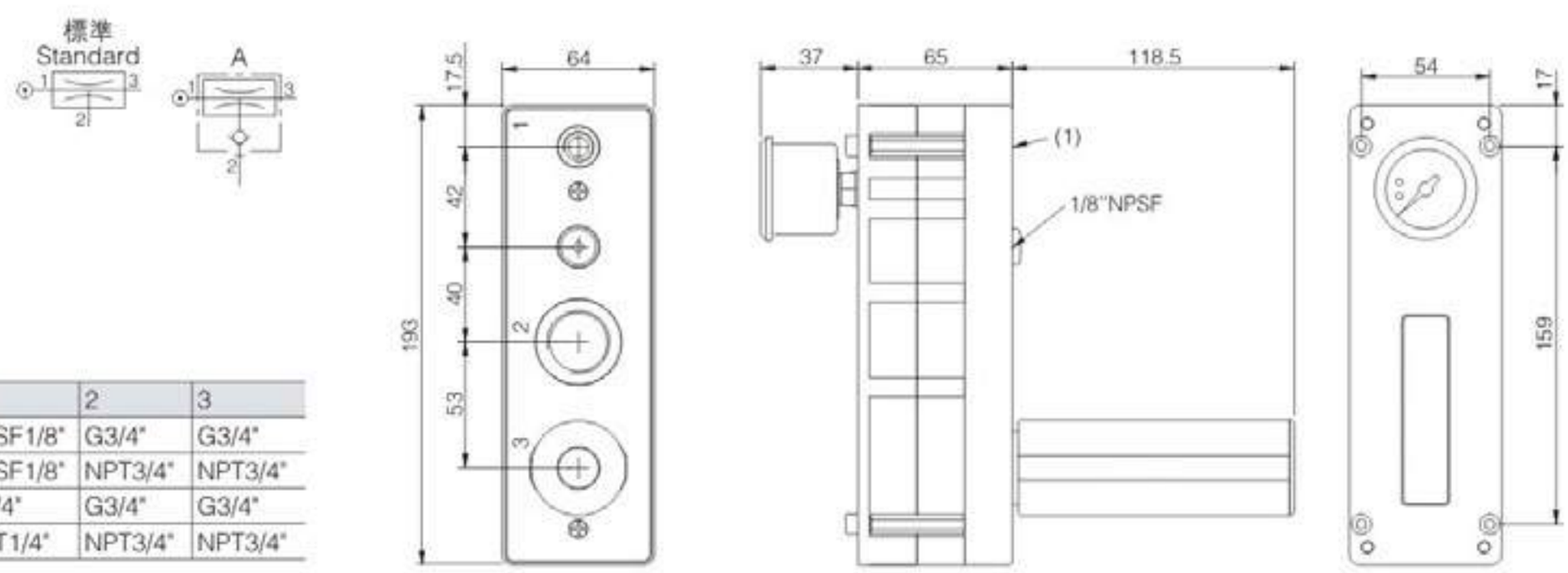
	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

• FAM50L



	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

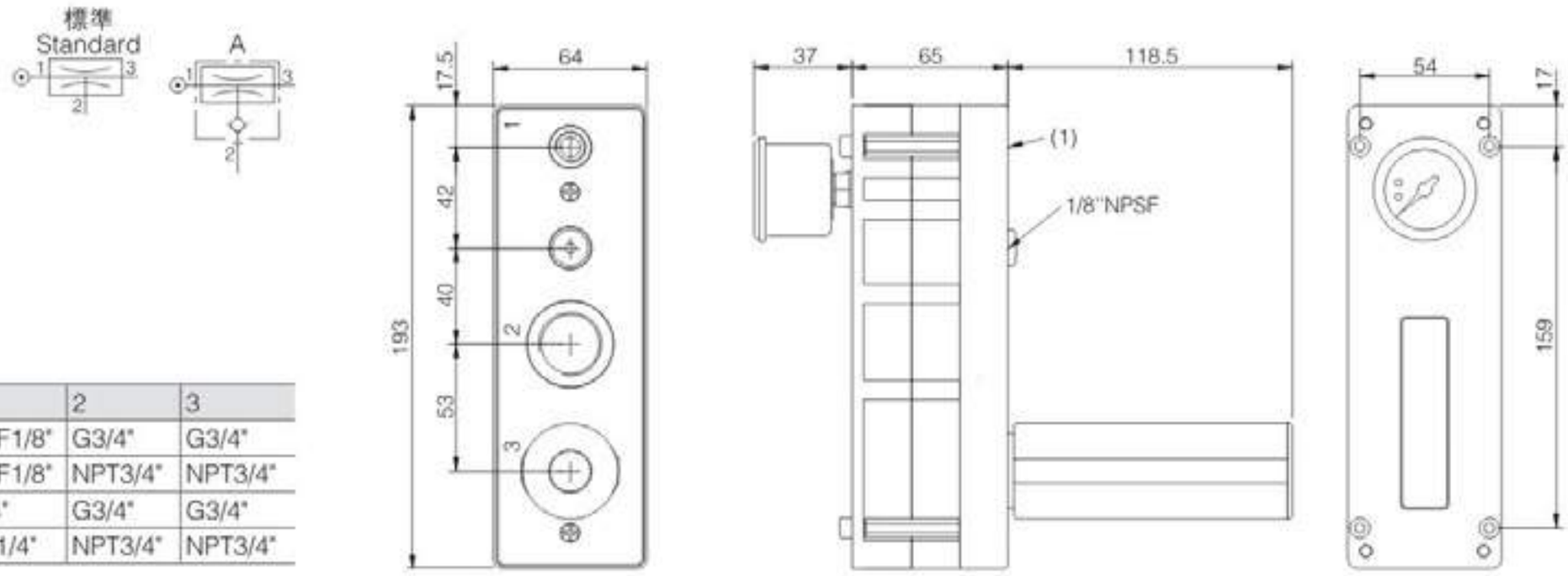
• FAM75L



	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

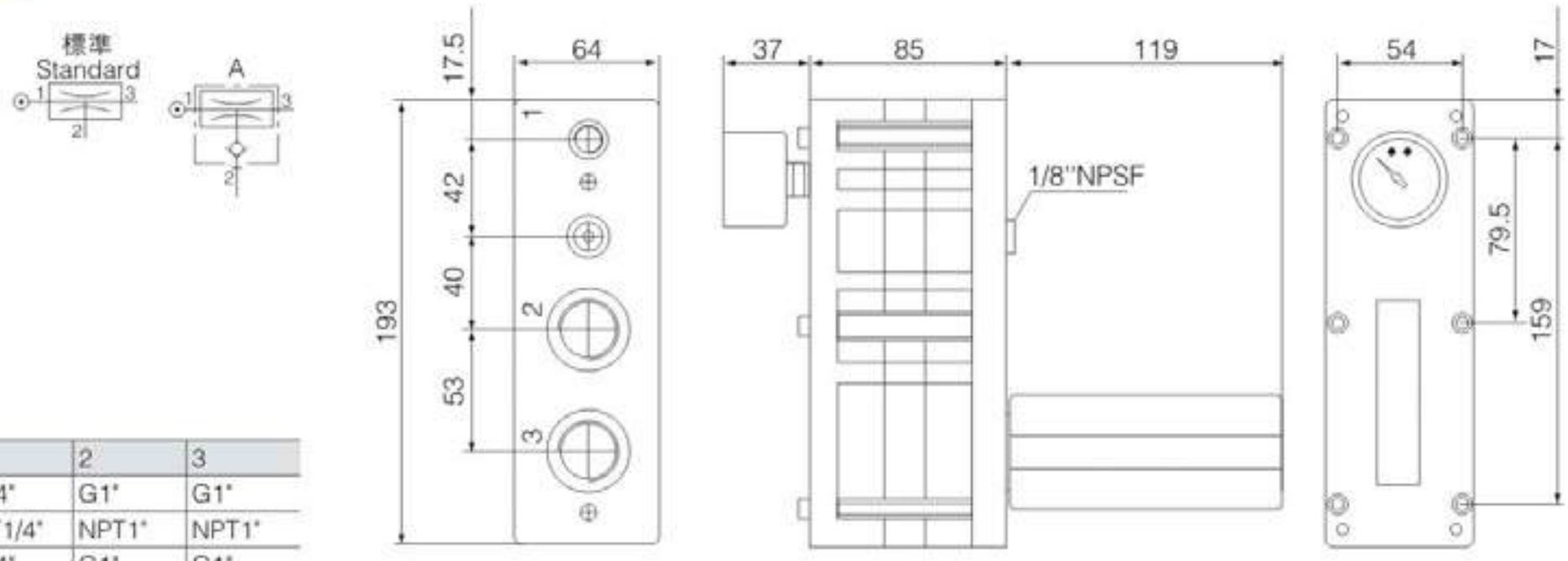
外形尺寸(mm) Dimensions (mm)

• FAM100L



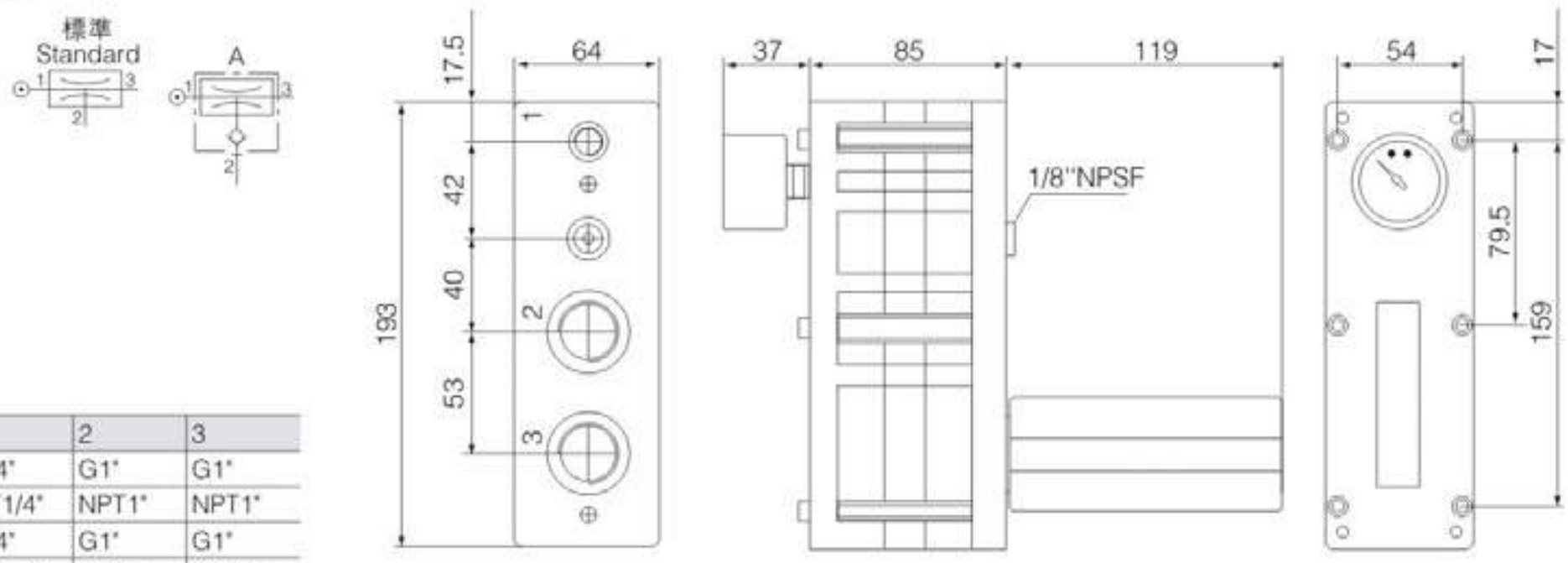
	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

• FAM125L



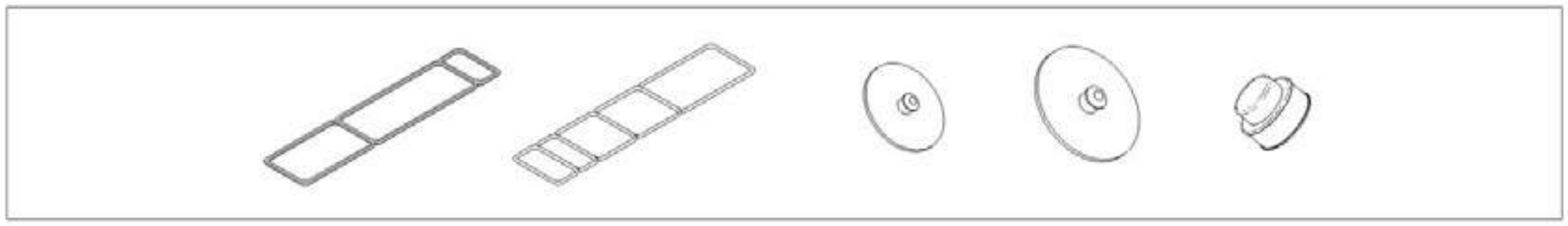
	1	2	3
D	G1/4"	G1"	G1"
B	NPT1/4"	NPT1"	NPT1"
AD	G1/4"	G1"	G1"
E	NPT1/4"	NPT1"	NPT1"

• FAM150L



	1	2	3
D	G1/4"	G1"	G1"
B	NPT1/4"	NPT1"	NPT1"
AD	G1/4"	G1"	G1"
E	NPT1/4"	NPT1"	NPT1"

維修組件 Repair kits



型號 Model	訂購碼 Ordering Code		
	丁腈橡膠NBR	氟橡膠VITON	三元乙丙橡膠EPDM
FAM25L	01.0025.402	01.0025.602	01.0025.802
FAM50L	01.0025.402	01.0025.602	01.0025.802
FAM75L	01.0075.404	01.0075.604	01.0075.804
FAM100L	01.0075.404	01.0075.604	01.0075.804
FAM125L	01.0125.404	01.0125.604	01.0125.804
FAM150L	01.0150.404	01.0150.604	01.0150.804

產品特點 Features

◇真空流量大
◇抽氣時間短
◇適用於多孔材料有泄漏的場合
◇節能系統(ES)
◇鋁連接板(AD)和聚苯硫醚復合材料連接板(D)
◇提供壓縮空氣接口所需的快速接頭，直流消聲器和安裝支架

☆ Large vacuum flows
☆ Short evacuation time
☆ Good for handling porous materials or if leakage is present
☆ Energy-Saving(ES)available
☆ Available with connection plate in aluminium(AD) and composite PPS(D)
☆ Supplies with a push-in connector for compressed air,through-flow silencer and mounting brackets

技術規格 Specifications

最大供氣壓力 Air Supply pressure max	bar	7
最佳供氣壓力 Air Supply pressure(opt)	bar	4~6
噪音 Noise level	dBA	60~65
溫度範圍 Temperature range	℃	-20~80
重量 Weight	g	750~1200
材料 Material		AL, PPS, SS, PA, NBR

產品參數 Technical Parameters

型號 Model	供氣壓力 Air supply pressure bar	最大真空度 Max.vacuum level -kPa	最大真空流量 Max.vacuum flow l/min	空氣消耗量 Air consumption l/min	重量(PPS材料) Weight(PPS materials) g	最小軟管內徑Φ(2m以內) Min tube inner Φ(with in 2m)		
						供氣 Ari supply	真空 Vacuum	排氣 Exhaust
FAL25	6	81	360	105	675	>4	>12	>12
FAL50			640	215	675	>6	>15	>15
FAL75			850	320	837	>8	>19	>22
FAL100			990	390	837	>8	>19	>22
FAL125			1170	480	1075	>10	>25	>32
FAL150			1230	620	1075	>10	>25	>32

訂購碼 How to Order

FAL25 - D - N - A - ES
① ② ③ ④ ⑤

① 型號 Model

FAL25 FAL100
FAL50 FAL125
FAL75 FAL150

③密封材料 Sealing

N	丁腈橡膠
E	三元乙丙橡膠
V	氟橡膠

④止回閥 Non-Return Valve

A	有
-	無

② 連接板 Connection Plate

FAL25-FAL100

	供氣口 Air Supply	真空 Vacuum	排氣 Exhaust	材料 Material
D	NPSF1/8"	G3/4"	G3/4"	PPS
B	NPSF1/8"	NPT3/4"	NPT3/4"	PPS
AD	G1/4"	G3/4"	G3/4"	鋁
E	NPT1/4"	NPT3/4"	NPT3/4"	鋁

FAL125-FAL150

	供氣口 Air Supply	真空 Vacuum	排氣 Exhaust	材料 Material
D	G1/4"	G1"	G1"	PPS
B	NPT1/4"	NPT1"	NPT1"	PPS
AD	G1/4"	G1"	G1"	鋁
E	NPT1/4"	NPT1"	NPT1"	鋁

⑤控制裝置 Control device

PD	電控供氣 Electric air supply	PVD	電控(供氣+破壞真空)組合 Electric control(air supply+vacuum breaking)Combination
PQ	氣控供氣 Pneumatic air supply	PVQ	氣控(供氣+破壞真空)組合 Pneumatic control(air supply+vacuum breaking)Combination
VD	電控破壞真空 Electric control vacuum breaking	ES	節能系統 Energy-saving
VQ	氣控破壞真空 Pneumatic control vacuum breaking	-	無 NO

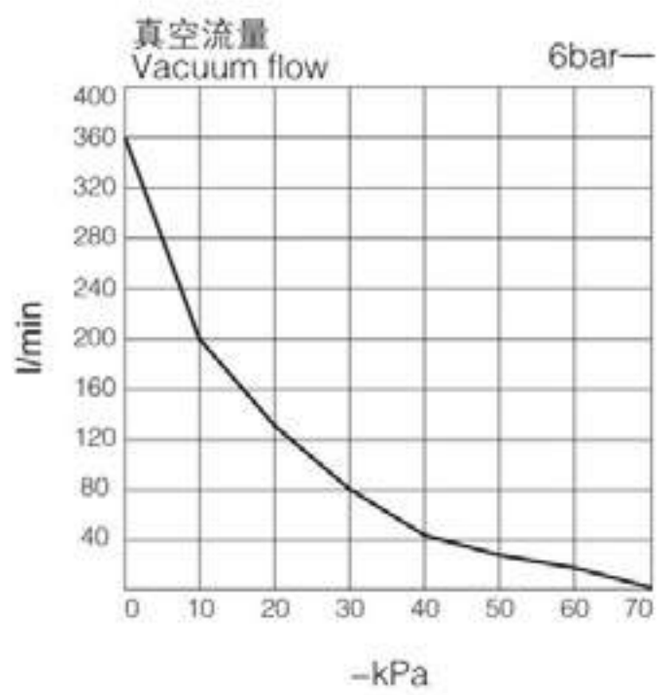
不同真空度(-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)

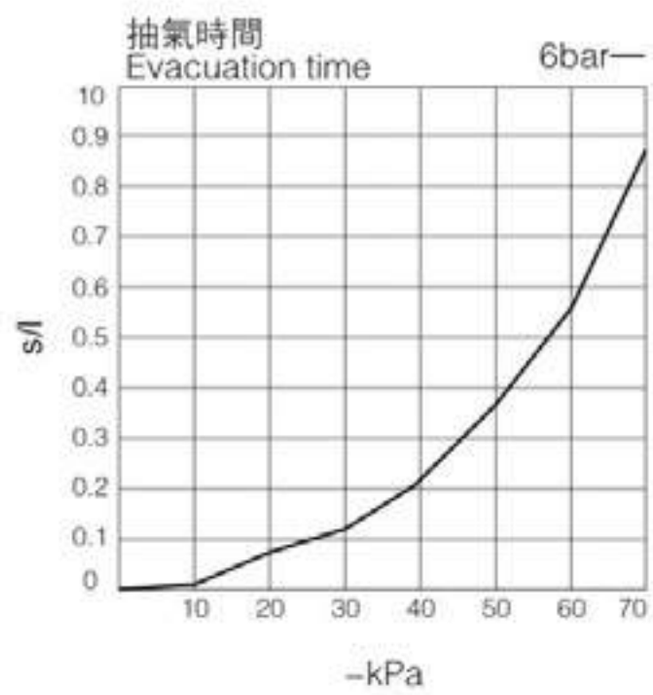
型號 Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	0	10	20	30	40	50	60	70	最大真空度 Max.vacuum level
FAL 25	6 bar	105 l/min	360	196	135	85	45	36	27	17	-81kPa
FAL 50		215 l/min	640	320	205	145	95	65	45	25	
FAL 75		320 l/min	850	430	320	190	130	105	65	40	
FAL 100		390 l/min	990	580	460	300	185	130	95	52	
FAL125		480 l/min	1170	720	541	350	200	150	125	65	
FAL150		620 l/min	1230	760	560	410	210	160	148	85	

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)

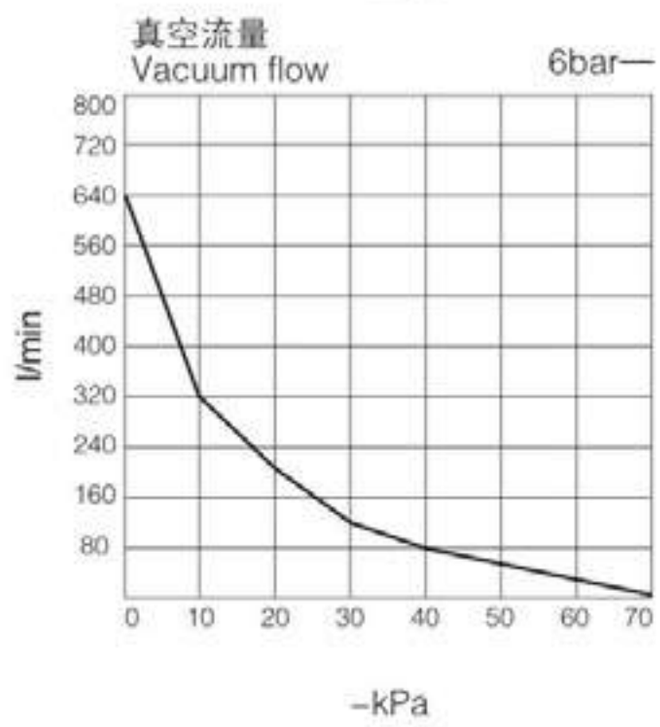
型號 Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	10	20	30	40	50	60	70	最大真空度 Max.vacuum level
FAL 25	6 bar	105 l/min	0.03	0.06	0.1	0.2	0.39	0.58	0.87	-81kPa
FAL 50		215 l/min	0.018	0.039	0.066	0.12	0.20	0.31	0.51	
FAL 75		320 l/min	0.01	0.02	0.04	0.08	0.12	0.2	0.31	
FAL100		390 l/min	0.008	0.017	0.032	0.05	0.09	0.13	0.22	
FAL125		480 l/min	0.006	0.016	0.026	0.045	0.078	0.11	0.18	
FAL150		620 l/min	0.005	0.014	0.024	0.04	0.071	0.1	0.16	

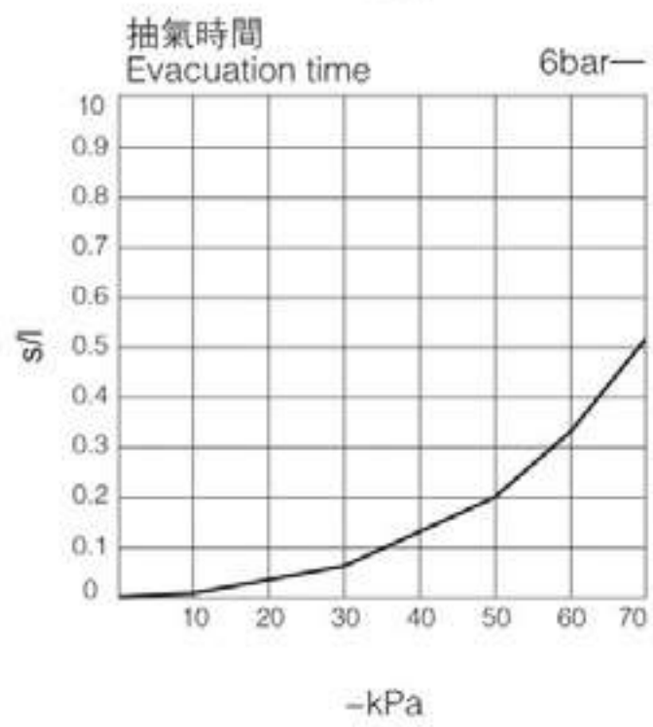
• FAL-25



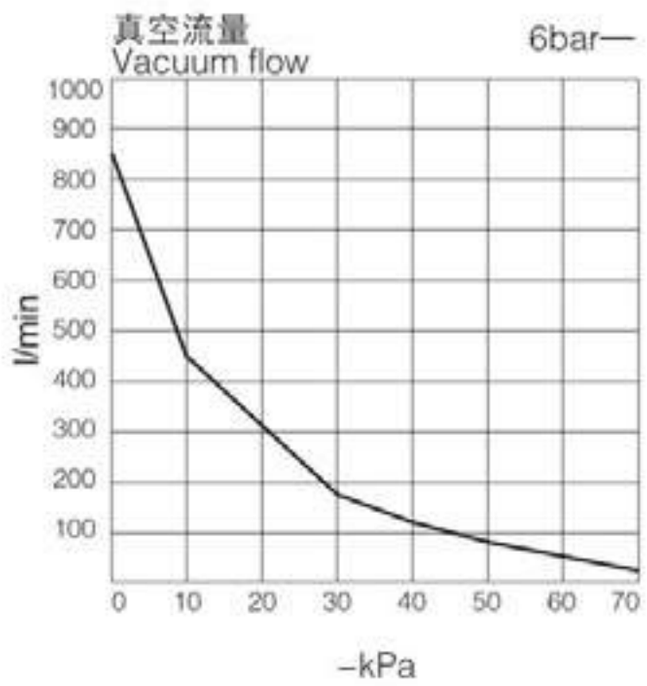


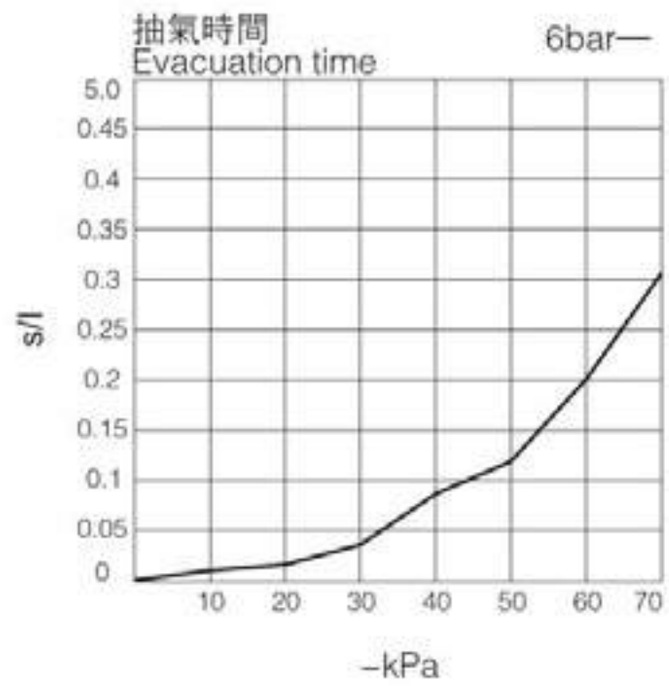
• FAL-50



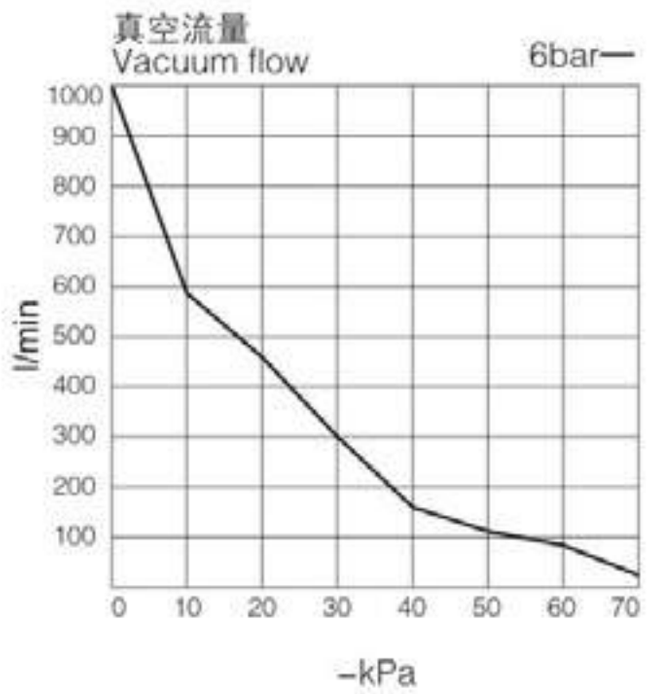


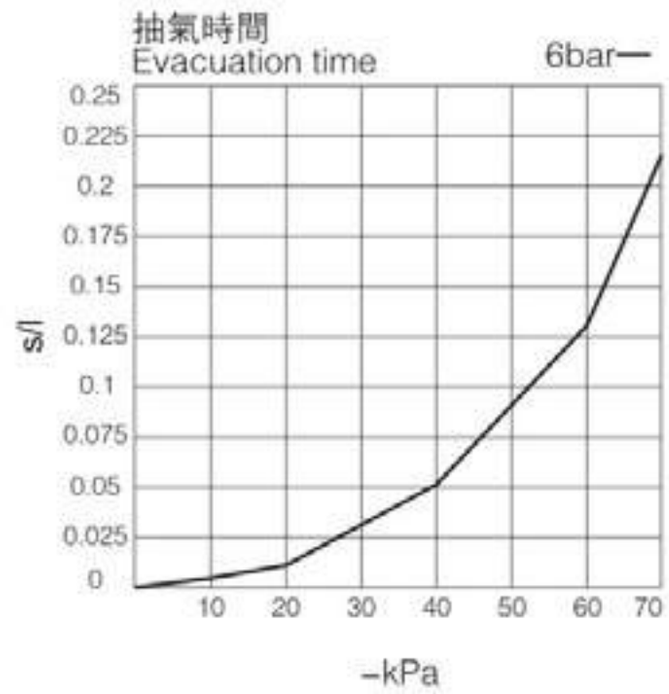
• FAL-75



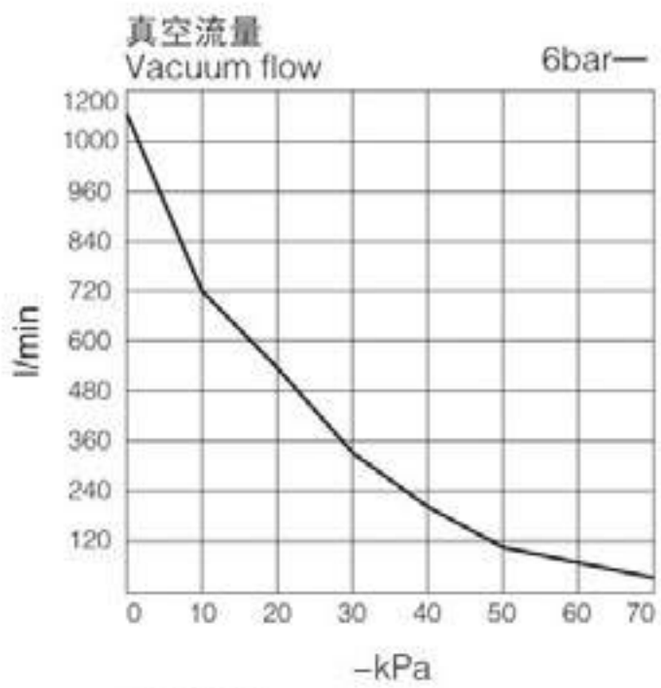


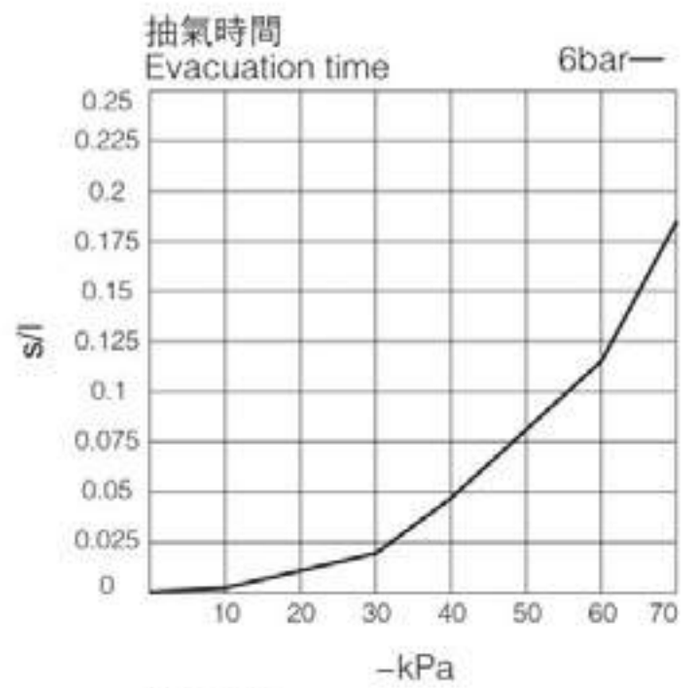
• FAL-100



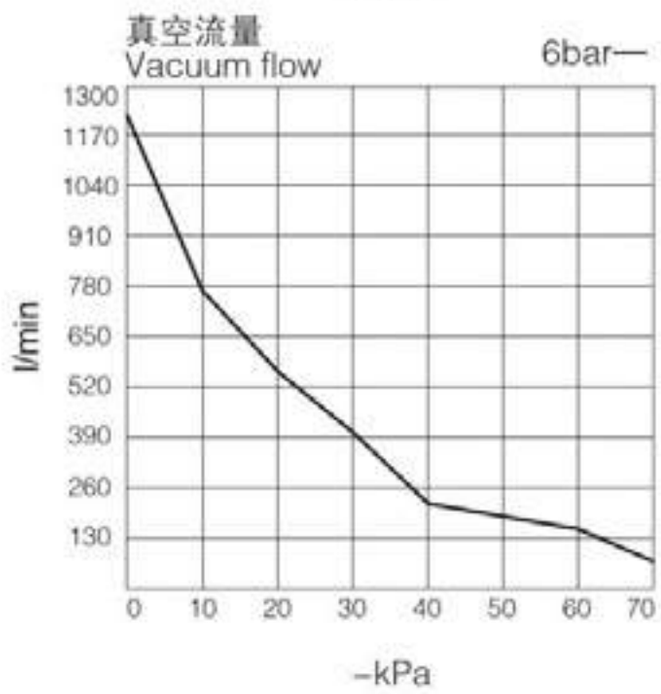


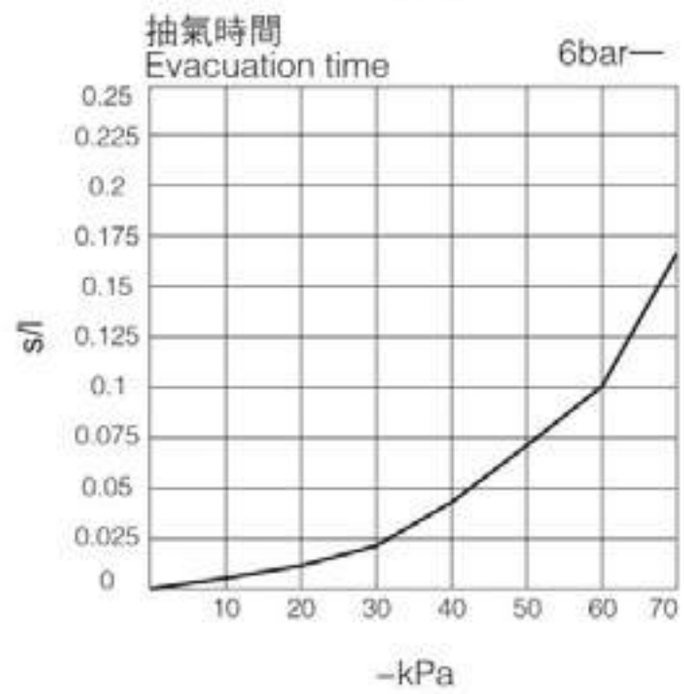
• FAL-125





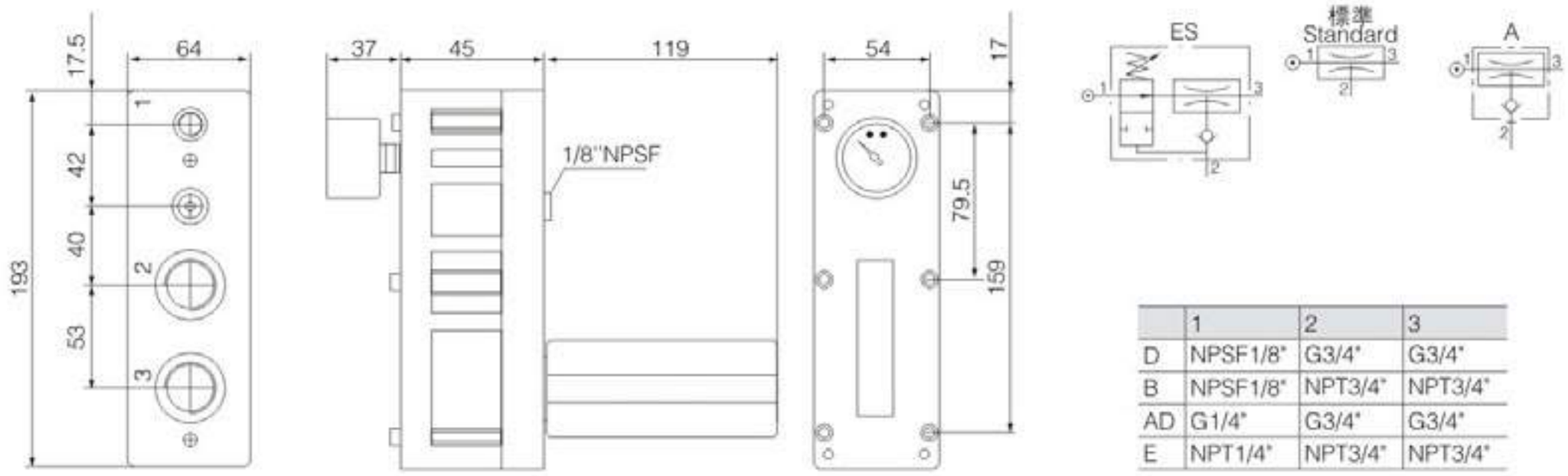
• FAL-150





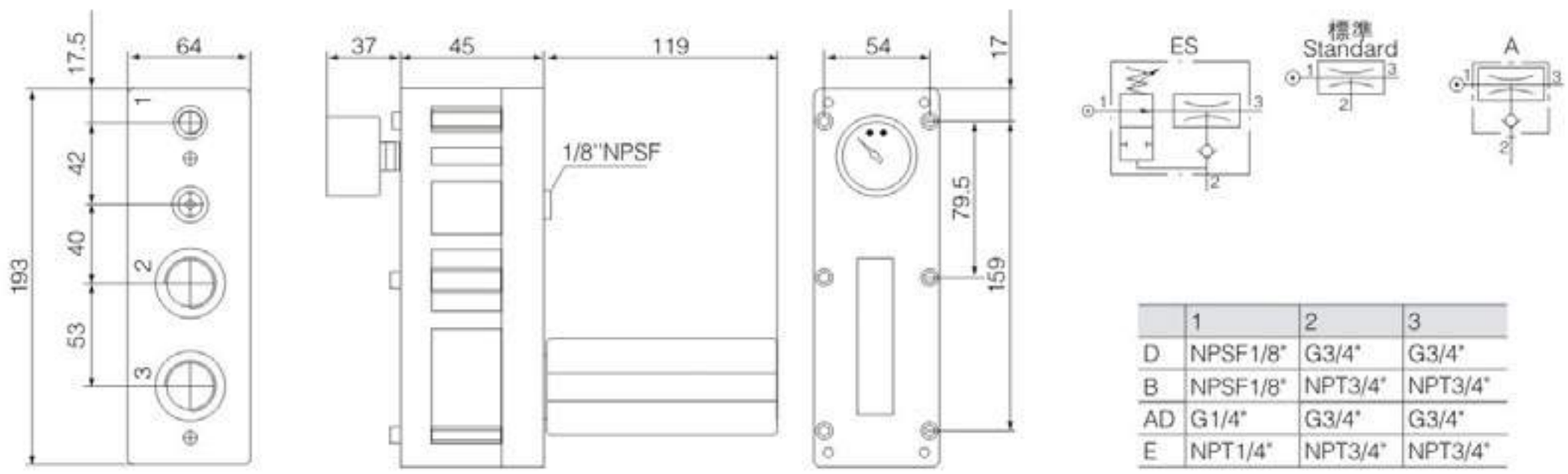
外形尺寸(mm) Dimensions (mm)

