# BD
# BD-SH

SUBMERSIBLE
DEWATERING PUMPS

60Hz




make future flow

# BD Series

## SUBMERSIBLE DEWATERING PUMPS

- Compact, robust and easy handling for all construction and civil engineering dewatering application conditions.
- SPHC double outer casing, water cooling motor for continuous duty, and low water level conditions.
- High efficient special impeller design in High Chrome Alloy steel (HiCrFC), with a hardness of 55 - 60 Rockwell, to stand high abrasive applications.
- The mechanical seal bracket is covered by EPDM with anti-abrasive wear. The casing is heat-treated nodular cast iron (FCD500) and the wear plate is made of high chrome alloy steel (HiCrFC) to resist the intensive abrasiveness of sand and gravel.
- Standard accessories include the cable with an epoxy resin sealed water-resistant cable base, Auto-cut motor protector, double mechanical seals, oil seal design, and High Solid Epoxy coating.
- Optional ADTC (Adapter Connection) Casing to connect suction with inline pipe, allowing surface/ inline/deep well pumping.

TAIWAN EXCELLENCE 2023




ADTC

## SPECIFICATIONS

| Spec. | Description |
|---|---|
| Liquid Temp. | 0~40°C (32~104°F) |
| Motor | 2P ( 3600rpm) • Dry Motor |
| Insulation | Class H |
| Protection | IP68 |
| Protector | Auto-cut |
| M.seal Type | Double M.seals |
| Impeller Type | Close |
| **Item** | **Material** |
| Outer Cover | SPHC / 620 |
| Upper Cover | FC200 / ASTM-30 |
| Motor Frame | FC200 / ASTM-30 |
| Shaft | SUS420J2 / ASTM 420 F |
| M.seal | CA/CE & SiC/SiC |
| Casing+ Wear Plate | FCD500 / Gr.65-45-12 + HiCrFC |
| Impeller | HiCrFC |
| Cable | VCT or SOW |

