

如蒙洽詢請示下列各項：

1. 出水量 \_\_\_\_\_ M<sup>3</sup>/ Min \_\_\_\_\_ US. G.P.M.
2. 總揚程 \_\_\_\_\_ M或 \_\_\_\_\_ 英尺
3. 液體：成分 \_\_\_\_\_  
 比重 \_\_\_\_\_  
 粘度 \_\_\_\_\_  
 溫度 \_\_\_\_\_ °C 或 \_\_\_\_\_ °F
4. 泵浦回轉數： \_\_\_\_\_ R.P.M.
5. 驅動機：1. 馬達： \_\_\_\_\_ 相 \_\_\_\_\_ 極 \_\_\_\_\_ 週率  
 \_\_\_\_\_ 電壓 \_\_\_\_\_ kw或 \_\_\_\_\_ HP  
 2. 引擎： \_\_\_\_\_ kw或 \_\_\_\_\_ HP
6. 填料函之指定：1. 機械軸封  
 2. 迫緊軸封
7. 法蘭規格之指定 \_\_\_\_\_
8. 其它配件或預備品之需求 \_\_\_\_\_

主要產品：

- 一般給水排水泵浦
- 空調冷凍用泵浦
- 石化液製程輸送泵浦
- 深水井抽水泵浦
- 消防給水用泵浦
- 大口徑防洪泵浦

REQUEST FOR INFORMATION：

In sending your enquiry or order please furnish us with the following informations in detail:

1. Capacity: \_\_\_\_\_ M<sup>3</sup>/ Min. or \_\_\_\_\_ US. G.P.M.
2. Total head: \_\_\_\_\_ M or \_\_\_\_\_ feet
3. Liquid: Composition \_\_\_\_\_  
 Specific gravity \_\_\_\_\_  
 Vicosity \_\_\_\_\_ CP.  
 Temp. \_\_\_\_\_ °C or \_\_\_\_\_ °F
4. Pump Speed: \_\_\_\_\_ R.P.M.
5. Driver: 1. Motor: \_\_\_\_\_ Phase \_\_\_\_\_ P \_\_\_\_\_ Cycle  
 \_\_\_\_\_ Volt's \_\_\_\_\_ KW or \_\_\_\_\_ HP  
 2. Engin: \_\_\_\_\_ KW or \_\_\_\_\_ HP
6. Stuffing Box: 1. Use Mechanical Seal  
 2. Use Gland Packing Seal
7. Specifications for flanged, as required
8. Related parts, stand by parts & something others.

MAIN PRODUCTS：

- PUMP FOR INDUSTRY
- PUMP FOR PROCESS
- PUMP FOR CHEMICAL
- PUMP FOR DEEP WELL
- PUMP FOR FIRE
- PUMP STATION

# 大川泵浦企業股份有限公司

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\* 本公司有變更資料之權利, 訂購時請先確認



# 中川泵浦

## CHUNG CHUAN PUMP

ISO 9001:2015、CNS12681

國際認證合格廠商

ISO 14001環境品保認證

## HTS系列

## 豎軸式離心泵浦

## VERTICAL CENTRIFUGAL PUMP



### 誠信·專業·創新

Trustworthy·Professional·Creative

2021·03

## 特點：

- 1. 效率高：**  
與一般橫式渦流式泵浦比較，豎軸式泵浦效率特高，可節省運轉成本。且不因同一水量下，揚程提高而效率下降。段數愈多效率愈高。
- 2. 操作方便：**  
起動時不必灌水(加壓用)，又可加設防止逆轉裝置，可隨時做遠方遙控操作。
- 3. 佔用面積小：**  
立式馬達係裝於出口座上方，減少按裝所佔之面積。
- 4. 吸入揚程不受限制：**  
一般橫式泵浦吸入揚程限制在約9M以內，豎軸式泵浦因葉輪沉浸水中，故吸入揚程不受限制。
- 5. 軸馬力變化小：**  
豎軸式泵浦出水量大或小時，軸馬力曲線變化小。
- 6. 維護保養容易：**  
構造簡單、組件少、壽命長，免裝底閥保養維護容易。