FAL-25



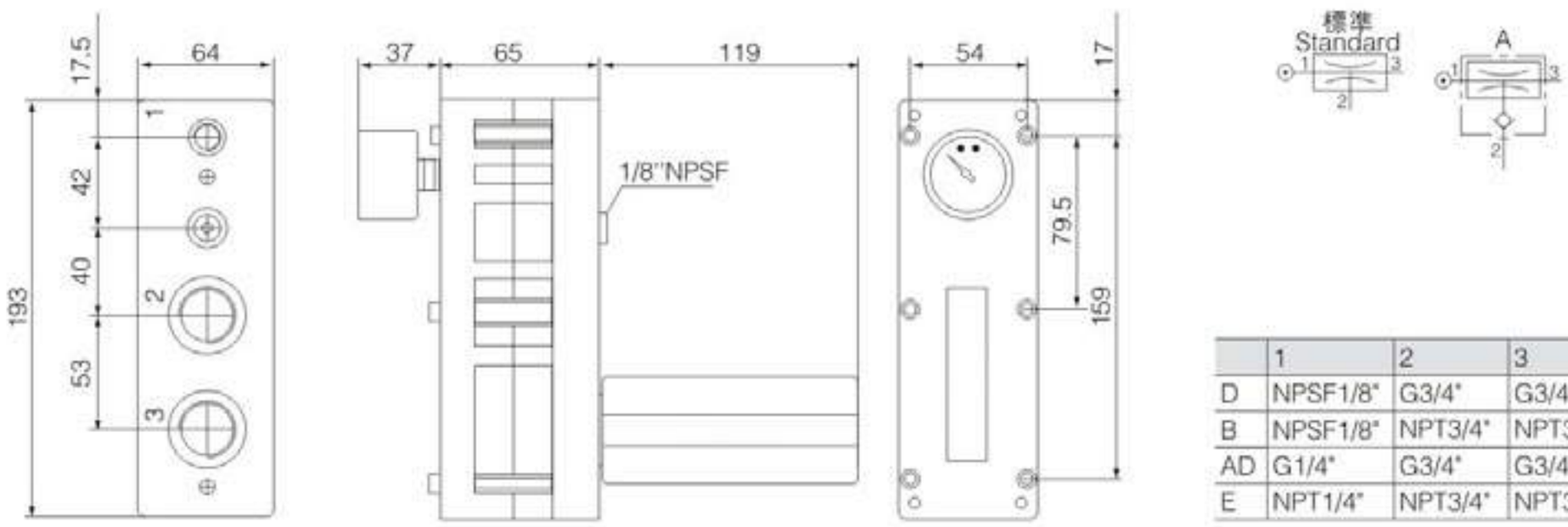
	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

FAL-50



	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

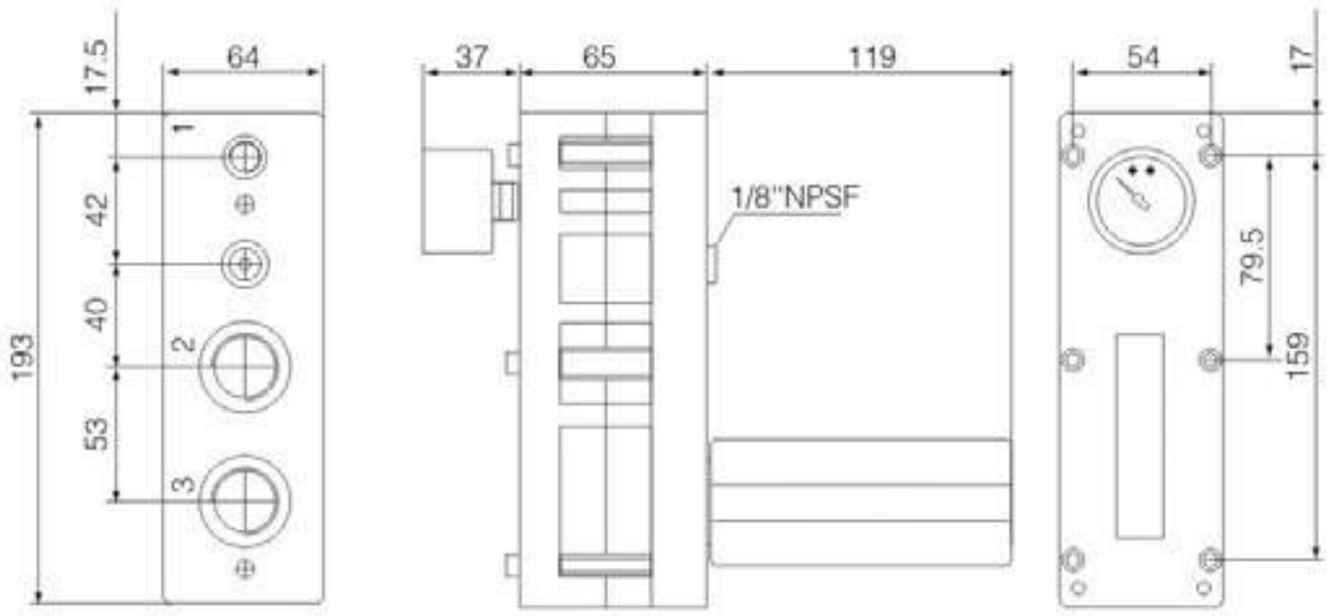
FAL-75

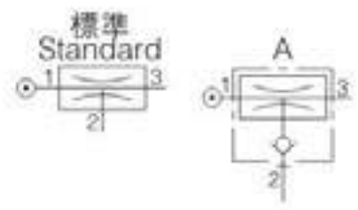


	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

外形尺寸(mm) Dimensions (mm)

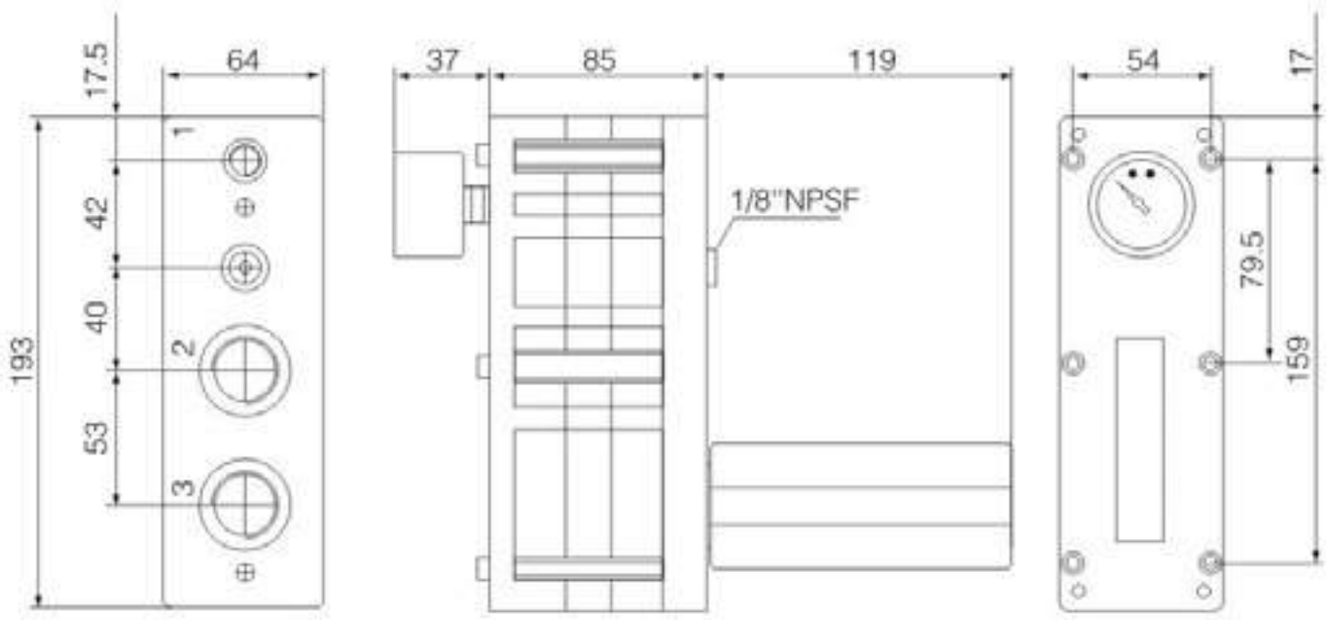
FAL-100

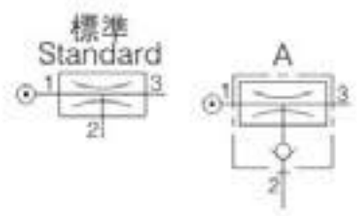




	1	2	3
D	NPSF1/8"	G3/4"	G3/4"
B	NPSF1/8"	NPT3/4"	NPT3/4"
AD	G1/4"	G3/4"	G3/4"
E	NPT1/4"	NPT3/4"	NPT3/4"

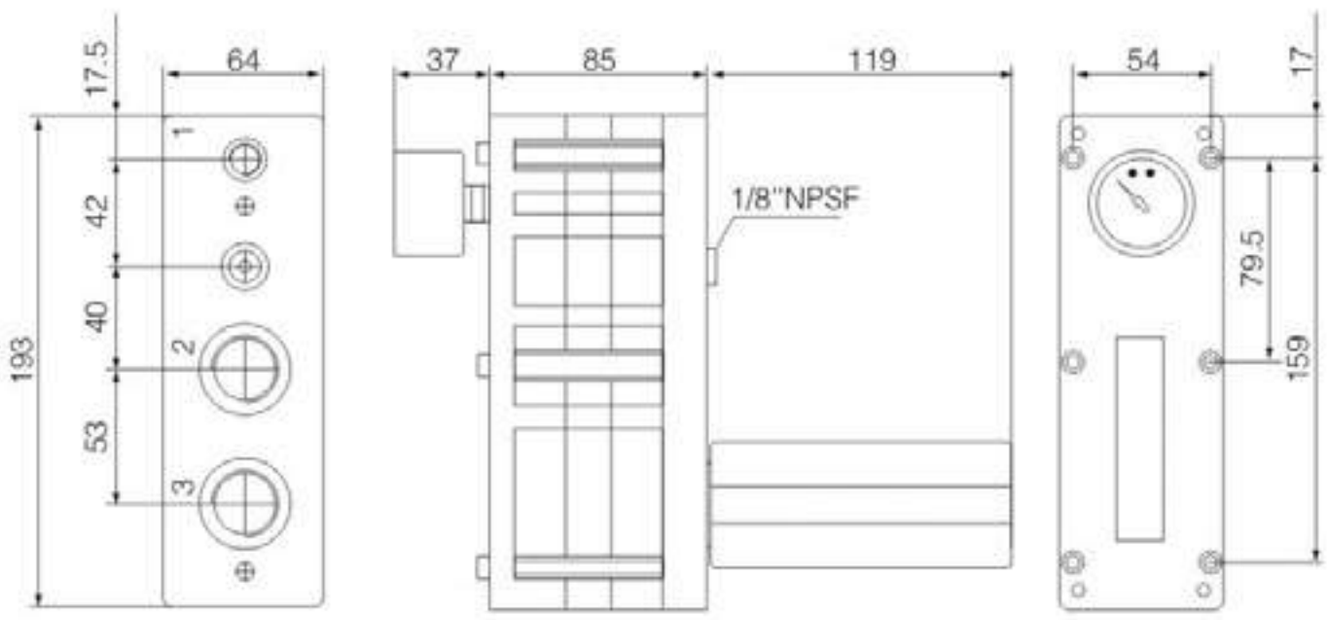
FAL-125

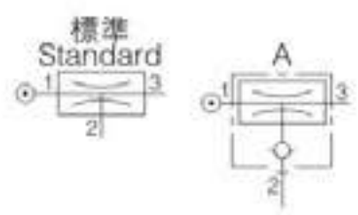




	1	2	3
D	G1/4"	G1"	G1"
B	NPT1/4"	NPT1"	NPT1"
AD	G1/4"	G1"	G1"
E	NPT1/4"	NPT1"	NPT1"

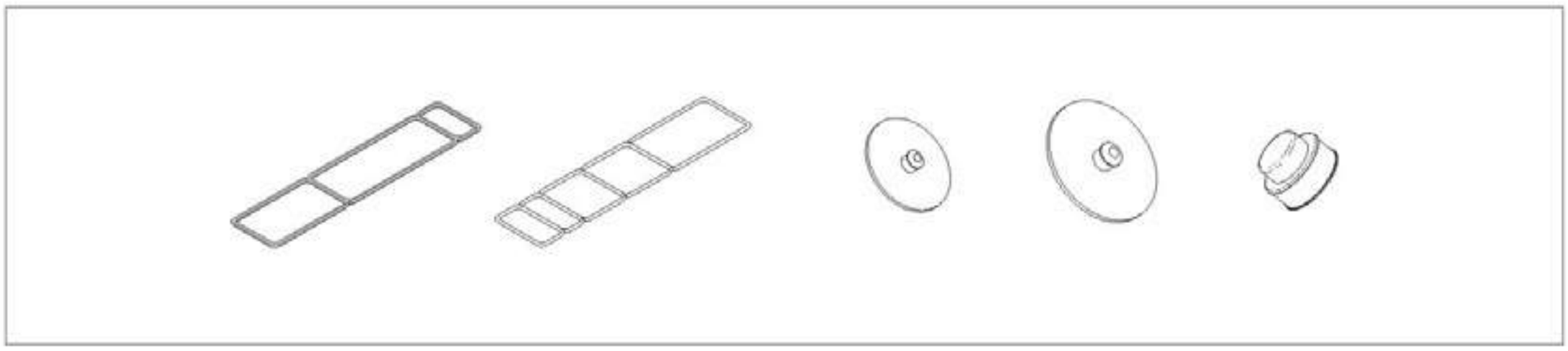
FAL-150





	1	2	3
D	G1/4"	G1"	G1"
B	NPT1/4"	NPT1"	NPT1"
AD	G1/4"	G1"	G1"
E	NPT1/4"	NPT1"	NPT1"

維修組件 Repair kits



型號 Model	訂購碼 Ordering Code		
	丁腈橡膠 NBR	氟橡膠 VITON	三元乙丙橡膠 EPDM
FAL25	01.0025.402	01.0025.602	01.0025.802
FAL50	02.0025.402	02.0025.602	02.0025.802
FAL75	02.0075.404	02.0075.604	02.0075.804
FAL100	02.0075.404	02.0075.604	02.0075.804
FAL125	02.0125.404	02.0125.604	02.0125.804
FAL150	01.0150.404	01.0150.604	01.0150.804

FONRAY

產品特點 Features

◇結構緊凑，體積輕巧，安裝簡便，可直接安裝在吸盤上
◇使用多級產生器產生真空，可以提供較大真空流量
◇由高級塑料制成，可以在大部分有害氣體中使用
◇可選擇氟橡膠和三元乙丙橡膠做密封材料，使其能在腐蝕性環境和酸性環境下使用

☆ These pumps are compact and low weight design.Because the pumps are too small they can be mounted locally to the vacuum requirement even directly onto the back of suction cups if required.
☆ They use a Multi Stage Ejector principal for generating the vacuum,provide large capacity vacuum flow combined with high grade plastic, making the pumps resilient to most hazardous vapours
☆ The pump can have seal materials options of Viton®& EPDM for corrosive and acidic applications.

技術規格 Specifications

最大真空度	Max.vacuum level	-85kPa	-85kPa
最大真空流量	Max.vacuum flow rate	220l/m	220l/m
供氣壓力	Air supply pressure	4-6bar 最大7bar	4-6bar Max.7bar
最佳供氣壓力	Air supply pressure(opt)	4.5bar	4.5bar
供氣類別	Air supply type	乾燥的壓縮空氣	Dry compressed air
工作溫度	Working temperature	-20℃ to +80℃	-20℃ to +80℃
噪音	Noise level	50-68dBA	50-68dBA

訂購碼 How to Order

FVM5 - B - V
① ② ③

① 型號-容量等同於電力泵尺寸 Model-Capacity equivalent to electricity motor pump size

FVM5	0.05KW
FVM10	0.10KW
FVM20	0.20KW
FVM30	0.30KW

② 供氣口，真空口，排氣口 Air Supply, Vacuum, Exhaust Port

	供氣 Air Supply	真空 Vacuum	排氣 Exhaust
A	M5-Φ6	G1/8"	內置消聲器 Internal silencer
NA	M5-Φ6	NPSF1/8"	內置消聲器 Internal silencer
B	G1/8"	G3/8"	內置消聲器 Internal silencer
BA	G1/8"	G3/8"	內置消聲器 Internal silencer 連接板-鋁 connection plate-AL
NB	NPSF1/8"	NPSF3/8"	內置消聲器 Internal silencer
NBA	NPSF1/8"	NPSF3/8"	內置消聲器 Internal silencer 連接板-鋁 connection plate-AL
C	G1/8"	G3/8"	外置消聲器 External silencer
NC	NPSF1/8"	NPSF3/8"	外置消聲器 External silencer

※ 標準真空產生器型號 Standard pump model
ABM5-A, NA, B, BA, NB, NBA, C, NC　ABM10-A, NA, B, BA, NB, NBA, C, NC　ABM20-B, BA, NB, NBA,C, NCABM30-B, BA, NB, NBA,C, NC

③ 密封件 Sealing

無記號 No mark	標準(丁腈橡膠) Standard (NBR)
V	氟橡膠 VITON
E	三元乙丙橡膠 EPDM

產品參數 Technical Parameters

型號 Model	最大真空度 Max.vacuum level (-kPa)	最大真空流量 Max.vacuum flow (l/min)	空氣消耗量 Air consumption (l/min)	噪 音 Noise level (dBA)	最小軟管內徑Φ(2m內) Min tube inner Φ(within 2m)		
					供氣 Air supply	真空 Vacuum	排氣 Exhaust
FVM5	(-kPa) 85	37	12-20	50-65	>2	>5	>8
FVM10		75	28-42	55-68	>2	>8	>10
FVM20		150	55-85	60-68	>4	>10	>12
FVM30		220	87-125	60-68	>6	>12	>15

※備注：型號 重量 Remarks: type weight= FVM5-A (B,BA,NBA,C,NC) :32.5g (38g,58g,58g,38g,38g)
FVM10-A (B,BA,NBA,C,NC) : 32g (37.5g,57.5g,57.5g,37.5g,37.5g)
FVM20-B (BA,NB,NBA,C,NC) : 50g (70g,70g,70g,50g,50g)
FVM30-B (BA,NB,NBA,C,NC) : 62.5g (82.5g,82.5g,82.5g,62.5g,62.5g,)

不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

型號Model \ -kPa	供氣壓力 Air supply pressure	0	10	20	30	40	50	60	70	80	最大真空度 Max.vacuum level
FVM5	4.5bar	35	20.5	12	10.5	8.5	6.5	4.5	2.5	0.8	-85kPa
FVM10		70	40.5	25	21	18	14	9.5	5	1.3	
FVM20		141	77	45	39.5	29.5	25	17.5	12	3	
FVM30		175	105	70	63	53	40	26	14	6.5	

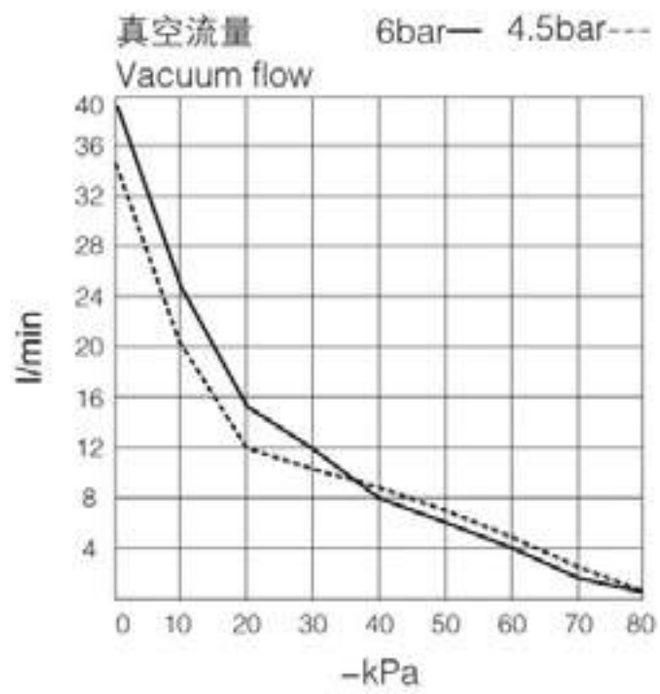
型號Model \ -kPa	供氣壓力 Air supply pressure	0	10	20	30	40	50	60	70	80	最大真空度 Max.vacuum level
FVM5	6bar	37	25	15.5	12	8	6	4	2.7	0.6	-85kPa
FVM10		75	55	27	20	18	12	9	5	2	
FVM20		150	100	55	38	30	24	16	11	3.2	
FVM30		220	150	81	65	50	38	27	18	5	

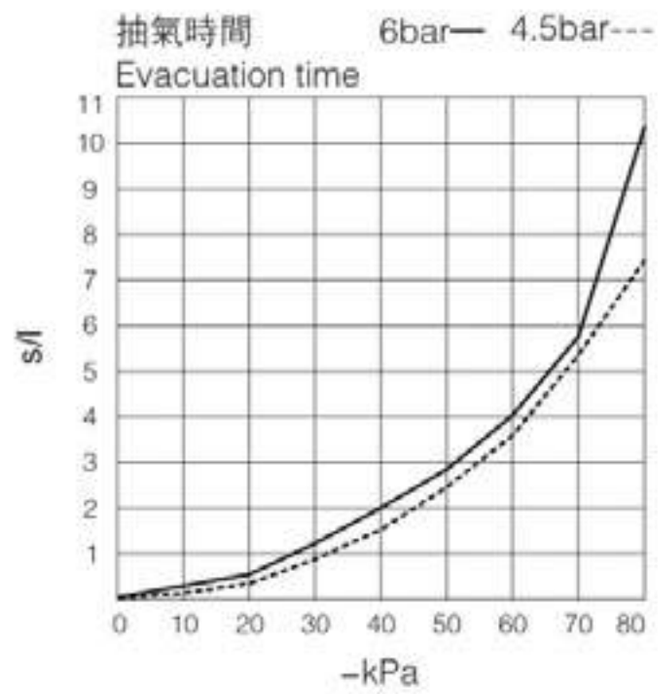
不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

型號Model \ -kPa	供氣壓力 Air supply pressure	10	20	30	40	50	60	70	80
FVM5	4.5bar	0.11	0.42	0.95	1.66	2.5	3.65	5.25	7.89
FVM10		0.08	0.2	0.44	0.8	1.24	1.8	2.55	3.8
FVM20		0.04	0.12	0.23	0.41	0.65	0.93	1.33	2.03
FVM30		0.03	0.09	0.16	0.27	0.43	0.66	0.95	1.43

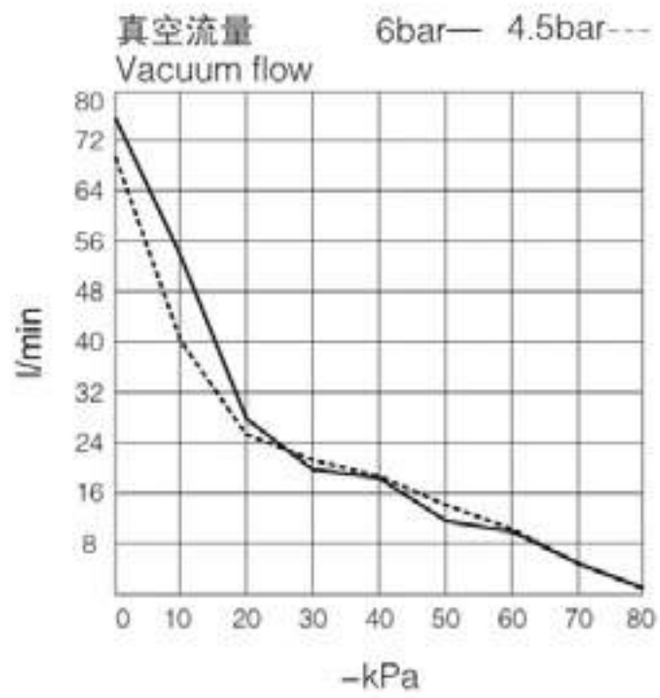
型號Model \ -kPa	供氣壓力 Air supply pressure	10	20	30	40	50	60	70	80
FVM5	6bar	0.13	0.51	1.15	1.93	2.87	4.09	5.84	10.46
FVM10		0.029	0.23	0.53	0.92	1.37	1.95	2.77	4.62
FVM20		0.023	0.15	0.28	0.46	0.71	1.02	1.48	2.55
FVM30		0.015	0.077	0.138	0.308	0.49	0.69	1.02	1.75

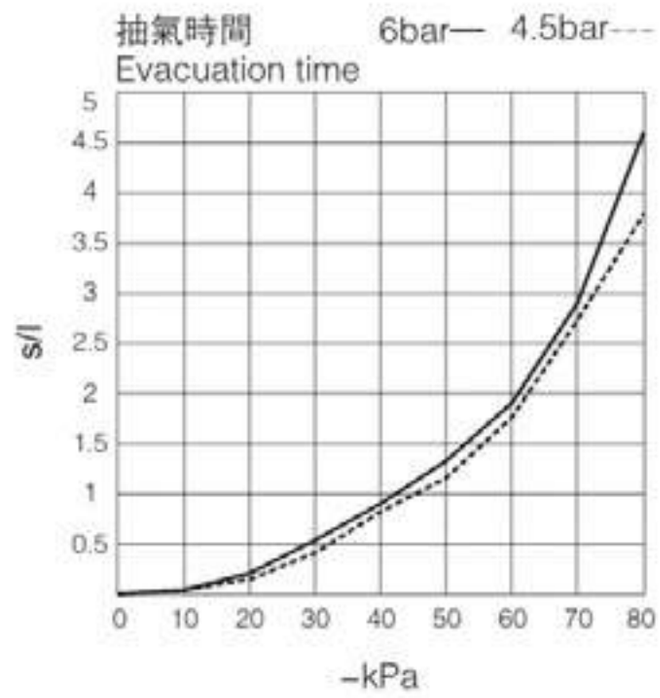
•FVM5



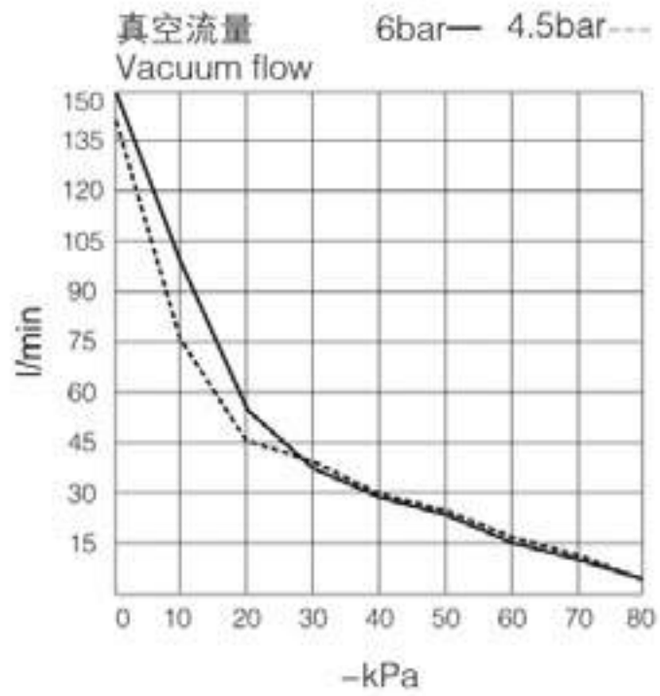


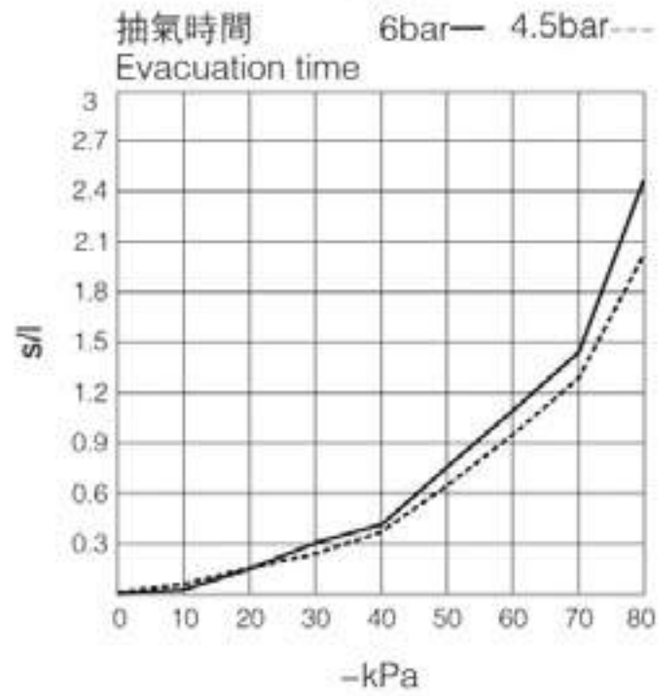
•FVM10



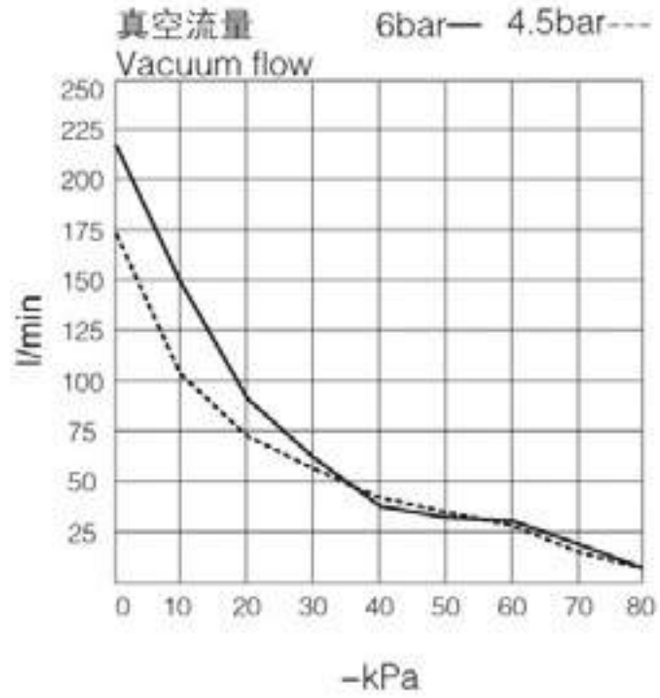


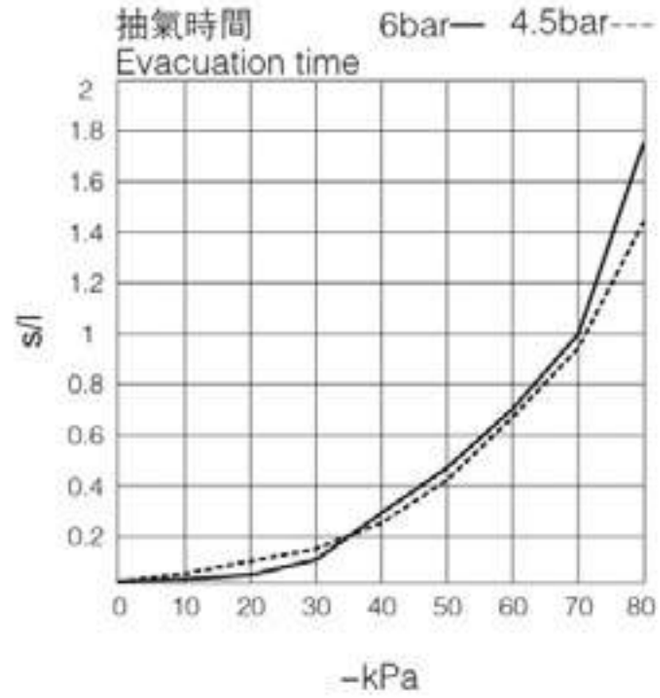
•FVM20





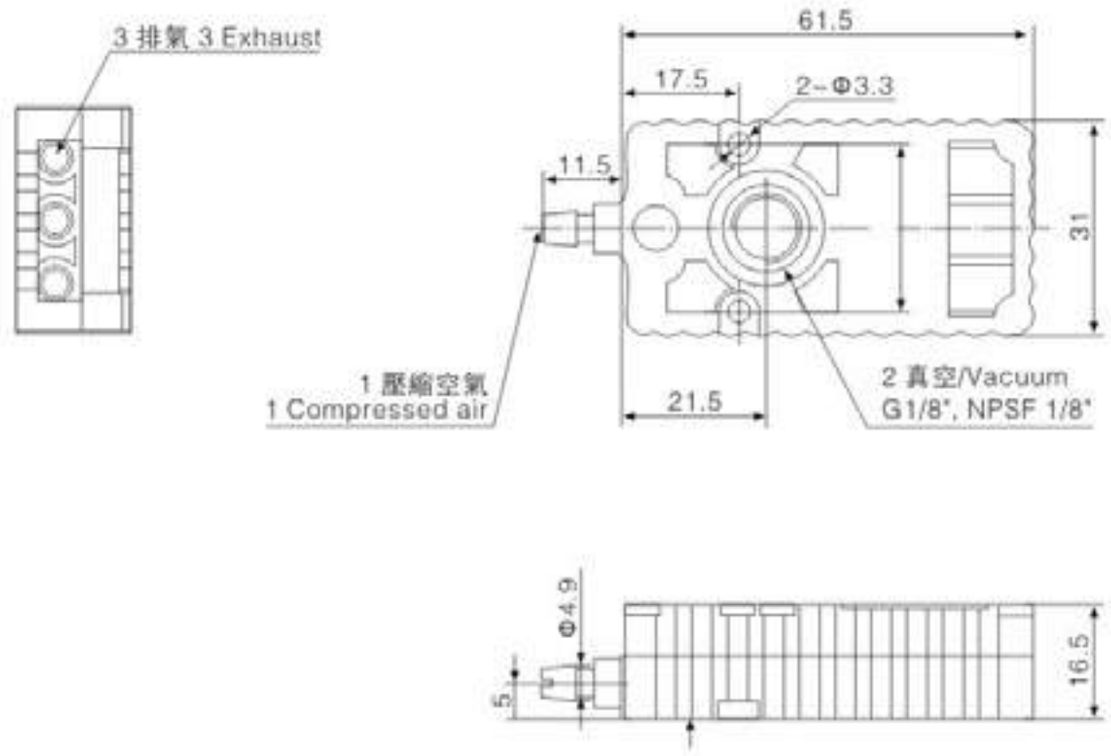
•FVM30



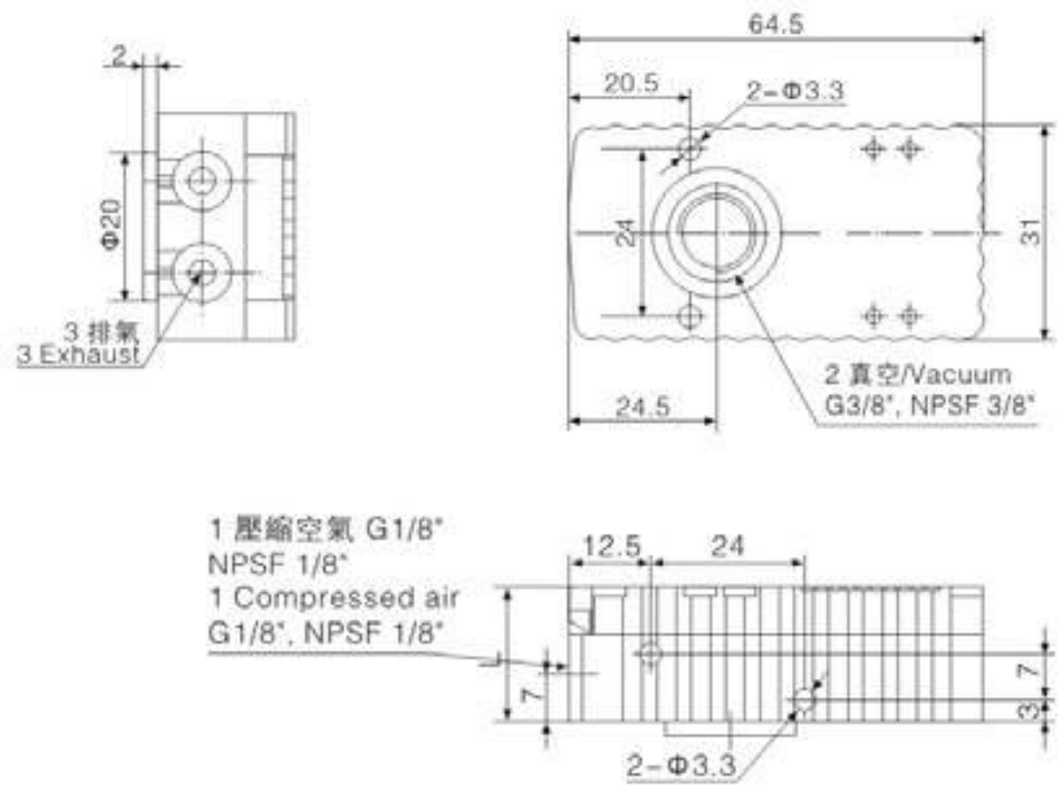


外形尺寸(mm) Dimensions (mm)