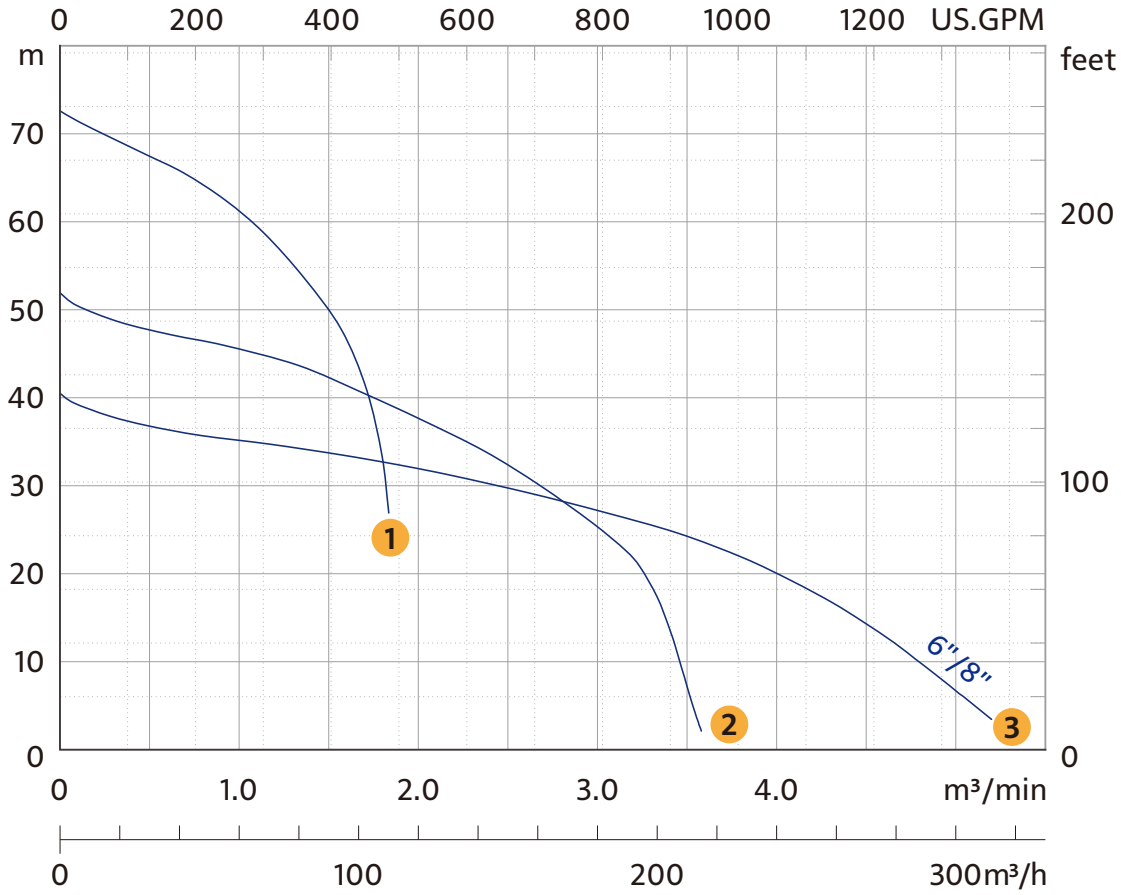
## PRODUCT NOMENCLATURE

| 150(200) | BD | 2 | 22 |
|---|---|---|---|
| Discharge mm | Type | Pole | kW |

## APPLICATIONS

- Dewatering for Civil engineering, tunneling, groundworks, mining and manhole sewer, and infrastructure construction, etc.
- River restoration, Dredging ditch drainage
- Flood control and large volume dewatering
- Wastewater Treatment in steel mills

## PERFORMANCE CURVES AND SPECS




| Model | Output HP(kW) | Discharge Inch(mm) | Phase Ø | Start Method | Standard ft-GPM | Max. ft-GPM | Solid Passage mm(inch) | Weight kg(lb) |
|---|---|---|---|---|---|---|---|---|
| 1 100BD222 | 30(22) | 4" (100) | 3 | DOL | 200.1-264 | 237.9-530 | 10(⅜") | 225(496) |
| 2 150BD222 | 30(22) | 6" (150) | 3 | DOL | 121.4-530 | 170.6-950 | 10(⅜") | 223(492) |
| 3 150(200)BD222 | 30(22) | 6" (150) | 3 | DOL | 103.4-530 | 132.9-1370 | 20(¾") | 222(489) |
| | | 8" (200) | | | 65.6-1060 | 132.9-1370 | | |

※ Excludes Cable & Oulet Weight.

# BD-SH Series

## SUBMERSIBLE DEWATERING PUMPS

- The pump can be used in narrow spaces such as 8-inch diameter pipes for construction dewatering, deep well water supply, and mine dewatering (Figure 1).
- The dual impeller design doubles the pumping head compared to a single impeller, meeting high-head dewatering needs.
- A high-pressure shaft seal ensures durability and reliability of longer operating time under high-head and pressure conditions.
- The casing cover is made with heat-treated nodular cast-iron FCD500, reducing wear and tear.
- Casting parts are coated with high-solids epoxy to improve anti-corrosion resistance and extend product life.
- Standard accessories include an epoxy resin-sealed cable base, an auto-cut motor protector, silicon carbide double mechanical seals, oil seal design, and high-solid epoxy coating.






ADTC

## SPECIFICATIONS

| Spec. | Description |
|---|---|
| Liquid Temp. | 0~40°C (32~104°F) |
| Motor | 2P ( 3600rpm) • Dry Motor |
| Insulation | Class F |
| Protection | IP68 |
| Protector | Auto-cut |
| M.seal Type | Double M.seals |
| Impeller Type | Open |
| **Item** | **Material** |
| Outer Cover | SPCC / A366 |
| Upper Cover | FC200 / ASTM-30 |
| Motor Frame | FC200 / ASTM-30 |
| Shaft | SUS403 / ASTM 403 |
| M.seal | CA/CE & SiC/SiC |
| Casing + Wear Plate | FCD500 / Gr.65-45-12 + SUS304 / AISI 304 |
| Impeller | HiCrFC |
| Cable | VCT or SOW |

