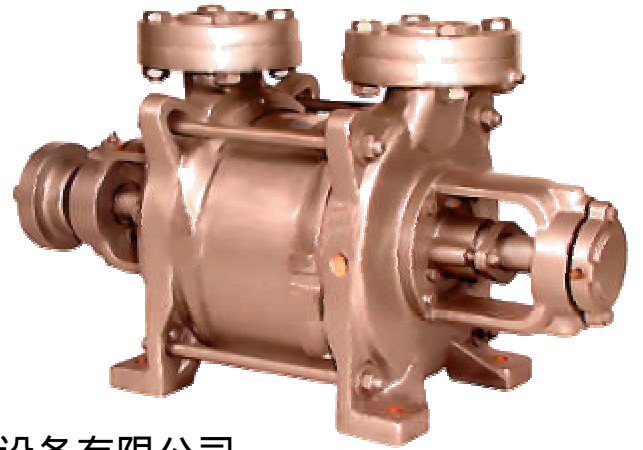


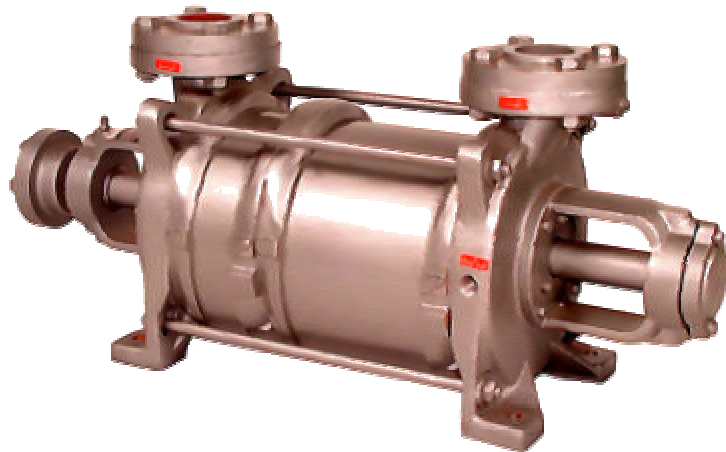


三錦水封式真空泵浦

CAT-NO-20111
ISO-9001 認可登錄



上海伊旋机械设备有限公司
电话：021-61247861



SUNNY-KING

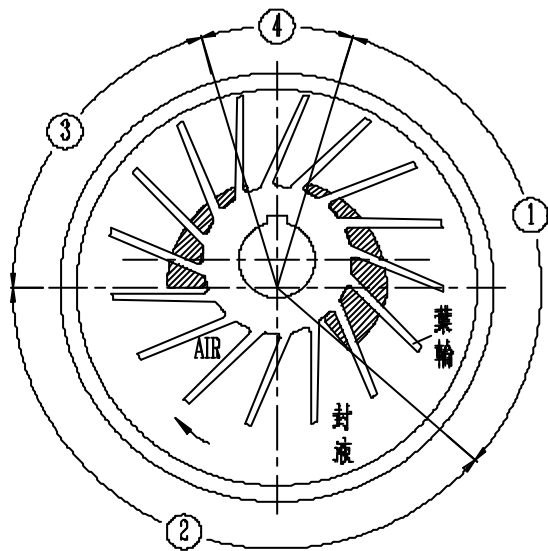
WATER RING VACUUM PUMP

特點：

- 保養容易：僅一轉動葉輪，無金屬摩擦面，故內部不須潤滑。
- 排氣量大：氣體吸入後被封液冷卻，因此其排氣量較一般容積式泵浦大。
- 出口溫度低：壓縮熱被封液吸收，故排氣溫度低。
- 振動小：不須昂貴之基礎裝置。
- 近似等溫壓縮：對易爆氣體排氣安全性特高。
- 適用任何氣體：以水或其它液體作封液，適用於含水份、蒸氣、微粒固體及腐蝕性氣體之真空排氣。
- 無脈動及噪音：真空度穩定，出口加裝消音器，噪音可完全消除。
- 出廠檢驗：所有三錦泵浦，出廠前皆經嚴格檢驗，以符合性能要求。
- 修護容易：使用超過年限時，葉輪與風座之間隙若磨損過大，在正常狀況下，只須將迫緊換薄，重新調整其間隙。

操作原理：

本型真空泵浦乃利用液封活塞原理來操作。由一系列圓弧形葉片組合而成葉輪，與充滿液體之機殼偏心組合而成。由於葉輪轉動，液體受離心力之作用，在機殼內形成一液封環，使葉片間產生空間而吸入氣體，吸滿氣體後，其空間又逐漸縮小，至充滿液體，而排出氣體。如此週而復始，猶如一活塞。此即液封活塞原理。

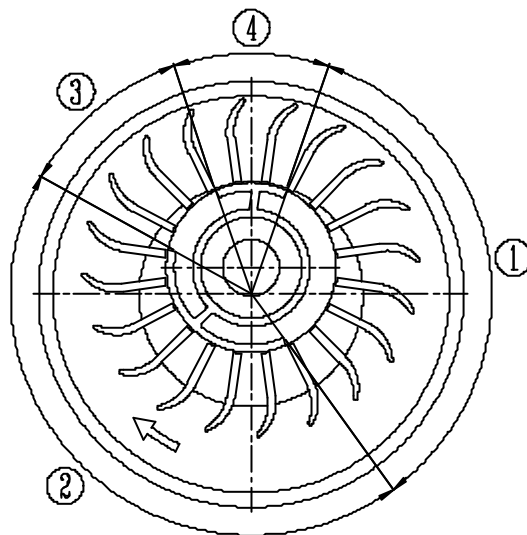


SPECIAL FEATURES :

