Specifications:

**DISCHARGE** ................. 4", 125 lb. Horizontal Flange

**LIQUID TEMPERATURE** ...... 104°F (40°C) Continuous

**VOLUTE** ........................ Cast Iron ASTM A-48, Class 30

**WEAR RING** .................... C954 Lead-Free Bronze

**SEAL PLATE** ................... Cast Iron ASTM A-48, Class 30

**IMPELLER:**
- Design: Enclosed Dual Vane, With Pump Out

**SHAFT** .......................... 416 Stainless Steel

**"O" RINGS** ....................... Buna-N

**HARDWARE** ...................... 300 Series Stainless Steel

**PAINT** ........................... 300 Series Stainless Steel

**SEAL:**
- Design: Tandem Mechanical, Oil Filled Reservoir.
- Material: Inboard - Rotating Faces - Carbon, Stationary Faces - Ceramic
- Outboard - Rotating Faces - Silicon Carbide, Stationary Faces - Silicon Carbide

**CORD ENTRY** .................... Custom Molded, Quick Connected for Sealing and Strain Relief

**POWER CORD** .................. CSA Certified Submersible Power Cable 2000V - Ordered Separately

**SPEED** ............................ 1750 RPM

**UPPER BEARING:**
- Design: Single Row, Ball, Oil Lubricated
- Load: Radial

**LOWER BEARING:**
- Design: Double Row, Ball, Oil Lubricated
- Load: Radial & Thrust

**MOTOR:**
- Design: NEMA B - Three Phase Torque Curve
- Insulation: Class H Varnish & Magnet Wire

**SINGLE PHASE** ............... Requires overload protection to be included in control panel. Requires start components to be included in panel. Provided with pump.

**THREE PHASE** ................. Requires overload protection to be included in control panel.

**MOISTURE SENSOR** .......... Normally Open (N/O), Requires Relay in Control Panel

**TEMPERATURE SENSOR** ...... Three Normally Closed (N/C), To be wired in series with control circuit.

**OPTIONAL EQUIPMENT** ....... White Iron Impeller, Seal Material, Impeller Trims, Cord Length

**MARKINGS** ..................... CSA, CE

**WEIGHT** ........................ 228 lbs (104 Kg)

**NOISE EMISSION MAX** ...... In-Air 65 dB-A

**SUBMERGENCE** ............... Max Depth 66ft (20m)

**RECOMMENDED:**
- Accessories: Break Away Fitting (BAF), Check Valve, Control Panel, Leg Kit

---

**DESCRIPTION:**

SUBMERSIBLE NON-CLOG PUMP DESIGNED FOR RAW SEWAGE APPLICATIONS.

**WARNING:**
CANCER AND REPRODUCTIVE HARM - WWW.P65WARNINGS.CA.GOV
Specifications:

- **Discharge**: 4", 125 lb. Horizontal Flange, slotted to accommodate 100mm ISO Flanges
- **Liquid Temperature**: 104°F (40°C) Continuous
- **Volute**: Cast Iron ASTM A-48, Class 30
- **Wear Ring**: C954 Lead-Free Bronze
- **Motor Housing**: Cast Iron ASTM A-48, Class 30
- **Seal Plate**: Cast Iron ASTM A-48, Class 30
- **Impeller Design**: Enclosed Dual Vane, With Pump Out Vanes on Back Side. Dynamically Balanced ISO G6.3
- **Shaft Material**: Ductile Iron ASTM A-536, 65-45-12
- **"O" Rings**: Buna-N
- **Hardware**: 300 Series Stainless Steel
- **Lifting Bail**: 300 Series Stainless Steel
- **Paint**: Axalta™ Corlar® Epoxy, Two Coats
- **Seal Design**: Tandem Mechanical, Oil Filled Reservoir. Inboard Rotating Faces - Carbon Stationary Faces - Ceramic Outboard Rotating Faces - Silicon Carbide Stationary Faces - Silicon Carbide Elastomer - Buna-N Hardware - 300 Series Stainless
- **Cord Entry**: Custom Molded, Quick Connected for Sealing and Strain Relief
- **Power Cord**: CSA Certified Submersible Power Cable 2000V - Ordered Separately
- **Speed**: 1750 or 1150 RPM
- **Upper Bearing Design**: Single Row, Ball, Oil Lubricated
- **Lower Bearing Design**: Double Row, Ball, Oil Lubricated
- **Motor Design**: NEMA B Three Phase Torque Curve. Oil-Filled, Squirrel Cage Induction, Inverter Duty rated per NEMA MG1
- **Insulation**: Class H Varnish & Magnet Wire
- **Three Phase**: Requires overload protection to be included in control panel.
- **Moisture Sensor**: Normally Open (N/O), Requires Relay in Control Panel
- **Temperature Sensor**: Three Normally Closed (N/C). To be wired in series with control circuit.
- **Optional Equipment**: White Iron Impeller, Seal Material, Impeller Trims, Cord Length
- **Markings**: CSA, CE
- **Weight**: 634 lbs (288 Kg)
- **Noise Emission Max**: In-Air 73 dB-A
- **Submergence**: Max Depth 66ft (20m)

