



塑寶®

耐酸鹼化學自吸式
MD型機械軸封泵浦

SELF-PRIMING CHEMICAL PUMPS



SUPER PUMPS

FEATURES OF CRITICAL PARTS

重要設計/特殊零件



MD Pump come with liquid storage intergrated with MD pump's rear cover and frame which cool the mechanical seal .

MD 泵的后蓋與固定座為一體成形，利用固定座設計具有冷卻功能的水槽來循環冷卻軸封。

特點:

1. When dry-run the liquid storage tank will provide cooling water to prevent pump from further damage.

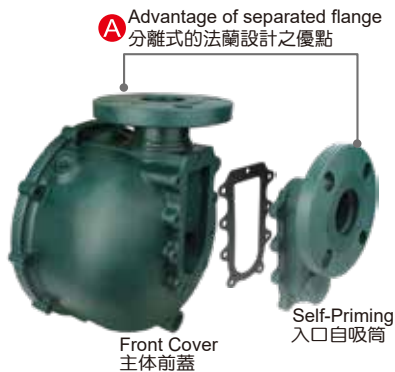
2. When dry-run temperature rises hot liquid will Lift cooler liquid will pass down to the mechanical seal by the SUS tube to further extend dry-running period.

3. Unibody design provide better structural. more compact and easy to maintain.

1. 冷卻水槽內有水位差的導管，當泵體空轉時，水槽內的水提供軸封的冷卻降溫，使泵體不受損壞。

2. 空轉中會產生高溫，水槽內的水會因溫度升高的原理產生循環系統，水槽內的水利用空氣自然冷卻，提高空轉時間。

3. 因水槽泵體後蓋腳座三件合為一體，提高泵體耐壓強度、不佔空間，容易維修保養。



Self-priming series, designed with self-priming cover (part No.#17), excellent self-priming performance. up of 3" in/outlet models.

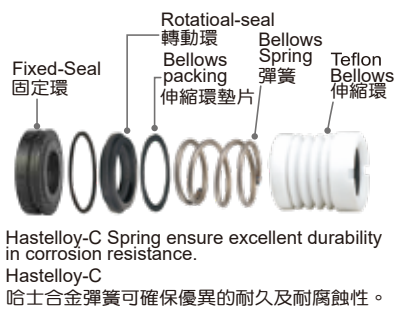
MD 型有自吸筒設計(零件號碼 # 17)，自吸性能優異(出入口為3"之機型無自吸能力) The plate surface of flange will not sink due to shrinkage.

自吸筒法蘭面不會因射出時縮水變形，而凹陷不平，造成密封不良。

Symmetrical body structure eliminates leakage due to deforming caused by injection molding.

主體前蓋法蘭以熱熔接合密封性佳，可避免因塑鋼本身的應力而造成縮水變形，真圓度不佳而密封不良。

進出口採用活動法蘭設計，方便角度變化易安裝及耐撞擊。



The unique teflon bellows design with various seals such as Ceramic, Carbon, SSIC and Hastelloy-C Spring ensure excellent durability in corrosion resistance. 特殊的鐵氟龍彈性軸封設計，搭配各種材質的軸封如陶瓷、碳精、SSIC 及 Hastelloy-C 合金彈簧以確保優異的耐久及耐腐蝕性。

Fixed-seal & rotational-seal are made of various materials, SIC, Carbon, Ceramic and can withstand various chemicals.