5
FVM(10)-A(NA)

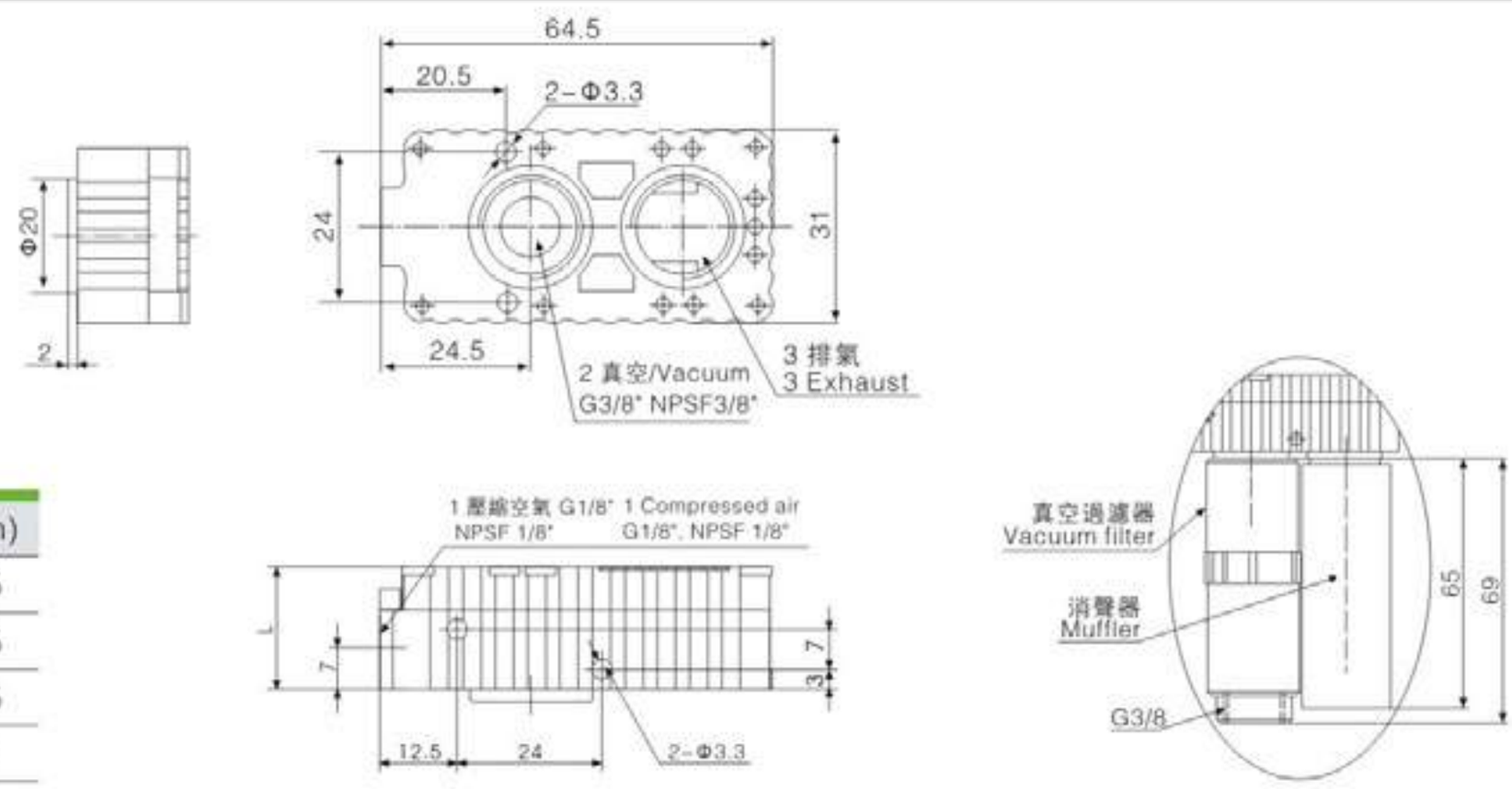


5 B
FVM(10)-(BA)
20 NB
30 NBA



型號 Model	L(mm)
FVM5	20.5
FVM10	20.5
FVM20	27.5
FVM30	35

5
FVM(10)-C(NC)
20
30



型號 Model	L(mm)
FVM5	20.5
FVM10	20.5
FVM20	27.5
FVM30	35

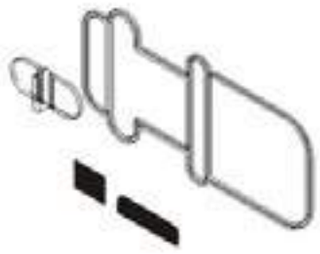
密封件訂購碼 How to order(Sealing elements)

密封墊 Sealing gasket

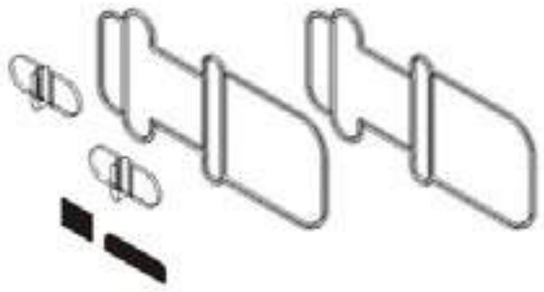
閥片 Valve plate

規格 Specification	密封墊 Sealing gasket	閥片 Valve plate
標準（丁腈橡膠）Standard(NBR)	02.0050.419	02.0050.421
氟橡膠 VITON	02.0050.420	02.0050.422
三元乙丙橡膠 EPDM	02.0050.465	02.0050.466

維修組件 Repair kits



5 10



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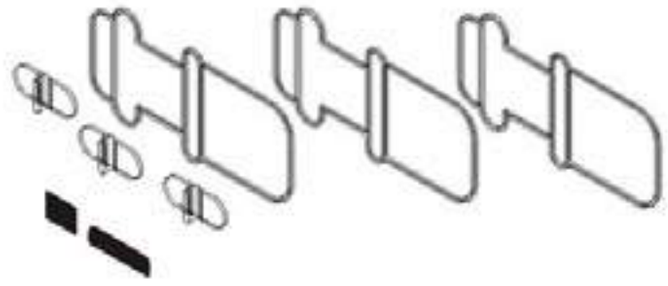


30

型號 Model	訂購碼 Ordering Code		
	丁腈橡膠 NBR	氟橡膠 VITON	三元乙丙橡膠 EPDM
FVM5-A(B、C)	01.0005.402	01.0005.602	01.0005.802
FVM10-A(B、C)	01.0010.402	01.0010.602	01.0010.802
FVM20-B(C)	01.0020.404	01.0020.604	01.0020.804
FVM30-B(C)	01.0030.406	01.0030.606	01.0030.806

技術規格 Specifications

最大真空度 Max.vacuum level		-93kPa
最大真空流量 Max.vacuum flow rate		185l/m
供氣壓力 Air supply pressure		4-6bar 最大(Max.)7bar
最佳供氣壓力 Air supply pressure(opt)	FVX5-ABX20	4.5bar
	FVX30	5bar
供氣類別 Air supply type		乾燥的壓縮空氣 Dry compressed air
工作溫度 Working temperature		-20℃ to +80℃
噪音 Noise level		50-68dBA

產品特點 Features

◇結構緊凑，體積輕巧，安裝簡便，甚至可以安裝到吸盤上
◇使用多級發生器產生真空，可以提供最大的真空流量。
◇外形上與M-Mini真空產生器相似，但是內部系統不同，可以達到更高的真空度。
◇外殼由高級塑料制成，可以在許多有害氣體中使用。
◇可選擇氟橡膠和三元乙丙橡膠做爲密封材料，使其能在腐蝕性環境和酸性環境下使用。

☆ These pumps are compact and low weight design.Because the pumps are too small they can be mounted locally to the vacuum requirement even directly onto the back of suction cups if required.
☆ They use a Multi Stage Ejector principal for generating the vacuum, provide large capacity vacuum flow combined with high grade plastic, making the pumps resilient to most hazardous vapours
☆ ABX has the same external dimensions to that of ABM however the internal ejector system is different to enable higher levels of vacuum to be achieved.
☆ The pump can have seal materials options of Viton® & EPDM for corrosive and acidic,applications.

訂購碼 How to Order

FVX5 - B - V
① ② ③

① 型號-容量等同于電力泵尺寸 Model-Capacity equivalent to electricity motor pump size

FVX5	0.05KW
FVX10	0.10KW
FVX20	0.20KW
FVX30	0.30KW

② 供氣口，真空口，排氣口 Air Supply, Vacuum, Exhaust Port

	供氣	真空	排氣 Exhaust
A	M5-ϕ6	G1/8"	內置消聲器 Internal silencer
NA	M5-ϕ6	NPSF1/8"	內置消聲器 Internal silencer
B	G1/8"	G3/8"	內置消聲器 Internal silencer
BA	G1/8"	G3/8"	內置消聲器 Internal silencer
			連接板-鋁 connection plate-AL
NB	NPSF1/8"	NPSF3/8"	內置消聲器 Internal silencer
NBA	NPSF1/8"	NPSF3/8"	內置消聲器 Internal silencer
			連接板-鋁 connection plate-AL
C	G1/8"	G3/8"	外置消聲器 External silencer
NC	NPSF1/8"	NPSF3/8"	外置消聲器 External silencer

※ 標準真空產生器型號 Standard pump model
FVX5-A, NA, B, BA, NB, NBA, C, NC FVX10-A, NA, B, BA, NB, NBA, C, NC FVX20-B, BA, NB, NBA,C, NC
FVX30-B, BA, NB, NBA, C, NC:

③密封件 Sealing

無記號 No mark	標準(丁腈橡膠) Standard (NBR)
V	氟橡膠 VITON
E	三元乙丙橡膠 EPDM

產品參數 Technical Parameters

型號 Model	最大真空度 Max.vacuum level (-kPa)	最大真空流量 Max.vacuum flow (l/min)	空氣消耗量 Air consumption (l/min)	噪音 Noise level (dBA)	最小軟管內徑Φ(2m內) Min tube inner Φ(within 2m)		
					供氣 Air supply	真空 Vacuum	排氣 Exhaust
FVX5	92	32	18-22	50-65	>2	>5	>8
FVX10		63	31-40	55-68	>2	>8	>10
FVX20		125	79-89	60-69	>4	>10	>12
FVX30		185	128-137	60-69	>6	>12	>15

※ 備注：型號 重量 Remarks: type weight= FVX5-A(B,BA,NBA,C,NC):32.5g(38g,58g,58g,38g,38g)
FVX10-A(B,BA,NBA,C,NC):32g(37.5g,57.5g,57.5g,37.5g,37.5g)
FVX20-B(BA,NB,NBA,C,NC):50g(70g,70g,70g,50g,50g)
FVX30-B(BA,NB,NBA,C,NC):62.5g(82.5g,82.5g,82.5g,62.5g,62.5g)

不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

型號 Model \ -kPa	供氣壓力 Air supply pressure	0	10	20	30	40	50	60	70	80	90	最大真空度 Max.vacuum level
FVX5	4.5bar	30	13	7.5	7	6	5	4	3.2	1.8	0.4	-92kPa
FVX10		52	24	18	15	13	10.5	8	6	2.5	0.8	
FVX20		100	46	34	30.5	25	21	17	10.5	5	1.6	
FVX30	5bar	180	95	55	45.5	40.5	30.5	25	19	11.5	3	

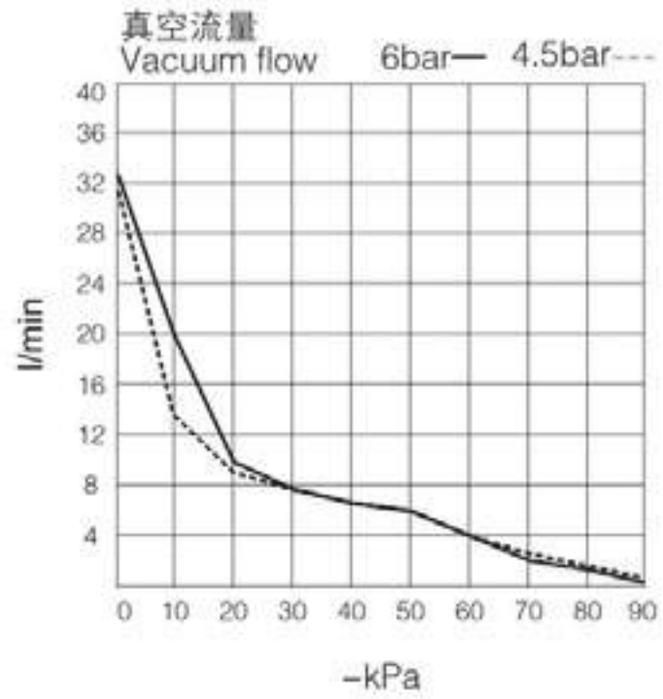
型號 Model \ -kPa	供氣壓力 Air supply pressure	0	10	20	30	40	50	60	70	80	90	最大真空度 Max.vacuum level
FVX5	6bar	32	20	8.5	7.5	6	5	4	3	1.5	0.15	-93kPa
FVX10		63	36	18	16	12.5	10.5	8.5	6	3.5	0.5	
FVX20		125	73	35	30	25	22	18	12	7	0.9	
FVX30		185	103	51	46	38	31	25	19	12	1.8	

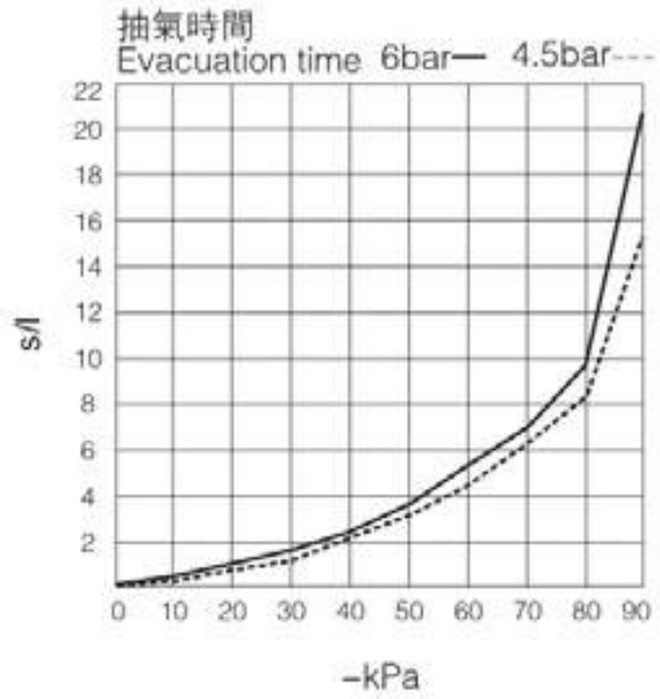
不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

型號 Model \ -kPa	供氣壓力 Air supply pressure	10	20	30	40	50	60	70	80	90
FVX5	4.5bar	0.13	0.6	1.26	2.3	3.2	4.5	6.15	8.5	15.5
FVX10		0.11	0.3	0.65	1.1	1.55	2.15	2.85	4.7	10.2
FVX20		0.09	0.16	0.32	0.55	0.8	1.5	1.8	2.7	5
FVX30		0.06	0.12	0.23	0.36	0.53	0.76	1.1	1.6	2.9

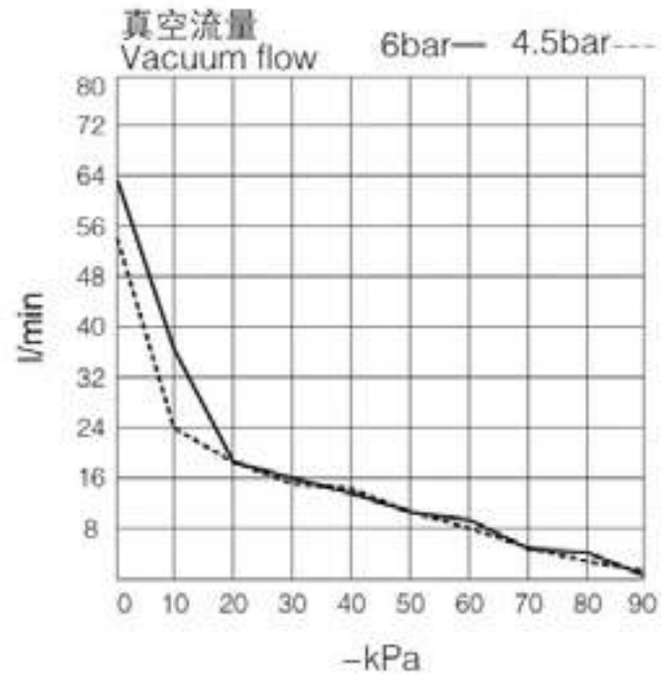
型號 Model \ -kPa	供氣壓力 Air supply pressure	10	20	30	40	50	60	70	80	90
FVX5	6bar	0.15	0.71	1.52	2.54	3.72	5.12	6.95	9.7	21
FVX10		0.09	0.32	0.71	1.18	1.74	2.4	3.26	4.55	10.2
FVX20		0.046	0.15	0.31	0.52	0.77	1.08	1.54	2.15	4.92
FVX30		0.025	0.123	0.23	0.38	0.58	0.82	1.11	1.54	3

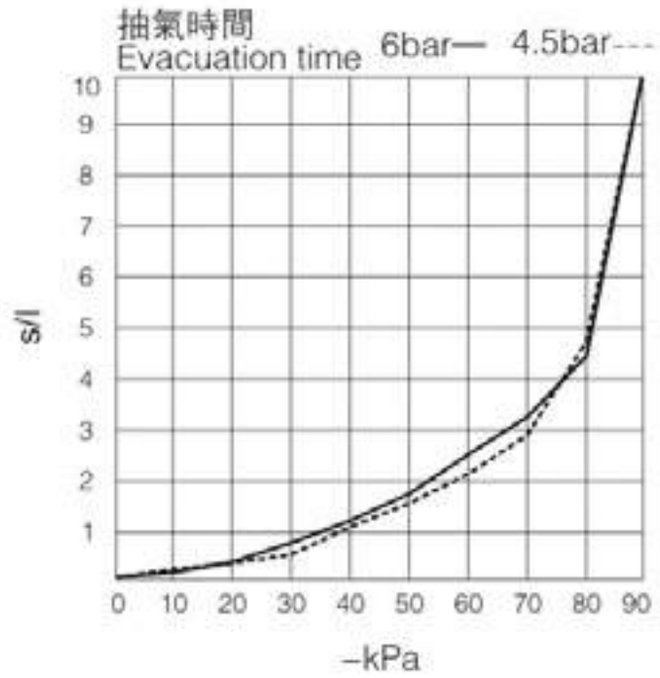
• FVX5



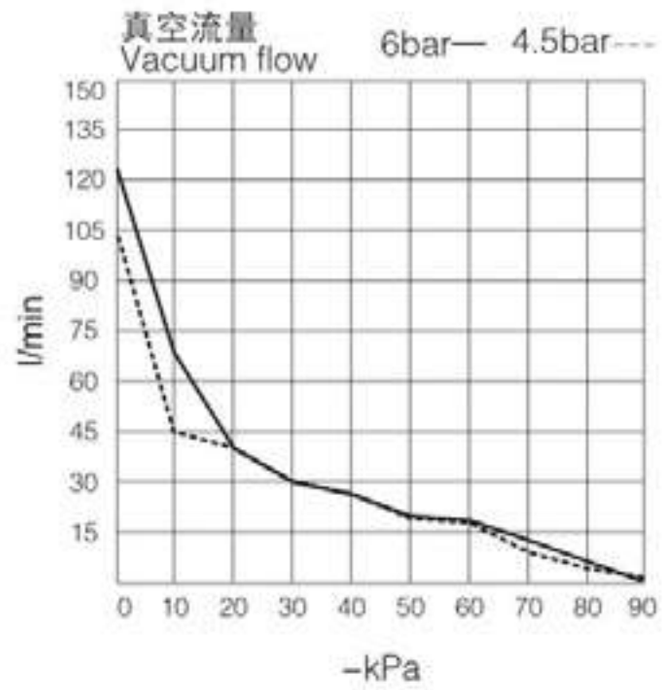


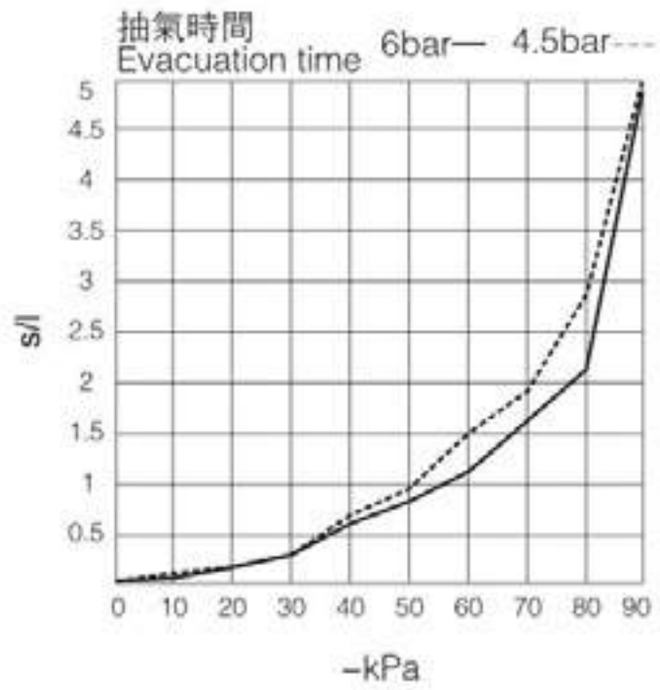
• FVX10



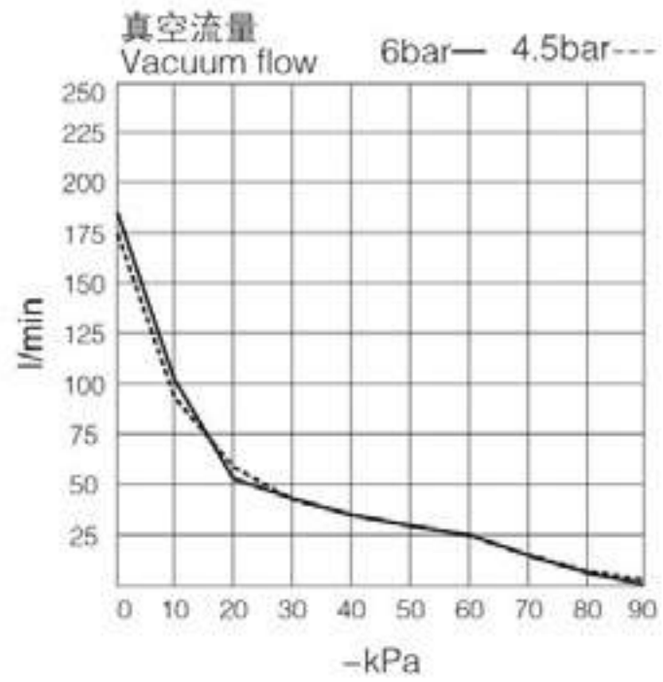


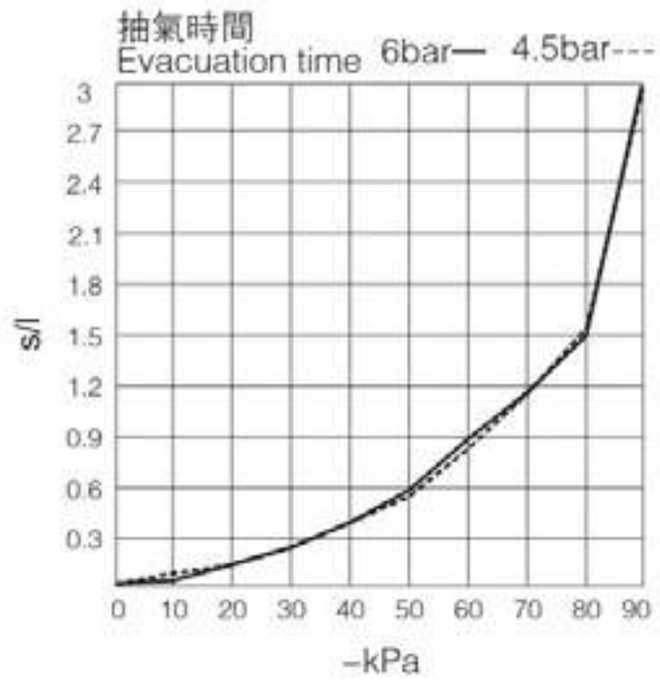
• FVX20





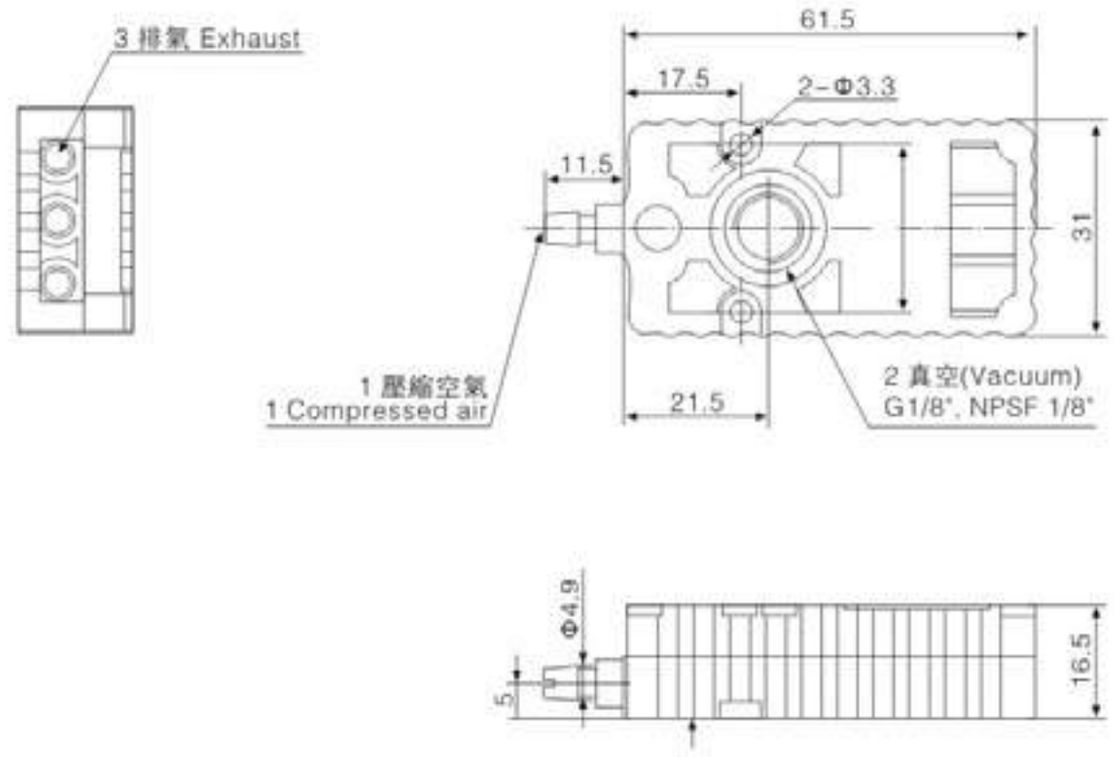
• FVX30



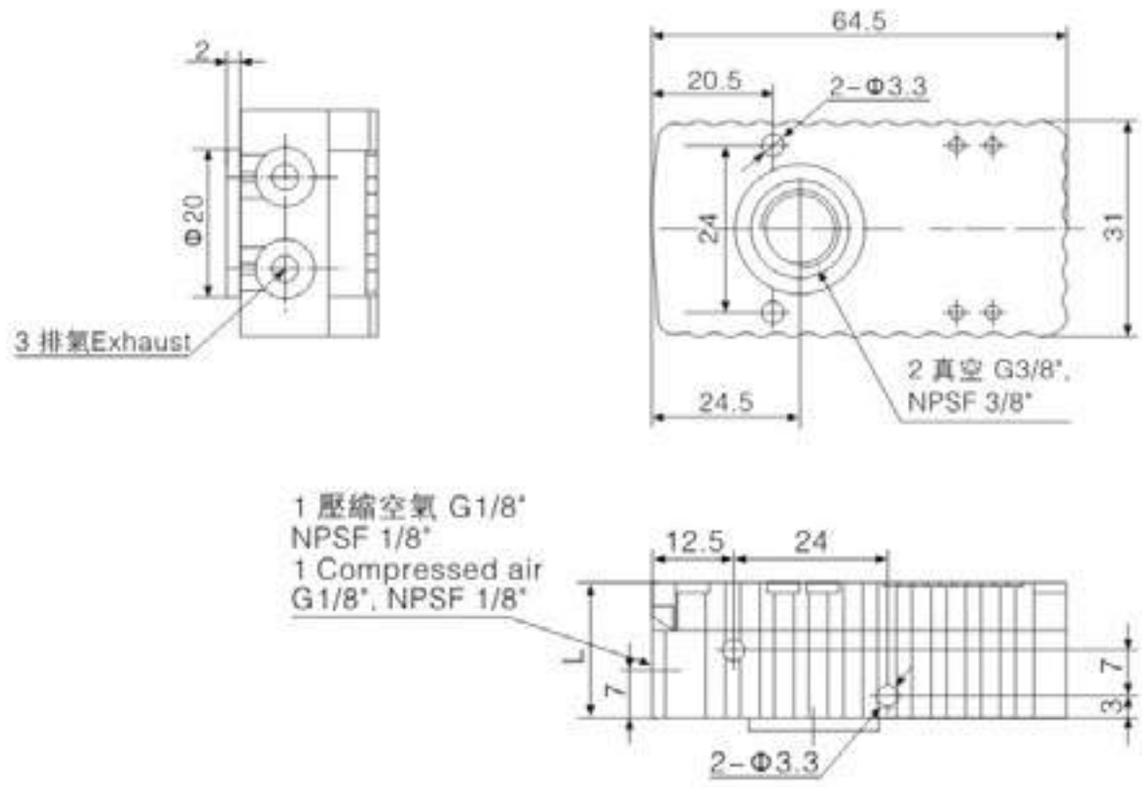


外形尺寸 Dimensions (mm)

5
FVX(10)-A(NA)

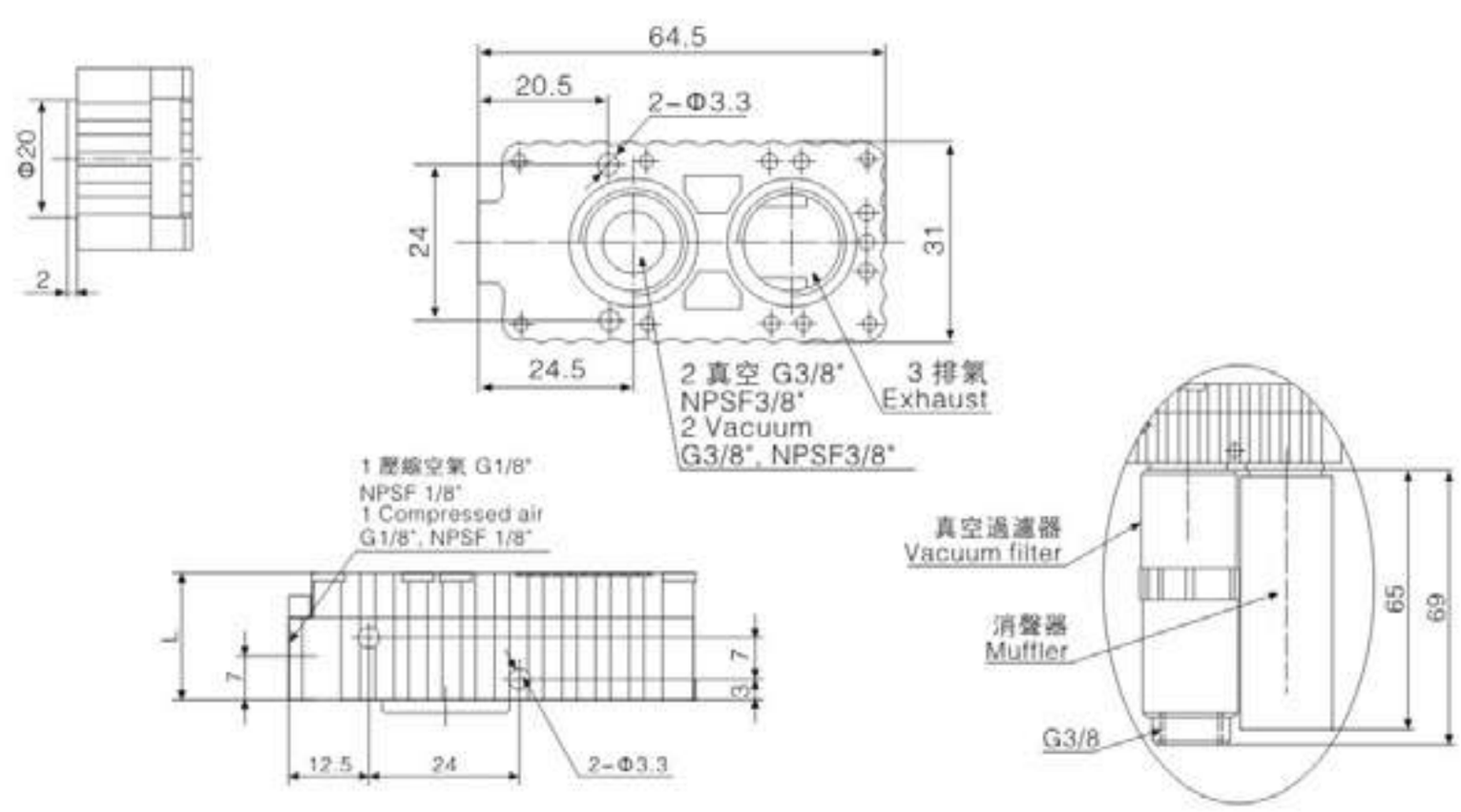


5 B
FVX(10)-(BA)
20 NB
30 NBA



型號 Model	L(mm)
FVX5	20.5
FVX10	20.5
FVX20	27.5
FVX30	35

5
FVX(10)-C(NC)
20
30



型號	L(mm)
FVX5	20.5
FVX10	20.5
FVX20	27.5
FVX30	35

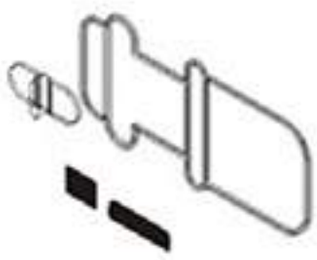
密封件訂購碼 How to order(Sealing elements)

密封墊
Sealing gasket

閥片
Valve plate

規格Specification	密封墊	閥片
標準（丁腈橡膠）Standard(NBR)	02.0050.419	02.0050.421
氟橡膠 VITON	02.0050.420	02.0050.422
三元乙丙橡膠 EPDM	02.0050.465	02.0050.466

維修組件 Repair kits



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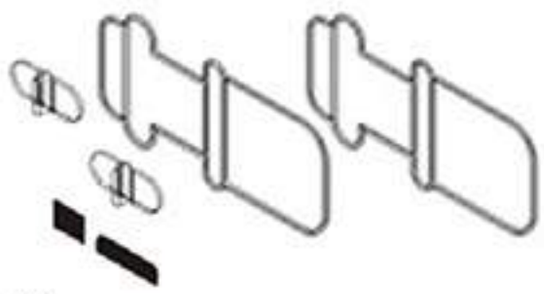

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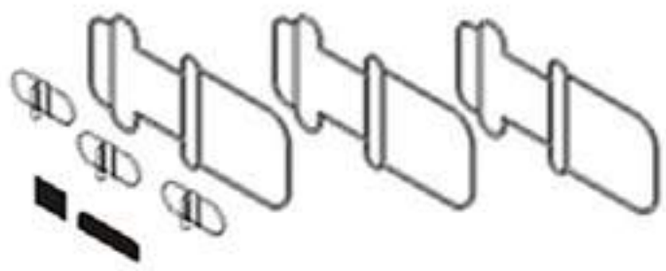

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型號 Model	訂購碼 Ordering Code		
	丁腈橡膠 NBR	氟橡膠 VITON	三元乙丙橡膠 EPDM
FVX5-A(B、C)	01.0005.402	01.0005.602	01.0005.802
FVX10-A(B、C)	01.0010.402	01.0010.602	01.0010.802
FVX20-B(C)	01.0020.404	01.0020.604	01.0020.804
FVX30-B(C)	01.0030.406	01.0030.606	01.0030.806

FONRAY

產品特點 Features

◇這是一種可調節真空吸入流量的單級真空產生器，
適用於顆粒狀物體或小碎片吸入並排出。
This is an adjustable flow rate single stage vacuum pump.The design of this pump enables particles and small debris to pass directly through the pump.