**Series: 4SHD**

15 - 30HP, 1750RPM, 60Hz
7.5 - 20HP, 1150RPM, 60Hz

**Description**: Submersible Non-Clog Pump Designed for Raw Sewage Applications.

**Warning**: Cancer and Reproductive Harm - WWW.P65WARNINGS.CA.GOV
Specifications:

**DISCHARGE** ........................................ 4", 125 lb. Horizontal Flange

**LIQUID TEMPERATURE** .................. 104°F (40°C) Continuous

**VOLUTE** ........................................... Cast Iron ASTM A-48, Class 30

**WEAR RING** ......................................... C954 Lead-Free Bronze

**MOTOR HOUSING** ...................... Cast Iron ASTM A-48, Class 30

**SEAL PLATE** ................................... Ductile Iron ASTM A-536, 65-45-12

**IMPELLER:**
- **Design** ............... Enclosed Dual Vane, With Pump Out
- **Material** ............... Ductile Iron ASTM A-536, 65-45-12

**SHAFT** ........................................... 416 Stainless Steel

**“O” RINGS** ............................................. Buna-N

**HARDWARE** ........................................... 300 Series Stainless Steel

**LIFTING BAIL** ................................... 300 Series Stainless Steel

**PAINT** ............................................. Axalta™ Corlar® Epoxy, Two Coats

**SEAL:**
- **Design** ............... Tandem Mechanical, Oil Filled Reservoir
- **Material:**
  - Inboard - Rotating Faces - Carbon
  - Stationary Faces - Ceramic
- **Material:**
  - Outboard - Rotating Faces - Silicon Carbide
  - Stationary Faces - Silicon Carbide
- **Elastomer** .......... Buna-N
- **Hardware** ............... 300 Series Stainless

**CORD ENTRY** .................................. 50 ft. (12.1m) Cord. Rigid quick change epoxy-potted housing

**POWER CORD** ..................................... CSA Certified Submersible Power

**SPEED** ............................................ 1750 or 1150 RPM

**UPPER BEARING:**
- **Design** ............... Single Row, Ball, Oil Lubricated
- **Load** ............... Radial

**LOWER BEARING:**
- **Design** ............... Double Row, Ball, Oil Lubricated
- **Load** ............... Radial & Thrust

**MOTOR:**
- **Design** ............... NEMA B Three Phase Torque Curve
- **Insulation** .......... Class H Varnish & Magnet Wire

**THREE PHASE** .................................. Requires overload protection to be included in control panel.

**MOISTURE SENSOR** ................. Normally Open (N/O), Requires

**TEMPERATURE SENSOR** ............ Three Normally Closed (N/C), To be wired in series with control circuit.

**OPTIONAL EQUIPMENT** ................. White Iron Impeller, Seal Material, Impeller Trims, Cord Length

**MARKINGS** ........................................... CSA

**WEIGHT** .......................................... 842 lbs (382 Kg)

**SUBMERSION** ................................... Max Depth 66ft (20m)

**RECOMMENDED:**
- **Accessories** ............... Break Away Fitting (BAF)
- **Check Valve** ............... Control Panel
- **Leg Kit** ...............