固定環及轉動環由各種不同材質，SSIC, 碳素, 陶瓷製成，可承受各種不同的化學藥水。



MD 系列於空轉時，泵浦內的液體會經由循環迴路冷卻軸封，防止其過熱損壞。

MODEL IDENTIFICATION

型號說明

MD - 40	01	2	N - B	L	CCH	5 - N	C	T			
1	2	3	4	5	6	7	8	9	10	11	12
(1)Type機型編號-MD MD-FRPP	(2)In-Outlet出入口徑 40 - 1-1/2" 50 - 2"	(3)Power馬力 01:1HP 02:2HP 03:3HP 05:5HP	(4)Pole極數 2 : 2P 4 : 4P	(5)Elastomer橡膠材質 N-NBR E - EPDM V-VITON T- O環VT其他TEFLON H-HV高氟橡膠	(6)Check Valve單向閥 Without Check Valve無舌	(7)Head揚程 L -Low Head低揚程 H -High Head高揚程	(8)內裝式軸封規格 CCH/SCH/SSH	(9)Frequency頻率 5:50Hz 6:60Hz	(10)Shaft軸心 N-Standard/標準軸心 T-Titanium/鈦軸心	(11)Seal軸封 C-Water-cooled fixed-seal/水冷式固定環	(12)Flange法蘭 T-One-piece outlet flange 一體出口法蘭主體 F-Loose In/outlet flange 活動出入口法蘭主體

(1/2~5HP規格)

- 配備專利一體水冷軸封系統，使用試車前加入冷卻水後可防止空轉損壞。
- 配備專利冷卻循環迴路，可保使用中軸封冷卻，提高使用壽命。
- 自吸式設計：自吸力特強，自吸力可達4M。
- 抗腐蝕性：採用各種特殊塑鋼材質製成，FRPP可抵抗大部份的酸鹼液。

Model 1/2~5HP

- One piece cooling system for mechanical seal, add fluid before start-up to prevent dry-running.
- Patented recycling system cools down the mechanical seal while running to extend the service life.
- Excellent self-priming up to 4 meters.
- Pump head is out of FRPP. Excellent corrosive resistance for most chemicals.

SPECIFICATIONS PERFORMANCE CHART

規格/性能曲線

※ 重量/性能以實物為準

Weight / Performance Is For Reference Only Actual Product May Vary

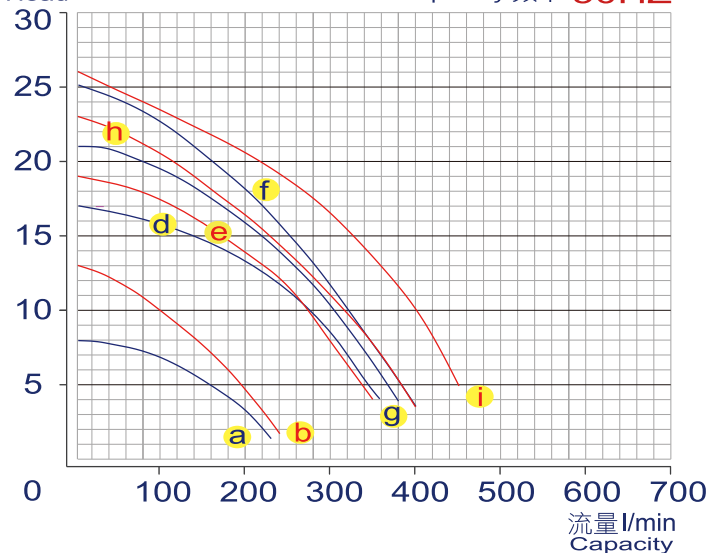
(測試流體：水 比重1.0)

Test Fluid : Water Sp.Gravity 1.0

Model 型 式	In/Outlet 進出口徑 (mm)	Power馬力			50Hz			60Hz			Weight 重量kg (參考值)
		Phase 相 數	Pole 極 數	HP	Curve 曲線	Max.Head 全揚程 M	Max.Flow 全流量 L/min	Curve 曲線	Max.Head 全揚程 M	Max.Flow 全流量 L/min	
40014L	40x40	3ø	4	1	a	8	230	A	9	270	25/31
40012H	40x40	3ø	2	1	b	13	240	B	13	260	25/31
40022L	40x40	3ø	2	2	d	17	360	D	17	310	27/39
40022H	40x40	3ø	2	2	e	19	350	E	20	320	27/39
40032H	40x40	3ø	2	3	f	25	400	F	28	420	31/43
50032L	50x50	3ø	2	3	g	21	380	G	18	380	31/43
50032H	50x50	3ø	2	3	h	23	400	H	25	380	31/43
50052H	50x50	3ø	2	5	i	26	450	I	32	520	42/55

