# BD
# BD-SH

SUBMERSIBLE
DEWATERING PUMPS

60Hz




make future flow

# BD Series

## SUBMERSIBLE DEWATERING PUMPS

- Built tough for construction and civil engineering sites and mining processes, offering stable and reliable performance.
- SPHC double outer cover and water-cooled motor for continuous operation, even in a low water level environment.
- High Chrome Alloy steel (HiCrFC) impeller, 55-60 Rockwell hardness, maximizing efficiency and lifespan in abrasive applications. HiCrFC wear plate stands up to the abrasion of sand and gravel-laden environments that keep consistent performance and minimal maintenance.
- EPDM-covered mechanical seal bracket and heat-treated nodular cast iron (FCD500) casing resist the intensive abrasion of sand and gravel.
- Optional ADTC (Adapter Connection) allows direct suction-to-inline piping connection, giving flexibility and reduced setup time.

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 |

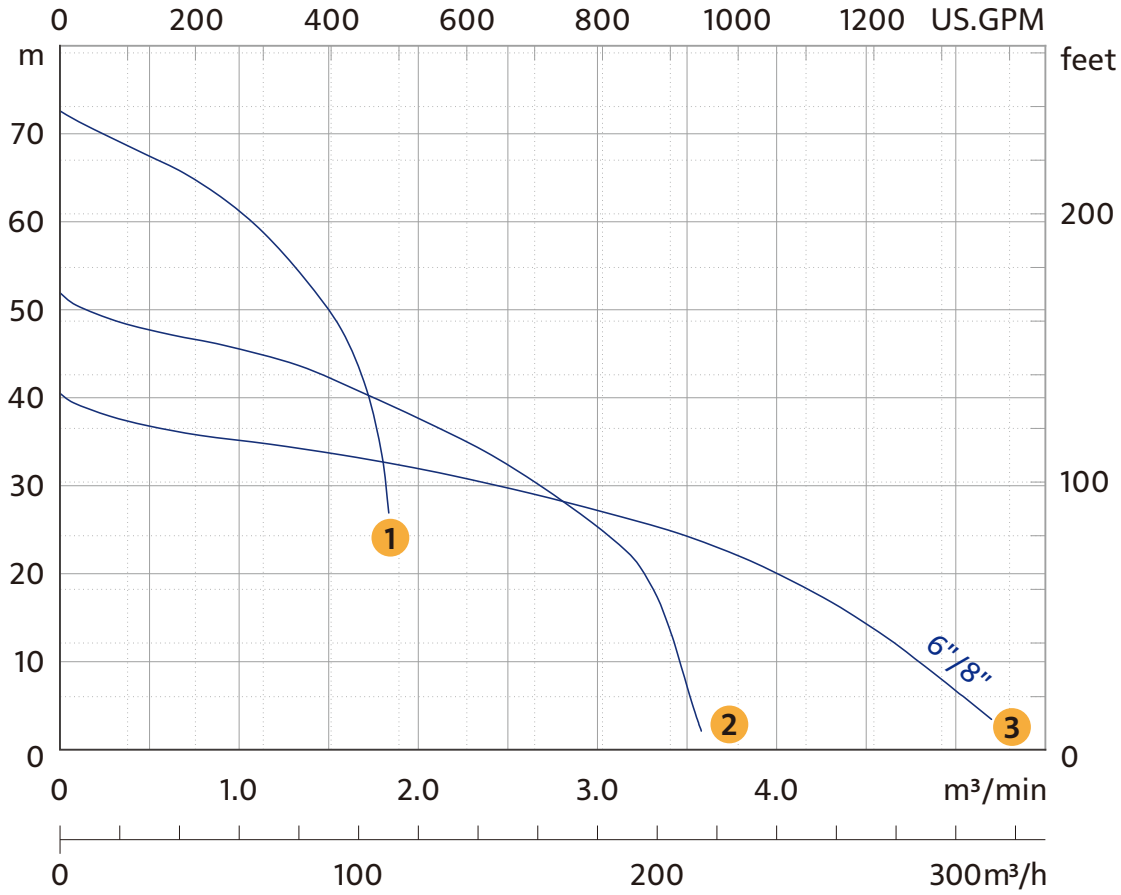
## PRODUCT NOMENCLATURE

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

## APPLICATIONS

- Heavy-duty abrasive slurry handling in sand/gravel pits and quarries
- Mining site dewatering
- Construction dewatering for infrastructure project, tunneling, groundworks, and manhole sewer
- Wastewater treatment in steel mills
- Flood control and large volume dewatering
- River restoration and dredging drainage