---

**DESCRIPTION:**

SUBMERSIBLE NON-CLOG PUMP DESIGNED FOR RAW SEWAGE APPLICATIONS.

---

**WARNING:**
CANCER AND REPRODUCTIVE HARM - WWW.P65WARNINGS.CA.GOV
Solids Handling Submersible Pumps

Specifications:

DISCHARGE .......................... 4", 125 lb. Horizontal Flange
Slotted to accommodate 100mm ISO Flanges
LIQUID TEMPERATURE .......... 104°F (40°C) Continuous
VOLUTE ............................... Cast Iron ASTM A-48, Class 30
WEAR RING ......................... C954 Lead-Free Bronze
MOTOR HOUSING ................. Cast Iron ASTM A-48, Class 30
SEAL PLATE ......................... Cast Iron ASTM A-48, Class 30

IMPELLER:

Design ....................... Enclosed Dual Vane, With Pump Out
Vanes on Back Side. Dynamically
Balanced ISO G6.3
Material ................. Ductile Iron ASTM A-536, 65-45-12
SHAFT ...................... 416 Stainless Steel
"O" RINGS ....................... Buna-N
HARDWARE ................... 300 Series Stainless Steel
LIFTING BAIL .................. 300 Series Stainless Steel
PAINT ......................... Axalta™ Corlar® Epoxy, Two Coats
SEAL:

Design ....................... Tandem Mechanical, Oil Filled Reservoir.
Material: Inboard...... Rotating Faces - Carbon
Stationary Faces - Ceramic
Material: Outboard... Rotating Faces - Silicon Carbide
Stationary Faces - Silicon Carbide
Elastomer - Buna-N
Hardware - 300 Series Stainless
Cord Entry ................... 50 ft. (12.1m) Cord. Rigid quick change epoxy-potted
housing
POWER CORD ..................... CSA Certified Submersible Power
Cable 2000V - Ordered Separately
SPEED ............................ 1750 RPM

UPPER BEARING:

Design ....................... Single Row, Ball, Oil Lubricated
Load ......................... Radial
LOWER BEARING:

Design ....................... Double Row, Ball, Oil Lubricated
Load ........................ Radial & Thrust
MOTOR: Design .................. NEMA B Three Phase Torque Curve.
Oil-Filled, Squirrel Cage Induction, Inverter Duty
rated per NEMA MG1
Insulation .................. Class H Varnish & Magnet Wire
THREE PHASE ................. Requires overload protection to be included in
control panel.

MOISTURE SENSOR .......... Normally Open (N/O), Requires
Relay in Control Panel
TEMPERATURE SENSOR .... Three Normally Closed (N/C).
To be wired in series with control circuit.
OPTIONAL EQUIPMENT ...... White Iron Impeller, Seal Material, Impeller Trims,
Cord Length
MARKINGS ....................... CSA
WEIGHT ........................... 1553 lbs (705 Kg)
SUBMERGENCE ............... Max Depth 66ft (20m)

RECOMMENDED:

Accessories .................. Break Away Fitting (BAF)
Check Valve
Control Panel
Leg Kit

DESCRIPTION:

SUBMERSIBLE NON-CLOG PUMP
DESIGNED FOR RAW SEWAGE
APPLICATIONS.

WARNING:
CANCER AND REPRODUCTIVE HARM - WWW.P65WARNINGS.CA.GOV
IMPORTANT!

1.) MOISTURE AND TEMPERATURE SENSORS MUST BE CONNECTED TO VALIDATE THE CSA LISTING.
2.) A SPECIAL MOISTURE SENSOR RELAY IS REQUIRED IN THE CONTROL PANEL FOR PROPER OPERATION OF THE MOISTURE SENSORS. CONTACT BARNES PUMPS FOR INFORMATION CONCERNING MOISTURE SENSING RELAYS FOR CUSTOMER SUPPLIED CONTROL PANELS.
3.) THESE PUMPS ARE CSA LISTED FOR PUMPING WATER AND WASTEWATER. DO NOT USE TO PUMP FLAMMABLE LIQUIDS.
4.) INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.
5.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS 1 DIVISION 1 HAZARDOUS LOCATIONS.
IMPORTANT!