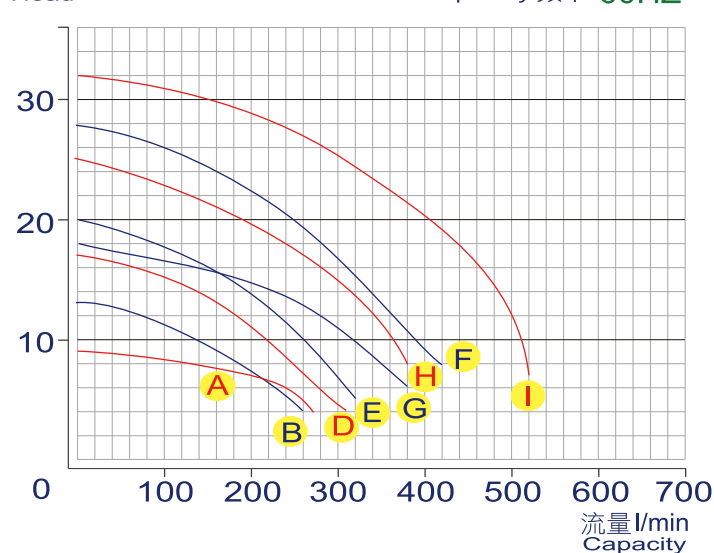
揚程M
Head

Frequency 頻率: 50HZ



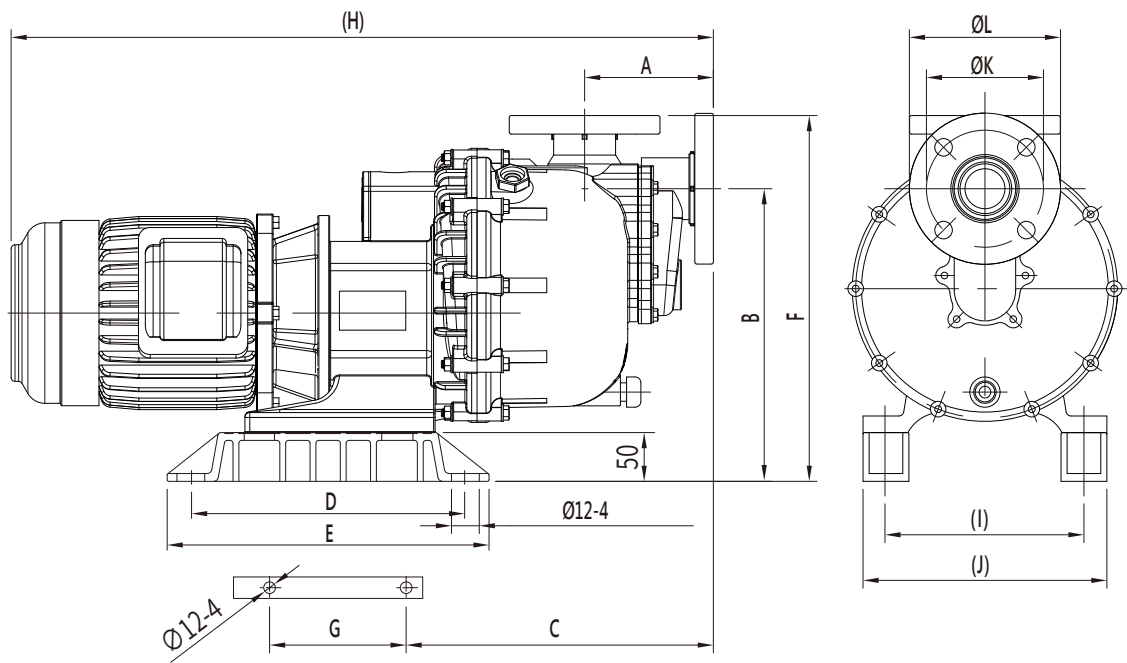
揚程M
Head

Frequency 頻率: 60HZ



DIMENSIONS
外觀尺寸

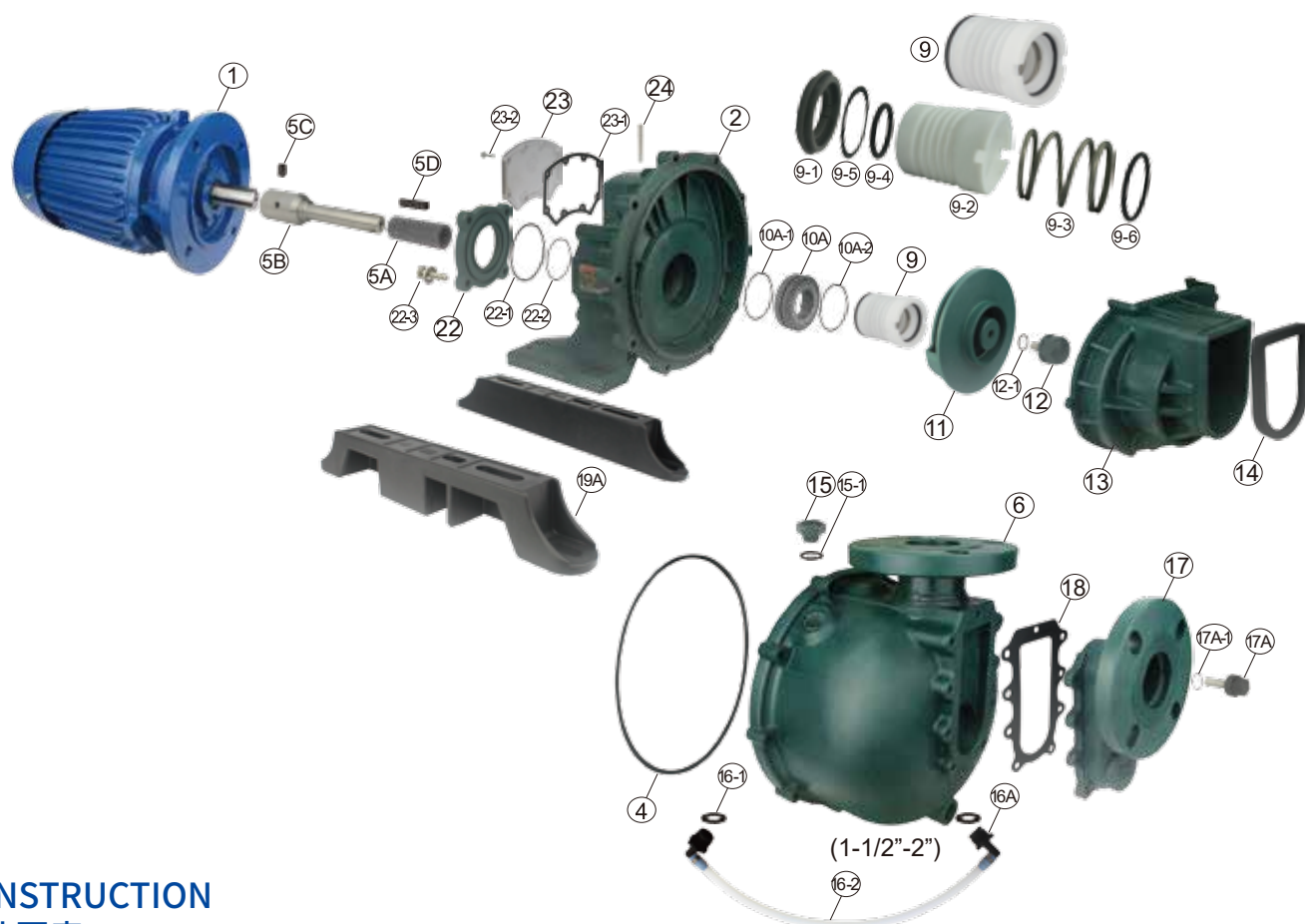
MD 0.37~3.75 kW, 1-1/2"~2" with FRPP frame
MD 1/2HP~5 HP, 1-1/2"~2" 搭配 FRPP 腳座尺寸圖



※尺寸表K會因電機品牌不同而改變
Dimension May Vary With Different Brand Motor

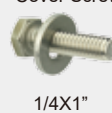
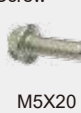
Unit:mm