## 構造：

豎軸式多段深井泵之組成，係以葉輪組、柱管、出水肘管座、馬達等組合而成。

- 1. 濾網：**  
以不銹鋼材製成之吸入口防護網，可防止雜物阻塞葉輪，減少故障率。
- 2. 吸入鐘形口：**  
吸入口呈鐘形以減少吸入摩擦損失，提高吸水性能。
- 3. 葉輪殼：**  
水道精心設計，以獲得最大之水力效率。
- 4. 葉輪：**  
斜流密閉式葉輪，經精密之機械加工，使與葉輪殼之間隙儘量小，以減少洩漏損失。葉輪均經動靜平衡試驗，運轉圓滑平穩，絕無振動之慮。
- 5. 泵軸：**  
採用不銹鋼材 SUS 410/304/316，並經精細的加工與研磨。
- 6. 柱管：**  
採用碳鋼管製成，兩端為凸緣式接頭與其它組件連接。長度以抽水井深度調配之。
- 7. 中間軸承架：**  
於柱管間酌設碳素軸承架，可避免泵軸跨距過大，保持運轉圓滑平穩。
- 8. 出水肘管：**  
精心之設計以減少其彎頭之損失，提高效率。力骨強度足以支撐頂端馬達及底部之柱管、葉輪殼重量及向下推力。

## 泵之向下推力：

裝於出水肘管座與馬達做中間之軸承組可承受泵浦運轉時之向下推力。軸承組頂端並可設置防止逆轉裝置，保護泵浦及泵軸。

## 潤滑：

- 1. 開放式泵軸：**  
直接以泵送之水潤滑泵軸之軸承，水質需不含雜質之清水。抽水井深度約在20M左右。
- 2. 密閉式泵軸：**
  - A. 於出口處引導泵送之壓力水直接潤滑軸承。
  - B. 於泵軸外加設套管，中間注入機油用以潤滑銅質軸承。

## 傳動：

- 馬達直接傳動：  
利用凸緣型聯軸器固定馬達與泵浦。  
引動傳動：  
以螺旋直角齒輪減速機傳動。

## 迴轉方向：

頂視為順時鐘方向迴轉。

## 用途：

- |           |          |           |
|-----------|----------|-----------|
| - 深井抽水灌溉用 | - 消防用    | - 加壓用     |
| - 工廠給水用   | - 空調循環水用 | - 防洪及放養池用 |

## FEATURES:

- 1. High efficiency:**  
The efficiency of KUO-MIN BHB Pumps are higher than that of conventional horizontal volute pumps and ensures running cost savings. At same rated capacity, the efficiency will be in proportion to its stages and head.
- 2. Convenient operation:**  
There is no trouble of priming. In addition, nonreverse ratchet mechanism can be installed and also available in remote control operation, so it is particularly suited for automatic startup in fire fighting use.
- 3. Limited installation space:**  
Because the motor is installed on a motor pedestal above discharge casing. Floor space is required much smaller than that of horizontal pumps.
- 4. Freedom of suction head:**  
It is capable of drawing water from such a depth that can not be taken care of by horizontal type pump because the impeller is submerged.
- 5. Minimum variation on brake horse power:**  
No matter what a capacity it is the brake horse power curve varies smoothly.
- 6. Easy maintenance:**  
Simple construction permits easier maintenance, precise manufacture ensures long durability, use the bottom value.

## CONSTRUCTURE:

The BHB multistage vertical pump, consist's of impeller sets column pipe discharge elbow & motor.

- 1. Stainer:**  
Prevent clogging by slag.
- 2. Suction bell:**  
Suction bell of flared inlet designed to reduce entrance loss and advance pump suction capacity.
- 3. Bowl:**  
Bowl is precisely designed to secure the best possible hydraulic efficiency.
- 4. Impeller:**  
Impeller is of the closed type, accurately machined, and balanced both statically and dynamically, so that the highest hydraulic efficiency and NPSH requirement can be obtained.
- 5. Pump shaft:**  
Stainless steel SUS 304/ 410/ 316 is employed and prudently ground.
- 6. Column pipe:**  
The length of column pipes are adjusted according to the depth of well.
- 7. Spider:**  
Each spider shall be faced parallel to permit the ends to butt against the machined face one the column pipe in order to keep running smoothly.
- 8. Discharge:**  
Discharge is skillfully designed to decrease elbow friction loss and promote pump efficiency.