1.) MOISTURE AND TEMPERATURE SENSORS MUST BE CONNECTED TO VALIDATE THE CSA LISTING.

2.) A SPECIAL MOISTURE SENSOR RELAY IS REQUIRED IN THE CONTROL PANEL FOR PROPER OPERATION OF THE MOISTURE SENSORS.

3.) THESE PUMPS ARE CSA LISTED FOR PUMPING WATER AND WASTEWATER. DO NOT USE TO PUMP FLAMMABLE LIQUIDS.

4.) INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.

5.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS 1 DIVISION 1 HAZARDOUS LOCATIONS.
IMPORTANT!

1.) MOISTURE AND TEMPERATURE SENSORS MUST BE CONNECTED TO VALIDATE THE CSA LISTING.
2.) A SPECIAL MOISTURE SENSOR RELAY IS REQUIRED IN THE CONTROL PANEL FOR PROPER OPERATION OF THE MOISTURE SENSORS. CONTACT BARNES PUMPS FOR INFORMATION CONCERNING MOISTURE SENSING RELAYS FOR CUSTOMER SUPPLIED CONTROL PANELS.
3.) THESE PUMPS ARE CSA LISTED FOR PUMPING WATER AND WASTEWATER. DO NOT USE TO PUMP FLAMMABLE LIQUIDS.
4.) INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.
5.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS 1 DIVISION 1 HAZARDOUS LOCATIONS.
IMPORTANT!

1.) MOISTURE AND TEMPERATURE SENSORS MUST BE CONNECTED TO VALIDATE THE CSA LISTING.

2.) A SPECIAL MOISTURE SENSOR RELAY IS REQUIRED IN THE CONTROL PANEL FOR PROPER OPERATION OF THE MOISTURE SENSORS. CONTACT BARNES PUMPS FOR INFORMATION CONCERNING MOISTURE SENSING RELAYS FOR CUSTOMER SUPPLIED CONTROL PANELS.

3.) THESE PUMPS ARE CSA LISTED FOR PUMPING WATER AND WASTEWATER. DO NOT USE TO PUMP FLAMMABLE LIQUIDS.

4.) INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.

5.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS 1 DIVISION 1 HAZARDOUS LOCATIONS.
## Series 4SHD

### 3" Spherical Solids Handling

**Solids Handling Submersible Pumps**

<table>
<thead>
<tr>
<th>MODEL NO</th>
<th>HP</th>
<th>VOLT</th>
<th>PH</th>
<th>Hz</th>
<th>RPM</th>
<th>FULL LOAD AMPS</th>
<th>SERVICE FACTOR</th>
<th>AMPS</th>
<th>LOCKED ROTOR AMPS</th>
<th>SERVICE FACTOR</th>
<th>FRAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>4SHDF-3074</td>
<td>3.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>3.0</td>
<td>14.9</td>
<td>12</td>
<td>16.5</td>
<td>68.3</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-30N4</td>
<td>3.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>3.0</td>
<td>14.9</td>
<td>12</td>
<td>16.5</td>
<td>68.3</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-3054</td>
<td>3.0</td>
<td>575</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>3.0</td>
<td>14.9</td>
<td>12</td>
<td>16.5</td>
<td>68.3</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-5074</td>
<td>5.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>5.0</td>
<td>25.4</td>
<td>12</td>
<td>35.6</td>
<td>99.9 / 112.4</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-50N4</td>
<td>5.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>5.0</td>
<td>25.4</td>
<td>12</td>
<td>35.6</td>
<td>99.9 / 112.4</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-5054</td>
<td>5.0</td>
<td>575</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>5.0</td>
<td>25.4</td>
<td>12</td>
<td>35.6</td>
<td>99.9 / 112.4</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-7574</td>
<td>7.5</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>7.5</td>
<td>32.2</td>
<td>12</td>
<td>41.4</td>
<td>105.9 / 123.6</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-75N4</td>
<td>7.5</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>7.5</td>
<td>32.2</td>
<td>12</td>
<td>41.4</td>
<td>105.9 / 123.6</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-7554</td>
<td>7.5</td>
<td>575</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>7.5</td>
<td>32.2</td>
<td>12</td>
<td>41.4</td>
<td>105.9 / 123.6</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-10074</td>
<td>10.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>10.0</td>
<td>39.7</td>
<td>12</td>
<td>53.7</td>
<td>105.9 / 123.6</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-100N4</td>
<td>10.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>10.0</td>
<td>39.7</td>
<td>12</td>
<td>53.7</td>
<td>105.9 / 123.6</td>
<td>18</td>
</tr>
<tr>
<td>4SHDF-10054</td>
<td>10.0</td>
<td>575</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>10.0</td>
<td>39.7</td>
<td>12</td>
<td>53.7</td>
<td>105.9 / 123.6</td>
<td>18</td>
</tr>
</tbody>
</table>