## PRODUCT NOMENCLATURE

| 50 | BD | 2 | 3.0 | SH |
|---|---|---|---|---|
| Discharge mm | Type | Pole | kW | high heads |

## APPLICATIONS

- Dewatering for Civil engineering, tunneling, groundworks, mining, manhole sewer, and infrastructure construction, etc.
- Working shaft water supply and dewatering
- Any other application require tandem connection for positive pressure and high-head conditions

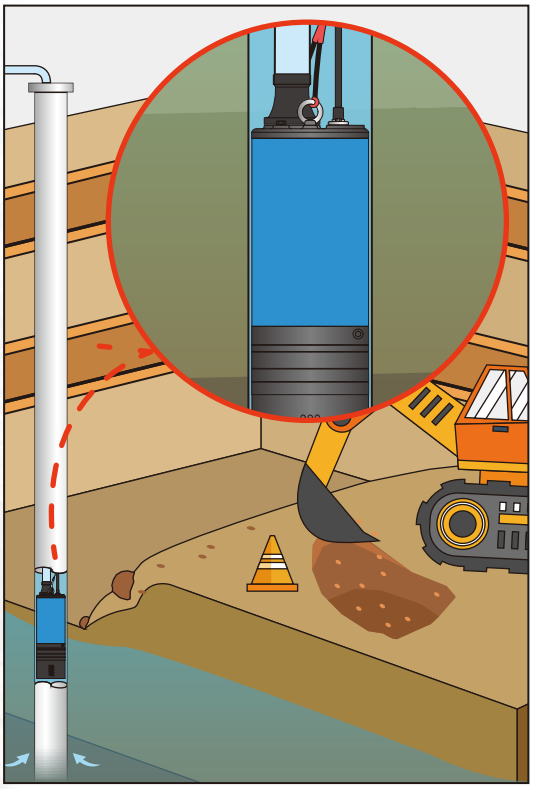
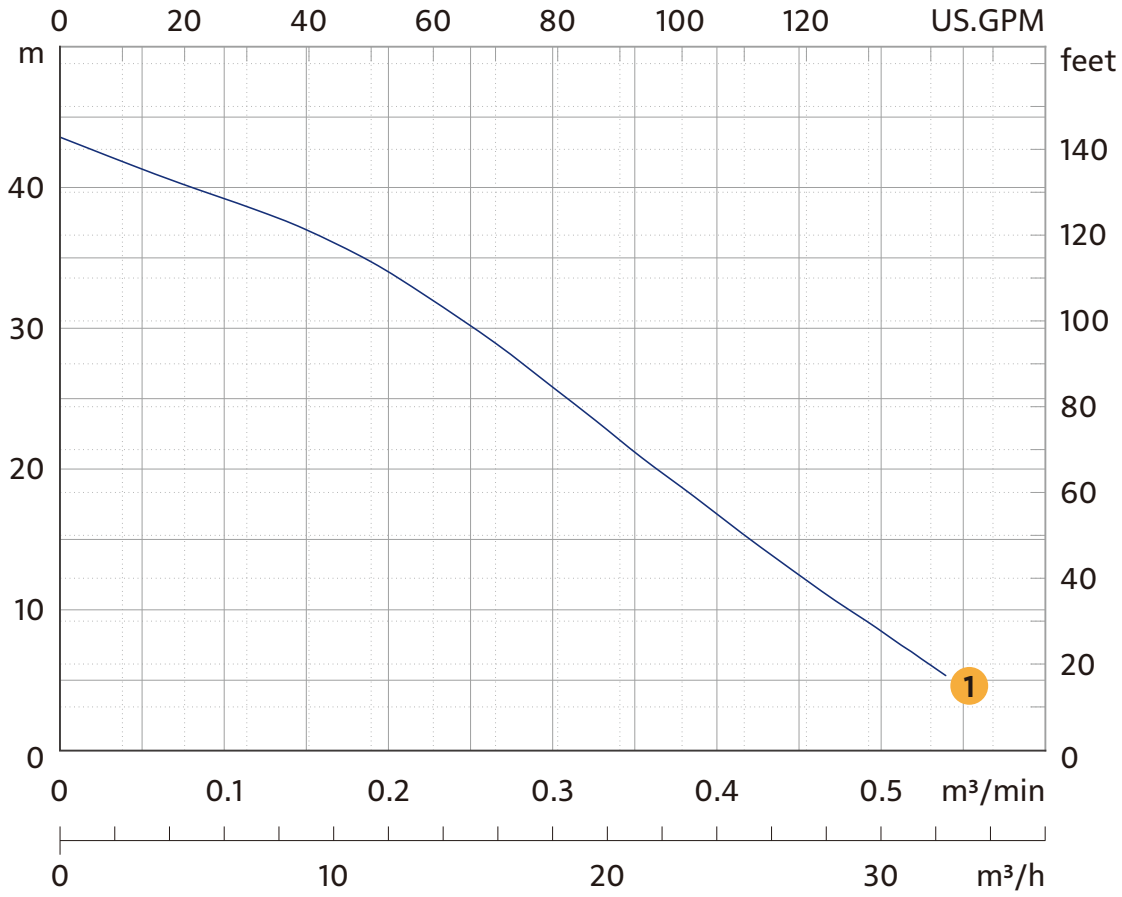