技術規格 Specifications

最大真空度	Max.vacuum level	-84kPa
最大真空流量	Max.vacuum flow rate	3390l/m
供氣壓力	Air supply pressure	4-6bar 最大7bar 4-6bar Max.7bar
供氣類型	Air supply type	乾燥的壓縮空氣 Dry Compressed air

訂購碼 How to Order

FACP 250 - AL

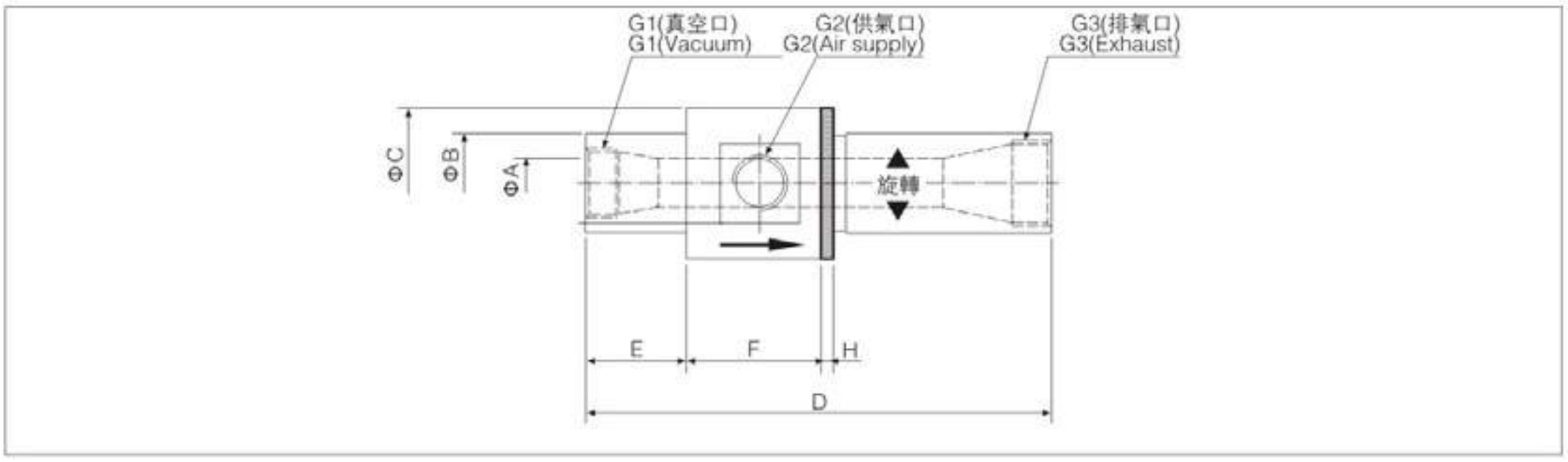
① ②

① 規格 Specification

250	500
375	750

② 材料 Material

AL-鋁 AL-Aluminum
SS-不銹鋼 SS-Stainless steel



型號 Model	尺寸規格 Dimension									
	ΦA	ΦB	ΦC	D	E	F	H	G1	G2	G3
FACP250	6.5	19	32	94-105	22	32	5	G1/4	G1/8	G1/4
FACP375	9.5	25	45	155-165	38	45	5	G1/2	G3/8	G1/2
FACP500	13	32	51	155-160	38	51	5	G1/2	G3/8	G3/4
FACP750	19	38	58	175-189	38	51	5	G3/4	G1/2	G1

型號 Model	供氣壓力 Air supply pressure	FACP系列不同真空度(-kPa)的耗氣量(l/m)FACPseries Air Consumption(L/m)at different vacuum levels(-kPa)				
	bar	17	34	50	68	84
FACP250	5.5	112	169	233	276	342
FACP375		176	327	485	595	825
FACP500		340	625	795	940	1280
FACP750		650	875	1250	1790	2550

型號 Model	FACP系列不同真空度(-kPa)的真空流量(l/m) FACPseries Vacuum flow(L/m)at different Vacuum levels(-kPa)				
	17	34	50	68	84
FACP250	280	240	200	162	125
FACP375	846	735	620	520	395
FACP500	1695	1325	1130	990	650
FACP750	3390	2460	1970	1440	1130

FONRAY

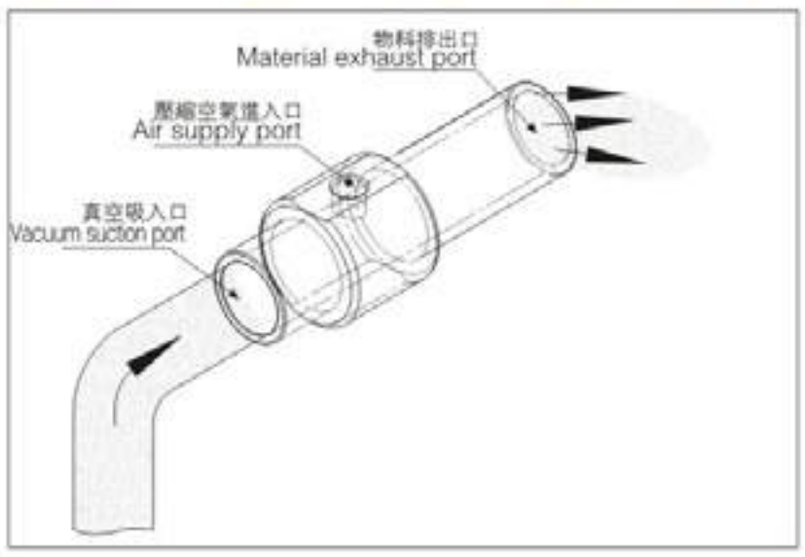
產品特點 Features

◇此系列真空產生器是直通設計，在輸送物料時無堵塞且無需維護，適用於輸送顆粒、粉末及塊狀物體等。這些產生器有不同規格孔徑，最高流量孔徑可達38mm。

☆The vacuum pump has a straight through design,hence they are non-clogging and maintenance fee,and it is particular for transfering particles,powders.High flow can be achieved with in line bore sizes up to 38mm.

技術規格 Specifications

最大真空度Max.vacuum Level	-35kPa
最大真空流量Max.vacuum flow rate	5610l/m
供氣壓力Air supply pressure	4-6bar 最大7bar 4-6bar Max.7bar
供氣類型Air supply type	乾燥的壓縮空氣Dry Compressed air



訂購碼 How to Order

FCPF 2-3 - AL
① ②

① 規格Model

2-3	7-6
3-3	15-3
5-6	15-6

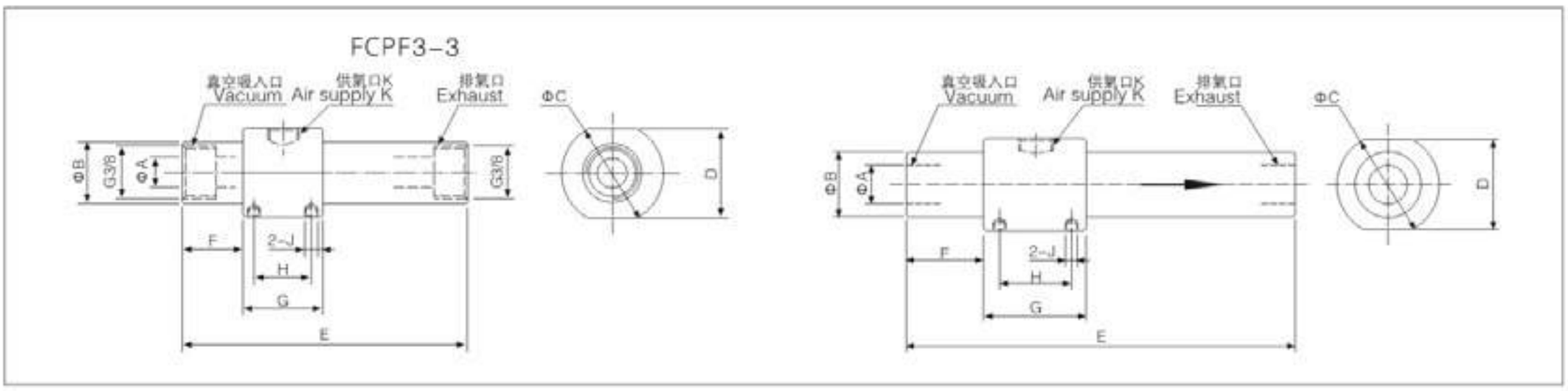
② 材料 Material

AL-鋁 AL-Aluminum
SS-不銹鋼 SS-Stainless steel

應用事例Applications

◇真空輸送物料
◇清除各種造紙及原料加工邊緣
◇輸送小麥、玉米等穀物
◇輸送洗衣粉和塑料粉
◇去除鑽孔工序中的碎片
◇去除發動機配件等研磨工序中的粉末

☆Transfering materials
☆Seledge removal intrimming operation
☆Convy wheat,corn
☆Transfer powder detargent and plastic powder
☆Chip removal in drilling operation
☆Powder removal in grinding operation



型號 Model	尺寸規格 Dimension									
	ΦA	ΦB	ΦC	D	E	F	G	H	J	K
FCPF2-3	6.5	18.5	32	30	89	19	25	18	M4	G1/8
FCPF3-3	9.5	18.5	32	30	89	19	25	18	M4	G1/8
FCPF5-6	12.5	24	38	34	140	25.5	32	23	M4	G1/4
FCPF7-6	19	32	50	45	190	38	50	35	M6	G3/8
FCPF15-3	38	49.6	69	65	205	40	60	42	M6	G3/8
FCPF15-6	38	49.6	69	65	205	40	60	42	M6	G3/8

FCPF系列真空流量(l/m)、真空度(-kPa)、耗氣量(l/m)
FCPF Series Vacuum flow(L/m)、Vacuum level(-kPa)、Air Consumption(L/m)

型號 Model	空氣速度 Air velocity	真空流量 Vacuum flow	真空度 Vacuum level	空氣消耗量(l/m) Air consumption(l/m)	
	ft/s	l/m	-kPa	2.8bar	5.5bar
FCPF2-3	485	295	26	85	160
FCPF3-3	328	425	16	95	170
FCPF5-6	361	870	35	395	680
FCPF7-6	325	1825	28	790	1365
FCPF15-3	223	4400	9	405	695
FCPF15-6	270	5610	9	790	1365

訂購碼 How to Order

FAZH 07 B S – 06 – 06

FAZH 07 D S – 01 – 01 – 01

① ② ③ ④ ⑤

① 噴嘴直徑(mm) 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 最高真空度 Max.vacuum pressure

S	–88kPa
L	–48kPa

③ (注)SUP. 通口連接口徑 (Note)SUP. Port size

記號 Symbol	尺寸 Size	形式 Style
06	Φ6	快換接頭 One–touch
08	Φ8	快換接頭 One–touch
10	Φ10	快換接頭 One–touch
12	Φ12	快換接頭 One–touch
01	Rc 1/8	螺紋擰入 Screw–in
02	Rc 1/4	螺紋擰入 Screw–in
03	Rc 3/8	螺紋擰入 Screw–in

④ (注)VAC. 通口連接口徑 (Note)VAC. Port size

記號 Symbol	尺寸 Size	形式 Style
06	Φ6	快換接頭 One–touch
10	Φ10	快換接頭 One–touch
12	Φ12	快換接頭 One–touch
16	Φ16	快換接頭 One–touch
01	Rc 1/8	螺紋擰入 Screw–in
02	Rc 1/4	螺紋擰入 Screw–in
03	Rc 3/8	螺紋擰入 Screw–in
04	Rc 1/2	螺紋擰入 Screw–in

⑤ (注)EXH. 通口連接口徑 (Note)EXH. Port size

記號	尺寸	形式
06	Φ6	快換接頭 One–touch
08	Φ8	快換接頭 One–touch
10	Φ10	快換接頭 One–touch
12	Φ12	快換接頭 One–touch
16	Φ16	快換接頭 One–touch
01	Rc 1/8	螺紋擰入 Screw–in
02	Rc 1/4	螺紋擰入 Screw–in
03	Rc 3/8	螺紋擰入 Screw–in
04	Rc 1/2	螺紋擰入 Screw–in

技術規格 Specifications

型號 Model	噴嘴直徑 Nozzle diameter Φmm	主體形式 Body style	最高真空度kPa Max.vacuum pressure(kpa) S型 S style	最高真空度kPa Max.vacuum pressure(kpa) L型 L style	最大真空流量l/min Max.vacuum flow l/min S型 S style	最大真空流量l/min Max.vacuum flow l/min L型 L style	空氣消耗量 Air consumption l/min S型/L型 S style/L style	連接形式(快換接頭/螺紋擰入) Connection(One–touch/Screw–in) SUP	VAC	EXH
FAZH05B□	0.5	盒型 (內置消聲器) Box style (Built-in silencer)	–88	–48	5	9	13.5	Φ6/Rc1/8	Φ6/Rc1/8	--
FAZH07B□	0.7				12	22	23.5			
FAZH10B□	1.0				24	34	46			
FAZH13B□	1.3				40	75	78	Φ8/Rc1/8	Φ10/Rc1/4	
FAZH05D□	0.5	直接配管型 (無消聲器) Body ported style (without silencer)	–88	–48	7.5	9	13.5	Φ6/Rc1/8	Φ6/Rc1/8	Φ6/Rc1/8
FAZH07D□	0.7				12	22	23.5			
FAZH10D□	1.0				24	34	46	Φ6/Rc1/8	Φ6/Rc1/8	Φ8/Rc1/8
FAZH13D□	1.3				40	75	78	Φ8/Rc1/8	Φ10/Rc1/4	Φ10/Rc1/4
FAZH15D□	1.5	直接配管型 (無消聲器) Body ported style (without silencer)	–88	–53	60	80	97	Φ10/Rc1/4	Φ12/Rc3/8	Φ12/Rc3/8
FAZH18D□	1.8				70	110	150	Φ12/Rc3/8		
FAZH20D□	2.0				85	140	185	Φ12/Rc3/8	Φ16/Rc1/2	Φ16/Rc1/2

*Supply pressure:4.5bar

表① 連接形式的組合Table Combination of connection

主體形式Body		SUP	VAC	EXH
盒型 (內置消聲器) Box style (Buit-in silencer)	①	快速接頭 One-touch	快速接頭 One-touch	--
	②	快速接頭 One-touch	螺紋擰入 Screw-in	--
	③	螺紋擰入 Screw-in	螺紋擰入 Screw-in	--
直接配管型 (無消聲器) Body ported style (without silencer)	①	快速接頭 One-touch	快速接頭 One-touch	快速接頭 One-touch
	②	快速接頭 One-touch	螺紋擰入 Screw-in	快速接頭 One-touch
	③	螺紋擰入 Screw-in	螺紋擰入 Screw-in	螺紋擰入 Screw-in

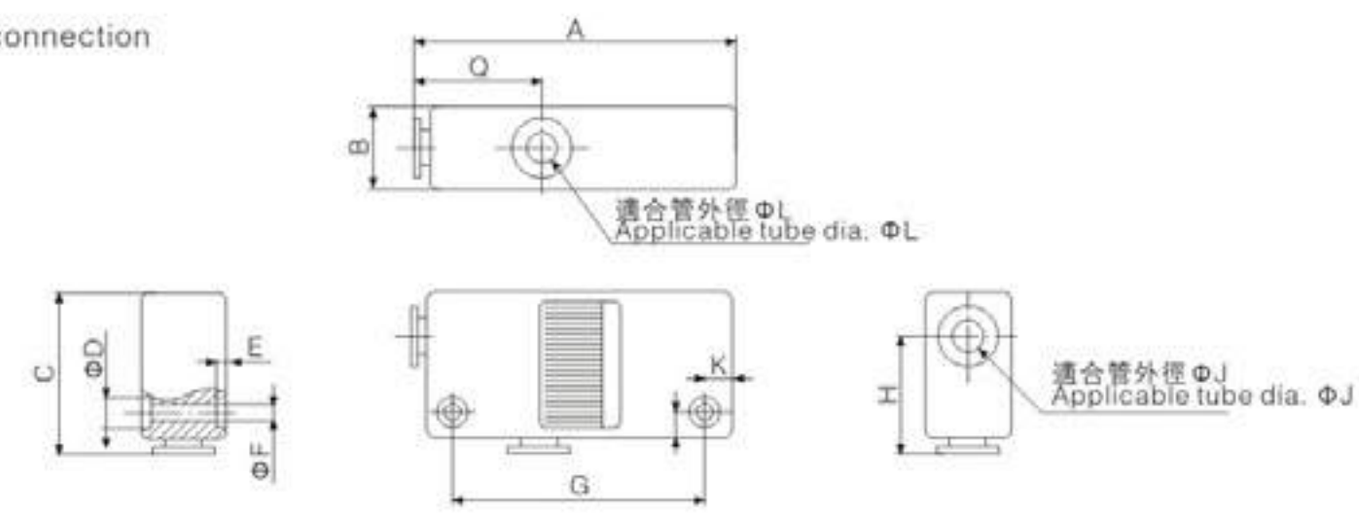
表②連接口徑 Table port size

型號 Model	SUP	VAC	EXH
FAZH05B	Φ6/Rc1/8	Φ6/Rc1/8	--
FAZH07B			
FAZH10B			
FAZH13B	Φ8/Rc1/8	Φ10/Rc1/4	
FAZH05D	Φ6/Rc1/8	Φ6/Rc1/8	Φ6/Rc1/8
FAZH07D			
FAZH10D	Φ6/Rc1/8	Φ6/Rc1/8	Φ8/Rc1/8
FAZH13D	Φ8/Rc1/8	Φ10/Rc1/4	Φ10/Rc1/4
FAZH15D	Φ10/Rc1/4	Φ12/Rc3/8	Φ12/Rc3/8
FAZH18D	Φ12/Rc3/8		
FAZH20D	Φ12/Rc3/8	Φ16/Rc1/2	Φ16/Rc1/2

外形尺寸(mm) Dimensions (mm)

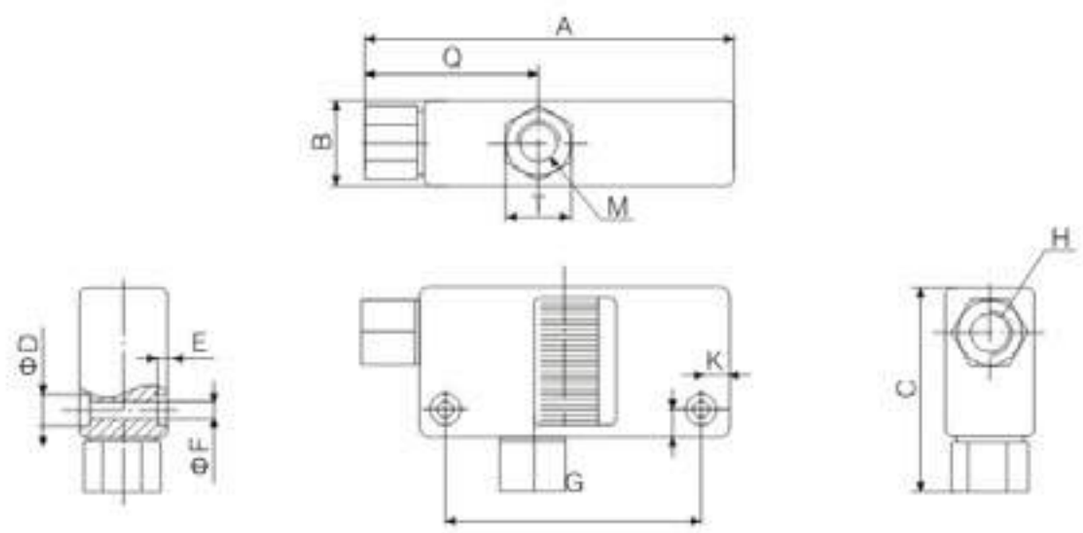
盒型(內置消聲器)Box style (Buit-in silencer)

• 快換接頭連接 One-touch connection



型號Model	A	B	C	D	E	F	G	H	Q	L	K	J
FAZH05B-06-06	60	16	31	5.8	2	3.2	47	22	24	6	5	6
FAZH07B-06-06	60	16	31	5.8	2	3.2	47	22	24	6	5	6
FAZH10B-06-06	63	18	32	5.8	2	3.2	50	23	26	6	5	6
FAZH13B-08-10	78	23	38.5	7.5	3	4.2	61	27.5	28	10	7	8

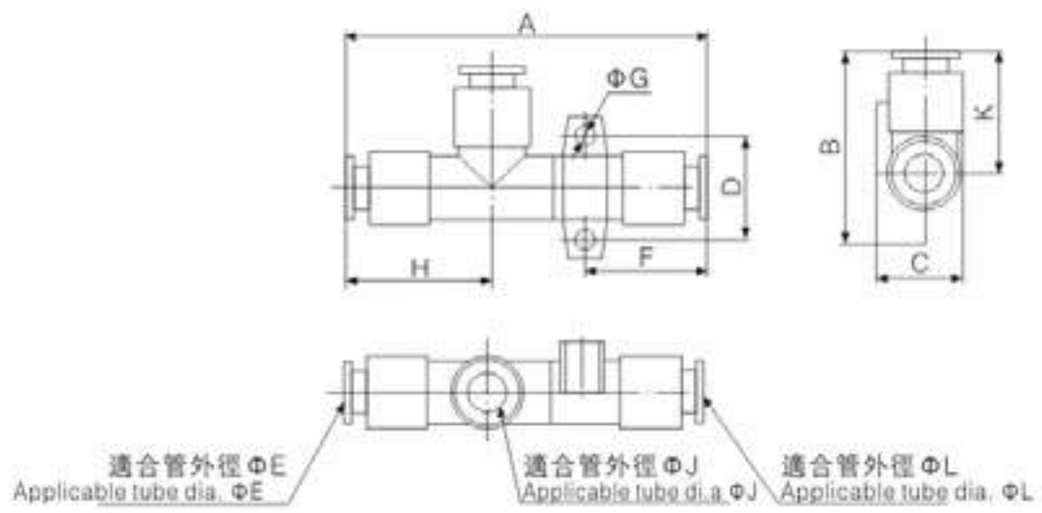
• 螺紋連接



型號Model	A	B	C	D	E	F	G	H	Q	M	K	T
FAZH05B-01-01	67.5	16	38.5	5.8	2	3.2	47	Rc1/8	31.5	Rc1/8	5	12
FAZH07B-01-01	67.5	16	38.5	5.8	2	3.2	47	Rc1/8	31.5	Rc1/8	5	12
FAZH10B-01-01	70.5	18	39.5	5.8	2	3.2	50	Rc1/8	33.5	Rc1/8	5	12
FAZH13B-01-02	86.5	23	50	7.5	3	4.2	61	Rc1/8	36.5	Rc1/4	7	14

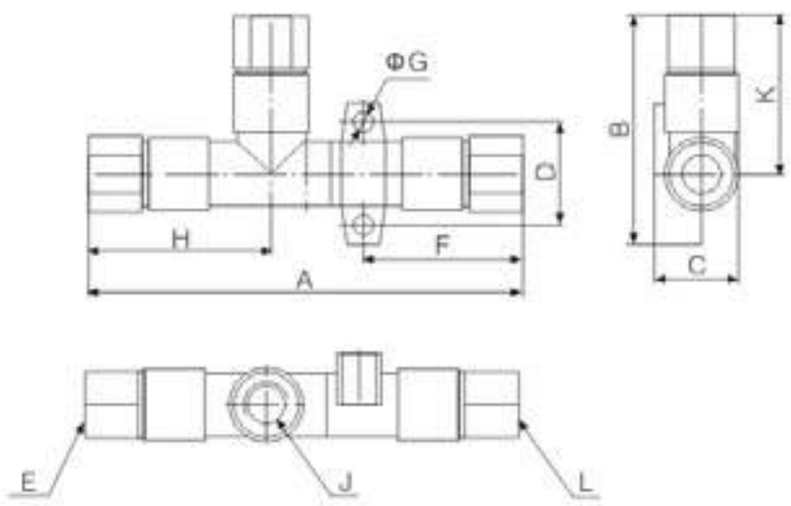
直接接管型(無消聲器)Body ported style(without silencer)

• 快換接頭連接
One-touch connection



型號Model	A	B	C	D	E	F	G	H	L	K	J
FAZH05D-06-06-06	58.5	34	14.2	17	6	21	3.2	24	6	22	6
FAZH07D-06-06-06	61	34	14.2	17	6	22	3.2	24	6	22	6
FAZH10D $^{S}_{L}$-06-06-08	$^{66}_{70}$	37	17.2	20	6	24.5	4.2	26	8	23	6
FAZH13D $^{S}_{L}$-08-10-10	$^{74}_{79.5}$	42.5	20	22	8	27	4.2	28	10	27.5	10
FAZH15D-10-12-12	93.3	47	22.5	27	10	32.8	4.2	31.5	12	29.5	12
FAZH18D-12-12-12	114	41	21	10	12	50	3.5	35.5	12	30.5	12
FAZH20D-12-16-16	124.6	46	27	12	12	54.3	3.5	38.5	16	32.7	16

• 螺紋連接
Screw-in connection



型號Model	A	B	C	D	E	F	G	H	L	K	J
FAZH05D-01-01-01	73.5	41.5	14.2	17	Rc1/8	28.5	3.2	31.5	Rc1/8	22	Rc1/8
FAZH07D-01-01-01	76	41.5	14.2	17	Rc1/8	29.5	3.2	31.5	Rc1/8	22	Rc1/8
FAZH10D $^{S}_{L}$-01-01-01	$^{82}_{86}$	44.5	17.2	20	Rc1/8	33	4.2	33.5	Rc1/8	23	Rc1/8
FAZH13D $^{S}_{L}$-01-02-02	$^{94.5}_{99.5}$	54	20	22	Rc1/8	38.5	4.2	36.5	Rc1/4	27.5	Rc1/4
FAZH15D-02-03-03	116.5	58.5	22.5	27	Rc1/4	44.5	4.2	43	Rc3/8	29.5	Rc3/8
FAZH18D-03-03-03	133	52.5	21	10	Rc3/8	57.5	3.5	47	Rc3/8	30.5	Rc3/8
FAZH20D-03-04-04	151	61	27	12	Rc3/8	69.3	3.5	50	Rc1/2	32.7	Rc1/2

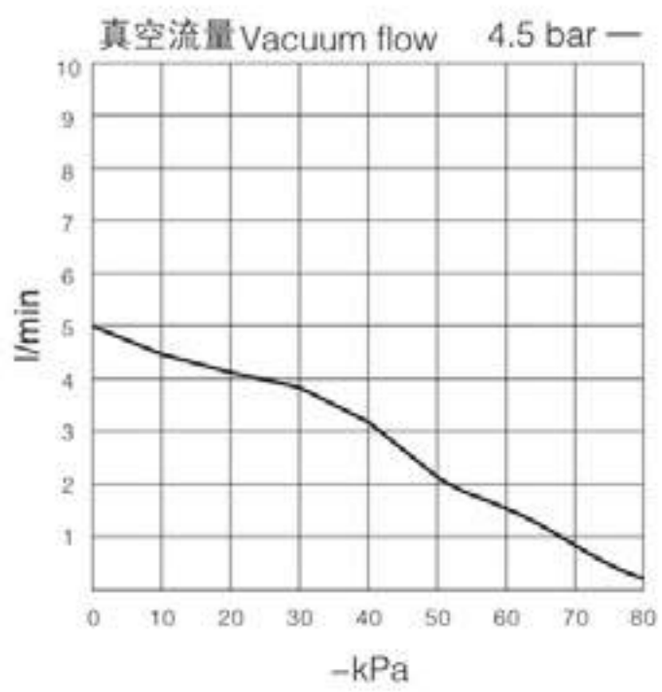
不同真空度(-kPa)的真空流量(l/min)Vacuum flow (l/min) at different vacuum levels(-kPa)

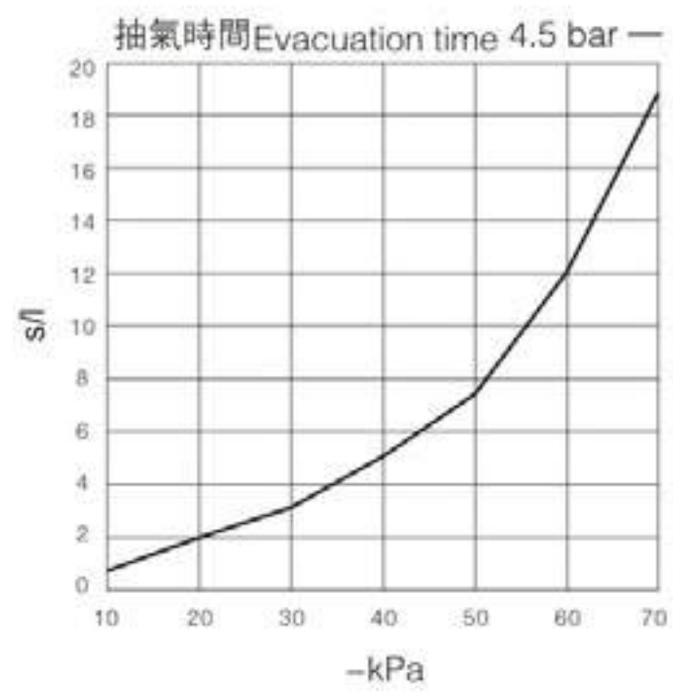
型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	0	10	20	30	40	50	60	70	80	最大真空度 Max.vacuum level
FAZH05S	4.5 bar	13.5 l/min	5	4.5	4.1	3.8	3.3	2.3	1.6	0.9	0.3	-88kPa
FAZH07S		23.5 l/min	12	11	10	9	8	7	5.5	2.1	0.8	
FAZH10S		46 l/min	24	23	20.5	17.5	13	11.5	9.5	7	2.5	
FAZH13S		78 l/min	40	35	32.5	28	23	19.5	13	9	4.5	
FAZH15S		97 l/min	60	52.5	45.5	38	28.5	20.5	15.5	11.5	5	
FAZH18S		150 l/min	70	62	52	45	38	26	22	16.5	8.5	
FAZH20S		185 l/min	85	76	67	58	47.5	38	33.5	19	12	

不同真空度(-kPa)的抽氣時間(s/l)Evacuation time (s/l) to reach different vacuum levels(-kPa)

型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	10	20	30	40	50	60	70	最大真空度 Max.vacuum level
FAZH05S	4.5 bar	13.5 l/min	0.89	1.7	3.2	5	7.8	12	19	-88kPa
FAZH07S		23.5 l/min	0.37	1	1.9	3	5.4	6.7	15	
FAZH10S		46 l/min	0.25	0.6	1.25	2	2.9	4.2	6.5	
FAZH13S		78 l/min	0.1	0.27	0.53	1	1.75	4.6	7.3	
FAZH15S		97 l/min	0.04	0.21	0.35	0.63	1.23	4.1	7.3	
FAZH18S		150 l/min	0.02	0.15	0.29	0.46	0.78	1.38	3.51	
FAZH20S		185 l/min	0.02	0.12	0.21	0.34	0.55	0.85	1.58	

• FAZH05S





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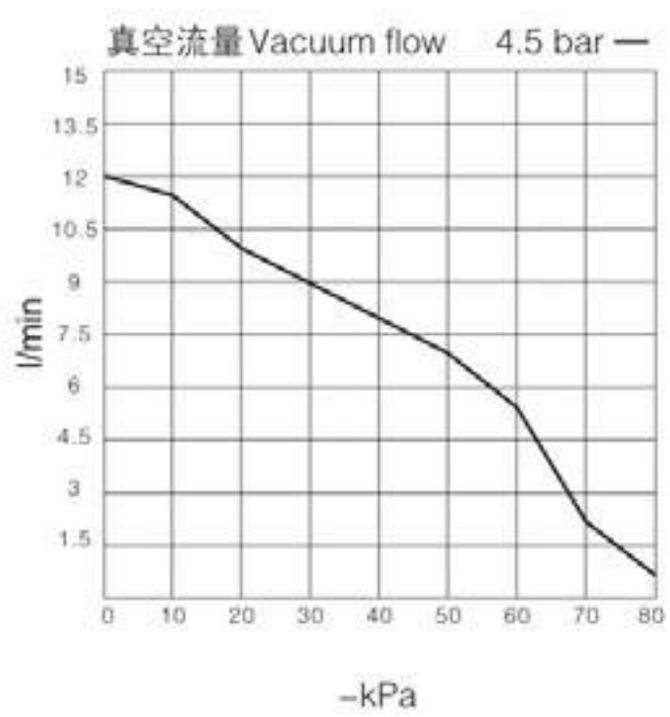

