



# HCP PUMP

We make the reliable pumps

## PROFESSIONAL MANUFACTURERS OF SUBMERSIBLE PUMPS

50Hz GENERAL CATALOGUE

ISO 9001 CE DNV GL TÜV



sewage pump, waste water pump, stainless pump, grinder pump, dewatering pump, construction drainage pump,  
large volume pump, axial pump, ejector, deep well pump.

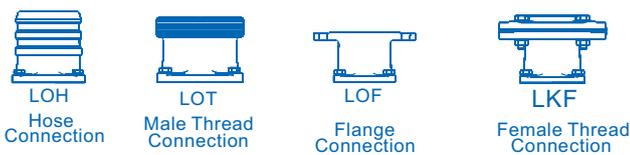
### HCP PUMP MANUFACTURER.,CO.LTD.

# AS SUBMERSIBLE DEWATERING PUMPS



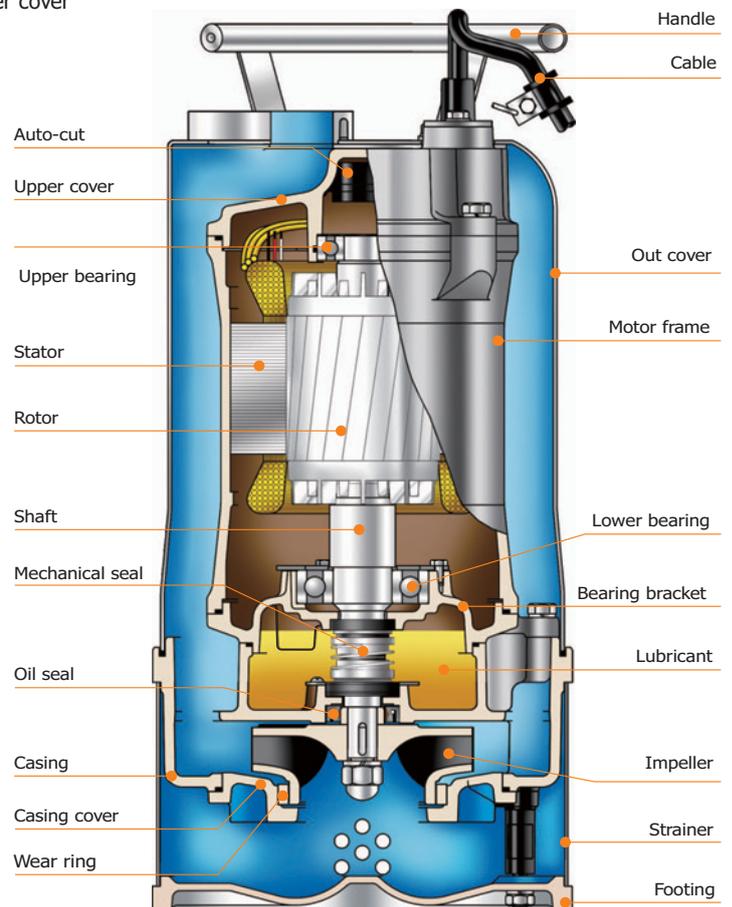
## FEATURE

- Designed for civil engineering applications; its easy portability, double outer casing and water cooling motor make it possible to run the pump to low water level.
- Epoxy Resin Cable with IP68 standard for waterproof structure, automatic rest motor protector, and double mechanical seal made of silicon carbide. Equipped with an AC motor protector, to further obtain the best insulated status. It is a very durable and abrasion resistant pump.
- Multi-impeller design with High Chrome Alloy steel (HiCr) impeller, wear plate and wear rings with a hardness 55~60 Rockwell. Its hardest and toughest impeller, among the construction pump, against abrasion, and meets the requirements from low to high head and small to big capacity.
- AS 1.5~7.5kW, equipped with Flange discharge connection. The outer cover is built with high strength stainless steel.



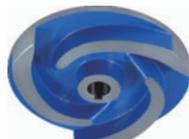
## APPLICATIONS

- Civil engineering, dewatering of tunneling and ground works, and for use in storm water sewers.
- Dewatering of fluids containing solid sediments.
- Ease of mobility for use by contractors, installers and service industries.



## HiCr impeller

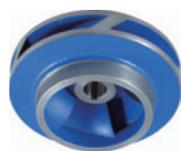
High chrome alloy steel (HiCr) hardness of 55-60 RC. impeller to stand high abrasive applications.