- Easy Maintenance : There is only one moving part. Lubrication oil is not necessary, since no metal parts touch mutually.
- Larger Volume : Hot gas and saturated vapor can be contracted and condensed by the liquid compression, and therefore the volume is larger than ordinary constant volume pump.
- Low Discharge Temperature : The compression heat can be removed by the seal liquid. Thus it has the low discharge gas temperature.
- Less Vibration : It is not necessary for expensive foundations.
- Approximate Isothermal Compression : It is more safe for discharge combustible or explosive gas.
- No Problems With Liquid : It can handle kinds of liquid along with air or gas, and foreign matter intermittently, including abrasive carry over, without interrupting.
- Quiet Operation : The exhaust noise of pump can be reduced substantially by using discharge silencer.
- Easily Adjusted Clearance : If wear should occur over the year from periodic carry over, the clearances are simply readjusted by removal of gaskets.
- Successful operation test before shipment.

HOW IT WORKS

The pump consists essentially of a rotor that revolves within a casing partially filled with liquid, usually water. The rotor, with its curved blades forming a Series of buckets, is mounted eccentric to the axis of the casing. Thus, as the rotor turns, centrifugal force on the liquid causes the buckets to empty and fill, empty and fill continually. This, basically, is the action that creates pressure or vacuum. This is the liquid principle.



1. 吸入部：空氣吸入室 INLET PORT-DRAWS AIR INTO ROTOR CHAMBERS
2. 壓縮部：氣室內的空氣被壓縮 COMPRESSION PORT-COMPRESSES AIR IN ROTOR CHAMBERS
3. 排出部：排出空氣 DISCHARGE PORT AIR ESCAPES TO ATMOSPHERE
4. 密封部：此部使吸入部與排出部之空氣隔離，真空得以產生。 SEAL PORT.

用途 APPLICATIONS :

- 除氣 Deaerating
- 鑄造 Moulding
- 蒸餾 Cooking
- 汽提 Gas Stripping
- 熱壓反應 Autoclaves
- 擠製機排氣 Extruder Venting
- 拾取及抽送 Pick up & conveying
- 成型 Forming
- 蒸發 Evaporation
- 過濾 Filtering
- 容器充填 Container Filling
- 纖維凝結 Fiber Setting
- 含浸 Impregnation
- 乾燥 Drying
- 萃取 Extraction
- 凍結乾燥 Freeze Drying
- 溶劑回收 Solvent Recovery
- 夾持 Chucking
- 脫水 Dehydration
- 起動注水 Priming
- 汽化器試驗 Carbureter Testing
- 冷凝器排氣 Condenser Exhausting

單段式性能表

PERFORMANCE OF SINGLE-STAGE VACUUM PUMP

VACUUM PUMP TYPE 型式	SPEED 轉數 RPM	POWER 馬力 HP	SUCTION CAPACITY AT EACH VACUUM 各真空下之排氣量 m ³ /min				CONNECTIONS		SEAL WATER QUANTITY 液封水量 l/min
			400mmHgG (360 Torr)	500mmHgG (260 Torr)	600mmHgG (160 Torr)	650mmHgG (110 Torr)	INLET 入口徑 inch	OUTLET 出口徑 inch	
SWP-1/2	3500	0.5	0.14	0.14	0.13	0.11	1	1	6
SWP-1	3500	1	0.30	0.30	0.27	0.24			7
SWP-2	3500	2	0.61	0.60	0.54	0.49			8
SWK-3	1450	3	0.77	0.77	0.74	0.69	2	2	7
SWK-3	1750	3	0.92	0.92	0.88	0.84			8
SW-3	1750	3	0.91	0.90	0.80	0.64			16
SWK-5	1450	5	1.68	1.71	1.69	1.82			8
SWK-5	1750	5	2.02	2.05	2.03	2.18			9
SW-5	1750	5	1.92	1.90	1.70	1.36			18
SW-7	1750	7.5	2.90	2.80	2.36	1.70			18
SW-8	1750	10	3.68	3.64	3.16	2.60	2	2	20
SW-11A	1450	10	4.17	4.13	3.60	2.90	2.5	2.5	27
SW-11A	1750	15	5.00	4.95	4.30	3.40	2.5	2.5	29
SW-201	1280	15	6.51	6.46	5.69	4.60	3x2	2x2	31
SW-202	1470	20	7.90	7.82	6.95	5.85			35
SW-203L	1600	25	9.20	9.10	7.92	6.63			40
SW-401L	1150	25	10.8	10.6	9.30	8.00	3x2	2x2	40
SW-401	1300	30	12.1	11.9	10.6	9.10			42
SW-402	1500	40	15.0	14.7	13.5	11.0			46
SW-501L	780	30	14.6	14.3	13.0	10.5	4x2	3x2	44
SW-501	880	40	18.3	18.1	16.1	14.3			48
SW-502	970	50	21.3	21.0	18.5	16.4			52
SW-503	1120	60	24.1	23.8	21.4	19.4	5x2	5x2	56
SW-801	690	50	23.8	23.3	22.2	20.1			50
SW-802L	770	60	26.7	26.3	24.7	22.4			60
SW-802	880	75	30.3	30.2	28.7	27.0	5x2	5x2	75
SW-1250L	530	60	30.4	30.1	27.8	23.8			80
SW-1250	590	75	32.9	32.5	30.5	26.5			95
SW-1251	700	100	41.2	40.7	37.0	31.5	5x2	5x2	110
SW-1252	800	125	47.6	46.8	42.1	37.2			125
SW-1301L	500	75	36.7	36.4	33.7	30.7			6x2
SW-1301	590	100	46.5	45.7	41.0	36.1	115		
SW-1302	680	125	53.3	52.4	47.7	41.6	125		
SW-1303	750	150	60.0	59.2	53.8	45.0	6x2	6x2	135
SW-1501L	530	100	50.3	49.5	44.0	39.1			115
SW-1501	600	125	58.8	58.0	52.6	43.8			130
SW-1502	670	150	66.2	65.4	60.1	51.6	6x2	6x2	150
SW-1503	730	175	72.8	71.9	66.7	57.4			175
SW-1751	455	150	75.9	75.0	69.1	60.1			8x2
SW-1752	500	175	84.2	82.6	72.1	62.5	185		
SW-1753	540	200	91.6	90.6	82.6	67.6	205		
SW-1754	620	250	106.5	105.5	97.5	83.5	240		