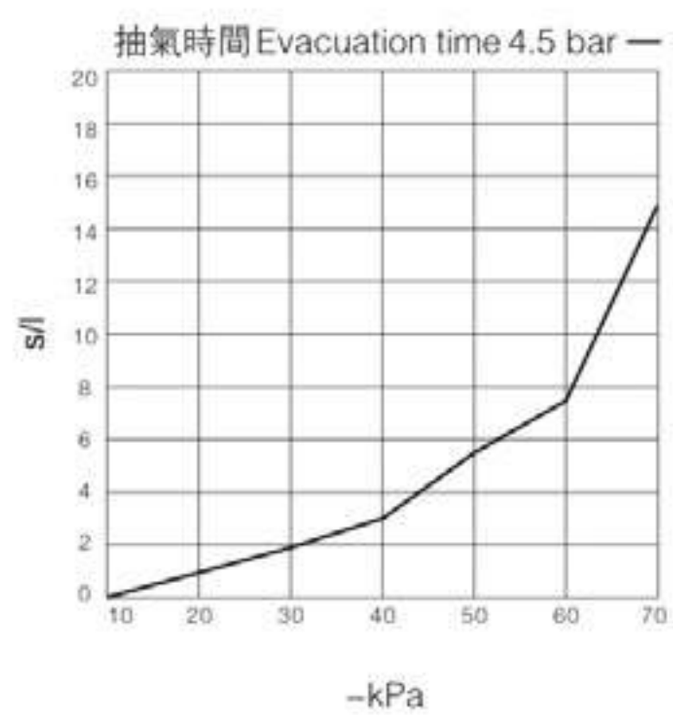

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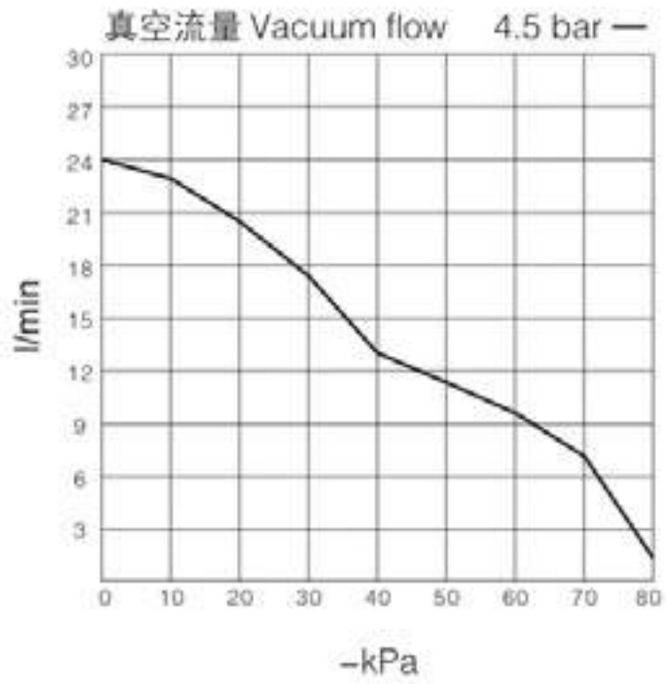

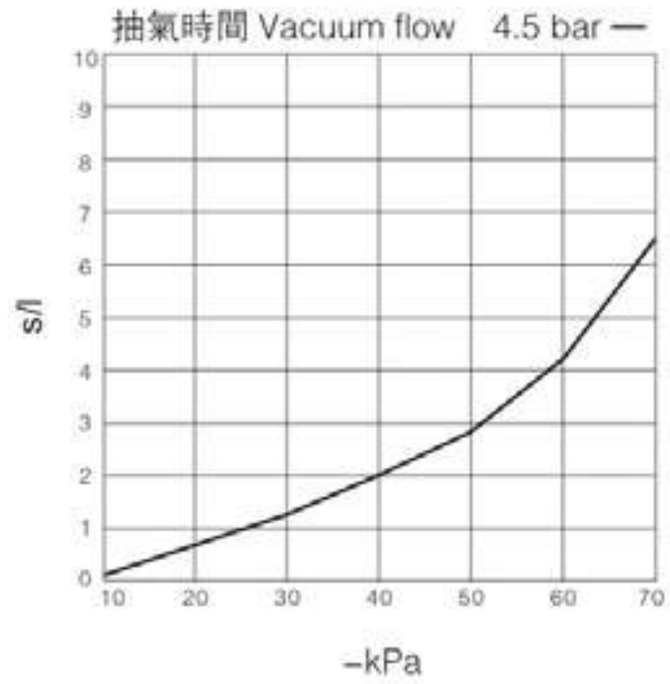

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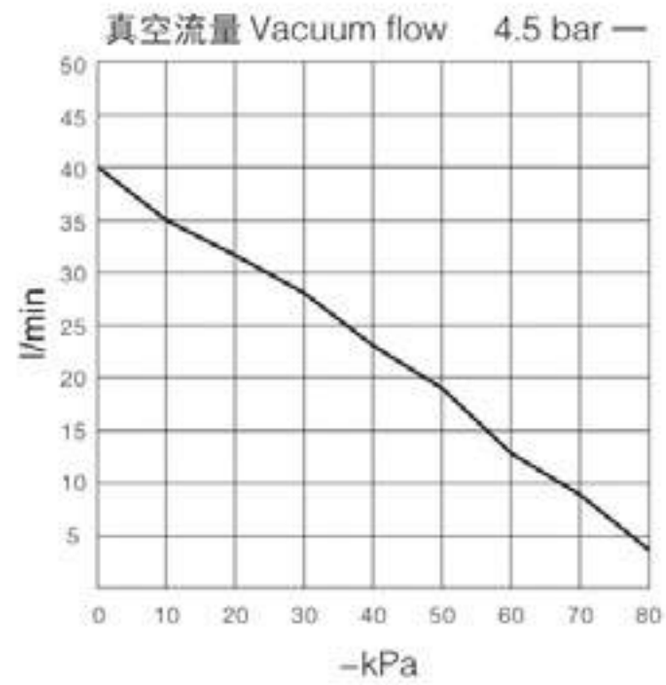

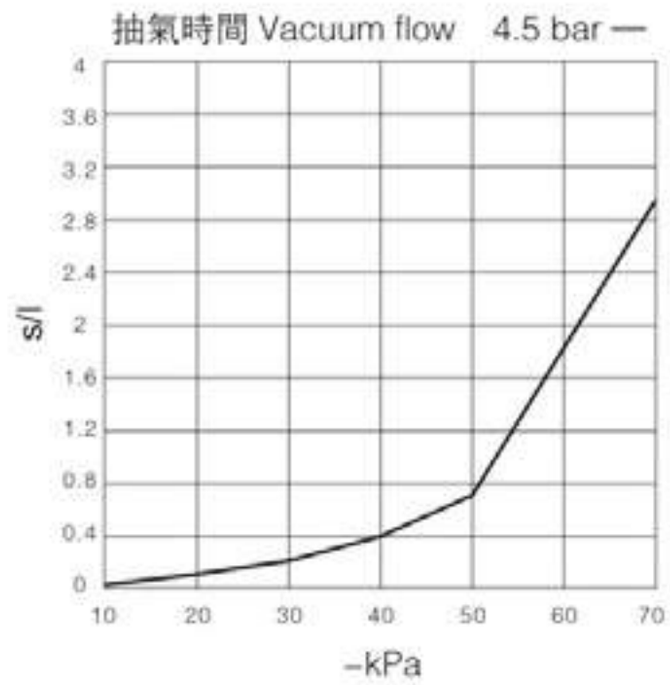

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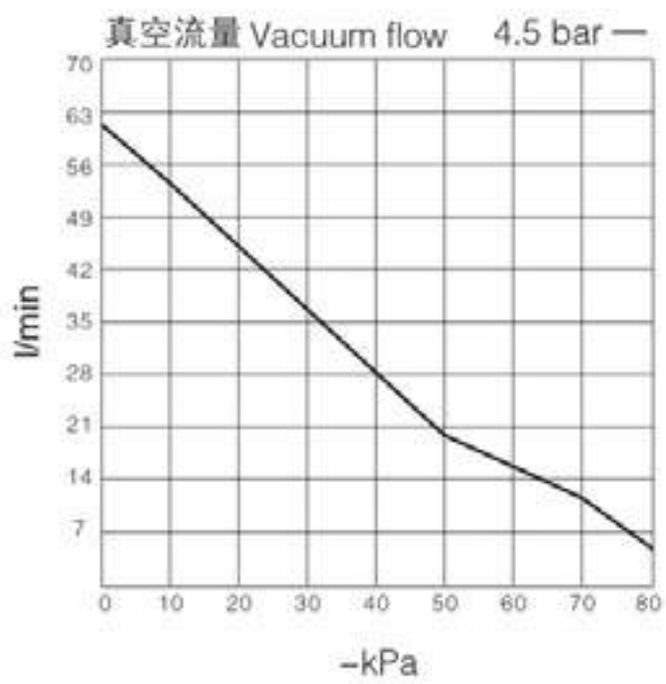

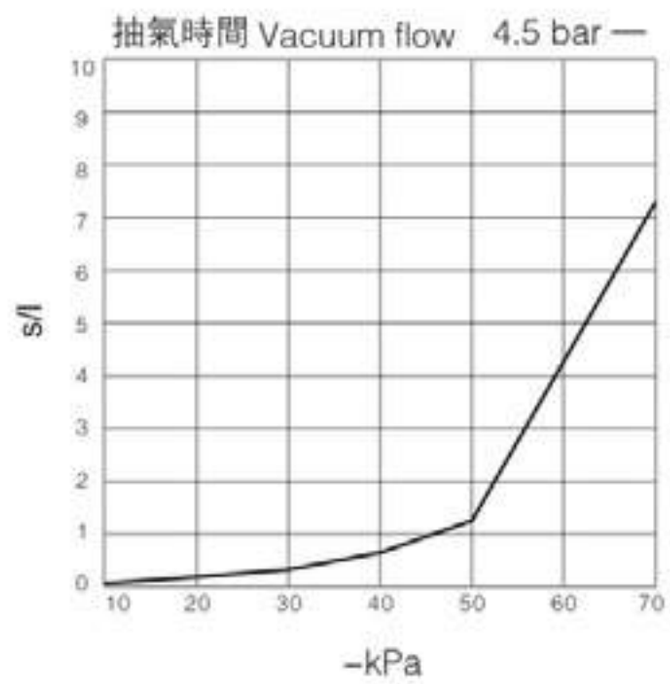

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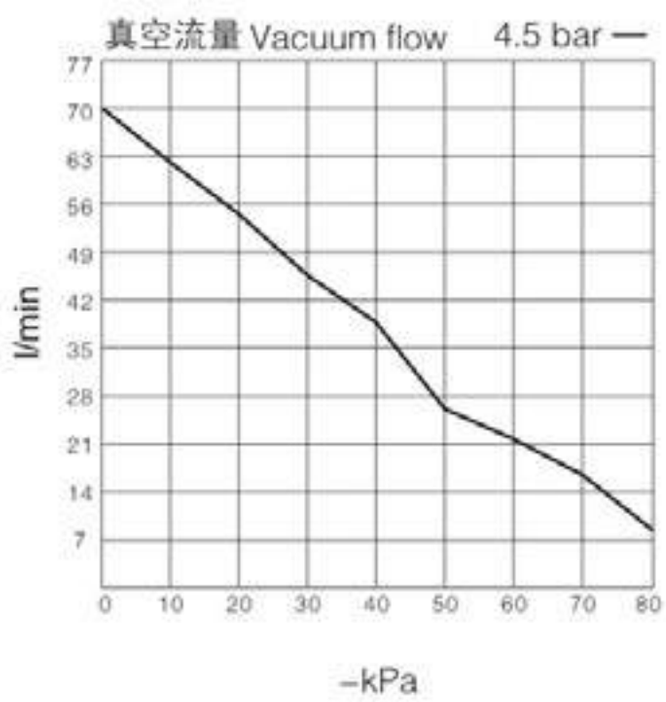

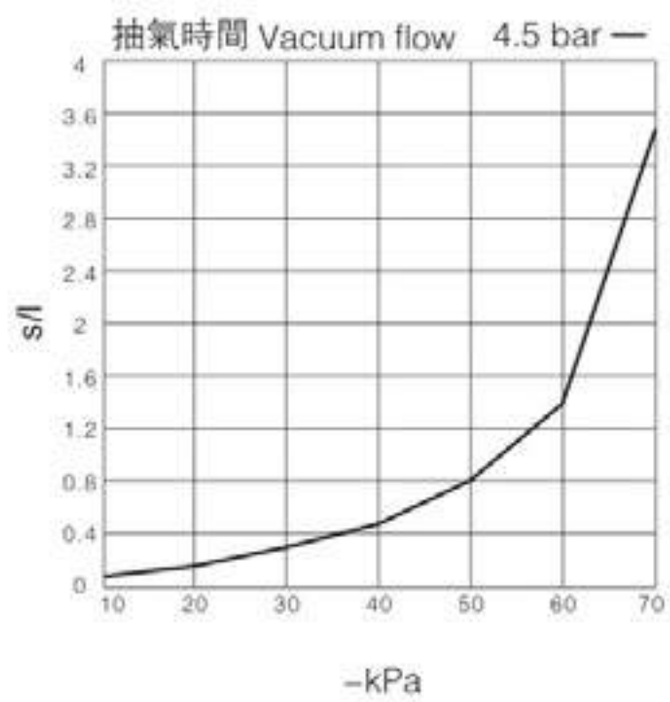

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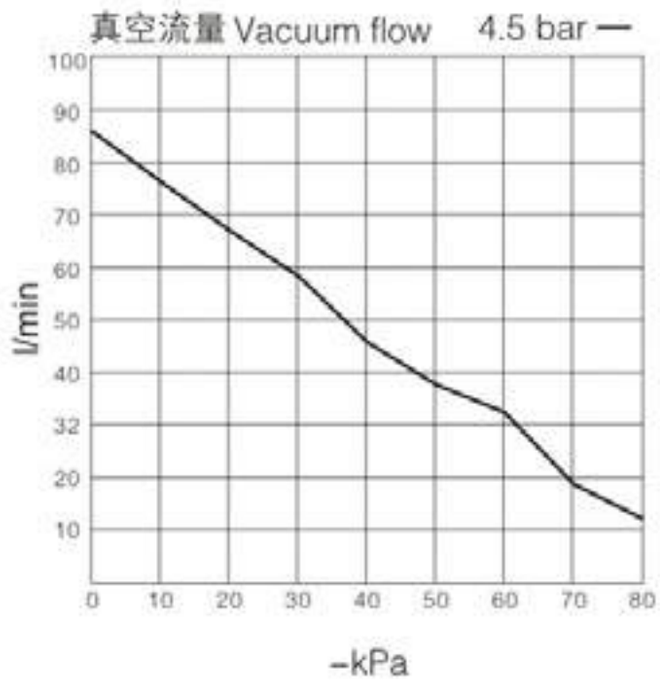
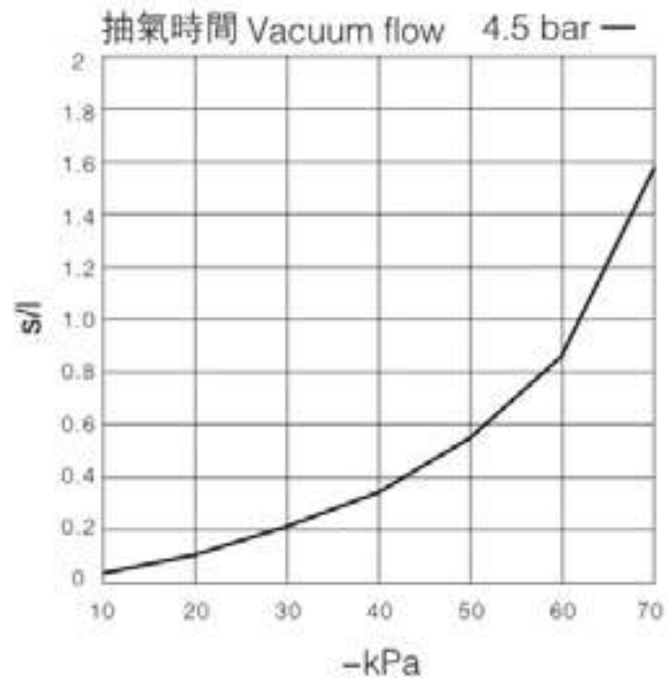




不同真空度(-kPa)的真空流量(l/min)Vacuum flow (l/min) at different vacuum levels(-kPa)

型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	0	10	20	30	40	45	最大真空度 Max.vacuum level
FAZH05L	4.5 bar	13.5 l/min	9	8	7	6	3	1.9	-48kPa
FAZH07L		23.5 l/min	22	21	20.5	15.5	10.5	6.8	
FAZH10L		46 l/min	34	32	26	19	12	8	
FAZH13L		78 l/min	75	72	65	43	19	9	

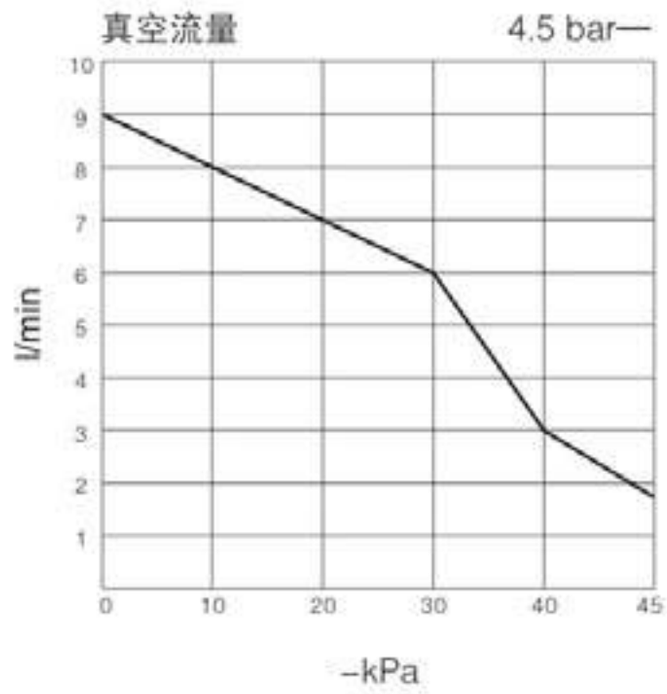
型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	0	10	20	30	40	50	最大真空度 Max.vacuum level
FAZH15L	4.5 bar	97 l/min	80	72	60	45	36.5	16	-53kPa
FAZH18L		150 l/min	110	105	95	80	55	30	
FAZH20L		185 l/min	140	130	120	100	80	62	

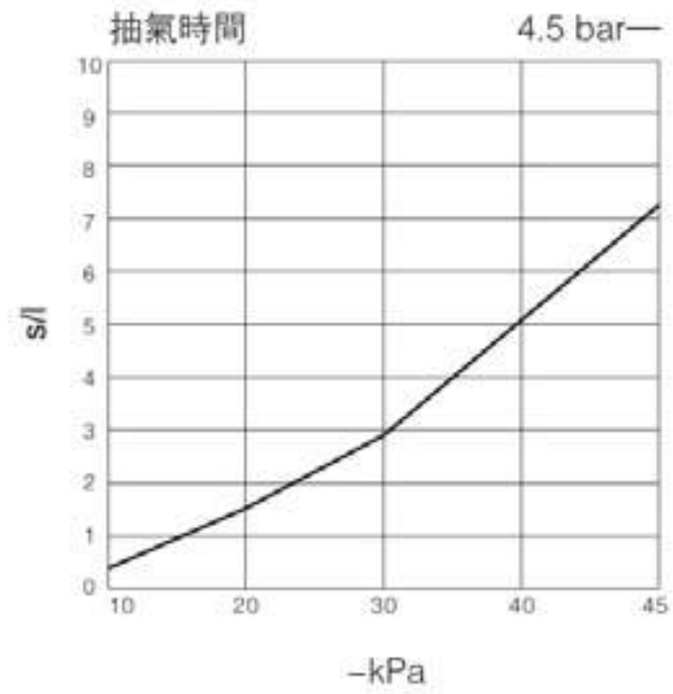
不同真空度(-kPa)的抽氣時間(s/l)

型號Model	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	10	20	30	40	45	最大真空度 Max.vacuum level
FAZH05L	4.5 bar	13.5 l/min	0.49	1.5	2.9	5.1	7.2	-48kPa
FAZH07L		23.5 l/min	0.28	0.75	1.5	2.5	3.5	
FAZH10L		46 l/min	0.14	0.4	0.81	1.4	1.8	
FAZH13L		78 l/min	0.04	0.12	0.24	0.62	2.4	

型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	10	20	30	40	50	最大真空度 Max.vacuum level
FAZH15L	4.5 bar	97 l/min	0.03	0.15	0.23	0.4	0.92	-53kPa
FAZH18L		150 l/min	0.02	0.10	0.18	0.32	0.67	
FAZH20L		185 l/min	0.01	0.08	0.14	0.2	0.3	

• FAZH05L





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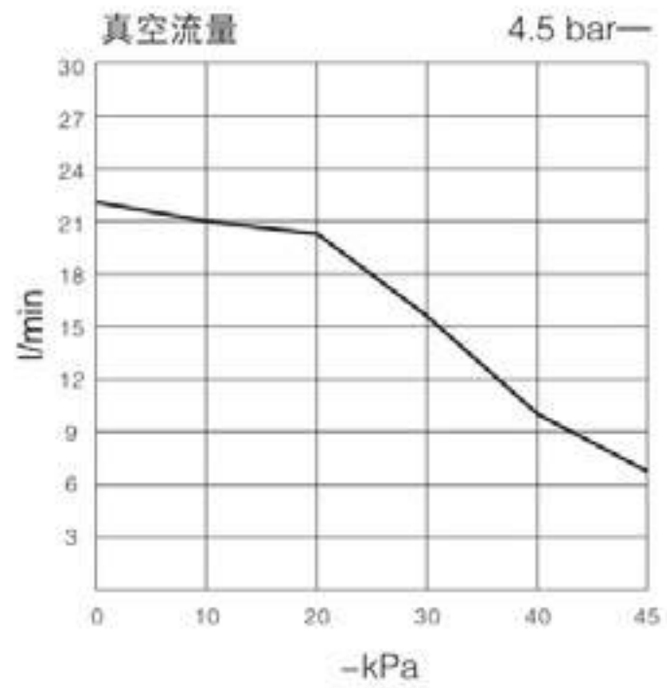

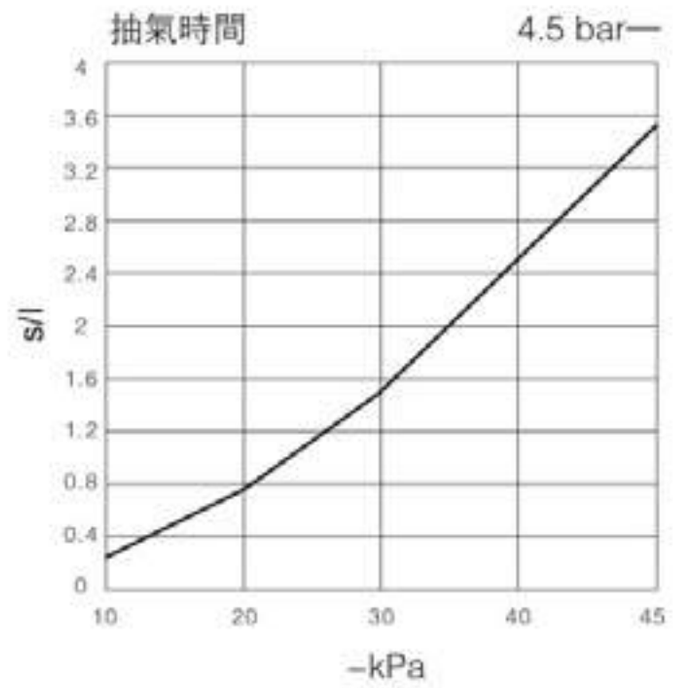

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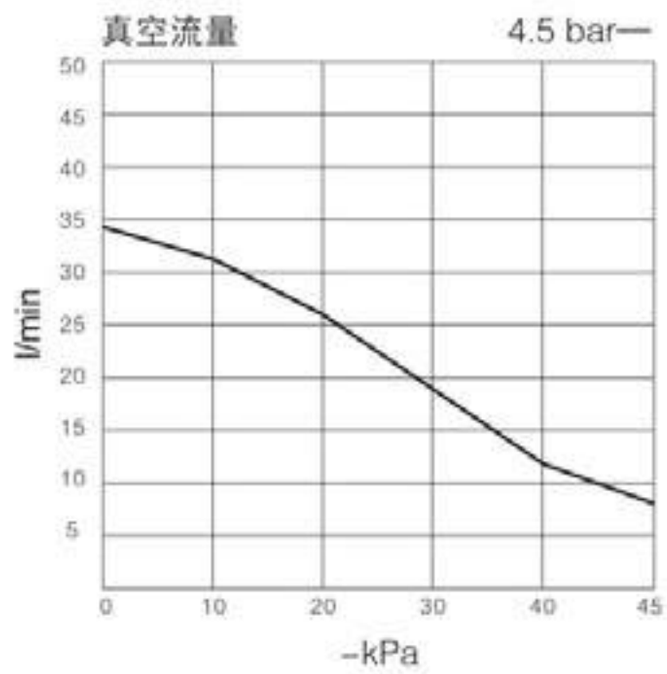

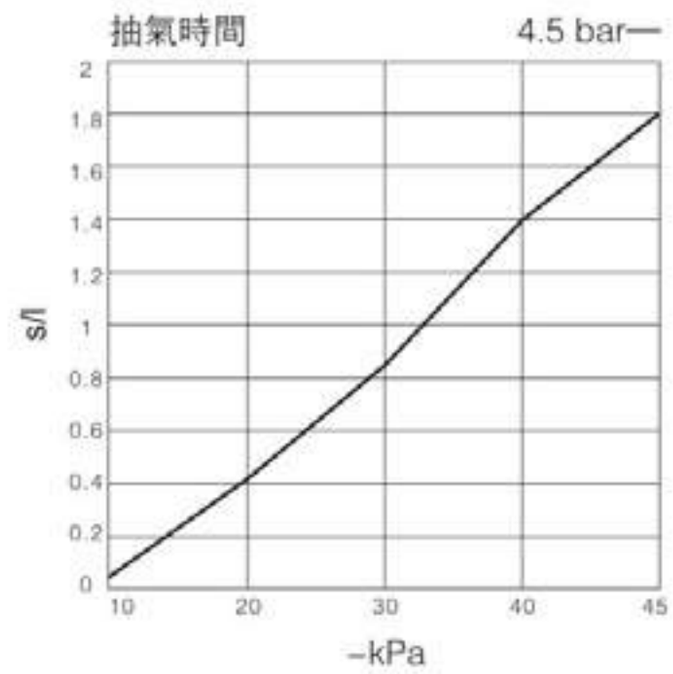

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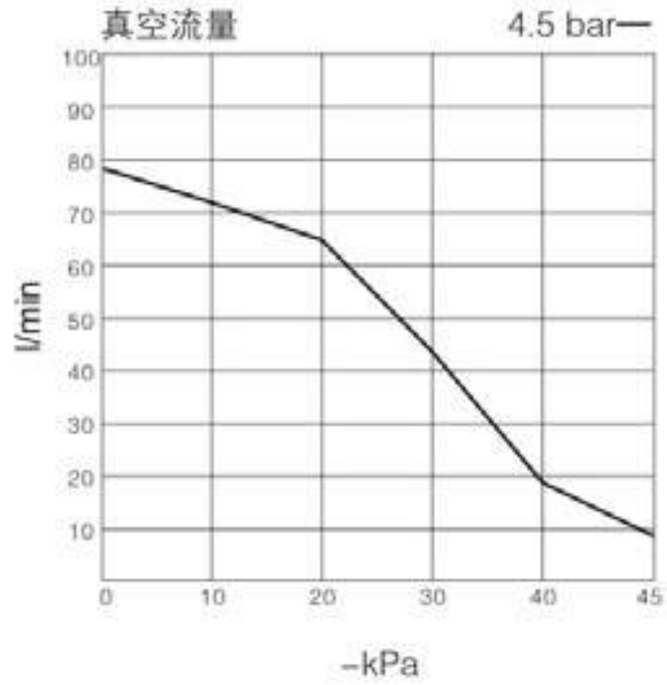

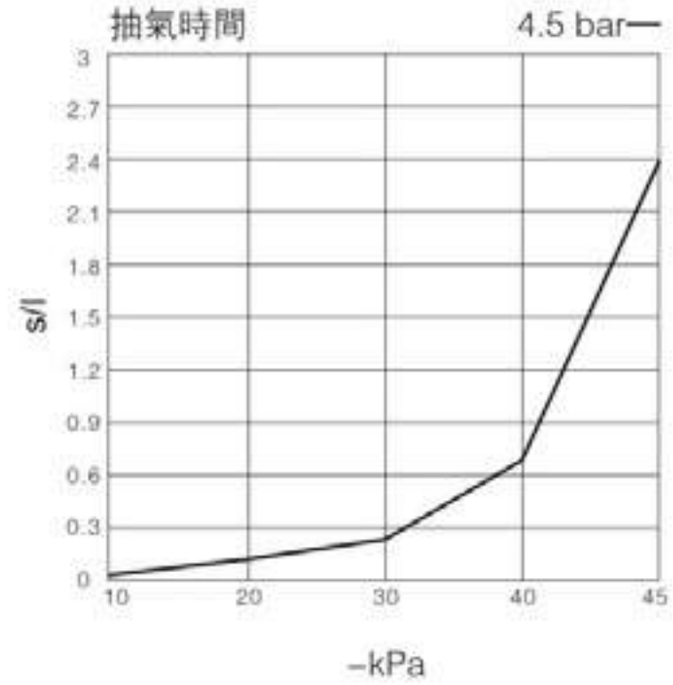

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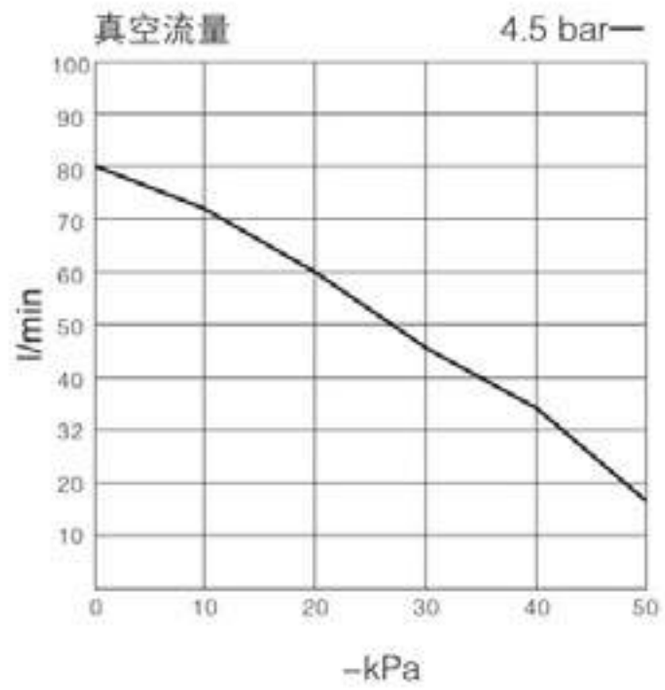

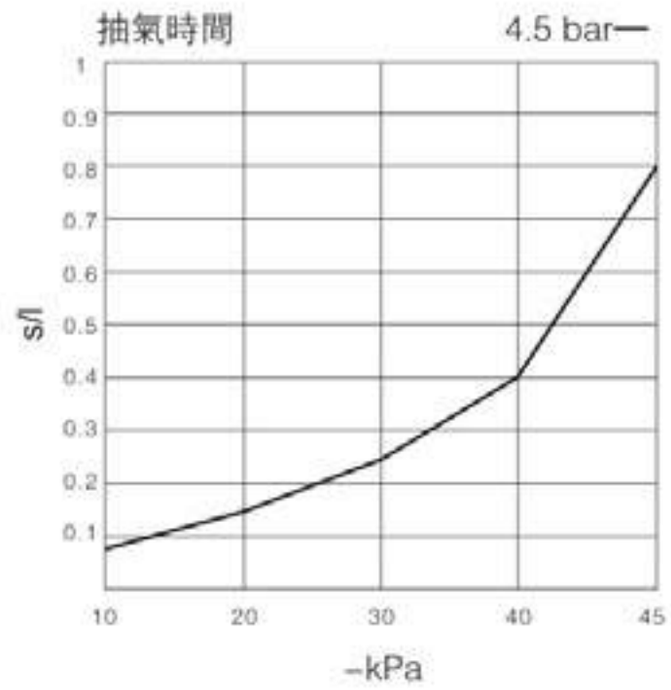

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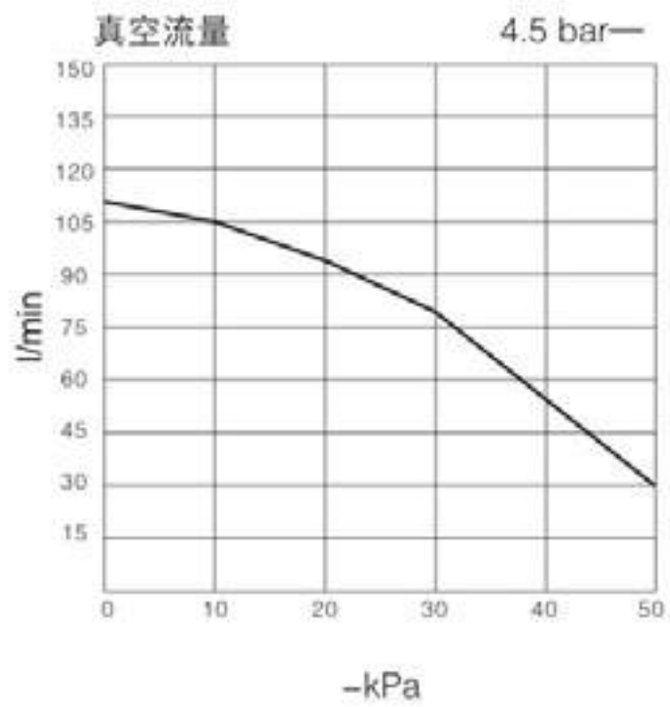

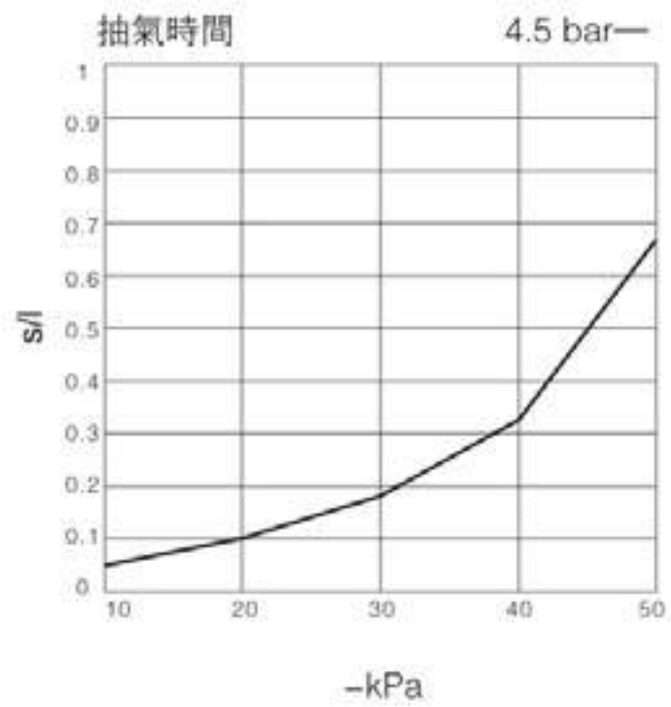

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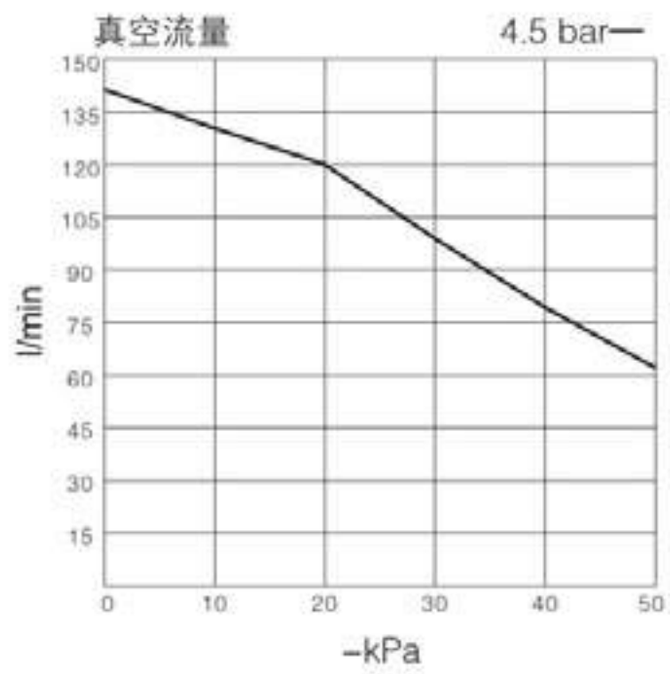
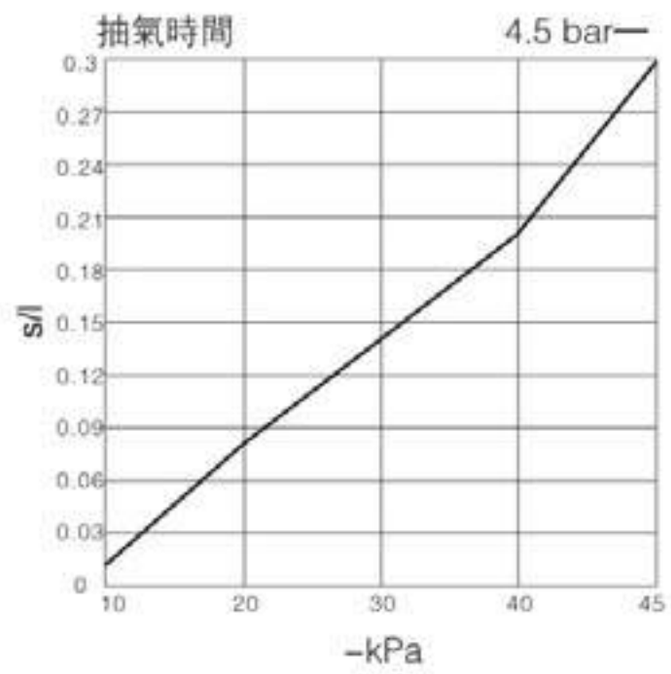