AS-215



H type impeller



N/L type impeller



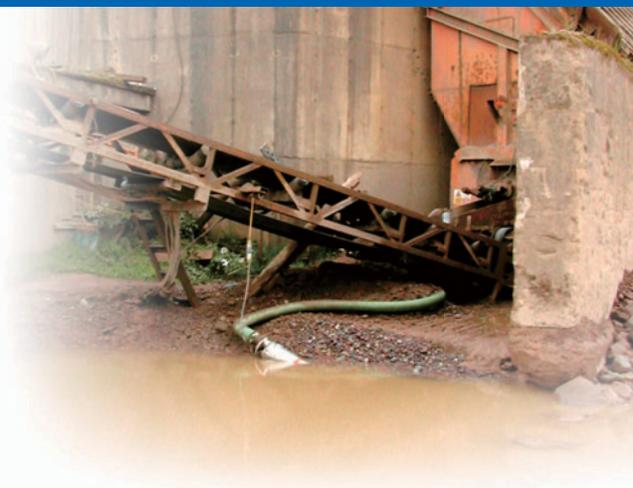
AS 1 1/2HP



AS 2~7 1/2HP



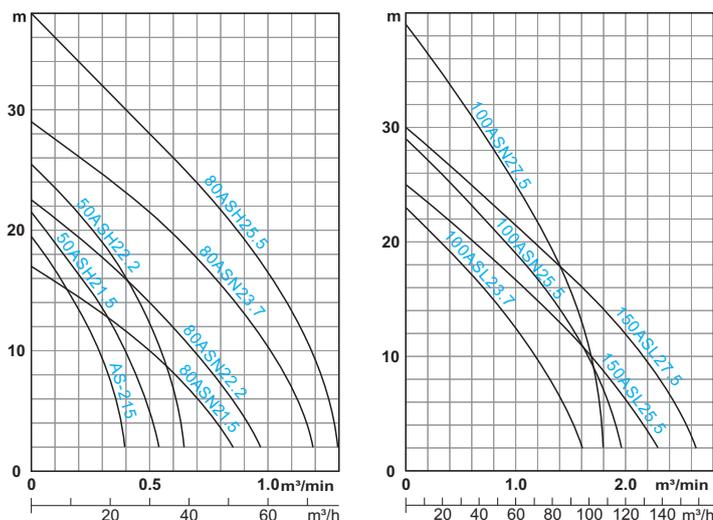
AS 10HP



### PRODUCT NOMENCLATURE

|              |      |                       |         |     |  |
|--------------|------|-----------------------|---------|-----|--|
| AS           | -    | 2                     | 15      |     |  |
| Type         |      | Discharge inch        | 1 1/2HP |     |  |
| 100          | AS   | N                     | 2       | 5.5 |  |
| Discharge mm | Type | Impeller type (H/N/L) | Pole    | kW  |  |

### PERFORMANCE CURVES



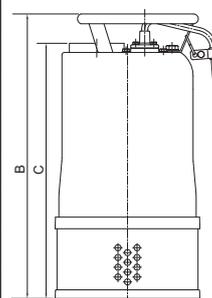
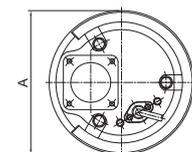
### SPECIFICATIONS

|                |   |  |
|----------------|---|--|
| Discharge (mm) |   | <b>50 • 80 • 100 • 150</b>                     |
| Limits Of Use  | Liquid Temp.                                  | 0~40°C (32~104°F)                              |
|                | Applications                                  | Construction sites • Basins dewatering         |
|                | Submersion Depth                              | 30m (100feet)                                  |
| Type           | Frequency                                     | 50Hz   |
|                | Motor   | 2P (3000RPM) • Dry Motor                       |
|                | Insulation                                    | Class B (1.5~3HP) • Class F (5~10HP)           |
|                | Protection                                    | IP68   |
|                | Protector                                     | Auto-cut                                       |
|                | Bearing                                       | Ball Type                                      |
|                | M.seal  | Double M.seals                                 |
|                | Impeller                                      | Semi-open(H) • Enclosed-channel(N/L)           |
| Material       | Outer Cover                                   | SUS304   |
|                | Upper Cover                                   | FC-200   |
|                | Motor Frame                                   | SUS 304(1.5HP) • FC-200 (2~10HP)               |
|                | Shaft End                                     | SUS403 (1 1/2~3HP) • SUS304(5~10HP)            |
|                | M.seal  | Upper: Carbon/Ceramic • Lower: Silicon/Silicon |
|                | Casing  | FC-200   |
|                | Impeller                                      | HiCrFC   |
|                | Wear Ring/Plate                               | HiCrFC   |
| Optional       | Cable   | VCT or H07RN-F or SJOW/SOW                     |
| Optional       | Pumps can be customized to fit specifications |  |