● 三錦水封式真空泵浦試驗條件如下：

The performance of the Sunny King SW Type Vacuum Pump is indicated on the basis as follow：

入口空氣溫度 (Suction Air Temperature) : 20⁰C
 出口壓力 (Discharge Pressure) : 1 atm
 液封水溫 (Seal Water Temperature) : 15⁰C
 相對濕度 (Relative Humidity) : 75%

- 不鏽鋼製作之泵浦，排氣量約降低 10%
 In case of a stainless steel made pump, suction capacities are decreased by about 10%.

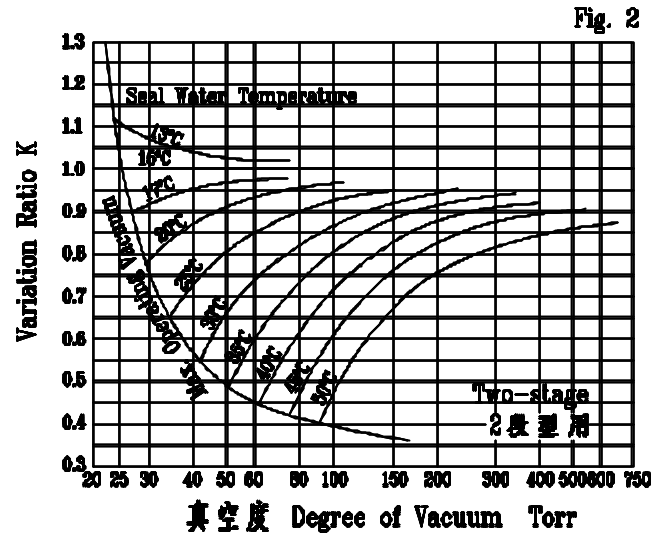
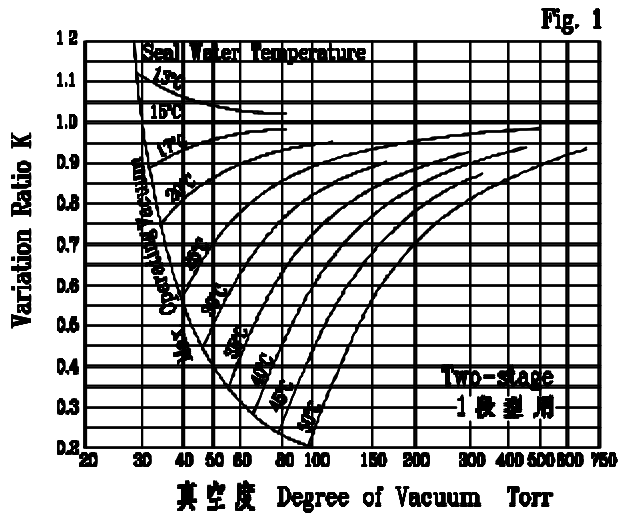
- 在 400mmHgG 以下的排氣量，大約和 400 mmHgG 相等。
 The suction capacity at less than 400 mmHgG in vacuum is almost the same as that at 400 mmHgG in vacuum.
- 表列的性能誤差約為±5%左右。
 The tolerance of the performance data is ±5%.
- 單段式真空最高可達 60Torr。
 The ultimate vacuum of One-stage type reaches as high as 60 Torr.
- 雙段式最高真空可達 735mmHgG (25Torr)，理想操作範圍在 660~720mmHgG 之間。
 The ultimate vacuum of SWV Type reaches as high as 735 mmHgG. The ideal operating range falls in between vacuum of 660 and 720 mmHgG.