產品特點 Features

◇管道型設計，不需要特別安裝　◇標準配有快換接頭，接管方便
◇採用樹脂作木料，重量輕　◇標準型號已經是無銅規格

☆Vacuum port and supply port are located collinearly to facilitate piping built-in one-touch fittings, suitable for copper-free and fluorine-free applications. Light weight, use resin as material

技術規格

型號 Model	類型 Style	噴嘴 Nozzle dia. Φmm	最高真空度 Max.vacuum pressure(kPa)	最大真空流量 Max.vacuum flow l/min	空氣消耗量 Air consumption l/min	重量 weight(g)
FAZU05S	高真空型 High vacuum	0.5	-85	7	10	6.5
FAZU07S		0.7	-85	12	19	7.0
FAZU05L	大流量型 Large flow capcity	0.5	-48	12	10	6.5
FAZU07L		0.7	-48	21	19	7.0

產品參數

使用流體 Fluid	空氣 Air
最高使用壓力 Max.operating pressure	7bar 7bar
標準使用壓力 Standard supply pressure	4.5bar 4.5bar
流體及環境溫度 Operating temperature range	5~60℃ 5~60℃
適合管子外徑 Applicable tube O.D.	進氣口:Φ6　真空口:Φ6 SUP port:Φ6　VAC port:Φ6

訂購碼 How to Order

FAZU 05 S
① ②

① 噴嘴直徑 Nozzle diameter

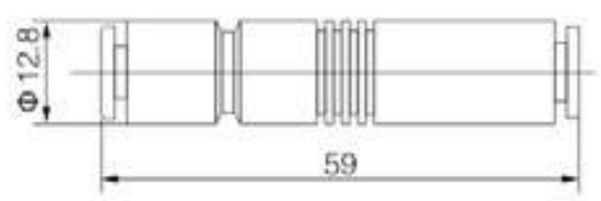
05	ϕ0.5mm
07	ϕ0.7mm

② 最高真空度 Max.vacuum pressure

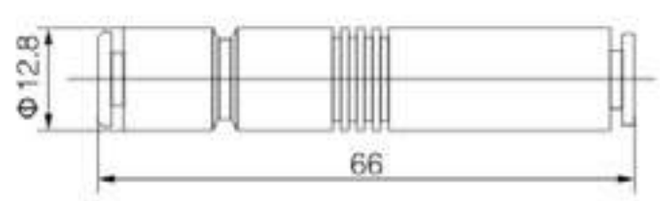
S	-85kPa
L	-48kPa

外形尺寸(mm) Dimensions (mm)

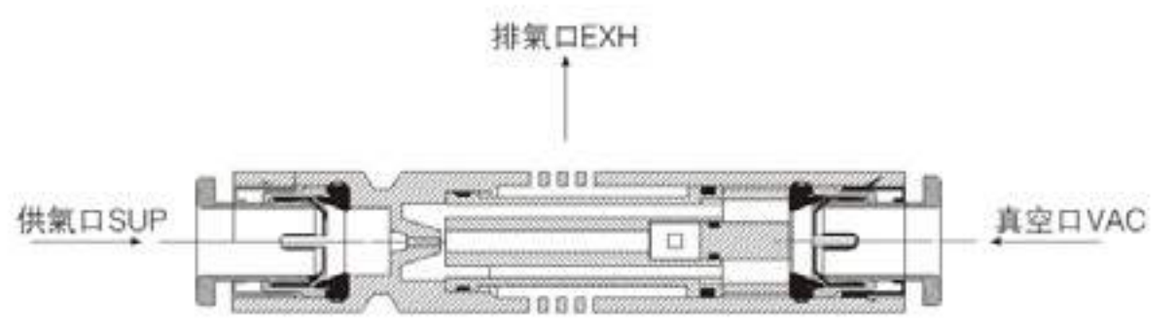
• FAZU05S
FAZU05L



• FAZU07S
FAZU07L



構造圖 Construction



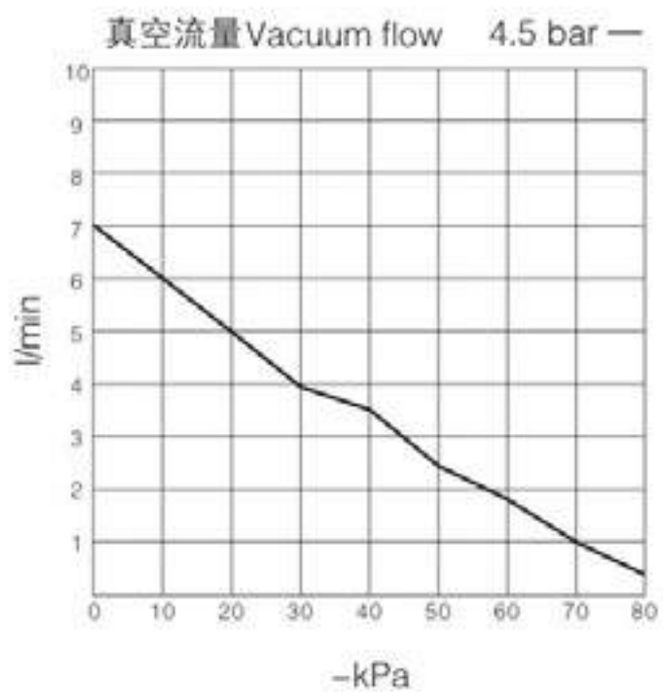
不同真空度(-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)

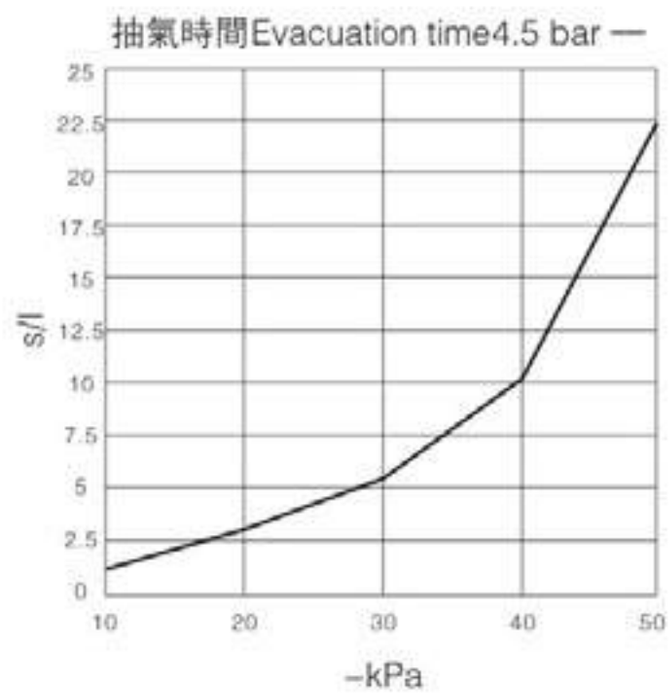
型號 \ -kPa	供氣壓力	空氣消耗量	0	10	20	30	40	50	60	70	80	最大真空度
FAZU05S	4.5 bar	9 l/min	7	6	5	4	3.5	2.5	1.8	1	0.4	-85kPa
FAZU07S		19 l/min	12	9.5	8.5	7.2	6	5.5	4	2	0.4	

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)

型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	10	20	30	40	50	60	最大真空度
FAZU05S	4.5 bar	9 l/min	0.9	2.6	5.2	10	22.5	—	-85kPa
FAZU07S		19 l/min	0.53	1.4	2.7	5	8.7	18	

• FAZU05S





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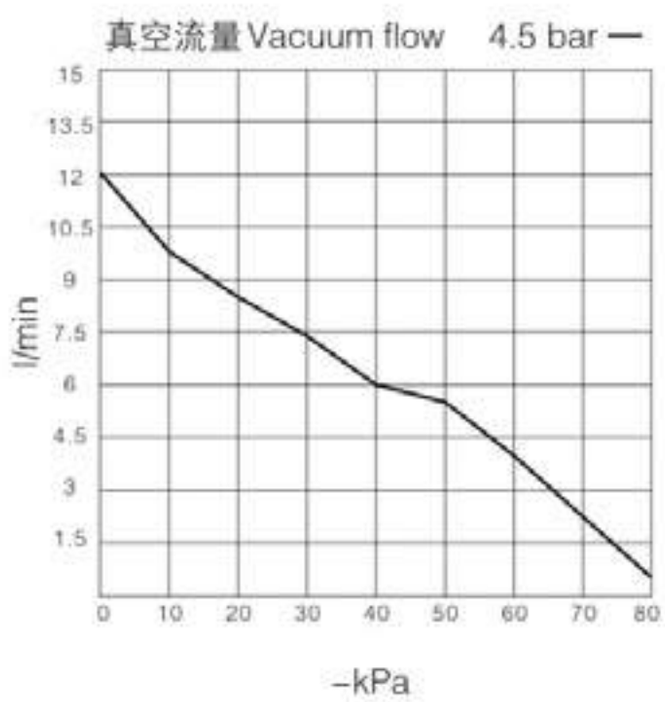
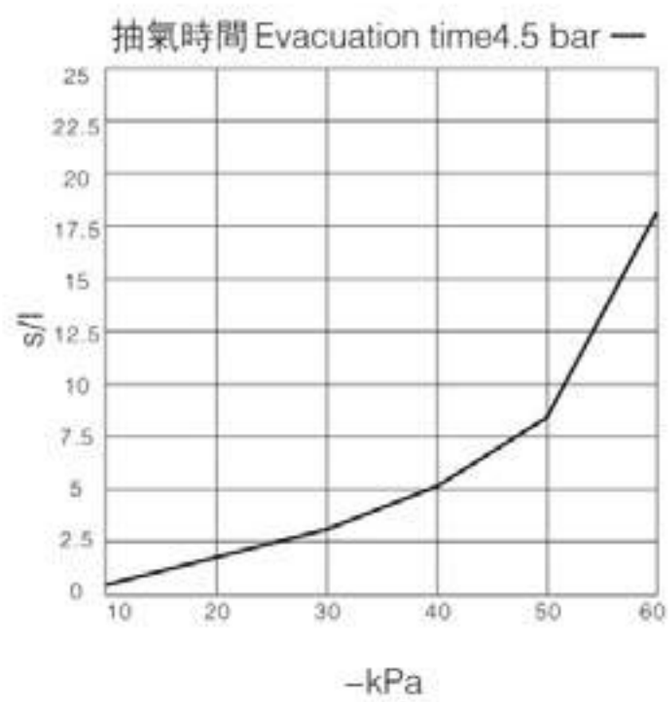




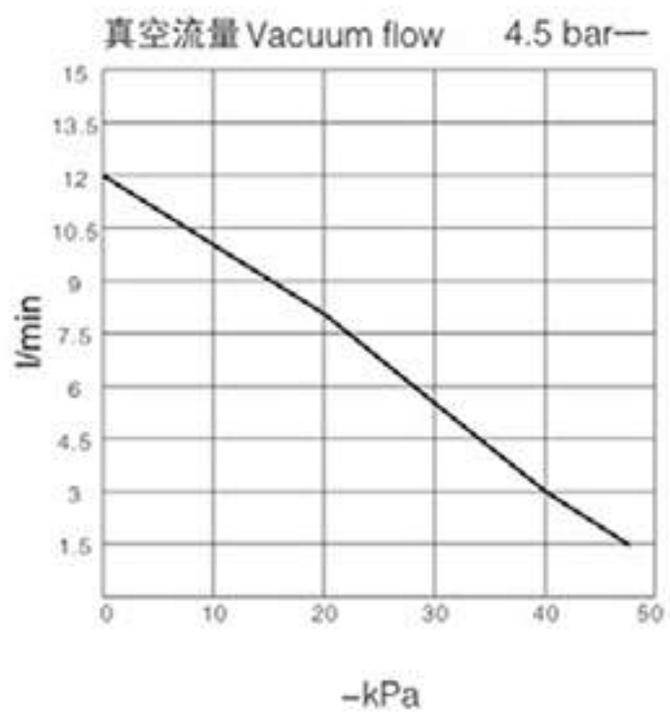
不同真空度(-kPa)的真空流量(l/min)Vacuum flow (l/min) at different vacuum levels(-kPa)

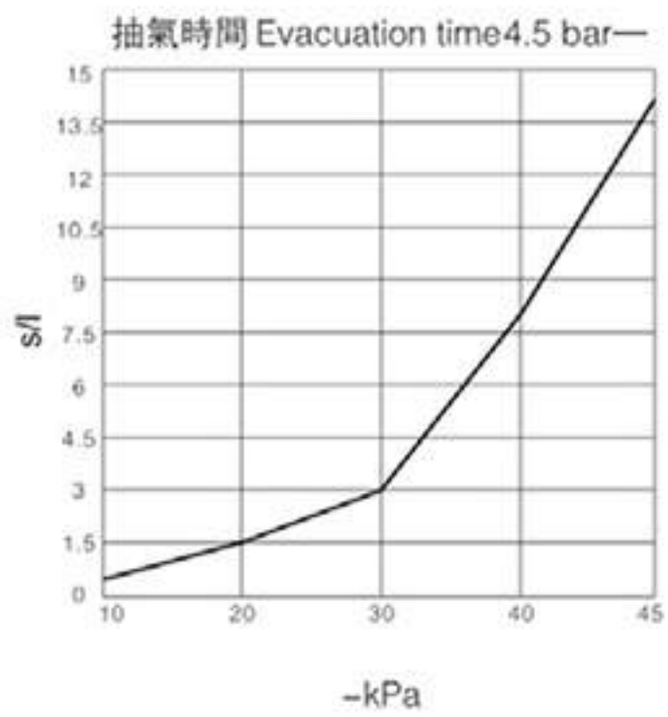
型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	0	10	20	30	40	48	最大真空度
FAZU05L	4.5 bar	9 l/min	12	10	8	5.5	3	1	-48kPa
FAZU07L		19 l/min	21	18.5	15.5	11.5	8	1.5	

不同真空度(-kPa)的抽氣時間(s/l)Evacuation time (s/l) to reach different vacuum levels(-kPa)

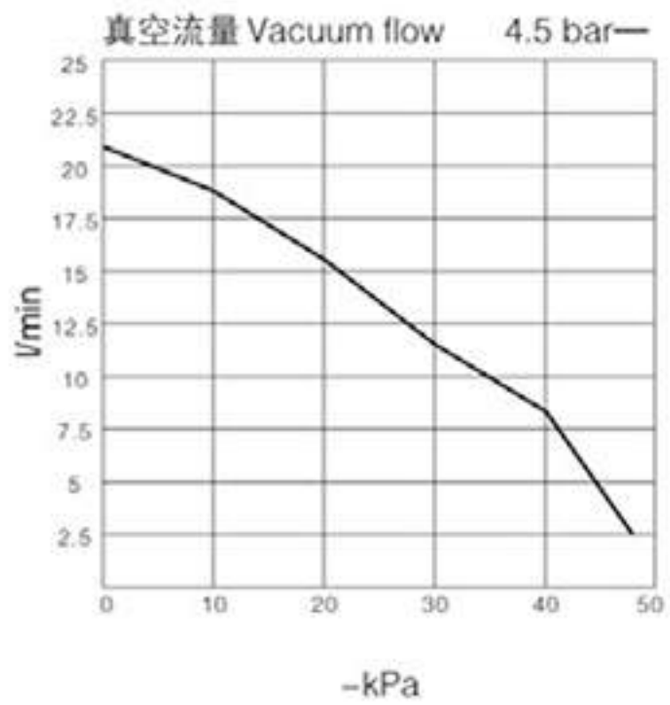
型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	10	20	30	40	45	最大真空度
FAZU05L	4.5 bar	9 l/min	0.6	1.5	2.9	8	14	-48kPa
FAZU07L		19 l/min	0.34	0.9	2	7.5	13	

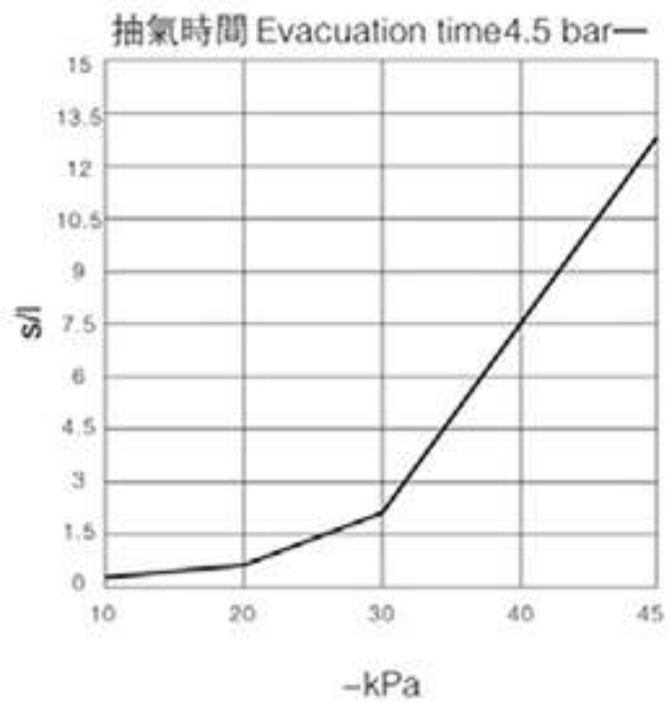
•FAZU05L





•FAZU07L





產品特點 Features

◇過濾從進氣口吸入的灰塵和其他雜質
◇減少真空泵運行中斷或運行停止的危險
◇可拆換的過濾元件
◇可用特殊濾芯提高過濾面積

☆To filter dust and other small particles from the vacuum flow.
☆Reduces the risk of operation breakdown or stoppage in the pump.
☆Replaceable filter element.
☆Available with special filter element with increased filter area.

技術規格 Specifications

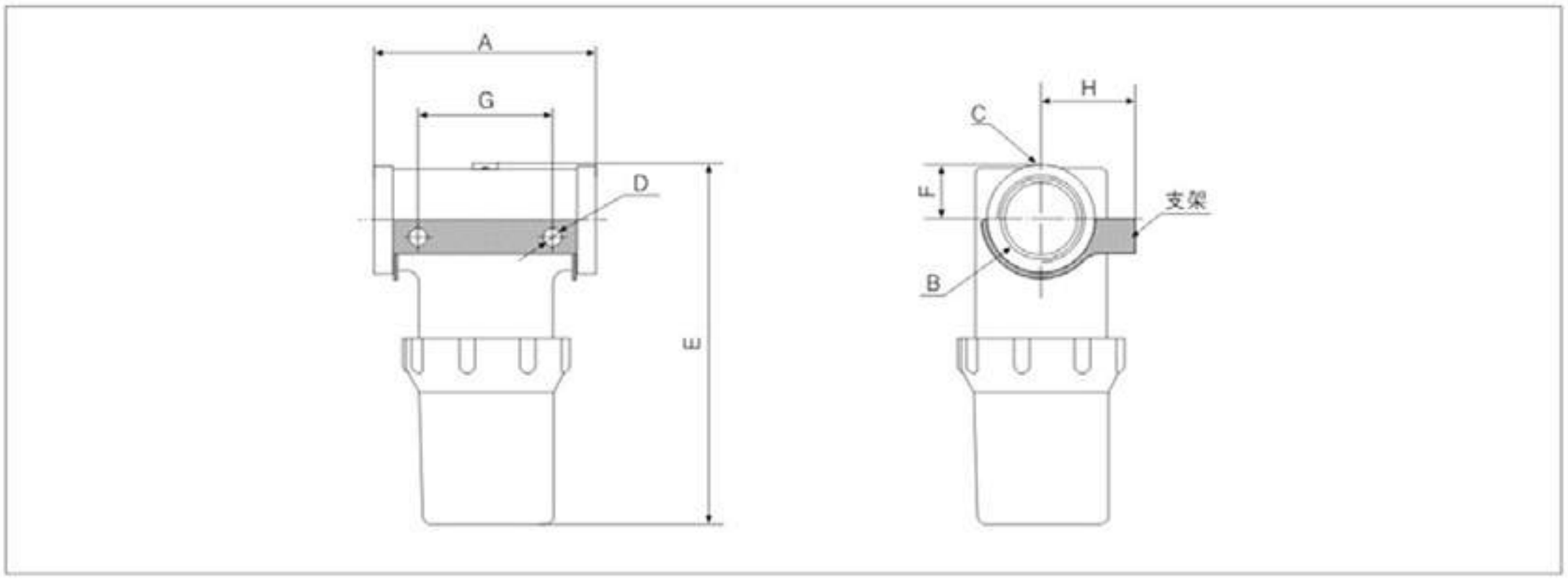
		FVF-10	FVF-15	FVF-20	FVF-25	FVF-40
壓力範圍 Pressure range	bar	-1~0bar				
材質 Material		PA, PC, PE				
溫度範圍 Temperature range	℃	-20~80				
過濾精度 Removal efficiency	μm	10				
重量 Weight	g	70	168	170	424	550
公稱流量 Flow nominal	l/m	150	900	900	2520	5100
內部真空量 Volume internal	cm^3	45	195	205	495	675
過濾面積 Filter area	m^2	0.003	0.010	0.010	0.019	0.023

訂購碼 How to Order

FVF－10
①

① 型號 Model	
FVF-10	G3/8"
FVF-15	G1/2"
FVF-20	G3/4"
FVF-25	G1"
FVF-40	G1 1/2"

外形尺寸(mm)Dimensions (mm)



型號 Model	FVF10	FVF15	FVF20	FVF25	FVF40
A	76	91	91	126	126
B	2-G3/8"	2-G1/2"	2-G3/4"	2-G1"	2-G1 1/2"
C	NPSF1/8	NPSF1/8	NPSF1/8	NPSF1/8	NPSF1/8
D	2-Φ6.5	2-Φ8.5	2-Φ8.5	2-Φ10.5	2-Φ10.5
E	71.3	131.5	138.5	167	209.5
F	14	16	18.5	23	31
G	45	50	50	80	80
H	27	40	40	56	56

訂購碼 How to Order

FVF - 10
①

① 型號Model

FVF-10	3/8"
FVF-20	1/2" & 3/4"
FVF-25	1"
FVF-40	1 1/2"

備注：可選濾芯1/2" & 3/4"(特殊)、濾芯 1 1/2"(特殊) (過濾精度5μm和80μm)
Remarks:Fiter element 1/2" & 3/4"(special)、 1 1/2"(special)are optional. Their removal efficiency is 5μm and 80μm)

濾芯規格 Technical data of filter element

		FVF-10	FVF-20	FVF-25	FVF-40
重量 Weight	g	7	26	50	74
過濾面積 Filter area	m^2	0.003	0.010	0.019	0.023
過濾精度 Removal efficiency	μm	10	10	10	10

產品特點 Features

◇特別適合零泄漏和無孔應用
◇現有鋁連接板(AD)和聚苯硫醚復合材料連接板(D)
◇提供壓縮空氣接口所需的快速接頭，直流消聲器和安裝支架

☆ Use with practically zero leakage present and non-porous applications
☆ Available with connection plate in aluminium (AD) and composite PPS(D)
☆ Supplies with a push-in connector for compressed air, through-flow silencer and mounting brackets

技術規格 Specifications

最大供氣壓力Air supply pressure. max.	bar	7
噪音Noise level	dBA	60-65
溫度範圍Temperature range	℃	-20-80
重量Weight	g	530-620,690-780
材料Material		AL,PPS,NBR,SS

產品參數 Technical Parameters

型號 Model	供氣壓力 supply pressure bar	最大真空度 Max.vacuum level -kPa	最大真空流量 Max.vacuum flow l/min	空氣消耗量 Air consumption l/min	重量(PPS材料) Weight(PPS materials) g	最小軟管內徑Φ(2m以內) Min tube inner Φ(within 2m)		
						供氣 Ari supply	真空 Vacuum	排氣 Exhaust
FVH40	6	99.8	150	155	675	>6	>8	>10
FVH120		100.8	530	440	837	>9	>15	>19

訂購碼 How to Order

FVH40- D - N - A
① ② ③ ④

① 型號 Model

FVH40
FVH120

② 連接板 Connection plate

	供氣口 Air Supply	真空 Vacuum	排氣 Exhaust	材料 Material
D	NPSF 1/8"	G 3/4"	G 3/4"	PPS
B	NPSF 1/8"	NPT 3/4"	NPT 3/4"	PPS
AD	G 1/4"	G 3/4"	G 3/4"	鋁
E	NPT 1/4"	NPT 3/4"	NPT 3/4"	鋁

③ 密封材料 Sealing

N	丁腈橡膠NBR
E	三元乙丙橡膠EPDM
V	氟橡膠VITON

④ 止回閥 Non-Return Valve

A	有Yes
-	無 No

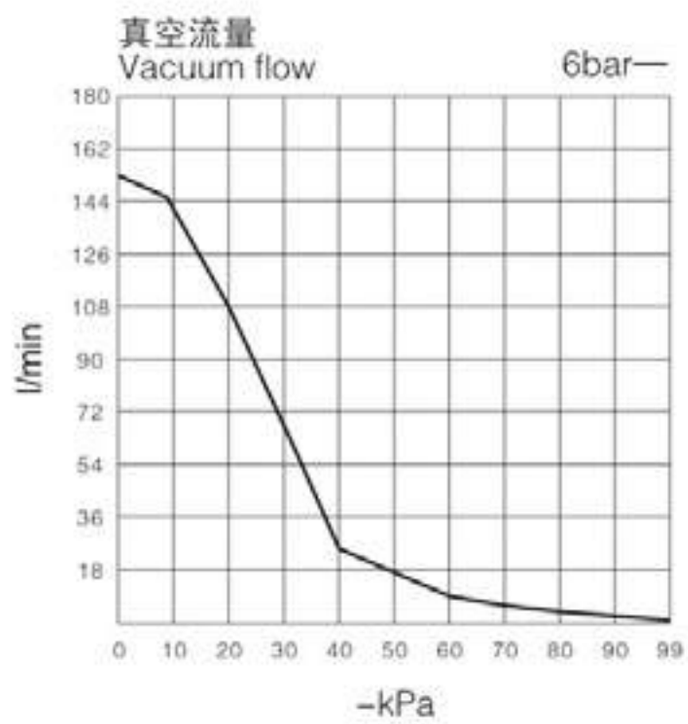
不同真空度(-kPa)的真空流量(l/min)Vacuum flow (l/min) at different vacuum levels(-kPa)

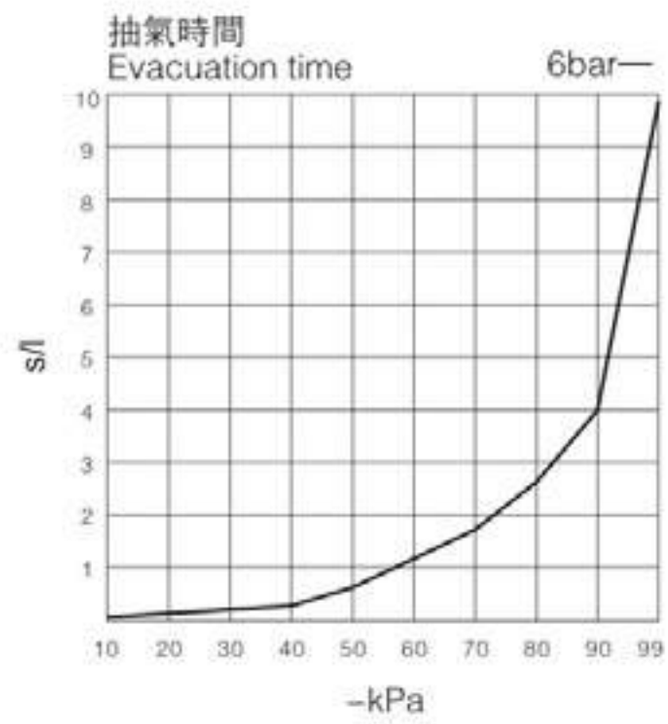
型號 \ -kPa	供氣壓力	空氣消耗量	0	10	20	30	40	50	60	70	80	90	99	最大真空度
FVH40	6 bar	155 l/min	150	145	105	52.5	27.5	20.5	15	8.5	5.5	3	0.2	-99.8kPa
FVH120		440 l/min	530	420	265	141	85	65	45	33	21.5	6	0.5	-100.8kPa

不同真空度(-kPa)的抽氣時間(s/l)Evacuation time (s/l) to reach different vacuum levels(-kPa)

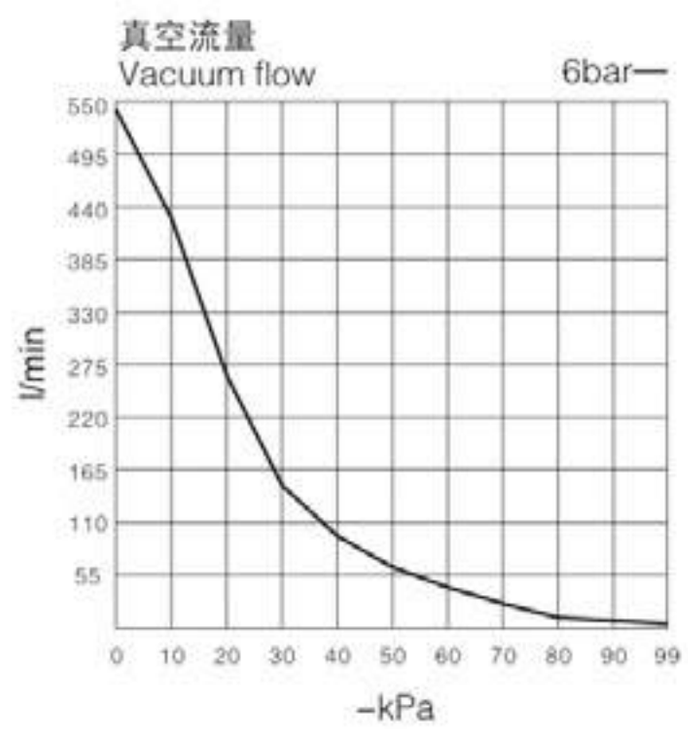
型號 \ -kPa	供氣壓力	空氣消耗量	10	20	30	40	50	60	70	80	90	99	最大真空度
FVH40	6 bar	155 l/min	0.035	0.078	0.18	0.32	0.64	1.3	1.8	2.6	3.9	9.8	-99.8kPa
FVH120		440 l/min	0.02	0.036	0.08	0.14	0.25	0.38	0.66	1.08	3.6	8.5	-100.8kPa

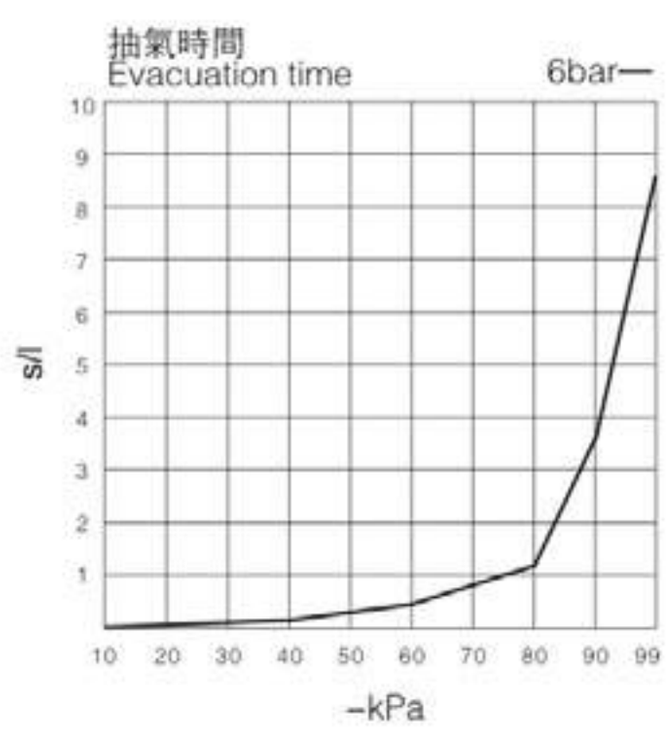
• FVH40





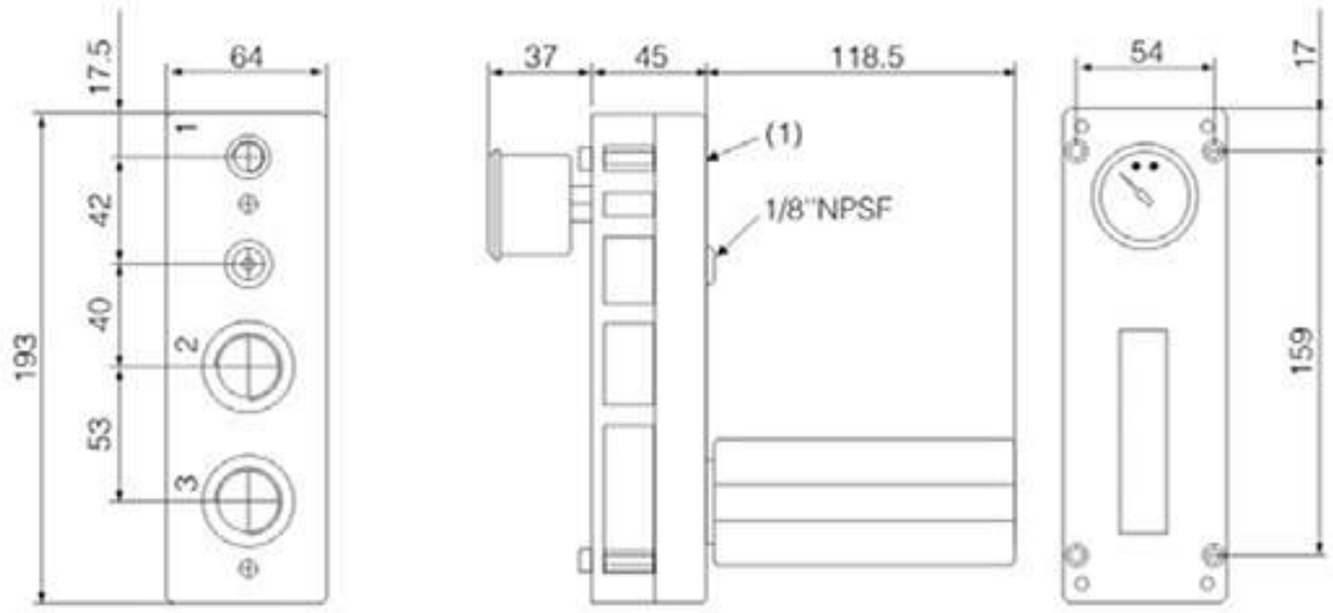
• FVH120

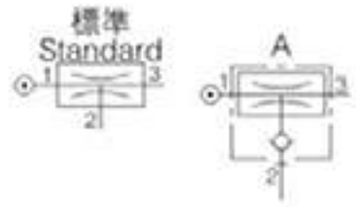




外形尺寸(mm)Dimensions (mm)

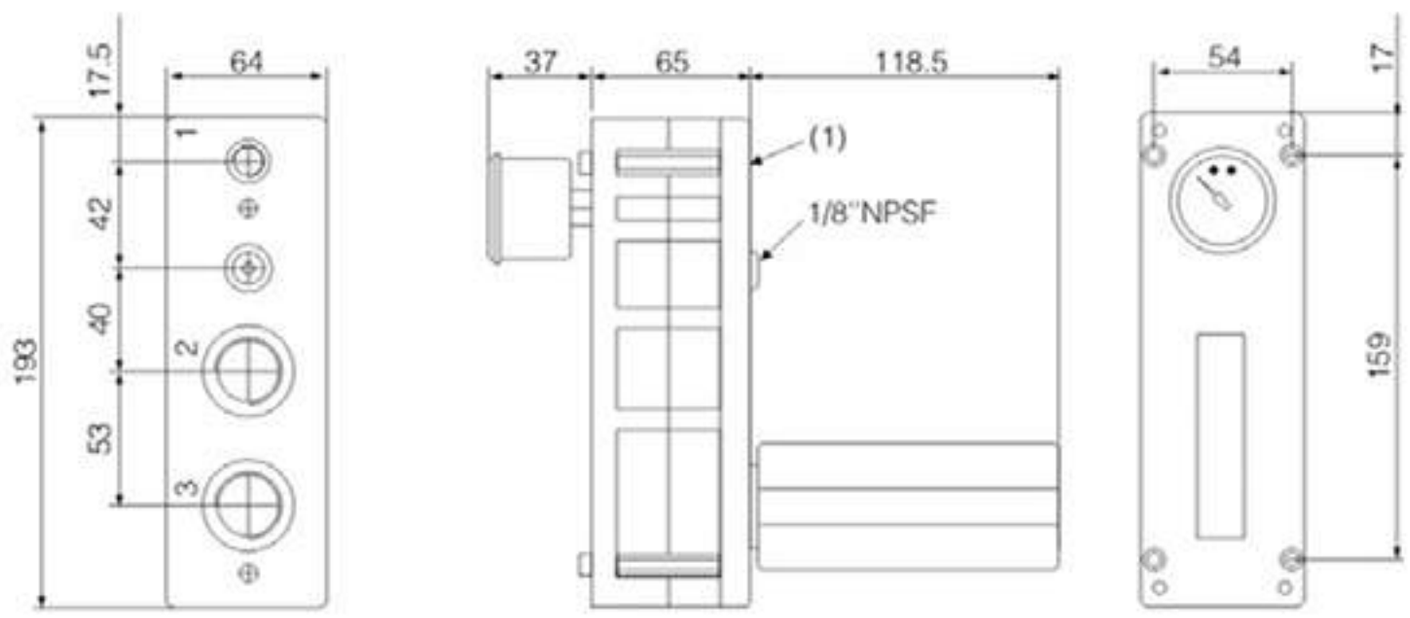
• FVH40

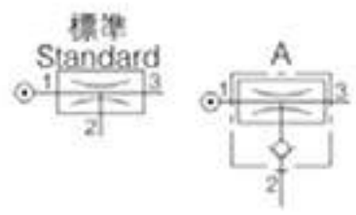




	1	2	3
D	NPSF 1/8"	G 3/4"	G 3/4"
B	NPSF 1/8"	NPT 3/4"	NPT 3/4"
AD	G 1/4"	G 3/4"	G 3/4"
E	NPT 1/4"	NPT 3/4"	NPT 3/4"

• FVH120





	1	2	3
D	NPSF 1/8"	G 3/4"	G 3/4"
B	NPSF 1/8"	NPT 3/4"	NPT 3/4"
AD	G 1/4"	G 3/4"	G 3/4"
E	NPT 1/4"	NPT 3/4"	NPT 3/4"

技術規格 Specifications

最大真空度 Max.Vacuum Level	-86kPa
最大真空流量 Max.Vacuum flow rate	35l/m
供氣壓力 Air supply pressure	4-6bar 最大(Max.)7bar
供氣類型 Air supply type	乾燥的壓縮空氣 Dry compressed air

訂購碼 How to Order

FVM5 x 5 - 4 V
① ② ③ ④

① 多級產生器型號 Model

FVM5
FVM10

② 真空產生器安裝板數 Vacuum stack

2、3、4、5、6、7、8、9、10
11、12、13、14、15、16

③ 真空口接管內徑 Vacuum port,inner dia. of tube

2-Φ2
4-Φ4

④ 密封材料 Sealing

無記號-標準(丁腈橡膠) No mark-Standard(NBR)
V-氟橡膠 V-VITON
E-三元乙丙橡膠 E-EPDM

產品特點 Features

◇可以用一個單一的壓縮空氣控制閥來操作，每一條真空線路都是一個單獨的多級真空產生器並且不會影響其它線路的運行。

☆ This vacuum pump uses individual pumps to make up the complete unit,each pump is in itself a multistage ejector unit. Each individual pump can be stacked together this creating a modular manifold based system.
It can be operated using just one control valve whilst retaining individual vacuum lines separate to one another,therefore if any leakage or surface deformation occurs and one pad loses its vacuum, it does not effect the vacuum level in the other pads. Pumps can be stacked up from 2-16 unit depending upon requirements.The pumps can have seal material options of Viton® & EPDM for corrosive and acidic applications.