### PERFORMANCE SPEC.

| Model      | HP(kW)      | Discharge Inch(mm) | Phase Ø | Start Method     | Head (m) | Capacity |      | Solid Passage (mm) | Weight (kg) |     | Dimension (mm) |     |     |     |     |
|------------|-------------|--------------------|---------|------------------|----------|----------|------|--------------------|-------------|-----|----------------|-----|-----|-----|-----|
|            |             |                    |         |                  |          | m³/min   | m³/h |                    | 1Ø          | 3Ø  | A              | B   | C   | 1Ø  | 3Ø  |
| AS-215     | 1 1/2 (1.1) | 2" (50)            | 1/3     | Capacitor Direct | 13.5     | 0.2      | 12   | 7.5                | 28          | 24  | 210            | 482 | 423 | 370 | 429 |
| 50ASH21.5  | 2 (1.5)     | 2" (50)            | 1/3     | Capacitor Direct | 15       | 0.25     | 15   | 10                 | 40          | 36  | 235            | 511 | 466 | 448 | 403 |
| 50ASH22.2  | 3 (2.2)     | 2" (50)            | 1/3     | Capacitor Direct | 19       | 0.3      | 18   | 10                 | 44          | 39  | 235            | 541 | 466 | 478 | 403 |
| 80ASN21.5  | 2 (1.5)     | 3" (80)            | 1/3     | Capacitor Direct | 10       | 0.5      | 30   | 10                 | 40          | 36  | 235            | 511 | 466 | 448 | 403 |
| 80ASN22.2  | 3 (2.2)     | 3" (80)            | 1/3     | Capacitor Direct | 14       | 0.5      | 30   | 10                 | 45          | 39  | 235            | 541 | 466 | 478 | 403 |
| 80ASN23.7  | 5 (3.7)     | 3" (80)            | 3       | Direct           | 21.5     | 0.5      | 30   | 10                 | 44          | 39  | 235            | 511 | 466 | 448 | 403 |
| 80ASH25.5  | 7 1/2 (5.5) | 3" (80)            | 3       | Direct           | 28       | 0.5      | 30   | 10                 | 72          | 286 | 610            | 550 |     |     |     |
| 100ASL23.7 | 5 (3.7)     | 4" (100)           | 3       | Direct           | 12.5     | 1.0      | 60   | 10                 | 44          | 235 | 511            | 448 |     |     |     |
| 100ASN25.5 | 7 1/2 (5.5) | 4" (100)           | 3       | Direct           | 19       | 1.0      | 60   | 10                 | 75          | 286 | 610            | 550 |     |     |     |
| 100ASN27.5 | 10 (7.5)    | 4" (100)           | 3       | Direct           | 25       | 1.0      | 60   | 10                 | 80          | 286 | 610            | 550 |     |     |     |
| 150ASL25.5 | 7 1/2 (5.5) | 6" (150)           | 3       | Direct           | 12       | 1.5      | 90   | 10                 | 78          | 286 | 610            | 550 |     |     |     |
| 150ASL27.5 | 10 (7.5)    | 6" (150)           | 3       | Direct           | 17       | 1.5      | 90   | 10                 | 81          | 286 | 610            | 550 |     |     |     |

Note: Weight Without Cable



## ■ OTHER SERIES



### AF Type Heavy Duty Sewage Pumps

30HP(22kW)~60HP(45kW)

**Performance:** Max. Head: 42m  
Max. Capacity: 30m<sup>3</sup>/min

**Features:** Complete cast iron, high efficiency motor and large solid handling design for high performance and durability.

**Applications :** General large-scale sewage and wastewater pumping and drainage for usage at reservoirs, power plants, sewage water treatment plants or industrial waste plants.



### LA Type Axial Pumps

50HP(37kW)~100HP(75kW)

**Performance:** Max. Head: 6m  
Max. Capacity: 120m<sup>3</sup>/min

**Features:** High efficiency and energy saving direct drive motor design, offers the highest flow rate for all large scale water pumping applications.