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
40012H	132	300	315	280	330	375	140	640	204	250	105	140
40022L	132	300	315	280	330	375	140	720	204	250	105	140
40022H	132	300	315	280	330	375	140	720	204	250	105	140
40032H	132	300	315	280	330	375	140	720	204	250	105	140
50032L	132	300	315	280	330	375	140	720	204	250	120	155
50032H	132	300	315	280	330	375	140	720	204	250	120	155
50052H	132	300	315	330	375	375	140	750	204	250	120	155

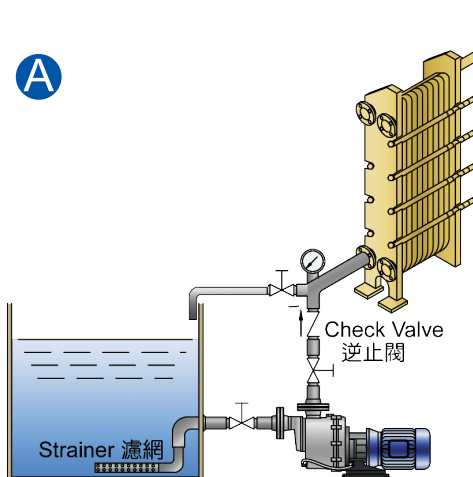


CONSTRUCTION

零件圖表

1 馬達 Motor  FC/Alu	2 MD一體腳座 Frame  FRPP	4 後蓋O環 Rear Cover O-ring  NBR / EPT VITON / HV	5A 軸套 Shaft Sleeve  TEFLON	5B 軸心 Shaft  SUS/TI	5C 軸心固定螺絲 Shaft Screw  SUS	5D 葉輪鍵 Impeller Pin  SUS	6 主體前蓋 Front Cover  FRPP	9 前軸封 Bellows-seal combination  CARBON SSIC	9-1 轉動環 Rotational-seal  TEFLON	9-2 伸縮環 Bellows  TEFLON
9-3 彈簧 Bellows Spring  HASTELLOY-C SUS316	9-4 伸縮環前O環 Bellows Front O-ring  NBR / EPT VITON / HV	9-5 伸縮環墊片 Bellows Packing  NBR / EPT VITON / HV	9-6 伸縮環後O環 Bellows Rear O-ring  NBR / EPT VITON / HV	10A MD固定環 Fixed-seal  SSIC	10A-1 MD固定環 後O環 Fixed-Seal Rear O-ring  NBR / EPT VITON / HV	10A-2 MD固定環 側O環 Fixed-Seal Side O-ring  NBR / EPT VITON / HV	11 葉輪 Impeller  FRPP	12 葉輪螺絲 Impeller Screw  FRPP/CFRPP CPVC/PVDF	12-1 葉輪螺絲O環 Impeller Screw O-ring  NBR / EPT VITON / HV	13 中封蓋 Check Cover  FRPP
14 單向閥 Check Valve  有舌 無舌 NBR / EPT / HV VITON / TEFLON	15 注水蓋 Water Filling Cap  FRPP	15-1 注水蓋O環 Water Filling Cap O-ring  NBR / EPT VITON / HV	16 循環管含接頭 Recycle Hose  TEFLON	16-1 循環接頭墊片 Recycle Joint Packing  NBR / EPT VITON / HV	16-2 鐵氟龍管 Teflon Hose  TEFLON	16A 循環接頭 Recycle Joint  PVDF	17 自吸筒 Self-Priming Cover  FRPP	17A 自吸筒螺絲 Self-Priming Cover Screw  PVDF / SUS	17A-1 自吸筒螺絲O環 Self-Priming Cover O-ring  NBR / EPT VITON / HV	18 自吸筒墊片 Self-Priming Cover Packing  NBR / EPT / HV VITON / TEFLON
19A 腳架 Base  FRPP	22 水封蓋 Water Seal Cover  FRPP	22-1 水封蓋外O環 Water Seal Cover O-ring#1  NBR	22-2 水封蓋內O環 Water Seal Cover O-ring#2  NBR	22-3 水封蓋螺絲 Water Seal Cover Screw  1/4X1" SUS	23 水箱透明蓋 Water Tank Cover  PC	23-1 透明蓋墊片 Water Tank Packing  NBR	23-2 透明蓋螺絲 Water Tank Screw  M5X20 SUS	24 排熱管 Heat Ventilation Pipe  SUS		