備注：FVM5最多可達至16層(12~16層用兩個消聲器)
FVM10最多可達至12層(6~12層可用兩個消聲器)

Remark：FVM5-the most 16 stacks (can use 2 silencers between 12-16 stacks)
FVM10-the most 12 stacks (can use 2 silencers between 6-12 stacks)

不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

型號 Model	ABM系列不同真空度(-kPa)的真空流量(l/m) Vacuum flow(l/min)at different vacuum levels(-kPa)								
	0	10	20	30	40	50	60	70	80
FVM5x1	27	15	12.5	11	10	7.5	5.5	2	0.6
FVM10x1	35	28	24	22	18	15	11	5	1.35

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

型號 Model	ABM系列不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)							
	10	20	30	40	50	60	70	80
FVM5x1	0.2	0.59	1.10	1.58	2.4	3.52	5.3	10.25
FVM10x1	0.12	0.28	0.60	0.81	1.18	1.82	2.65	5.21

技術規格 Specifications

最大真空度 Max.Vacuum level	-92kPa
最大真空流量 Max.Vacuum flow rate	32l/m
供氣壓力 Air supply pressure	4-6bar 最大(Max.)7bar
供氣類型 Air supply type	乾燥的壓縮空氣 Dry compressed air

訂購碼 How to Order

FVX5 x 5 - 4 V

① ② ③ ④

① 多級產生器型號 Model

FVX5
FVX10

② 真空產生器安裝板數 Vacuum stack

2、3、4、5、6、7、8、9、10
11、12、13、14、15、16

③ 真空口接管內徑 Vacuum port,inner dia. of tube

2-Φ2
4-Φ4

④ 密封材料 Sealing

無記號-標準(丁腈橡膠) No mark-Standard(NBR)
V-氟橡膠 V-VITON
E-三元乙丙橡膠 E-EPDM

產品特點 Features

◇可以用一個單一的壓縮空氣控制閥來操作，每一條真空線路都是一個單獨的多級真空產生器並且不會影響其它線路的運行。

☆ This vacuum pump uses individual pumps to make up the complete unit,each pump is in itself a multistage ejector unit.It has the same external dimentions to that of the ABX minimultiple pump.however the internal ejector systerm is different to enable higher levels of vacuum to achieved.Each individual pump can be stacked together this creating a modular manifold based systerm.
It can be operated using just one control valve whilst retaining individual vacuum lines separate to one another,therefore if any leakage or surface deformation occurs and one pad loses its vacuum, it does not effect the vacuum level in the other pads. Pumps can be stacked up from 2-16 unit depending upon requirements.The pumps can have seal material options of Viton® & EPDM for corrosive and acidic applications.

備注：FVX5最多可達至16層(12~16層用兩個消聲器)
FVX10最多可達至12層(6~12層可用兩個消聲器)

Remark：FVX5-the most 16 stacks (can use 2 silencers between 12-16 stacks)
ABX10-the most 12 stacks (can use 2 silencers between 6-12 stacks)

不同真空度(-kPa)的真空流量(l/min) Vacuum flow(l/min)at different vacuum levels(-kPa)

型號 Model	ABX系列不同真空度(-kPa)的真空流量(l/m) ABX series Vacuum flow(l/min)at different vacuum levels(-kPa)									
	0	10	20	30	40	50	60	70	80	90
FVX5x1	25	14	10	9	7.5	6	4	2.8	1.5	0.44
FVX10x1	32	21	18	16	14	11	9.5	5.5	2.5	1.1

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time(s/l)to reach different vacuum levels(-kPa)

型號 Model	ABX系列不同真空度(-kPa)的抽氣時間(s/l) ABX series Evacuation time(s/l)to reach different vacuum levels(-kPa)								
	10	20	30	40	50	60	70	80	90
FVX5x1	0.21	0.81	1.52	2.35	3.48	4.85	6.57	10.5	19.27
FVX10x1	0.14	0.40	0.78	1.22	1.77	2.4	3.3	4.95	9.62

產品特點 Features

◇ 採用3級擴壓管，真空流量可增大250%，節省流量20%
◇ 可帶閥，真空用壓力表或壓力開關
◇ 濾芯可更換
◇ 內置真空過濾器及消聲器
◇ 可3個方向安裝(頂、底、側)

☆ Adopt 3 levels rise pressure pipe,vacuum flow rate can amplify 250%
☆ Can be with valve,vacuum gauge and vacuum pressure switch
☆ Can replace filter element
☆ Built-in vacuum filter and silencer
☆ Can be installed at 3 directions(top,bottom,side)

真空產生器規格 Specifications

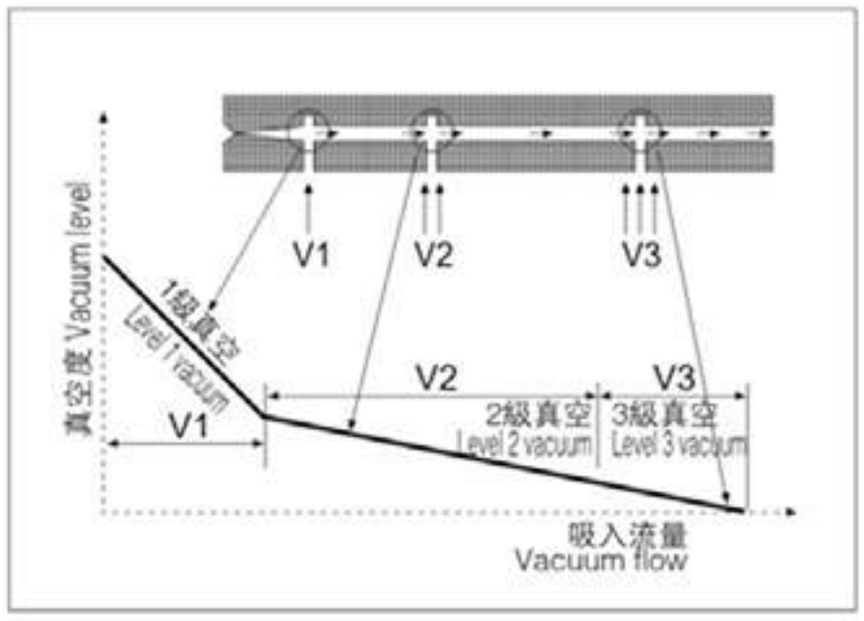
噴嘴孔徑 Nozzle diameter	Φ1.2mm
最大真空流量 Max vacuum flow rate	100l/min
空氣消耗量 Air consumption	63l/min
最高真空度 Max vacuum pressure	-84kPa
最高使用壓力 Max operating pressure	7bar
供給壓力範圍 Supply pressure range	2~5bar
標準供給壓力 Standard supply pressure	4bar
使用溫度範圍 Operating temperature range	5~50℃

供給閥・破壞閥規格 Supply/Release Valve Specifications

型號 Part Number	SYJ514-□□□
機能 Type of valve actuation	內部先導式N.C Internal pilot type N.C
使用壓力範圍 Operating pressure range	2~5bar
環境及流體溫度 Ambient and fluid temperature	5~50℃
響應時間(0.5MPa時) Response time(for 0.5MPa)	25ms以下 25ms or less
最大動作頻度 Max.operating frequency	5Hz
手動操作 Manual operation	非鎖定推壓式，推壓回轉鎖定式螺絲刀操作 Non-locking push type slotted locking type
先導排氣方式 Pilot exhaust type	各自排氣型、集中排氣型 Pilot valve individual exhaust type, Main valve/Pilot valve common exhaust
給油 Lubrication	不需要 Not required
安裝姿勢 Mounting position	自由 Unrestricted
耐衝擊/耐振動 Impact/Vibration resistance	150/30m/s² 150/30m/s²
保護構造 Enclosure	防塵 Dust proof

節省能源 Energy saving

3級擴壓管設計3 Levels rise pressure pipe design



訂購碼 How to order

無閥 Without valve: FVZL112□□

帶閥 With valve: FVZL112□□ K1 5 L Z □ - GN RL5

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

噴嘴孔徑 Nozzle diameter
12: Φ1.2mm

① 排氣規格 Exhaust specifications

無記號 Nil	內置消聲器 Built-in silencer
P	通口排氣 Port exhaust

② 排氣通口螺紋(僅排氣通口) Exhaust port thread specification (port exhaust only)

無記號 Nil	Rc1/2
F	G1/2
N	1/2-14NPT
T	1/2-14NPTF

③ 供給閥・破壞閥的組合 Supply valve/Release valve combination

K1	帶供給閥 破壞閥 With supply and release valves
K2	帶供給閥 With supply valve

④ 額定電壓 Rated Voltage

DC規格 DC Specification		AC規格 AC Specification	
5	24V	1	100V
6	12V	2	200V
V	6V	3	110V
S	5V	4	220
R	3V		

⑤ 導線引出方式 Lead wire type

G	直接出線式 Direct lead out type	導線長0.3m Lead wire length 0.3m
L	形插座式 L type plug connector	導線長0.3m Lead wire length 0.3m

⑥ 指示燈過電壓保護回路 Light/Surge voltage suppressor

無記號 Nil	無指示燈及過電壓保護回路 Without light/surge voltage suppressor
S	帶過電壓保護回路 With surge voltage suppressor
Z	帶指示燈及過電壓保護回路 With light/surge voltage suppressor

⑦ 手動操作 Manual override

無記號 Nil	非鎖定推壓式 Non-locking push type
D	推壓回轉鎖定式螺絲刀操作 Slotted locking type

⑧ 真空壓力檢出部 Vacuum pressure sensor

無記號 Nil	無 None
GN	真空用接頭 Rc1/8 Vacuum adapter Rc1/8

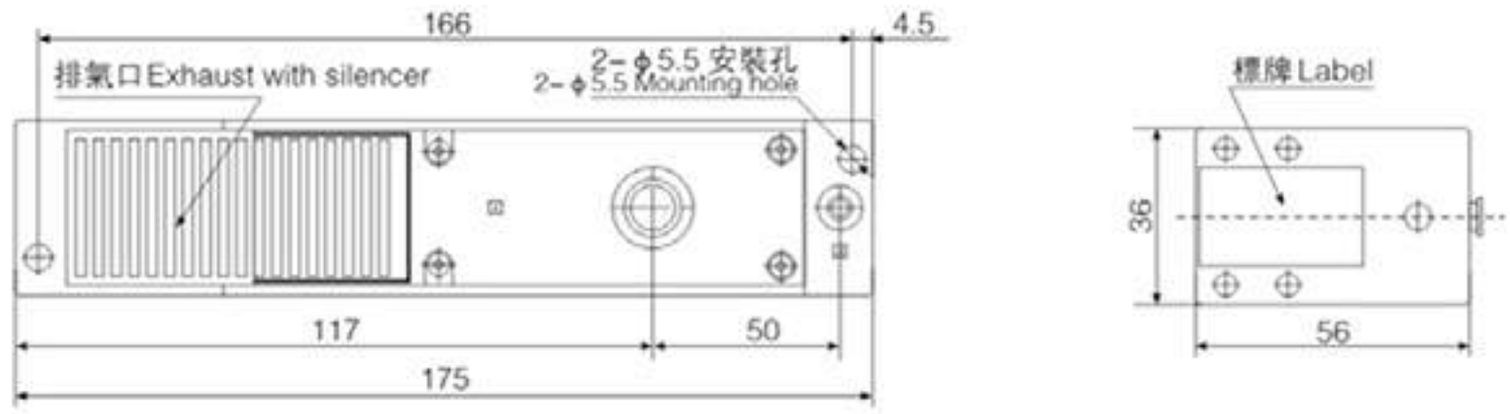
⑨ 真空用數字式壓力開關規格 Digital vacuum pressure switch specification

RL5

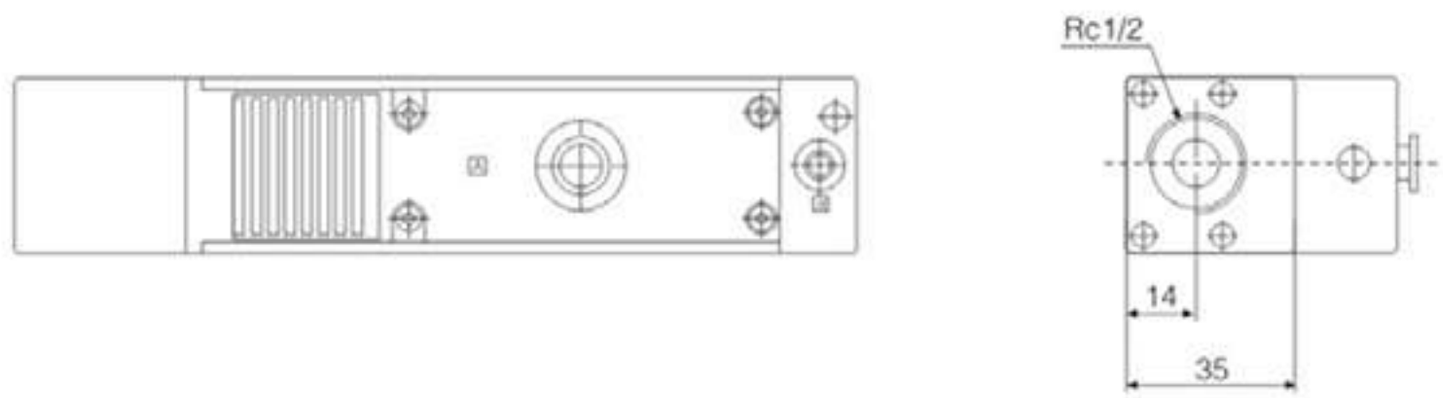
RL5C(-100~100kPa)		
RL5C-02	NPN輸出 NPN Output	導線長度2m lead wire length2m
RL5C-04	PNP輸出 PNP Output	
RL5V(0~-100kPa)		
RL5V-02	NPN輸出 NPN Output	導線長度2m lead wire length2m
RL5V-04	PNP輸出 PNP Output	

外形尺寸(mm) Dimensions (mm)

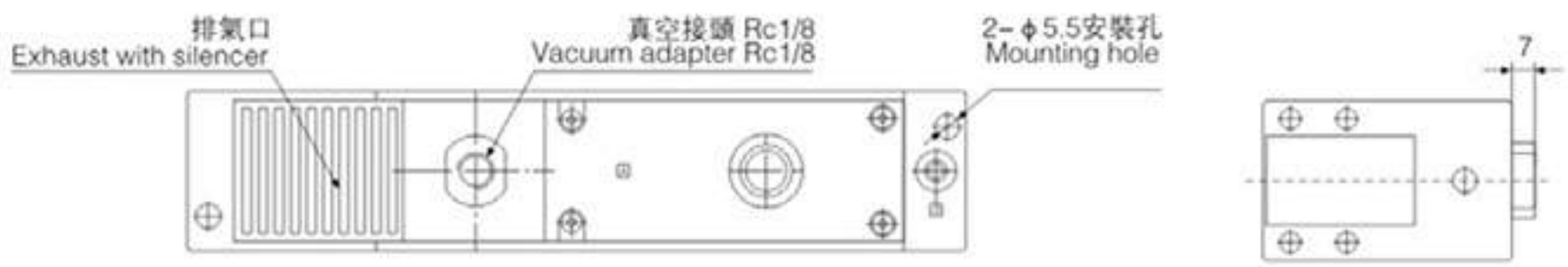
標準 Standard
FVZL112



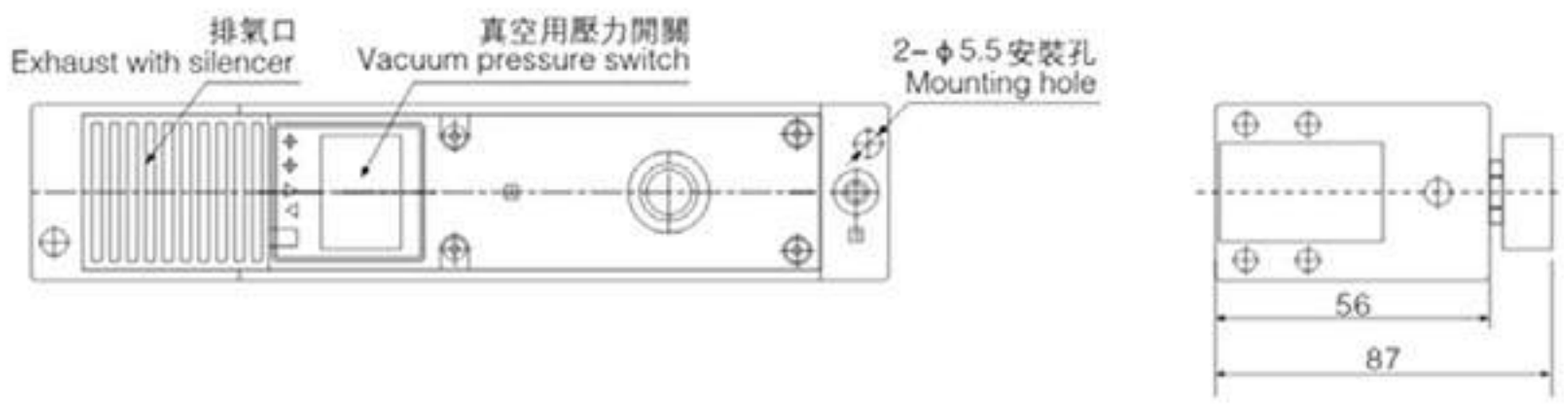
通口排氣 Port exhaust
FVZL112P



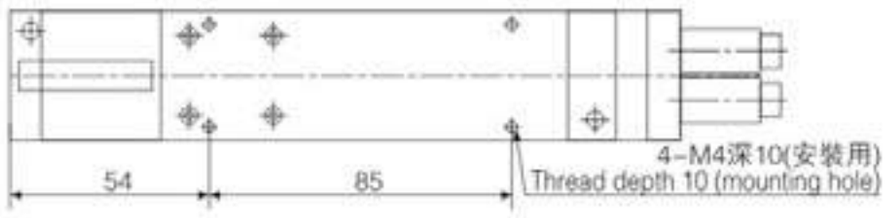
帶真空用接頭 With vacuum adapter
FVZL112-GN

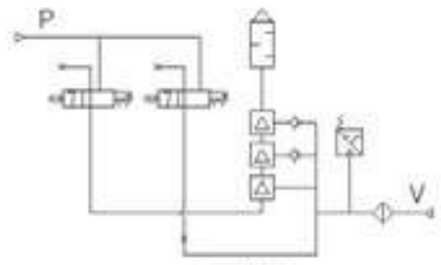


帶真空用數字式壓力開關
With digital vacuum pressure switch
FVZL112-GN-RL5

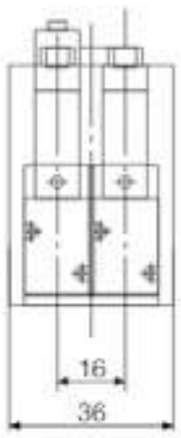


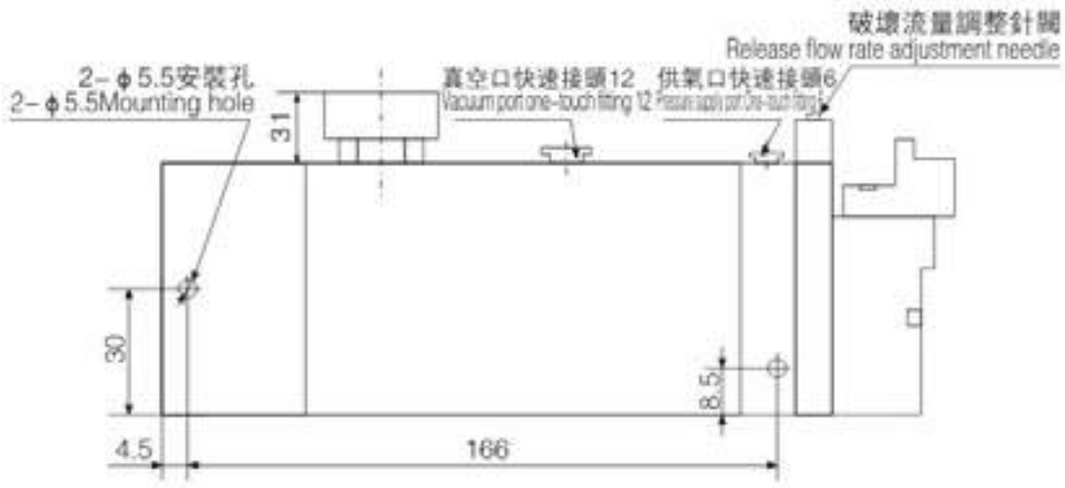
帶供給閥・破壞閥 With supply valve and release valve
FVZL112-K1□L□□-GN-RL5

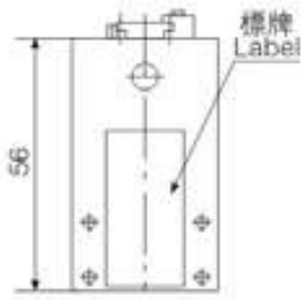


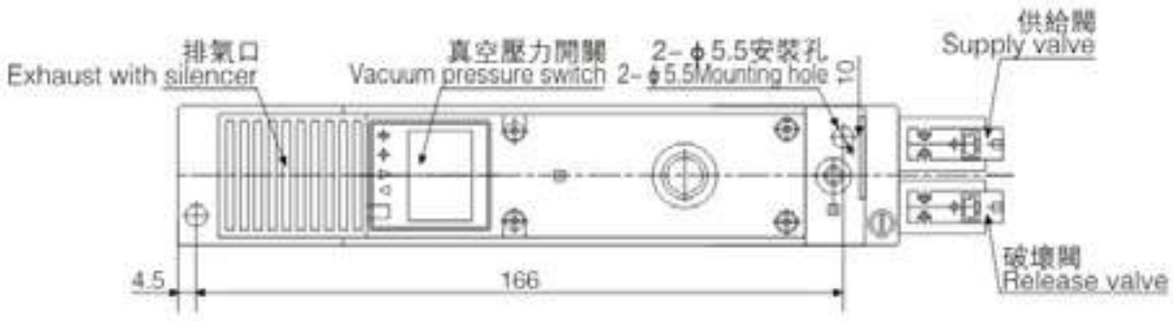


回路圖
Circuit diagram

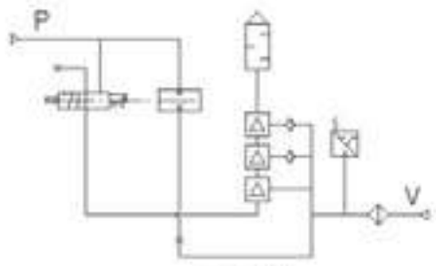




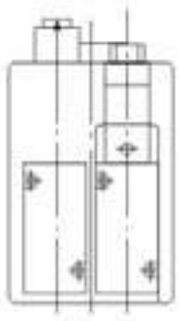


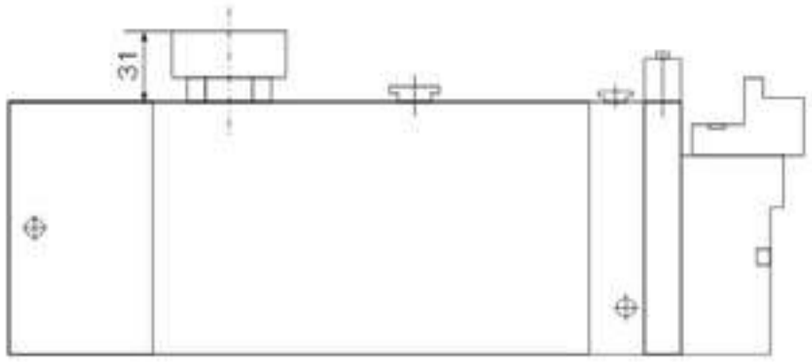


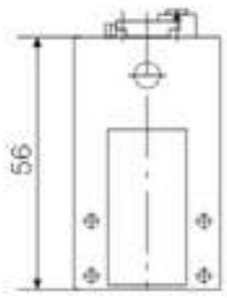
帶供給閥 With supply valve
FVZL112-K2□L□□-GN-RL5

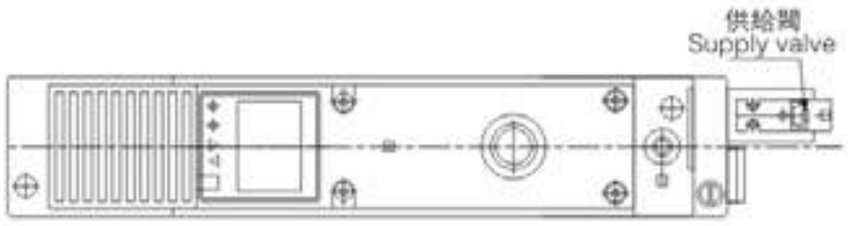


回路圖
Circuit diagram









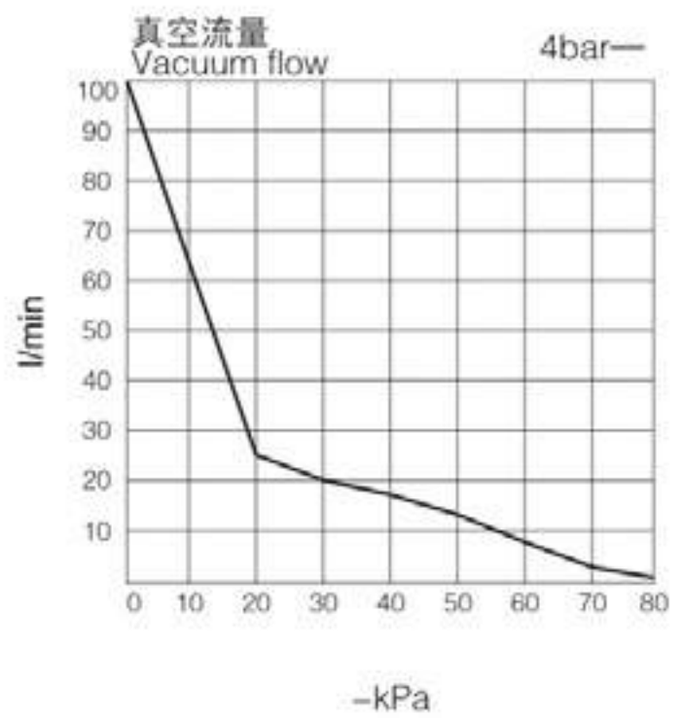
• FVZL112

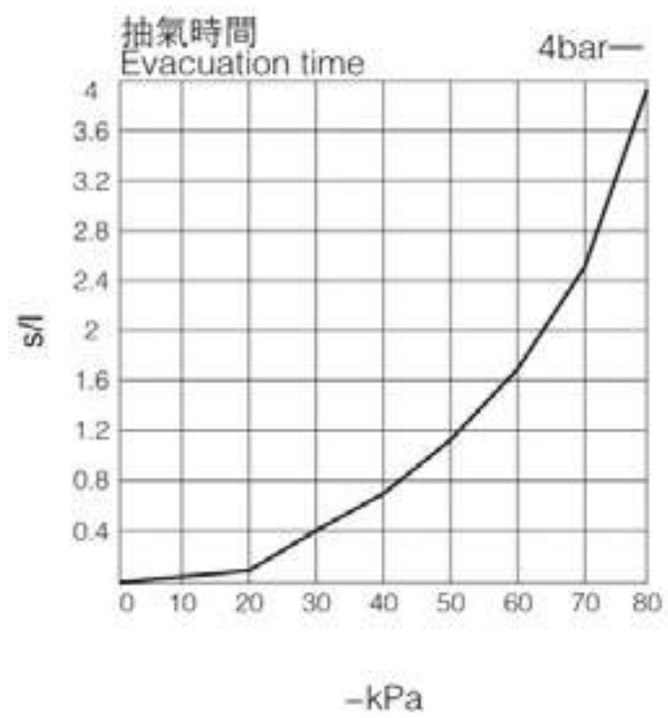
不同真空度(-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)									最大真空度 Max.vacuum level -kPa
		0	10	20	30	40	50	60	70	80	
4	63	100	65	26	20	18.5	13	8	5	2.8	84

不同真空度(-kPa)的抽氣時間(s/l)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)								最大真空度 Max.vacuum level -kPa
		10	20	30	40	50	60	70	80	
4	63	0.05	0.172	0.4	0.67	1.07	1.63	2.46	3.9	84





多級真空產生器
Multistage Vacuum Pump
FVZL212 系列 FVZL212 Series

產品特點 Features

◇ 採用上下重疊兩個3級擴壓管，節省流量和吸入流量都是FVZL112的兩倍
◇ 可帶真空壓力開關
◇ 可內置消聲器
◇ 可兩個方向安裝(底、側)

☆ Adopt 2 fluctuation overlap 3 levels rise pressure pipe,the flow rate saving and vacuum flow rate is 2 times of FVZL112
☆ Can be with vacuum pressure switch
☆ Built-in silencer
☆ Can be installed at 2 directions(bottom,side)

訂購碼 How to order

FVZL 2 12 □ - □ □
① ② ③ ④

① 噴嘴孔徑
Nozzle diameter

12	Φ1.2mm

② 排氣規格
Exhaust specifications

無記號 Nil	內置消聲器 Built-in silencer
P	通口排氣 Port exhaust

③ 真空壓力檢出部
Vacuum pressure sensor

無記號 Nil	無 None
GN	接頭 Rc1/8 Adaptor Rc1/8

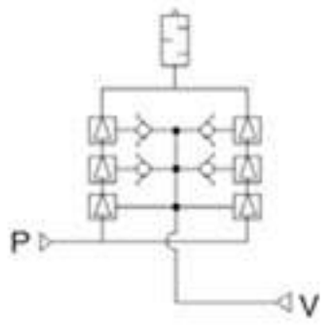
④ 真空用數字式壓力開關規格
Digital vacuum pressure switch specifications

RL5		
RL5C(-100~100kPa)		
RL5C-02	NPN 輸出 NPN Output	導綫長度2m Lead wire length 2m
RL5C-04	PNP 輸出 PNP Output	
RL5V(0~-100kPa)		
RL5V-02	NPN 輸出 NPN Output	導綫長度2m Lead wire length 2m
RL5V-04	PNP 輸出 PNP Output	

技術規格 Specifications

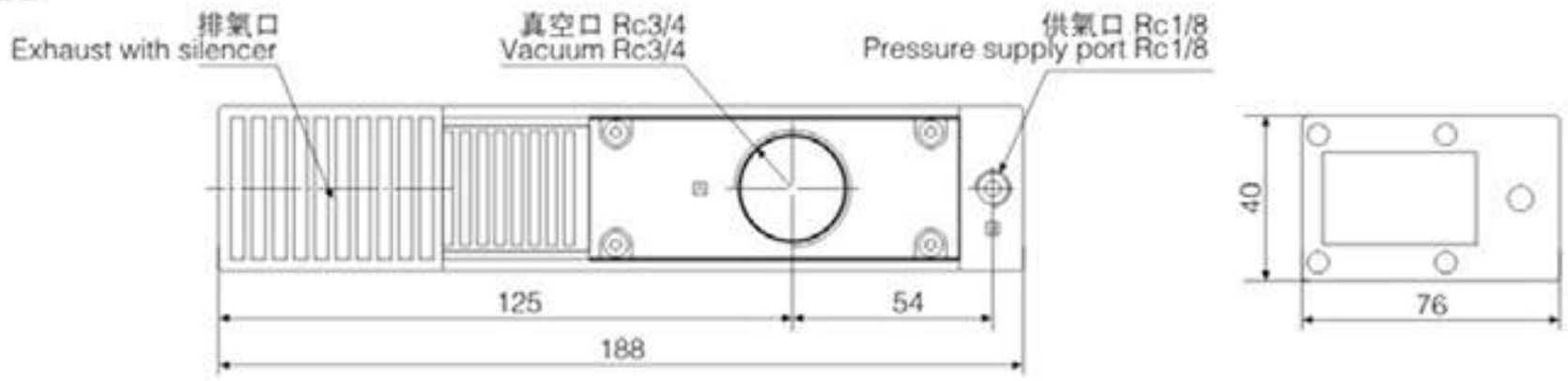
噴嘴孔徑	Nozzle diameter	Φ1.2mm×2
最大真空流量	Max.vacuum flow rate	200 l/min
空氣消耗量	Air consumption	126 l/min
最高真空度	Max.vacuum pressure	-84kPa
最高使用壓力	Max.operating pressure	7bar
供給壓力範圍	Supply pressure range	2~5bar
標準供給壓力	Standard supply pressure	4bar
使用溫度範圍	Operating temperature range	5~50℃