排氣量之變化：

水封式真空泵浦因使用水為封液，水溫越高，蒸汽壓愈高。在較高真空狀況下，水將迅速蒸發，而使排氣量減少。故若液封水溫不是 15 時，請依圖一、二校正實際排氣量。超過最大操作真空時，將會產生空蝕現象及噪音震動，請避免使用。

PERFORMANCE VARIATION

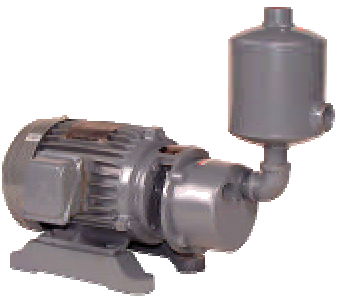
This vacuum pump is of water seal type and spaces in the pump chamber are filled with vapor. The performance of high vacuum is, therefore, influenced by the pressure of vapor which is related to the temperatures of suction air and seal water. When the sealing water temperature is over 15 , as shown in Fig.1, 2 the suction capacity decreases the more as the temperature raises.



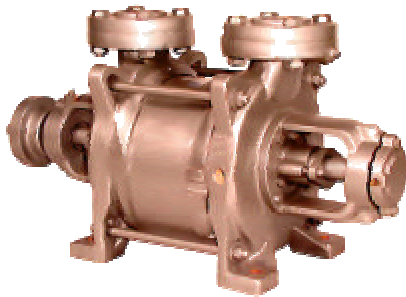
雙段式性能表

PERFORMANCE OF TWO-STAGE VACUUM PUMP

VACUUM PUMP TYPE 型式	SPEED 轉數 RPM	POWER 馬力 HP	SUCTION CAPACITY AT EACH VACUUM 各真空下之排氣量 m ³ /min				CONNECTIONS		SEAL WATER QUANTITY 液封水量 l/min
			660mmHgG (100 Torr)	680mmHgG (80 Torr)	700mmHgG (60 Torr)	720mmHgG (40 Torr)	INLET 入口徑 inch	OUTLET 出口徑 inch	
SWH-2	3500	2	0.39	0.38	0.37	0.30	1	1	5
SWH-3	3500	3	0.78	0.77	0.74	0.62			8
SWV-5	1750	5	1.66	1.68	1.68	1.30	2	2	20
SWV-7	1750	7.5	2.75	2.77	2.70	1.96			20
SWV-8	1750	10	3.32	3.36	3.28	2.30			20
SWV-11A	1450	10	3.60	3.62	3.42	2.60	2.5	2.5	28
SWV-11A	1750	15	4.50	4.50	4.17	3.20	2.5	2.5	28
SWV-211L	1050	10	4.03	4.06	3.96	3.60	3	3	35
SWV-211	1280	15	5.50	5.54	5.40	4.51			35
SWV-212	1470	20	6.30	6.37	6.09	5.50			35
SWV-410	1050	20	7.92	7.98	7.78	6.20	3	3	45
SWV-411L	1200	25	9.17	9.23	9.00	6.95			45
SWV-411	1350	30	9.96	10.1	9.84	8.15			45
SWV-501L	850	30	11.9	12.0	11.7	9.20	4	4	80
SWV-501	1050	40	13.3	13.4	13.1	10.4			80
SWV-502	1200	50	15.0	15.2	14.5	11.8			80
SWV-600	880	40	15.1	15.1	14.8	13.0	4	4	90
SWV-601	1000	50	17.0	17.0	16.2	14.3			90
SWV-602	1150	60	19.1	19.1	18.0	16.0			90
SWV-750	740	40	15.8	15.8	15.4	13.6	4	4	100
SWV-751	850	50	18.1	16.8	16.0	15.1			100
SWV-752L	950	60	19.8	20.0	19.1	17.0			100
SWV-1001L	630	60	26.6	26.6	25.9	23.0	6	6	110
SWV-1001	750	75	31.7	31.7	30.8	27.2			110
SWV-1002	840	100	35.0	35.0	33.9	30.0			110
SWV-1250	630	75	35.0	35.0	34.5	32.3	6	6	120
SWV-1251	750	100	41.5	41.7	40.8	37.0			120
SWV-1252	840	125	46.4	46.2	45.0	40.5			120
SWV-1253	900	150	49.5	49.3	47.3	42.1			120