A

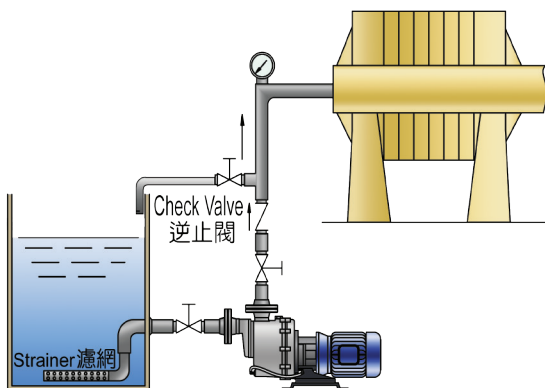


Example A

1. While applied to heat-exchanger, install a pressure gauge at the outlet to make sure no clog inside the pipeline.
2. Install a strainer at the inlet to stop articles or objects entering the pump. It also cut down the bubbles.
3. Install valves at the inlet and outlet for easy maintenance.
4. The diameter of each hole in the strainer should be approximately 5~7mm and the total mesh area of the strainer should be 5~10 times the area of the inlet.
It's better to enlarge the inlet pipeline. For example, enlarged 2-1/2" inlet pipeline could drop the resistance loss.
5. Set an overflow piping at the outlet pipeline and keep constantly opened to allow little overflow

1. 當應用於熱交換器時，於出口加裝壓力錶，以確定管路中有沒有阻塞。
2. 於入口加裝濾網，以阻止外物進入泵浦，也會減少氣泡的出現。
3. 於出入口的管路中加裝閥門，以便維護。
4. 濾網網孔的直徑應為約5~7mm，且濾網孔的面積應為入口管徑之5~10倍，入口管路最好加大管徑，如泵入口為2"，改配2-1/2"入口管，預防吸入量的不足。
5. 出水口配有回流管，正常開啟閥門，少量回流。

B

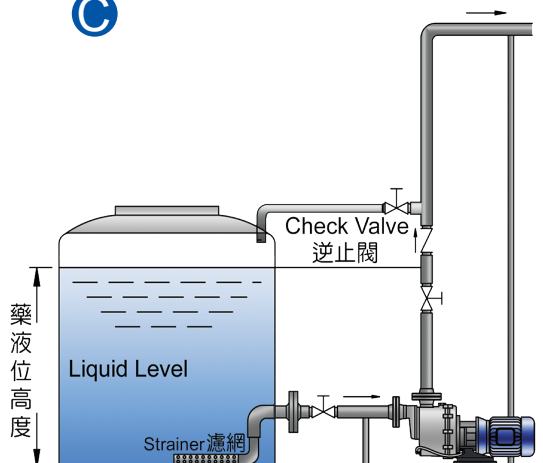


Example B

1. In order to monitor the flow and to detect possible clog of the filter, please set a pressure gauge at the outlet.
2. To eliminate damage caused by dry-running, please install a pressure safety shutoff.
3. Please clean up particles in the pump after operation.
4. Strainer is easy to be clogged. Clean it as usual.
5. The diameter of each hole in the strainer should be approximately 5~7mm and the total mesh area of the strainer should be 5~10 times the area of the inlet.
It's better to enlarge the inlet pipeline. For example, enlarged 2-1/2" inlet pipeline could drop the resistance loss.
6. Install valves at the inlet and outlet for easy maintenance.
7. Set an overflow piping at the outlet pipeline and keep constantly opened to allow little overflow.