圖形符號 Symbol

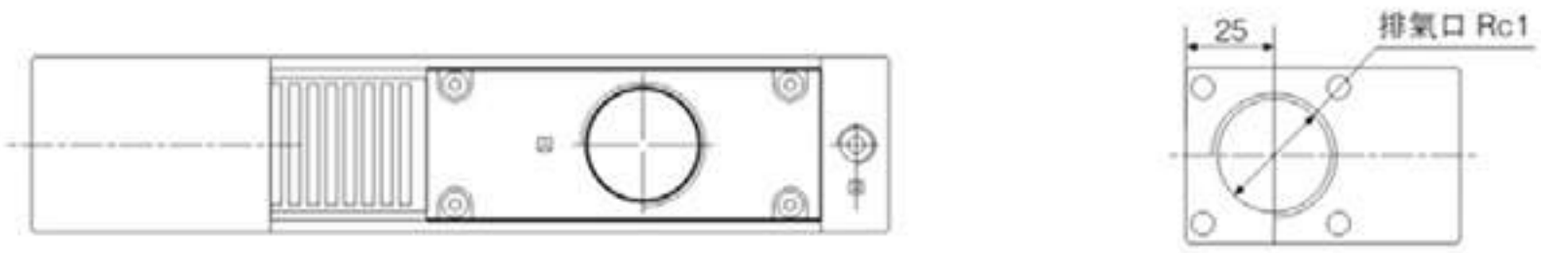


外形尺寸(mm) Dimensions(mm)

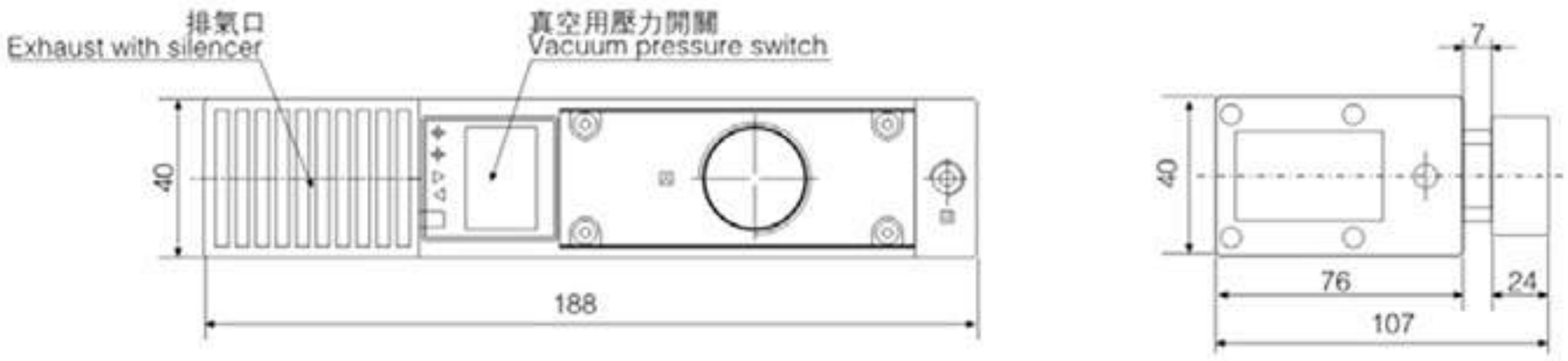
標準 Standard
FVL212



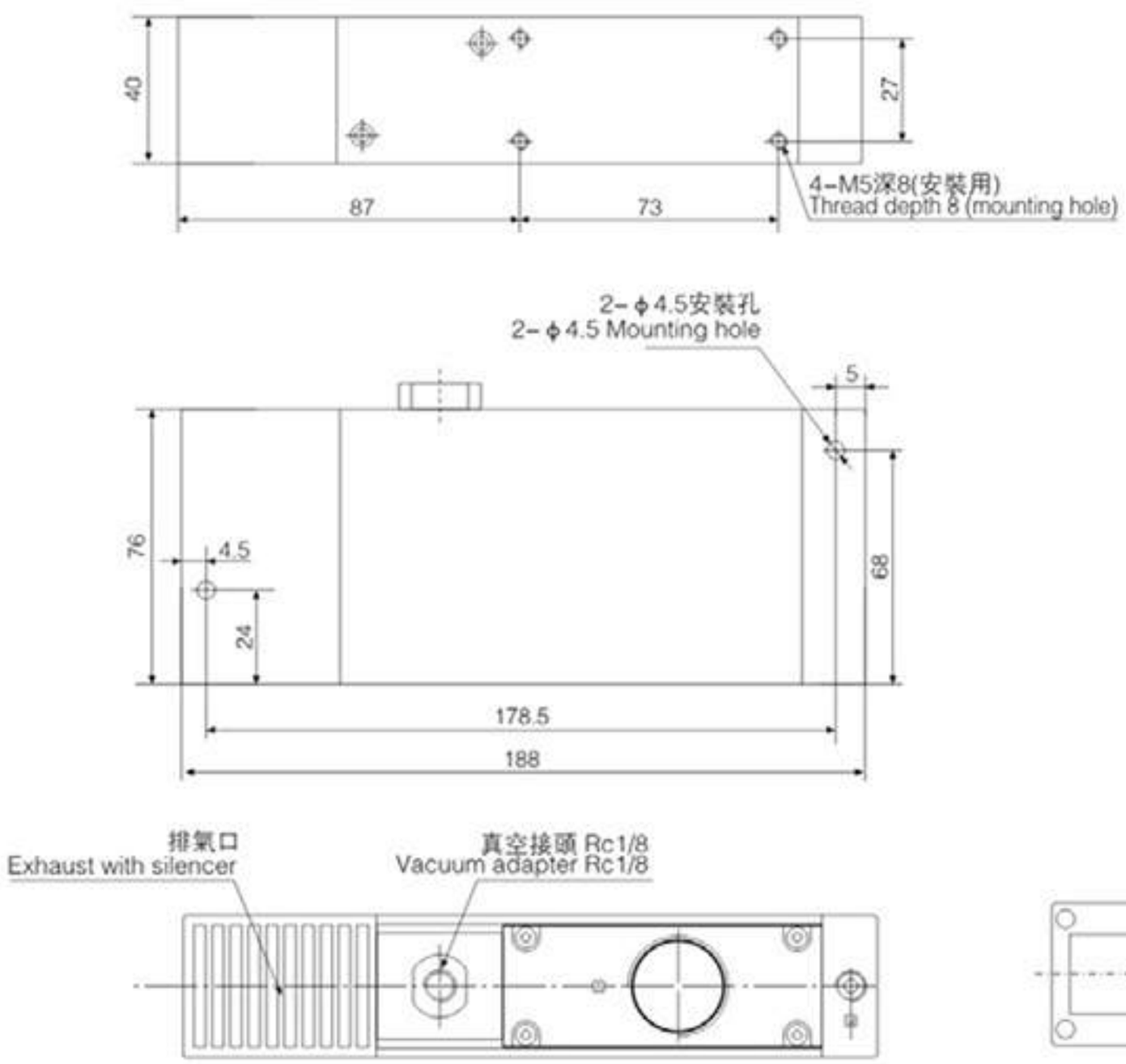
通口排氣 Port exhaust
FVZL212P



帶真空用數字式壓力開關 With digital vacuum pressure switch
FVZL212-GN-RL5



帶真空用接頭 With vacuum adapter
FVZL212-GN



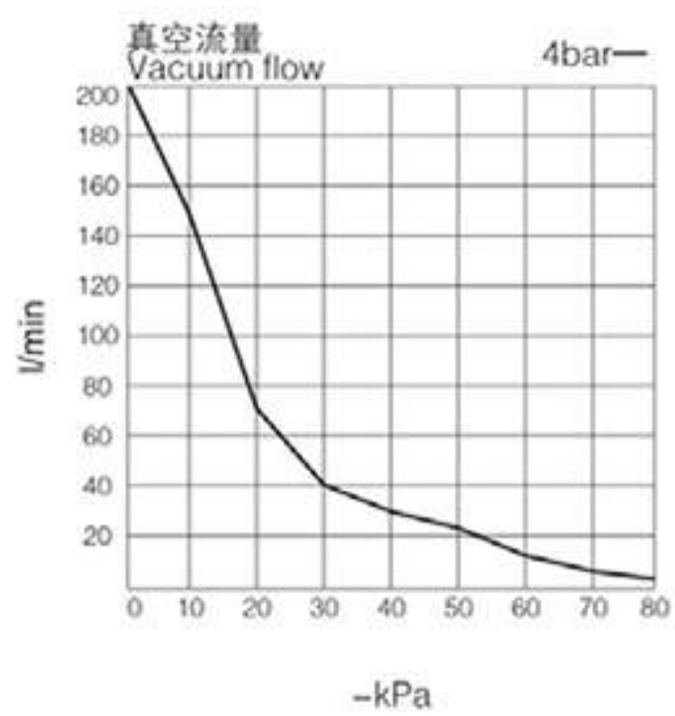
• FVZL212

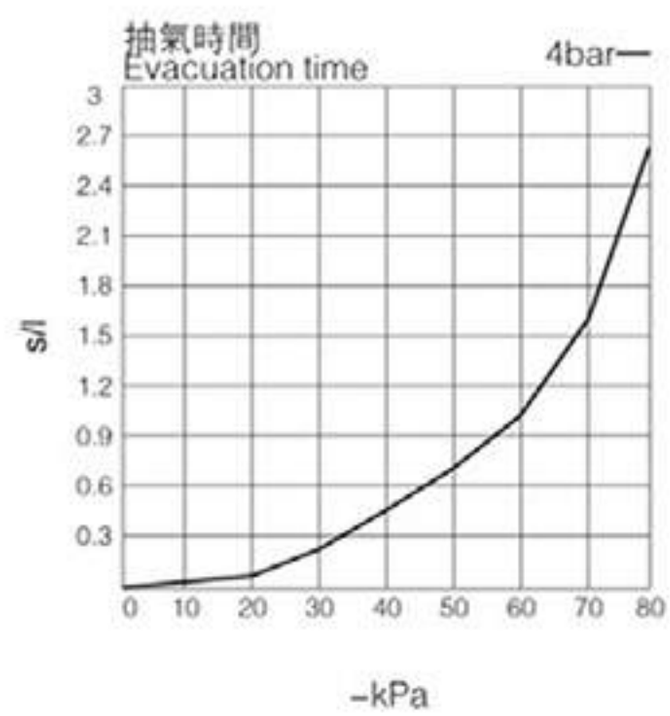
不同真空度(-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度 (-kPa)的真空流量(l/min) Vacuum flow (l/min) at different vacuum levels(-kPa)									最大真空度 Max.vacuum level -kPa
		0	10	20	30	40	50	60	70	80	
4	125	200	150	52	40	30	25	15	8	3	84

不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)

供氣壓力 Air supply pressure bar	空氣消耗量 Air consumption l/min	不同真空度(-kPa)的抽氣時間(s/l) Evacuation time (s/l) to reach different vacuum levels(-kPa)								最大真空度 Max.vacuum level -kPa
		10	20	30	40	50	60	70	80	
4	125	0.011	0.076	0.246	0.415	0.646	0.98	1.52	2.46	84





產品特點 Features

◇ 塑料外殼，重量輕、體積小
Plastic housing optimized for minimum weight and size
◇ 螺紋連接
Connections with thread holes
◇ 開口式消聲器
Open type silencer

應用 Applications

◇ 用於進料系統中
Use in feeder systems
◇ 搬運電子元器件
Handling of electronic components
◇ 用於和金屬板加工過程中分離工件的作業
Use in separation systems for plastic and sheet-metal machining
◇ 真空產生器組件結構，可控制單獨分散的吸盤
Construction of ejector blocks for decentralized individual control of suction pads

主要優勢 Advantages

◇ 適合快速運動系統中各工位需要真空的場合
Ideal for decentralized vacuum generation in highly dynamic processes
◇ 有各種輸出動力，滿足最小空氣消耗量的要求
Various power ratings for minimum air consumption
◇ 安裝簡便，節省空間
Space-saving and easy to install
◇ 噪音低，最低維護要求
Low noise levels and minimum maintenance requirements

結構 Construction

◇ 外殼由輕質耐衝擊塑料整體制成
◇ One-piece housing made of light, impact-resistant plastic
壓縮空氣和真空管路用螺紋孔連接
◇ Connection of compressed air and vacuum with threaded holes
◇ 外型設計流暢
Pleasing industrial design
可以用螺紋孔平置安裝或用安裝基座豎立安裝
Can be fixed horizontal with mounting holes or vertical with the base on a mounting plate

技術規格 Specifications

型號 Model	噴嘴直徑 Nozzle diameter (mm)	真空度 Vacuum level (-kPa)	最大真空流量 Max. vacuum flow [l/min]	空氣消耗量 Air consumpt. during evac. [l/min]*	吸取物件時噪音等級 Noise level workp. gripped [db(A)]
FSBP 10 SDA	1.0	-85	38	50	59
FSBP 15 SDA	1.5	-85	72	110	65

*長度爲不超過2m

型號 Model	空閑時噪音等級 Noise level free [db(A)]	工作壓力 Operating pressure [bar]	建議壓縮空氣軟管內徑mm Recomm. int. tube diameter compr. air [mm]*	建議真空軟管內徑mm Recomm. int. tube diameter vacuum [mm]*	重量g Weight [g]*	工作溫度 Operating temperature [℃]
FSBP 10 SDA	65	4.5	4	6	22.0	0 – 60
FSBP 15 SDA	72	4.5	4	6	22.0	0 – 60

*長度爲不超過2m
*For max. length 2m

訂購碼 How to Order

FSBP 15 G2 SDA
① ② ③

① 噴嘴直徑
Nozzle Size

10	ϕ1.0
15	ϕ1.5

②

螺紋孔 Thread hole	G2(見右表) G2(see the table)

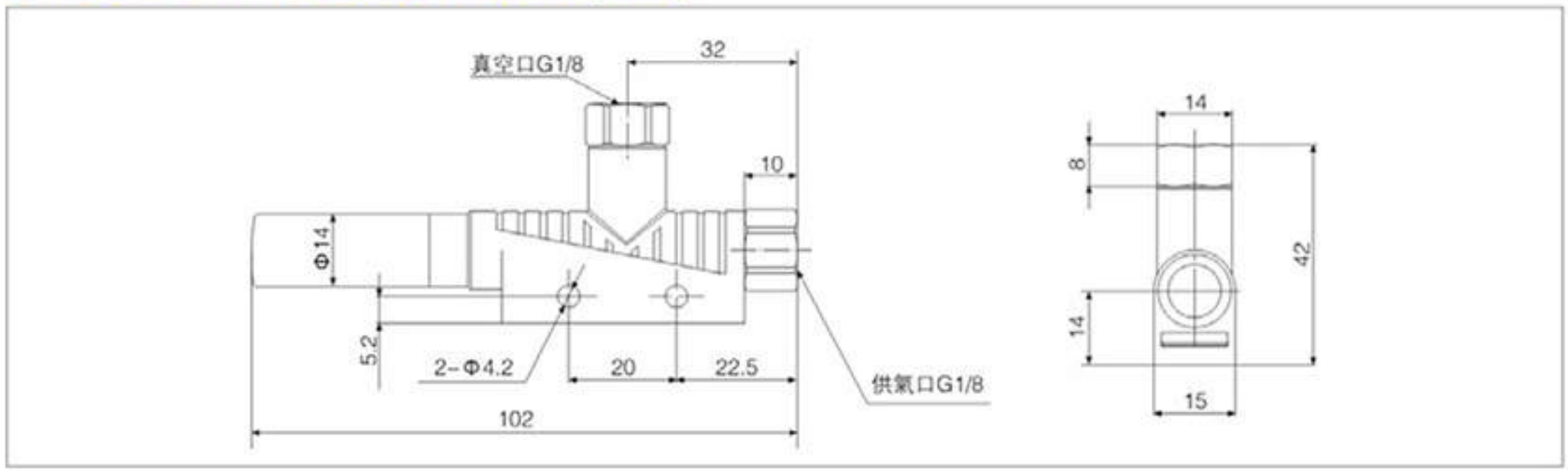
③

空白Blank	無記號Nil
SDA	帶軸向消聲器 With axial silencer

• 連接螺紋 Connection Thread

型號 Model	連接：快換連接/螺紋連接 Connection quick-action push-in coupling/Thread hole	
	SUP	VAC
FSBP 10 G2	G1/8	G1/8
FSBP 15 G2		

外形尺寸（mm）Dimensions (mm)



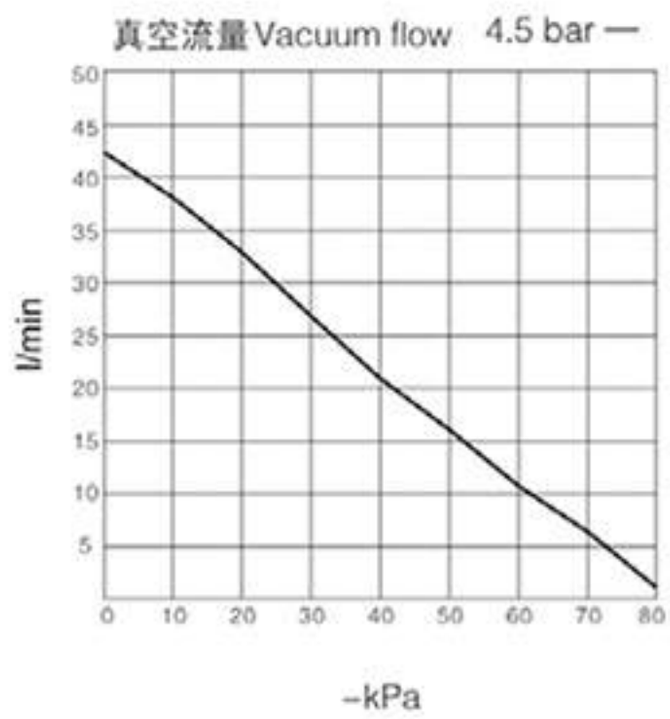
不同真空度(-kPa)的真空流量(l/min)Vacuum flow (l/min) at different vacuum levels(-kPa)

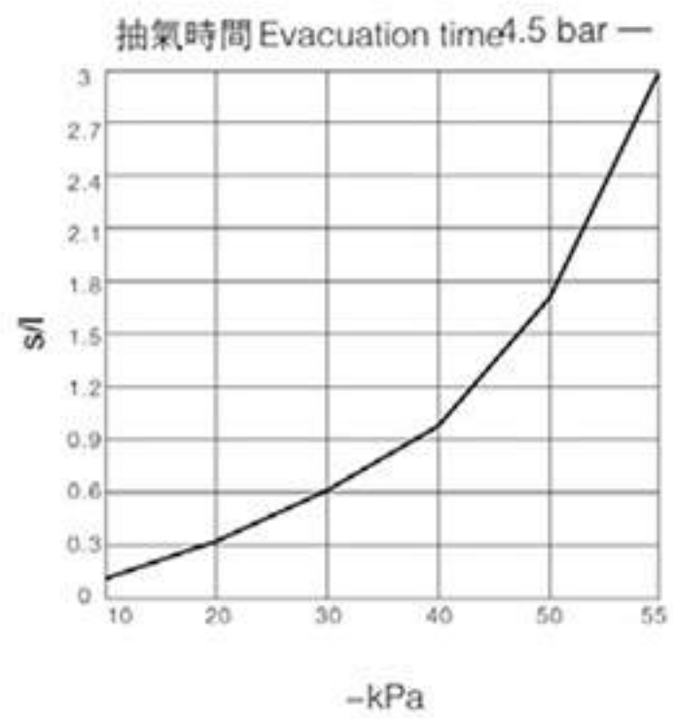
型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	0	10	20	30	40	50	60	70	80	最大真空度 Max.vacuum level
FSBP10	4.5 bar	50 l/min	38	30	26	23	18.6	16	11	7	1.8	-85kPa
FSBP15		110 l/min	72	60	52	44	36	30	24	15.5	2.2	

不同真空度(-kPa)的抽氣時間(s/l)Evacuation time (s/l) to reach different vacuum levels(-kPa)

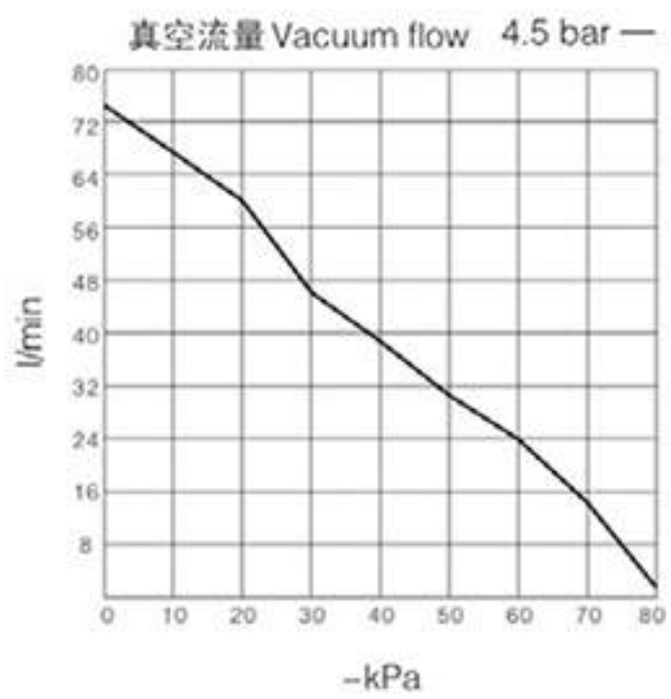
型號Model \ -kPa	供氣壓力 Air supply pressure	空氣消耗量 Air consumption	10	20	30	40	50	60	70	最大真空度 Max.vacuum level
FSBP10	4.5 bar	50 l/min	0.123	0.323	0.6	1	1.72	3	—	-85kPa
FSBP15		110 l/min	0.06	0.18	0.32	0.52	0.81	1.32	2.7	

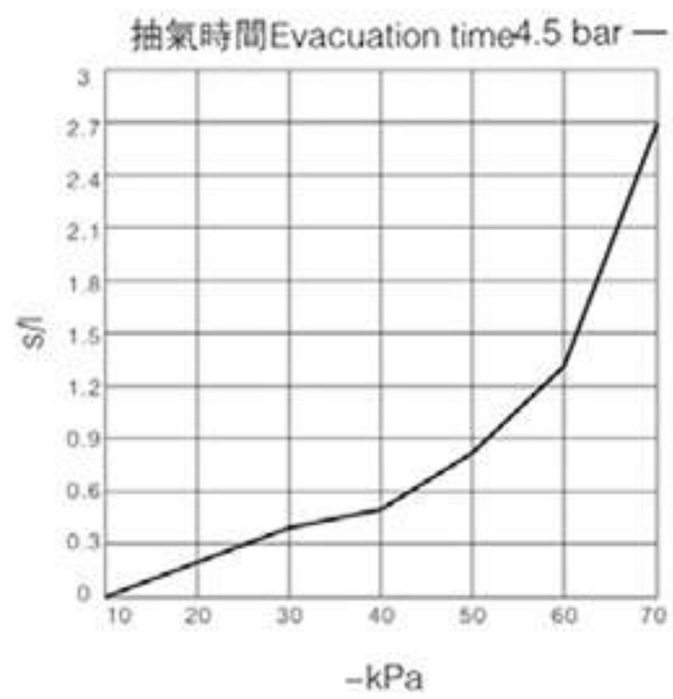
•FSBP10





•FSBP15



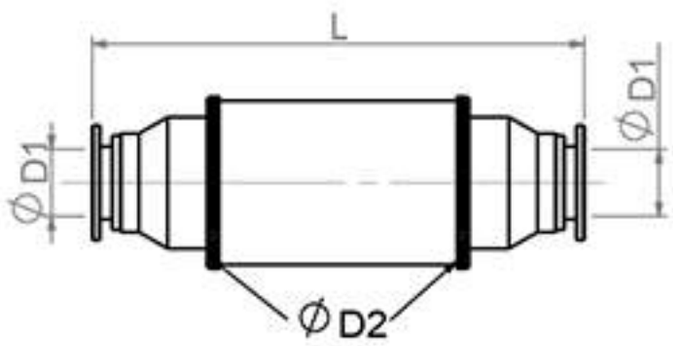


VFU 省力快插過濾器

VFUN飛速緊迫過濾器

外形尺寸

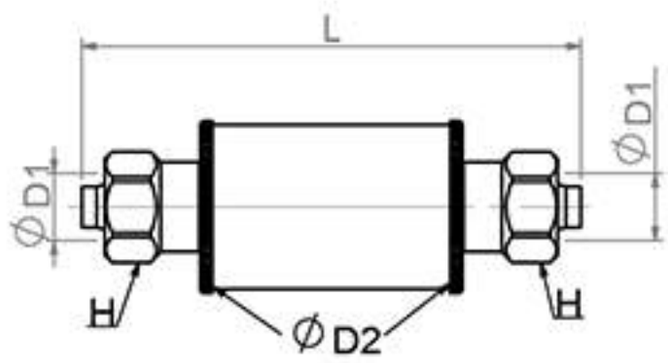
VFU



VFU 省力 (快插) 型過濾器

型號/尺寸	ØD1	ØD2	L
VFU04	4	16	60.5
VFU06	6	16	60.5
VFU08	8	21	59.5
VFU10	10	26	73.5
VFU12	12	26	73.5

VFUN



VFUN 飛速 (緊迫) 型過濾器

型號/尺寸	ØD1	ØD2	L	H
VFUN04	4	16	51	8H
VFUN06	6	16	55	10H
VFUN08	8	21	61.5	12H
VFUN10	10	26	73.5	14H
VFUN12	12	26	73.5	17H

產品特點 Features

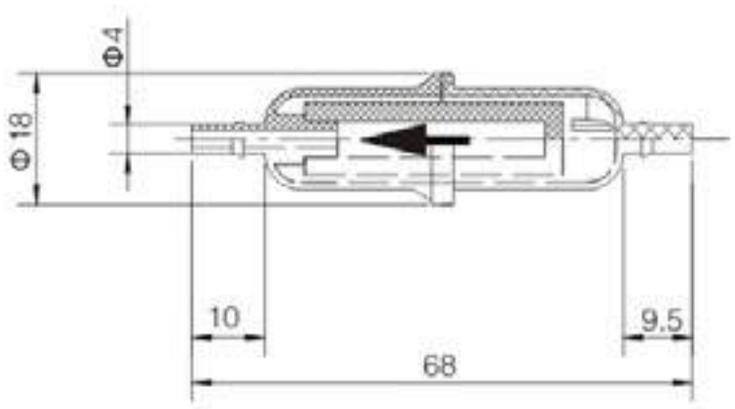
◇此過濾器提供一種經濟有效的線性真空過濾方法。
◇6毫米的管徑適合各種系統等別是線性真空產生器和組合式真空產生器。
◇管口尺寸爲3/8"的線性過濾器可以直接擰入迷你型真空產生器
以及其它使用3/8"BSP接口的真空發生器。
◇此線性過濾器安裝緊凑，體積小，尤其適用於迷你真空產生器
和中型多級真空產生器。

☆The 6mm diameter is suitable for all kinds of system especially linear pump and combined vacuum pump。
☆The 3/8"Version can be screwed directly into the Mini type vacuum pump as well as any other port using a 3/8"–BSP connection. when used with the mini pumps & mid multiple pumps it provides a very compact set up.

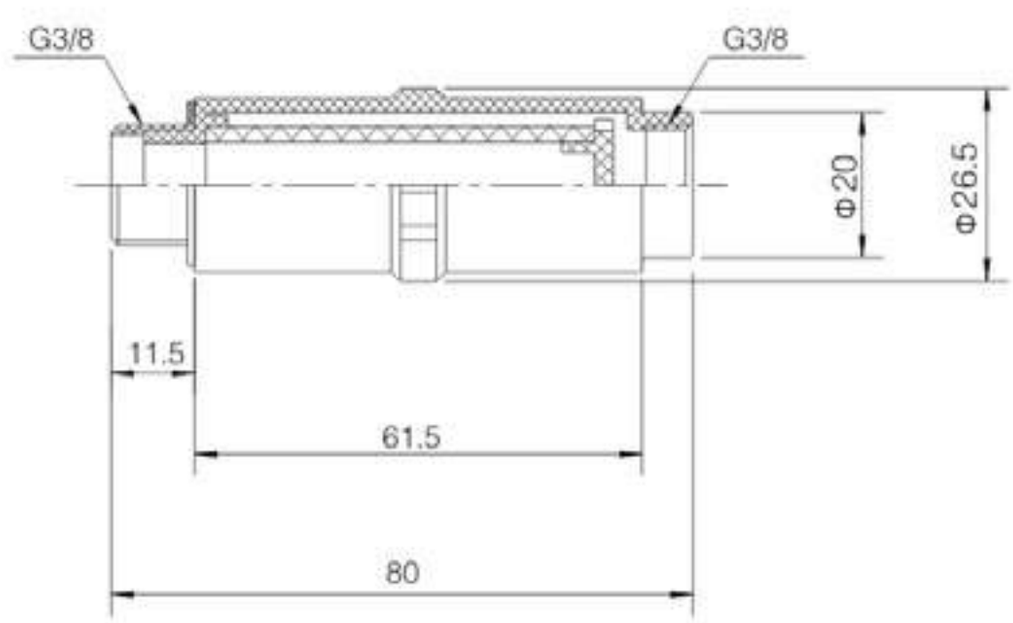
產品參數 Technical Parameters

型號 Model	管口尺寸 Port Size	內部容積cm^3 Internal volumecm^3	過濾精度μ Removal efficiency	材料 Material	工作溫度 Working temperature	重量g Weightg
FLF-06-IN	ϕ4	4	20	PP,PE	0℃~80℃	3.5
FLF-10-IN	G3/8	20	20	PP,PE	0℃~80℃	13

▼FLF-06-IN



▼FLF-10-IN



產品特點 Features

◇吸板墊磨損後可訊速進行更換，簡便快捷，成本低廉。
◇採用輕而堅韌的鋁材質。
◇結構緊固，重量輕，有不同長度供選 用；搬運系統成本低廉。
◇控制閥保護，免遭粉塵影響，便於清潔，操作安全，系統實用性强。
◇智能性真空產生裝置可達節能效果，使循環周期極其短暫。
◇僅用一個吸具就能自動堆垛、拆垛、分檢各種不同尺寸的貨物。
◇搬運不同材質工作，如：紙張、木材以及有孔或無孔的乾燥金屬板或塑料。
◇模塊化設計可將若干真實吸具組合起來，形成一個完整系統，滿足不同的搬運要求。

Features

☆Robust, variable-length aluminium beam for short cycle times and low-cost handling systems
☆Quickly replaceable sealing mat with flexible hole spacing for cheap replacement and quick adaptation to varying workpiece dimensions
☆Dirt-protected valve technology for reliable operation and high system availability
☆It is used in almost all automated processes.
☆With integrated vacuum pump selected to match the individual application.

技術規格 Specifications

最大真空度Max.vacuum level	-80kPa	-80kPa
供氣壓力Air supply pressure	4~6bar, 最大7bar	4~6bar, Max.7bar
供氣類型Air supply type	乾燥的壓縮空氣	Dry compressed air
工作溫度Working temperature	-20℃~+80℃	-20℃~+80℃
噪音Noise level	55~65bBA	55~65bBA

產品參數 Technical Parameters

型號 Model	最大真空度-kPa Max.vacuum level -kPa	最大真空流量l/min Max.vacuum flow l/min	空氣消耗量l/min Air consumption l/min	40%吸附時傳送力N Holding force at 40% sealing(N)	80%吸附時傳送力N Holding force at 80% sealing(N)	吸板墊厚度mm Suction plate thickness mm
FXC120×60	80	120	55	54	108	10
FXC120×300	80	580	215	370	740	20
FXC120×400	80	580	215	500	1000	20
FXC120×600	80	580	215	730	1460	20
FXC120×800	80	800	320	982	1964	20
FXC120×1000	80	940	390	1296	2592	20
FXC120×1200	80	940	390	1500	3000	20

訂購碼 How to order

FXC120×300 - S - EK - F
① ② ③ ④

① 型號 Model

FXC120×60
FXC120×300
FXC120×400
FXC120×600
FXC120×800
FXC120×1000
FXC120×1200

② 內孔 Inner hole

S 小孔S Small hole
M 中孔M Medium hole
L 大孔L big hole

* 其它特殊定制

③節能閥 Energy-saving valve

EG	流量型(帶過濾器) Flow type
EK	單向閥型(帶過濾器) Check valve type

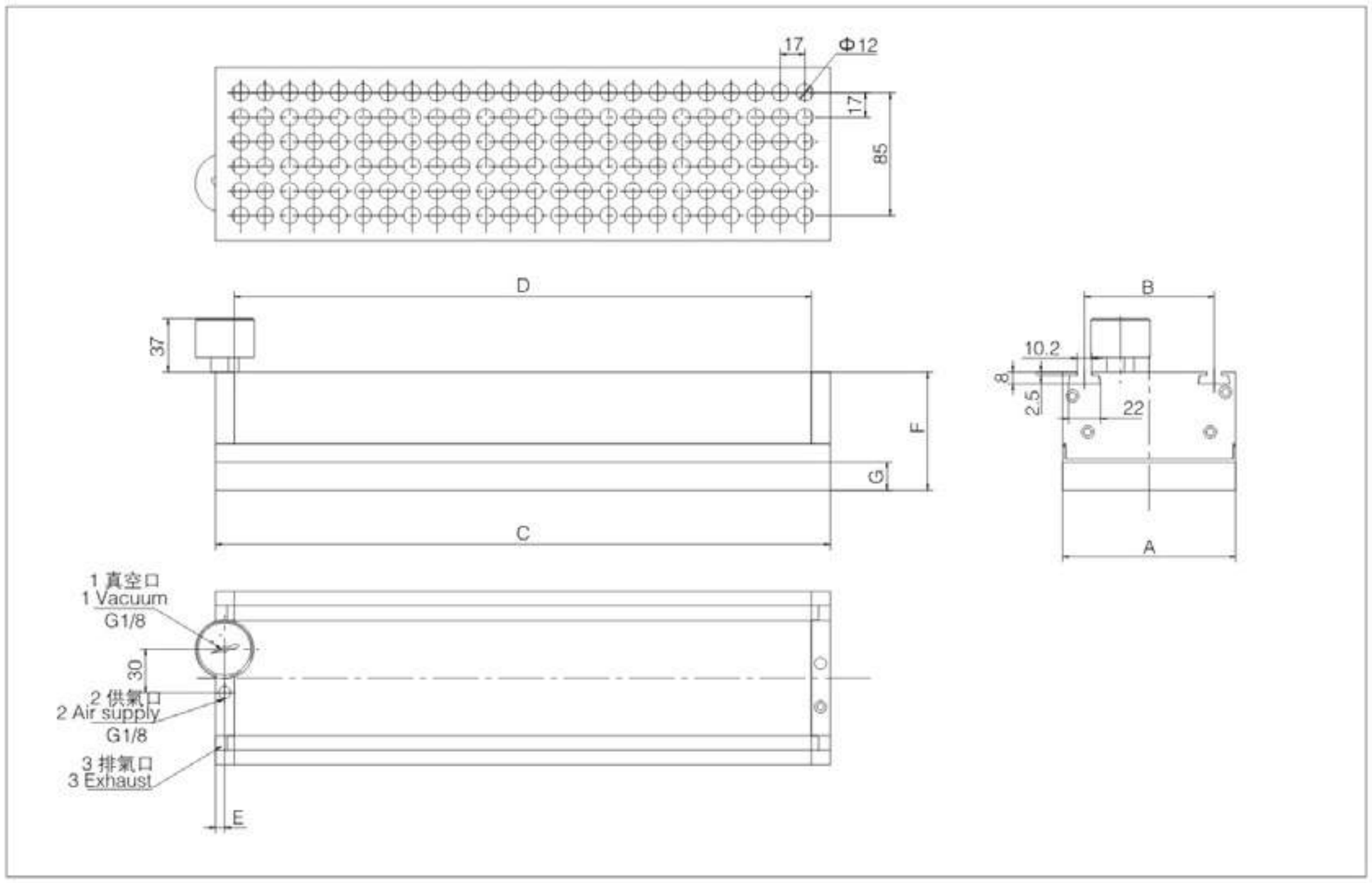
* 其它特殊定制 Other special customized

④

無 No	標準型 Standard
F	帶過濾型 With filter

* 其它特殊定制
* Other special customized

外形尺寸(mm) Dimensions (mm)



型號 Model	外形尺寸mm Dimensions(mm)						
	A	B	C	D	E	F	G
FXC120×60	120	90	94	68	6.5	82	20
FXC120×300	120	90	334	308	6.5	82	20
FXC120×400	120	90	434	408	6.5	82	20
FXC120×600	120	90	634	608	6.5	82	20
FXC120×800	120	90	834	808	6.5	82	20
FXC120×1000	120	90	1034	1008	6.5	82	20
FXC120×1200	120	90	1234	1208	6.5	82	20

應用實例 Applications

FONRAY®

芳銳國際有限公司
FONRAY ENTERPRISE CO.,LTD.
總公司：台中市大里區瑞城一街 125 巷 12 號
電話：04 2496 3308 傳真：04 2496 3328
分公司：台南市永康區富強路一段 41 號
電話：06 207 3377 傳真：06 207 3232
E-MAIL：fonray@fonray.com
www.fonray.com