Figure1. The pump can be installed in an 8-inch well for dewatering.

## PERFORMANCE CURVES AND SPECS




| Model | Output HP(kW) | Discharge Inch(mm) | Phase Ø | Start Method | Standard ft-GPM | Max. ft-GPM | Solid Passage mm(inch) | Weight kg(lb) |
|---|---|---|---|---|---|---|---|---|
| 1 50BD23.0SH | 4(3.0) | 2" (50) | 3 | DOL | 108.3-52 | 141.1-140 | 7(¼") | 46(101) |

※ Excludes Cable & Oulet Weight.

# OPTIONAL OUTLET SET

| Output HP(kW) | Discharge inch(mm) | Lower PCD*Holes | LOH Hose Connection | LOT Male Thread Connection | LOF Flange Connection |
|---|---|---|---|---|---|
| | | |  |  |  |
| 4(3.0) | 2"(50) | 98*4 | LOH2-98 | LOT2-98 | LOF2-120-125*98 |
| 30(22) | 4"(100) | 185*5 | LOH4-185 | LOT4-185 | - |
| | 6"(150) | 185*5 | LOH6-185 | LOT6-185 | - |
| | 8"(200) | 185*5 | LOH8-185 | - | - |

| Output HP(kW) | Discharge inch(mm) | Lower PCD*Holes | LKF Double Flange Set | LOC Center Line Flange | LEB Elbow Sets |
|---|---|---|---|---|---|
| | | |  |  |  |
| 4(3.0) | 2"(50) | 98*4 | LKF2-120*98 | LOC2-120*98 | LEBX-98 |
| 30(22) | 4"(100) | 185*5 | - | - | - |
| | 6"(150) | 185*5 | - | LOC6-240*185 | - |
| | 8"(200) | 185*5 | - | - | - |

### Accessories: Loc Center Line Flange

Pumps require center align could adapt with LOC sets, which can prevent center of gravity (CG) swift under pipe connection, keep dewatering in alignment with pipe arrangement.

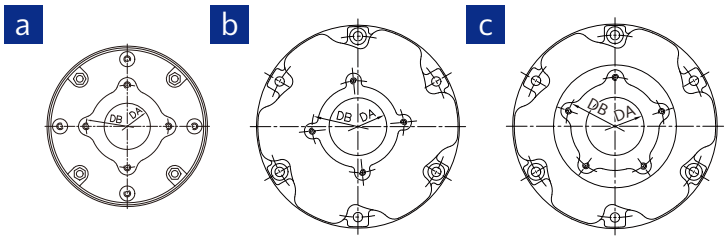
### Product Nomenclature

LOH — Type; 4 — Discharge; 185 — PCD

LOF — Type; 2 — Discharge; 120 – 125 — PCD (upper flange) * 98 — PCD (lower flange)

# PARTS: LOF FLANGE CONNECTION

The optional LOF flange connection can be purchased to convert the BD-SH Series into an ADTC (Adapter Connection) type for tandem connection in a positive pressure environment.