1. 為了監視液體流動及偵測過濾機中可能的阻塞，請於出口加裝壓力錶。
2. 請加裝壓力保護斷電器以避免因空轉損壞。
3. 操作完畢，請清除泵浦中的外來物。
4. 注意入口濾網容易受阻塞，應時常清洗。
5. 濾網網孔的直徑應為約5~7mm，且濾網孔的面積應為入口之5~10倍，入口管路最好加大管徑，如泵入口為2"，改配2-1/2"入口管，預防吸入量的不足。
6. 於出入口的管路中加裝閥門，以便維護。
7. 出水口配有回流管，正常開啟閥門，少量回流。

C

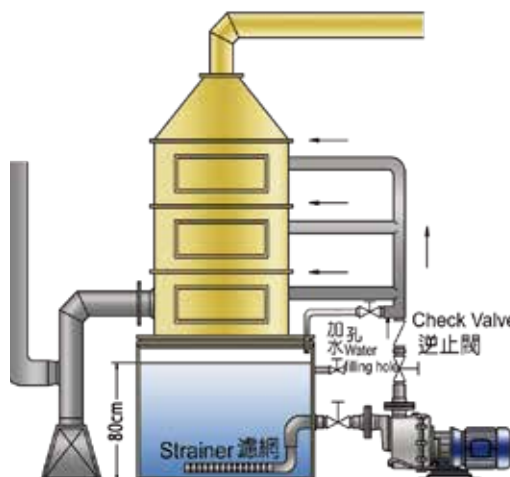


Example C

1. While applied to pump chemicals from the storage tank, please have a valve set at the inlet for the safety and convenience during maintenance.
2. Please monitor the level of the liquid in the tank to avoid dry-running.
3. Without check lid model is recommended.
4. Please install a check valve at the outlet while the height of piping exceeds 8M. It's better to enlarge the inlet pipeline. For example, enlarged 2-1/2" inlet pipeline could drop the resistance loss.
5. Please fasten in-outlet piping perfectly.
6. The motor shield must be applied while the pump is installed outdoors or in harsh conditions.
7. Set an overflow piping at the outlet pipeline and keep constantly opened to allow little overflow

1. 當應用於抽送儲存槽中之化學藥水時，請於入口加裝閥門，以維安全及維護上之便利。
2. 請監視槽內液體高度，以避免空轉。
3. 建議採用無單向閥機型。
4. 當配管高度大於8米時請於出口加裝逆止閥，逆止閥應高於液位以上，入口管路最好加大管徑，如泵入口為2"，改配2-1/2"入口管，以防吸入量的不足。
5. 請將出入口管線固定好。
6. 當泵浦裝於戶外或惡劣環境中，馬達必需加蓋護罩。
7. 出水口配有回流管，正常開啟閥門，少量回流。