SWP 1/2 ~ SWP - 2



SW - 3 ~ SW - 8



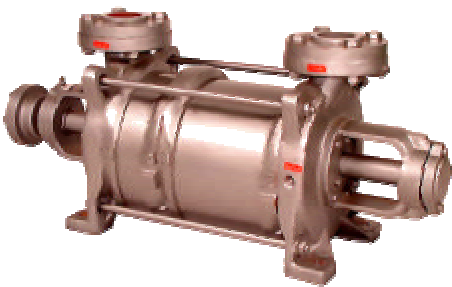
SW - 201 ~ SW - 1754



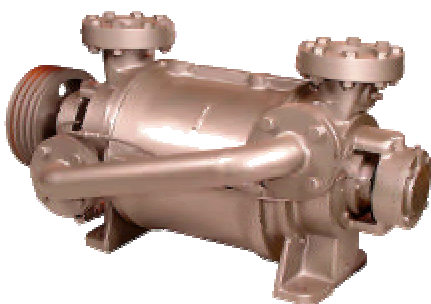
SWK - 3 ~ SWK - 5



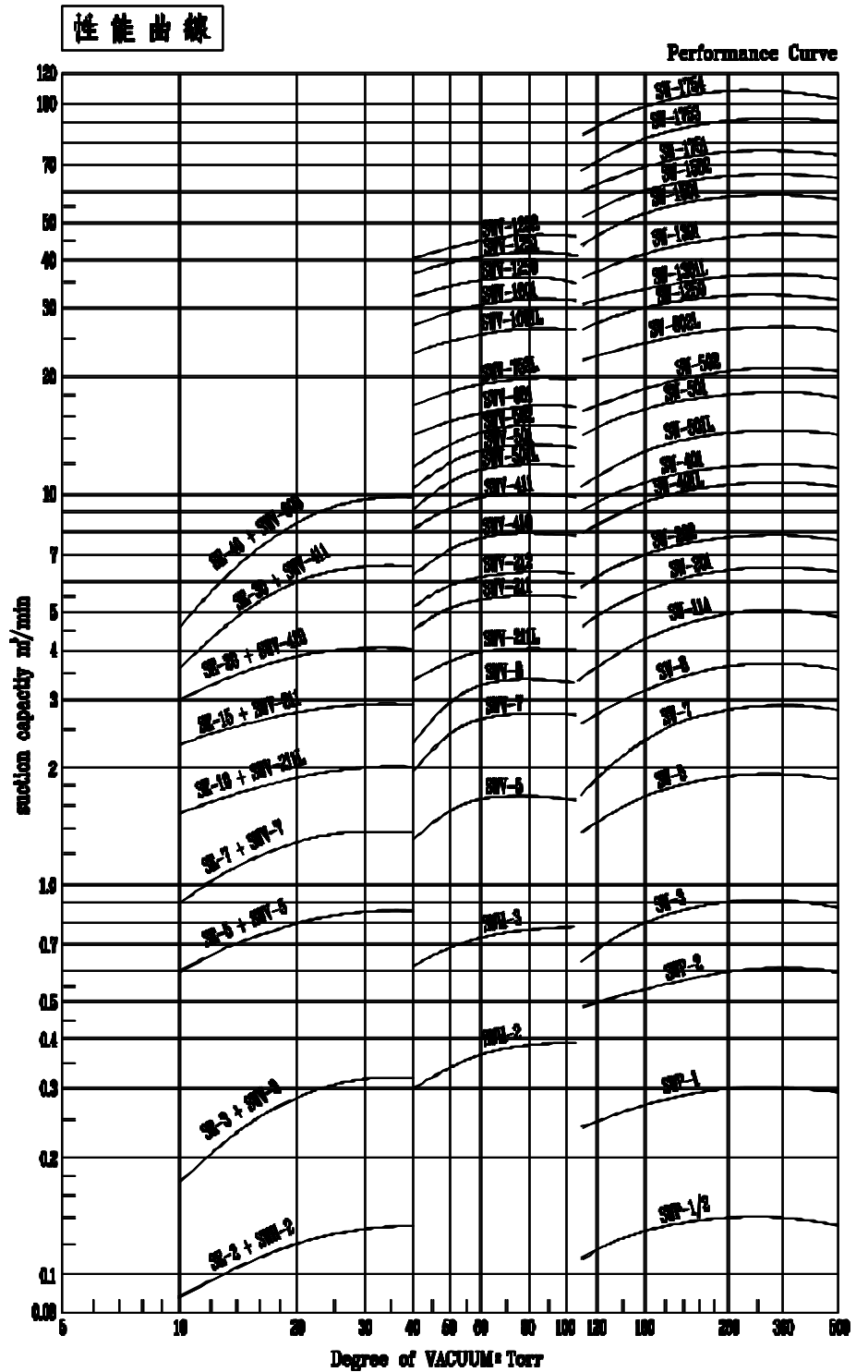
SWH - 2 ~ SWH - 3



SWV - 5 ~ SWV - 8



SWV - 211 ~ SWV - 1253



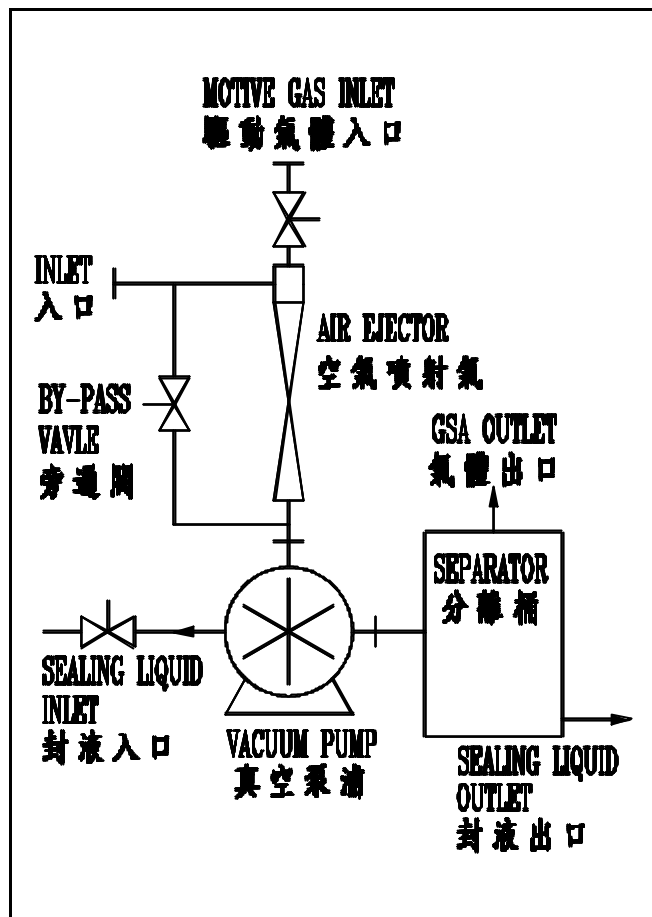
水封式真空泵浦加空氣噴射器：

特點：

1. 最高真空可達 2~6 Torr
2. 理想操作真空在 10~40 Torr 之間
3. 不須耗用其他動力，其動力來源為大氣或吸入之氣體。
4. 操作安靜，泵浦達最高真空無流量時，泵浦也不會因空蝕而產生噪音或損壞泵浦。