## LUBRICATION:

- 1. Open type shaft:**  
Self-water lubrication, fresh water should contains no other substance. Deep well about 20 meter.
- 2. Closed type shaft:**
  - A. pressure water lubrication: Inject fresh water into stuffing box of discharge to lubrication all bearing on spiders.
  - B. Oil lubrication: Inject into top bearing of discharge to lubricate bronze bearing in the protective tube.

## DRIVER:

- A. Motor:**  
Is applicable for flanged immovable shaft motor.  
**B. Engine:**  
Right angle gear box.

## ROTATION DIRECTION:

Clockwise when viewed from top.

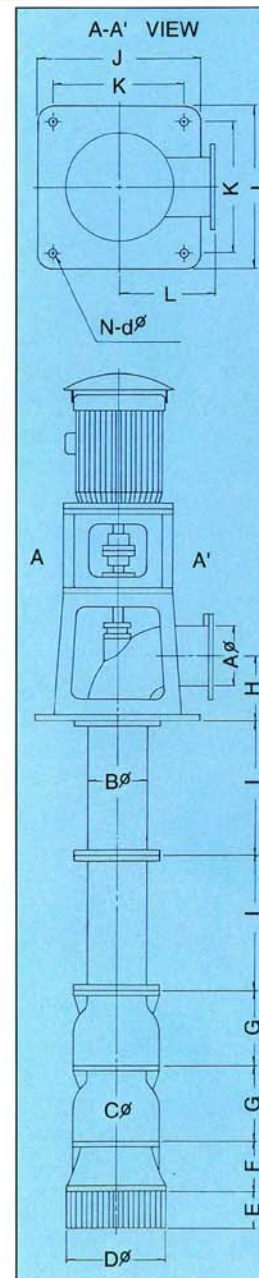
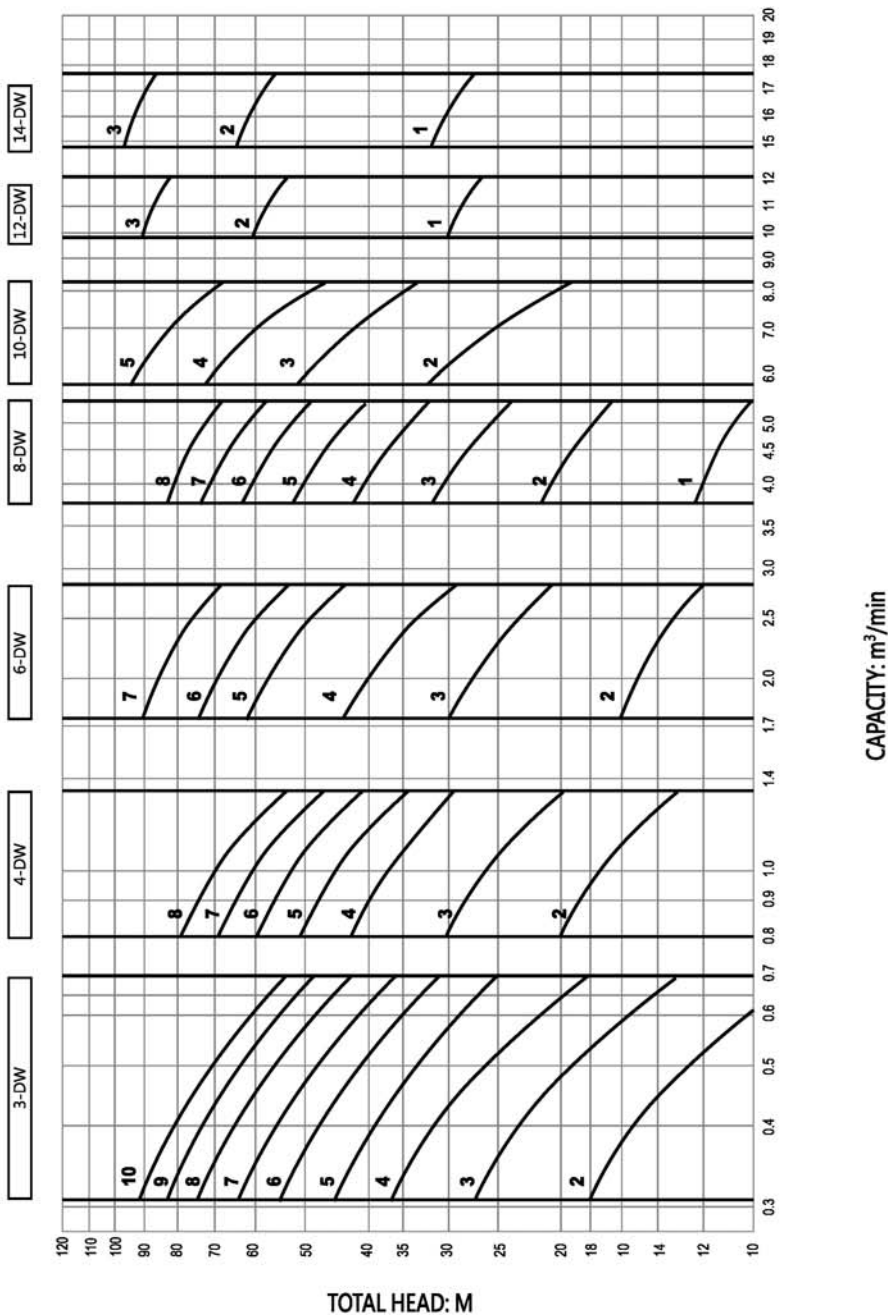
## APPLICATION:

- |                                |                   |             |
|--------------------------------|-------------------|-------------|
| -Deep-well irrigation.         | -Process service. | -Water-feed |
| -Air-conditioning circulation. | -Fire-fighting    |             |

# 4P (同步迴轉速 1800RPM) 選擇表 PERFORMANCE RANGES

60HZ

# 外型尺寸圖 DIMENSIONS



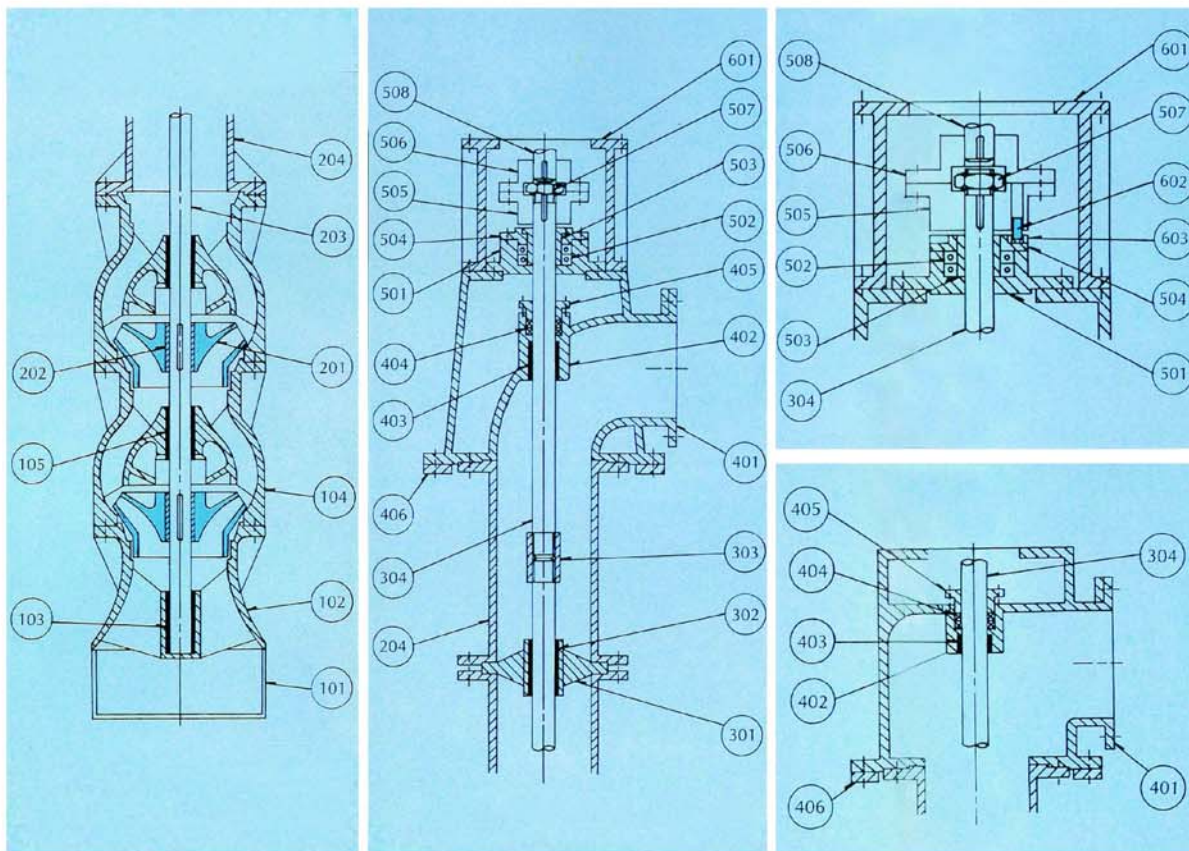
尺寸圖  
DIMENSIONS

Unit: mm													
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	N-d <sup>φ</sup>
3-DW	80	80	220	230	100	152	202	115	1500	345	300	225	4-19
4-DW	100	100	220	230	100	152	202	145	1500	345	300	220	4-19
6-DW	150	150	295	305	150	180	275	180	1500	455	400	260	4-21
8-DW	200	200	380	380	150	270	355	200	1500	570	490	348	4-25
10-DW	250	250	400	400	150	263	355	300	1500	668	588	415	4-28
12-DW	300	300	440	550	200	290	405	310	1500	700	620	485	4-28
14-DW	350	350	530	650	200	345	415	350	1500	775	650	500	4-28

FLANGE DIMENSION					JIS 10kg/cm <sup>2</sup>	
N-d <sup>φ</sup>	U	V	W	T	N-d <sup>φ</sup>	
80	150	185	18	8-19		
100	175	210	18	8-19		
150	240	280	22	8-23		
200	290	330	22	12-23		
250	355	400	24	12-25		
300	400	445	24	16-25		
350	445	490	26	16-25		

- NOTE: 1.抽水機段數依使用壓力(揚程)而定。  
 2.出口法蘭有JIS、ANSI規格、RF或FF TYPE。  
 3.上述所列僅係標準規格，可隨客戶需求隨機調整。  