## 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

- Compact and suitable for use in confined areas 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 model, meeting high-head dewatering needs.
- Engineered for durability and reliability, the high-pressure shaft seal enables extended operation under demanding high-head and high-pressure conditions.
- The casing cover is manufactured from heat-treated nodular cast iron (FCD500), providing superior resistance to wear and abrasion.
- All cast components are coated with a high-solids epoxy finish, delivering excellent corrosion resistance and extending overall service life.






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 operations
- Applications require a tandem connection for positive pressure and high-head conditions

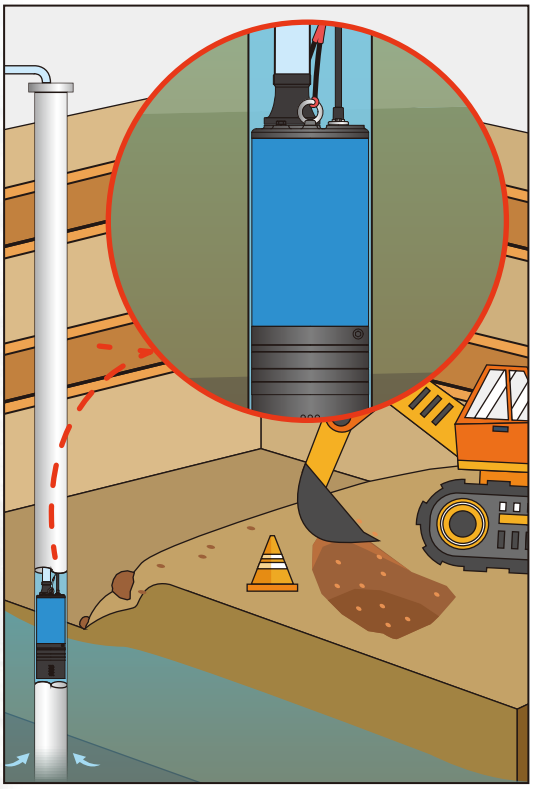
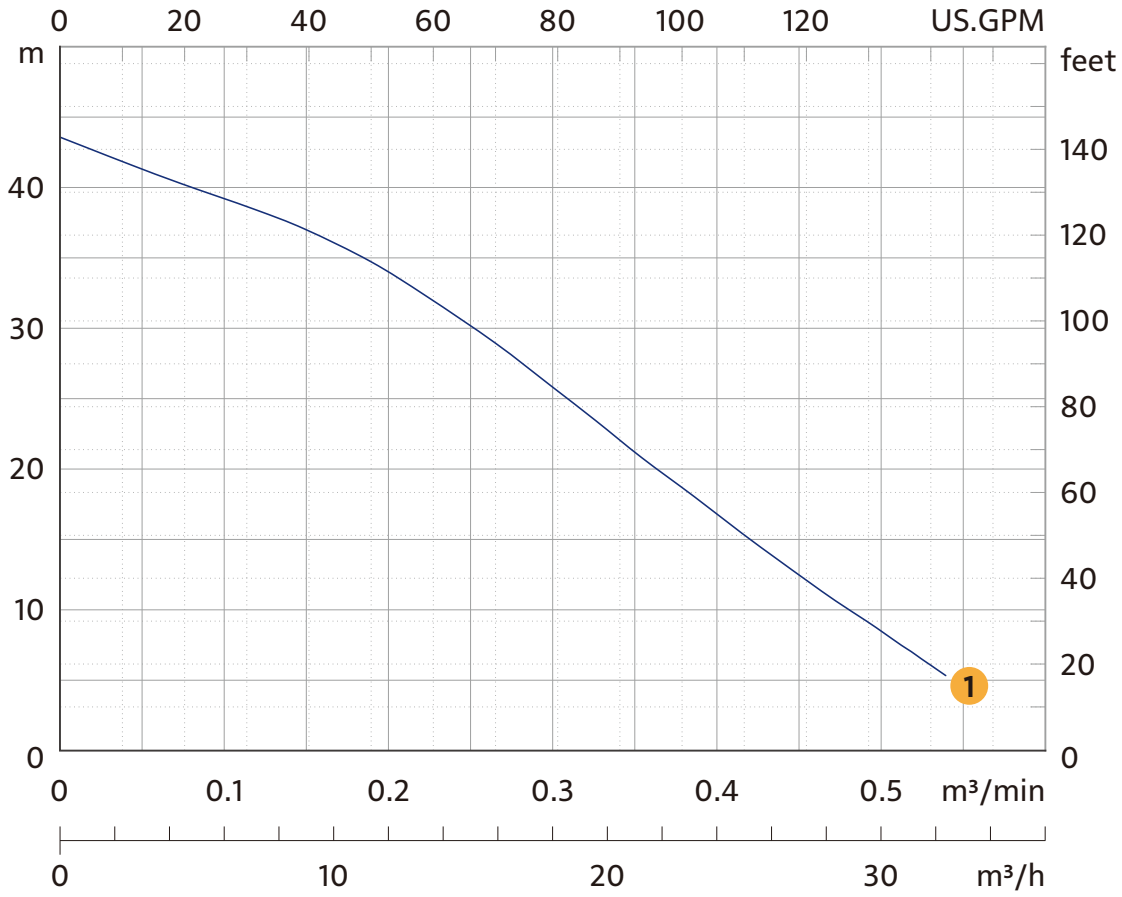