LIQUID RING VACUUM PUMP WITH AIR EJECTOR

1. The arrived vacuum degree is 2~6 Torr
2. The ideal operating range falls in between vacuum of 10~40Torr
3. No necessary to apply other power. The power source is according to the atmospheric air or the sucked gas.
4. Quiet operation, even if the suction capacity reaches null, no damage is caused on pump by cavitation.



三錦水封式壓縮機

三錦水封式壓縮機(SW 型)為低壓力大容量之壓縮機。使用壓力於 1kg/cm^2 ~ 1.4kg/cm^2 (小型)以內，容量在 0.5 ~ 85 m^3/min 。

逾越上述性能範圍，可專案設計，訂製。

SUNNY KING WATER RING COMPRESSOR

The Sunny King type SW units are characteristically high-volume, low-pressure compressors, when selecting a Sunny King type SW Compressor, first step is to make sure your pressure requirements do not exceed 1kg/cm^2 -or 1.4kg/cm^2 in smaller capacities. Then check whether capacity requirements fall inside the 0.5 to 85 m^3/min range. Over the above performance range, we are able to design by case for your special requirement.

性能表

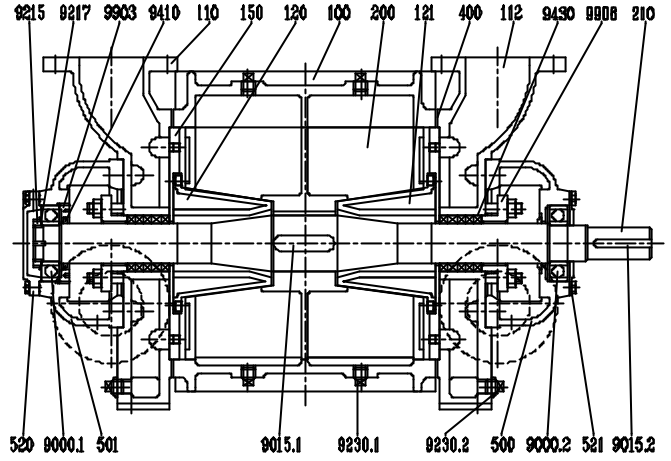
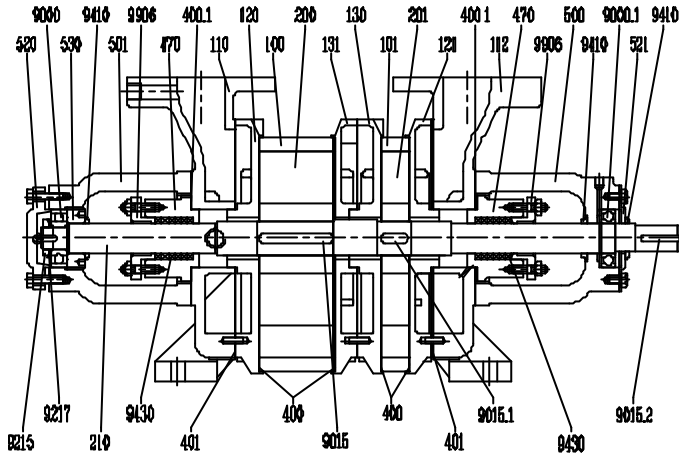
PERFORMANCE OF TYPE SW COMPRESSOR

COM-PRESSOR TYPE 型式	SPEED 轉速 rpm	CAPACITY & SHAFT POWER AT EACH DISCHARGE PRESSURE 各排出壓力下之排氣量 (m^3/min) 軸馬力(HP)												CONNECTIONS		SEAL WATER 液封水量 l/min
		0.2 kg/cm^2		0.4 kg/cm^2		0.6 kg/cm^2		0.8 kg/cm^2		1.0 kg/cm^2		1.2 kg/cm^2		INLET 入口徑 INCH	OUTLET 出口徑 INCH	
		Q	L	Q	L	Q	L	Q	L	Q	L	Q	L			
SW-3	1750	0.82	2.4	0.80	2.6	0.78	2.9	0.76	3.3	0.75	3.7	0.70	4.6	2	2	7
SW-5	1750	1.72	4.1	1.69	4.5	1.65	5.0	1.62	5.7	1.58	6.4	1.50	7.9			10
SW-7	1750	2.60	6.2	2.55	6.8	2.50	7.5	2.44	8.5	2.39	9.7	2.30	12.0			15
SW-10	1980	3.33	7.8	3.27	8.7	3.20	9.5	3.13	10.8	3.06	12.3	2.95	15.2	2	2	20
SW-20	1400	7.61	16.0	7.46	17.7	7.31	19.4	7.15	22.1	7.00	25.0	6.85	31.0	3 \times 2	2 \times 2	35
SW-40	1150	10.5	21.7	10.3	23.8	10.1	26.2	9.87	29.9	9.66	33.7	9.45	42.2	3 \times 2	2 \times 2	45
SW-50	970	18.4	40.0	18.0	41.6	17.7	45.3	17.3	50.6	16.9	59.1	16.5	70.5	4 \times 2	3 \times 2	60
SW-80	690	23.6	51.0	23.1	53.4	22.7	58.1	22.2	64.9	21.7	75.9	21.1	90.1	5 \times 2	5 \times 2	80
SW-125	700	40.7	84	40.0	92.1	39.1	101	38.2	114	37.4	131	-	-	5 \times 2	5 \times 2	120
SW-130	590	45.6	94	44.7	103	43.8	114	42.9	128	42.0	146	-	-	6 \times 2	6 \times 2	140
SW-150	530	50.8	105	49.8	115	48.9	126	47.8	143	46.7	163	-	-	6 \times 2	6 \times 2	165
SW-175	500	84.4	174	82.7	191	81.1	210	79.4	235	77.7	271	-	-	8 \times 2	6 \times 2	200