**Applications:** All types of large volume water applications including: Large volume water pumping required for industrial water supply or drainage. Water supply for power plants and agricultural irrigation. Drainage of flood water or flood control stations.



### Submersible Pump Guide Rail Systems

**Features:** HCP Pump Guide Rail Systems allow for quick and convenient pump systems installation, removal, replacement and maintenance without the hassle of manually handling the pumps.

**Applications:** Sewage and wastewater pumping, and drainage where pumps must be regularly maintained and service, such as: wastewater treatment plant and sewage plant.



### Jet Pumps

**Performance:** Max. Operating Depth: 6m  
Max Air Volume: 105m<sup>3</sup>/hr

**Features:** A strong jet flow of mixed air and water. Water is supplied with air through a suction pipe that mixes the water as it enters an expansion pipe. Air is introduced as tiny bubbles in the jet stream, oxygenating and aerating the water.

**Applications:** Oxygen aeration of wastewater for wastewater treatment. Oxygenated water for aquaculture such as fish farming or hydroponics applications.



### Float Switch Pumps

**Features:** Optional wide angle on/off level control float switch for easy and simple automatic operation.

**Model:** 100W~2.2kW single-phase  
0.4~2.2Kw 3-phase

### Unit of measurements:

|                  |   |                              |
|------------------|---|------------------------------|
| HP               | 1 HP=0.746kW 1 kW = 1.34 HP   |                              |
| Length           | 1m=100cm 1cm=10mm   | 1inch=2.54cm 1ft=0.3048m     |
| Capacity         | 1m <sup>3</sup> /min=1000 l/min<br>1gal/min=3.785 l/min(USA)<br>CMD= m <sup>3</sup> /day CMH= m <sup>3</sup> /hr<br>CMM= m <sup>3</sup> /min CMS= m <sup>3</sup> /sec<br>LPM=l/mim GPM= gal/min |                              |
| Disc.diameter    | Discharge   | Suggesting capacity          |
|                  | 1"(25mm)  | 0.04 m <sup>3</sup> /min     |
|                  | 1 1/4"(32 mm)   | 0.06 m <sup>3</sup> /min     |
|                  | 1 1/2"(40mm)  | 0.1 m <sup>3</sup> /min      |
|                  | 2"(50mm)  | 0.2 m <sup>3</sup> /min      |
|                  | 2 1/2"(65mm)  | 0.4 m <sup>3</sup> /min      |
|                  | 3"(80mm)  | 0.5 m <sup>3</sup> /min      |
|                  | 4"(100mm)   | 1.0 m <sup>3</sup> /min      |
|                  | 5"(125mm)   | 1.5 m <sup>3</sup> /min      |
|                  | 6"(150mm)   | 2.0 m <sup>3</sup> /min      |
|                  | 8"(200mm)   | 4.0 m <sup>3</sup> /min      |
|                  | 10"(250mm)  | 6.0 m <sup>3</sup> /min      |
|                  | 12"(300mm)  | 10.0 m <sup>3</sup> /min     |
| Insulation class | E class120°C<br>F class155°C  | B class130°C<br>H class180°C |

### Protector & Sensor

#### Auto-cut Protector

The Auto-cut protector is an automatic cut-off switch, installed inside the motor. The switch automatically cuts off power to the motor, in the event of a power surge or overheating. The switch automatically restarts the motor once the temperature drops to about 60~70°C.



#### Overheat Protector

The overheat protector is an automatic cut-off switch built into the single-phase motor, to monitor the temperature of the inner motor. The switch automatically cuts off power if the motor temperature exceeds the maximum allowable operating temperature (insulator class max. temperature). The switch automatically restarts the motor once the temperature drops to about 60~70°C.



#### Miniature Thermal Sensor (MTS)

MTS is embedded in every phase of the motor winding, and transmits a signal to the control panel. Control can be setup to cut off power when MT is activated, and restart when MT is deactivated.



#### MOISTURE SENSOR (MS)

Moisture sensor is used to detect moisture leakage through the mechanical seals. This occurs when the seal has been worn down or damaged; if moisture is found, the sensor will then trigger and transmit a signal to control panel. The control panel will then set off a warning signal and/or power off, to protect pump motor. If this occurs, schedule pump maintenance to replace mechanical seal.



Innovation · Professionalism · Service

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