D

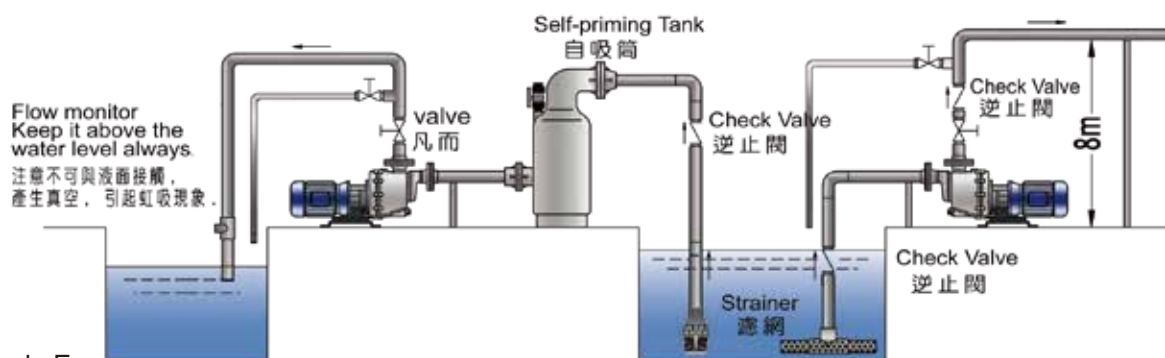


Example D

1. While applied to waste gas treatment tower, the tank should be large enough and the water-level in the tank should exceeds the inlet 80cm.
2. In order to avoid foreign particles clogging the inlet, please lower the inlet and install a strainer. (Mesh diameter approximately 5~7mm and the total mesh area of the strainer should be 5~10 times the area of the inlet.) It's better to enlarge the inlet pipeline. For example, enlarged 2-1/2" inlet pipeline could drop the resistance loss.
3. It should be easy to remove the strainer from the inlet for cleaning.
4. To avoid running out of liquid, please make sure that the water supplying system functions well.
5. To prevent the pump from dry running, please install a safety shutoff.
6. The motor shield must be applied while the pump is installed outdoors or in harsh conditions.
7. Install valves at the inlet and outlet for easy maintenance.
8. Set an overflow piping at the outlet pipeline and keep constantly opened to allow little overflow.

1. 當應用於廢氣塔時，水槽應夠大，且槽中水位應高於入口濾網80公分。
2. 為了避免外物阻塞入口，請降低入口並要裝濾網（網孔孔徑約5~7mm，且濾網孔的面積應為入口管徑之5~10倍）入口管路最好加大管徑，如泵入口為2"，改配2-1/2"入口管，預防吸入量的不足。
3. 入口濾網應易於取下清洗。
4. 請確認供水系統功能良好，以避免無水運轉（加裝自動補水系統）。
5. 請加裝保護斷電器，以防止泵浦空轉。
6. 當泵浦裝於戶外或惡劣環境中，馬達必需加蓋護罩。
7. 於出入口的管路中加裝閥門，以便維護。
8. 出水口配有回流管，正常開啟閥門，少量回流。

E



Example E

1. To stop articles or objects entering the pump, install a foot valve or strainer.
2. To prevent the inlet from sucking in bubble, please keep liquid level at least 30cm above the strainer.
3. Check valve must be installed if the height of piping exceeds 8M.
4. To avoid dry-running, please install a safety shutoff.
5. For the safety of repair, the valve must be installed at the outlet.
6. 3" in/outlet models cannot do self-priming well. Install a self-priming tank to get it.
7. In order to avoid foreign particles clogging the inlet, please lower the inlet and install a strainer. (Mesh diameter approximately 5~7mm and the total mesh area of the strainer should be 5~10 times the area of the inlet.) It's better to enlarge the inlet pipeline. For example, enlarged 2-1/2" inlet pipeline could drop the resistance loss.
8. If the head of the outlet too high or the long transfer distance and the pressure losing or over 1KG we suggest that install the outlet tee hose for backflow to tube. This can avoid the pressure of the backflow and the hot air can be exhausted will diminish the damage.
9. Set an overflow piping at the outlet pipeline and keep constantly opened to allow little overflow.
1. 加裝底閥或濾網，以防止外物進入泵浦。
2. 請保持液位最少高於入口濾網 30cm 以上，以防止吸入氣泡。
3. 當配管高度大於 8 米時，必需加裝逆止閥。
4. 請加裝保護斷電器，以防止泵浦空轉。
5. 為了維修安全，出口必需加裝閥門。
6. 出入口為 3" 之機型無自吸能力，請加裝自吸桶以獲得自吸能力。
7. 為了避免外物阻塞入口，請降低入口並要裝濾網（網孔孔徑約5~7mm，且濾網孔的面積應為入口管徑之5~10倍）。入口管路最好加大管徑，如泵入口為2"，改配2-1/2"入口管，預防吸入量的不足。
8. 出口揚程高或輸送距離較長，壓損超過1kg以上的使用場所建議在原出口加裝三通回流管，來防止反壓及熱氣排放減少損壞。
9. 出水口配有回流管，正常開啟閥門，少量回流。
※如安裝二台泵浦，不能共用入口管路



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Website: www.chemicalpump.cn

訂購時請提供下列資料:

1. 藥液條件: 名稱_____/溫度_____
濃度_____/比重_____/黏度_____
2. 需求流量: _____ L/min
3. 需求揚程: _____ M
4. 馬達: 電壓/頻率

While placing your order...

Please kindly provide us the following information.

1. Chemical: Name_____/Concentration_____
Temperature_____/Specific Gravity_____
Viscosity_____
2. Capacity needed: _____ L/min
3. Head needed: _____ M
4. Power: Voltage/Frequency