Note : Capacity is expressed in m^3/min of air at the suction condition. The suction condition is at an atmospheric pressure, a temperature of 20 and a relative humidity of 75 % .

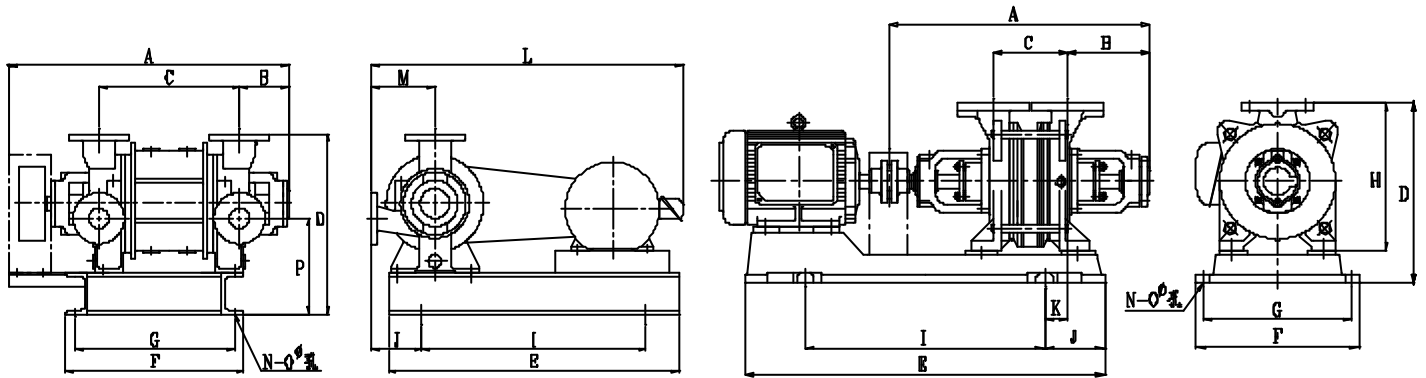
To select motor, approximately 10 % allowance in necessary over and about the shaft power.

構造略圖 CONSTRUCTION



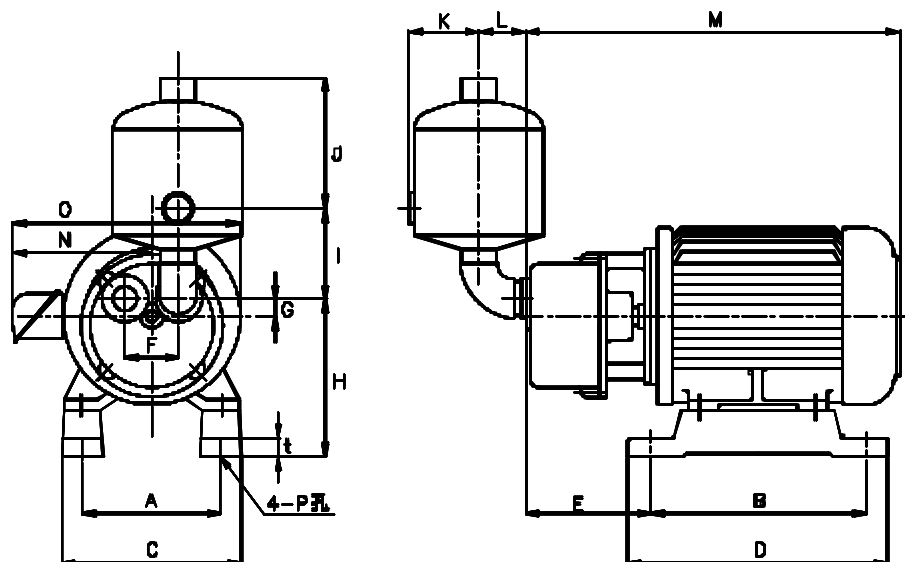
100	機殼 CASING	400	機殼墊片 GASKET	9015	前段葉輪鍵 KEY
101	後段機殼 CASING	400.1	軸承蓋墊片 GASKET	9015.1	後段葉輪鍵 KEY
110	非傳動側托架 DRIVEN SIDE HEAD	401	托架墊片 GASKET	9015.2	聯軸器鍵 KEY
112	傳動側托架 DRIVING SIDE HEAD	470	填料函 PACKING BOX	9215	軸承固定螺帽 BEARING NUT
120	非傳動側風座 DRIVEN SIDE PLATE	500	傳動側軸承座 BEARING HOUSE	9217	軸承固定墊圈 BEARING WASHER
121	傳動側風座 DRIVING SIDE PLATE	501	非傳動側軸承座 BEARING HOUSE	9230.1	旋塞 PLUG
130	傳動側串接風座 DRIVING SIDE SERIES PLATE	520	非傳動側軸承蓋 BEARING COVER	9230.2	旋塞 PLUG
131	非傳動側串接風座 DRIVEN SIDE SERIES PLATE	520.1	非傳動內側軸承蓋 BEARING COVER	9410	V型環 V-RING
150	非傳動側風座固定座 DRIVEN SIDE WALL	521	傳動側軸承蓋 BEARING COVER	9430	填料 PACKING
151	傳動側風座固定座 DRIVING SIDE WALL	530	調隙螺栓 REGULATION NUT	9903	調隙螺栓 REGULATION NUT
200	前段葉輪 ROTOR	9000	軸承 BEARING	9906	填料蓋 GLAND
201	後段葉輪 ROTOR	9000.1	軸承 BEARING		
210	軸 SHAFT	9000.2	軸承 BEARING		