Figure1. The pump can be installed in an 8-inch well for dewatering.

## 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.

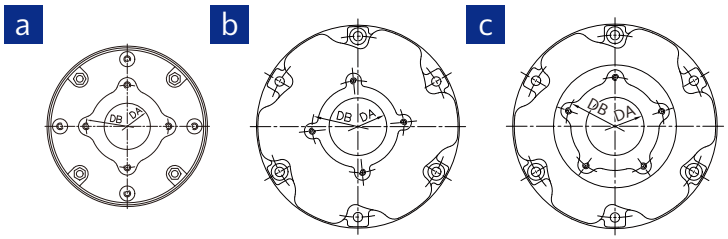
### Product Nomenclature

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

Double the head with the same flow by connecting 2 BD-SH Series pumps.

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

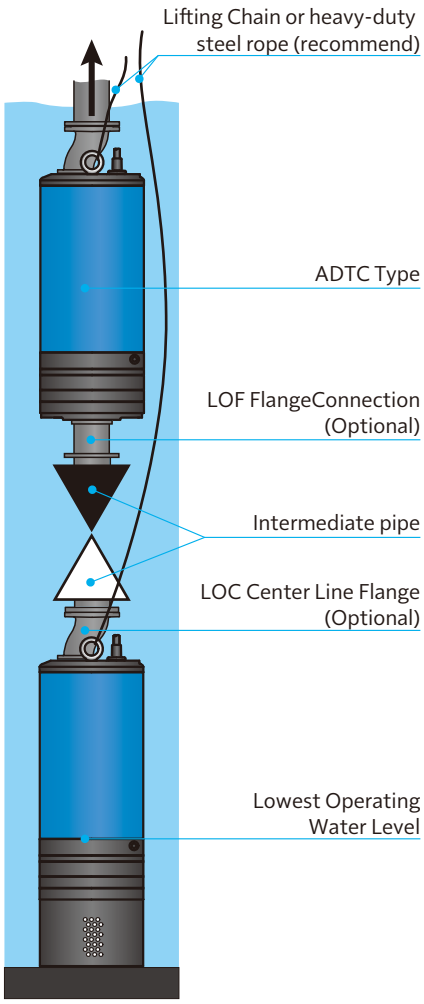
1. Tandem Connection, with a typical operating range between 40~70m, the maximum pressure the pump can handle is 7.0kg/cm², and the pumps must be connected using an intermediate pipe.

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

3. The lower pump must be installed at the pit bottom. Do not suspend the pump in mid-air or place the weight of the intermediate pipe and the upper pump on the lower pump.

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

5. Do not connect pumps of different models in tandem. Incorrect combinations can cause operational instability, reduced performance, or mechanical failure.



# 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



DBDEN6-2603