 4.本表尺寸若有變更恕不另行通知。

## 構造圖 SECTIONAL DRAWING



## 構造圖 SECTIONAL DRAWING

編號 PART NO.	名稱 NAME OF PART	名稱 NAME OF PART	材質 MATERIAL
603	RATCHET PLATE	棘輪板	FC 20
602	RATCHET BAR	止回銷	S 45C
601	DRIVE SUPPORT	驅動機座	FC 20 OR SS 41
508	DRIVE SHAFT	驅動機軸	
507	ADJUSTARLE NUT	調整螺帽	SS 41
506	COUPLING-DRIVER SIDE	驅動端聯軸器	STEEL
505	COUPLING-PUMP SIDE	泵端聯軸器	STEEL
504	BEARING COVER	軸承蓋	FC 20
503	BEARING BUSHING	軸承襯套	FC 20
502	BEARING	軸承	S.K.F. KOYO N.S.K.
501	BEARING HOUSING	軸承座	FC 20
406	BASE PLATE	座板	SS 41
405	GLAND	填料函蓋	FC 20
404	GLAND PACKING	填料	VALQUA #133 TEFLON
403	BUSHING	軸襯套	RUBBER, BC2, CARBON
402	STUFFING BOX	填料函	FC 20   SUS304   SUS316
401	DISCHARGE ELBOW	出水肘管	FC 20   SUS304   SUS316
304	HEAD SHAFT	頂軸	SUS304   SUS304   SUS316
303	COUPLING-SHAFT	軸連接器	SUS304   SUS304   SUS316
302	BEARING-SPIDER	中心架軸承	RUBBER, BC2, CARBON
301	SPIDER	中心架	FC 20   SUS304   SUS316
204	COLUMN PIPE	柱管	S.G.P.   SUS304   SUS316
203	PUMP SHAFT	泵軸	SUS410   SUS304   SUS316
202	LOCK COLLET-IMPELLER	葉輪固定座	SUS304   SUS304   SUS316
201	IMPELLER	葉輪	BC 2   SUS304   SUS316
105	BEARING-BOWL	葉輪殼軸承	RUBBER, BC2, CARBON
104	BOWL	葉輪殼	FC 20   SUS304   SUS316
103	BEARING-SUCTION BELL	吸入口軸承	RUBBER, BC2, CARBON
102	SUCTION BELL	吸入口	FC 20   SUS304   SUS316
101	STRAINER	濾網	SUS304