SW 型外形尺寸圖 Dimension



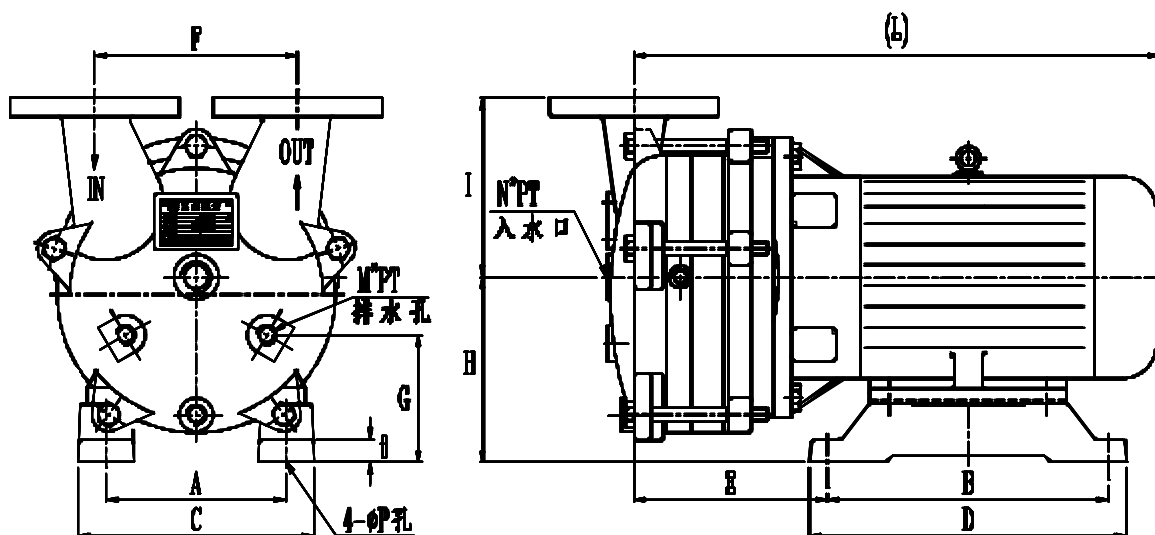
型式	A	B	C	D	E	F	G	H	I	J	K	L	M	N-O	P	備註
SW-3	561	179	160	390	777	350	316	320	516	131	48	-	-	4-15	-	
SW-5	602	179	201	390	816	350	320	320	556	130	51	-	-	4-15	-	
SW-7	637	179	236	390	886	350	320	320	633	127	57	-	-	4-15	-	
SW-8	683	179	282	390	961	350	320	320	712	127	57	-	-	4-15	-	
SW-20	850	151	431	545	880	540	485	-	680	155	-	940	190	4-19	290	
SW-40	900	154	490	560	1000	650	585	-	760	190	-	1140	210	4-19	290	
SW-50	1016	138	605	675	1200	665	600	-	800	280	-	1320	290	4-19	290	
SW-80	1216	163	714	860	1400	845	775	-	1000	305	-	1525	330	4-23	425	
SW-125	1370	165	863	860	1600	1050	990	-	1200	305	-	1650	330	4-23	425	
SW-130	1475	205	812	1130	1600	1050	990	-	1200	210	-	1650	400	4-23	330	
SW-150	1515	205	882	1130	-	1060	-	-	-	-	-	-	400	-	180	馬達另外 裝配
SW-175	1750	210	1312	1255	-	1620	-	-	-	-	-	-	520	-	220	馬達另外 裝配

SWP 型外形尺寸圖 Dimension



型式	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	t	備註
SWP-1/2	112	210	152	250	85	58	19	136	120	157	85	50	315	125	213	11	20	
SWP-1	125	210	165	250	104	58	19	145	120	157	85	50	340	137	232	11	20	
SWP-2	140	250	190	282	125	58	19	142	120	157	85	50	404	150	256	11	20	

SWK 型外形尺寸圖 Dimension



型式	A	B	C	D	E	F	G	H	I	L	M	N	P	t	備註
SWK-3	160	250	210	282	172	180	113	165	160	467	1/4	1/2	11	20	
SWK-5	190	250	240	282	220	180	113	165	160	530	1/4	1/2	11	20	

本型錄如有變更時，恕不另行通知，訂購時請先確認 Any changes in the interest of the technical development are reserved

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