### Optional ADTC (adapter Connection) Casing

| Figure | Model | mm | | Bolt Size | Screw Number |
|---|---|---|---|---|---|
| | | DA | DB | | |
| a | 50BD23.0SH | 55 | 98 | M8*25L | 4 |
| b | 100BD222 | 100 | 175 | M12*30L | 4 |
| b | 150BD222 | 110 | 175 | M12*35L | 4 |
| c | 150(200)BD222 | 120 | 185 | M12*35L | 5 |

# TANDEM CONNECTION

Tandem Connection involves linking two BD-SH Series pumps to double the head compared to a single pump under the same flow.

Caution for Installation:For guidance and technical support on tandem connection, please consult your HCP distributor for model selection, piping, and installation methods.

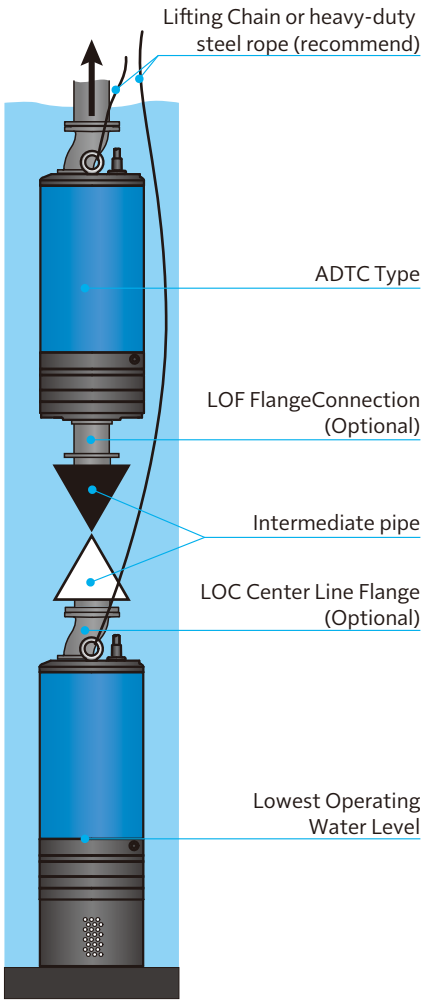
1.Tandem Connection can double the pump's head, operating between 40~70m; the maximum pressure the pump can handle is 7.0kg/cm², and the pumps must be connected by an intermediate pipe.

2.Check the weight-bearing capacity for the 2 eyebolts on each pump and ensure the weight of the intermediate pipes and the weight force exerted on the eyebolts during installation and lifting do not exceed the weight-bearing capacity at all times.

3.The lower pump must be installed at the pit bottom. Do not hang the pump in mid-air nor put the weight of the intermediate pipe and the upper pump on the lower pump.

4.The pump must be vertically installed at the pit bottom to maintain a constant pumping pressure. Do not install the pumps horizontally in the pit nor on the ground.

5.Do not connect pumps of different models. Incorrect connection will lead to operation failure and malfunction.



# PRODUCT FEATURES


**Close Impeller**

**Open Impeller**

### 1 Epoxy Cable Base

An epoxy resin seal cable base prevents moisture from entering the motor through the core wires.

### 2 Auto-cut Protector

Automatic On / Off motor protector to prevent motor burn out due to high temperature and excess amperage draw.

### 3 High Efficiency Dry Motors

All stator coils are treated with insulating varnish procedures to achieve the best insulation, efficiency and durability.

### 4 Double Mechanical Seals

Superior abrasion resistant mechanical seal is manufactured with silicon carbide to ensure the best seal effect.





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Selection system

Catalog



DBDEN6-2509