**IMPORTANT!**

- Moisture and Temperature sensor leads are integral to power cord.
- Pump rated for operation at ± 10% voltage at motor.
- Cord suffixes: X - 20-foot, Y - 50-foot, or XL - 100-foot.

▲ Cord sold separately.
# Solids Handling Submersible Pumps

**Series 4SHD**

**3” Spherical Solids Handling**

## Model Information

<table>
<thead>
<tr>
<th>MODEL NO</th>
<th>HP (Nom)</th>
<th>VOLT</th>
<th>PH</th>
<th>RPM (Nom)</th>
<th>FULL LOAD AMPS</th>
<th>START CODE</th>
<th>NEMA START CODE</th>
<th>SERVICE FACTOR FULL</th>
<th>SERVICE FACTOR Amps</th>
<th>LOCKED ROTOR Amps</th>
<th>DRIVER FRAME</th>
<th>FRAME</th>
<th>CORD P/N ▲</th>
<th>CORD SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4SHDG05074</td>
<td>5.0</td>
<td>208</td>
<td>1</td>
<td>1750</td>
<td>12</td>
<td>35.6</td>
<td>D</td>
<td>27.2</td>
<td>99.9</td>
<td>18</td>
<td>125498</td>
<td>84 - 184</td>
<td>4SHDG5074</td>
<td></td>
</tr>
<tr>
<td>4SHDG150N4</td>
<td>7.5</td>
<td>208</td>
<td>3</td>
<td>1750</td>
<td>J</td>
<td>6.9</td>
<td>6.0</td>
<td>6.0</td>
<td>575</td>
<td>18</td>
<td>125496</td>
<td>84 - 184</td>
<td>4SHDG150N4</td>
<td></td>
</tr>
<tr>
<td>4SHDG75N4</td>
<td>7.5</td>
<td>208</td>
<td>3</td>
<td>1750</td>
<td>H</td>
<td>10.9</td>
<td>9.5</td>
<td>9.5</td>
<td>575</td>
<td>18</td>
<td>125496</td>
<td>84 - 184</td>
<td>4SHDG75N4</td>
<td></td>
</tr>
<tr>
<td>4SHDG100N4</td>
<td>10.0</td>
<td>208</td>
<td>3</td>
<td>1750</td>
<td>E</td>
<td>35.6</td>
<td>11.9</td>
<td>11.9</td>
<td>575</td>
<td>18</td>
<td>125496</td>
<td>84 - 184</td>
<td>4SHDG100N4</td>
<td></td>
</tr>
<tr>
<td>4SHDG15054</td>
<td>15.0</td>
<td>208</td>
<td>3</td>
<td>1750</td>
<td>E</td>
<td>41.4</td>
<td>11.9</td>
<td>11.9</td>
<td>575</td>
<td>18</td>
<td>125497</td>
<td>12/4 - 18/4</td>
<td>4SHDG15054</td>
<td></td>
</tr>
<tr>
<td>4SHDG200N4</td>
<td>20.0</td>
<td>208</td>
<td>3</td>
<td>1750</td>
<td>J</td>
<td>27.2</td>
<td>11.9</td>
<td>11.9</td>
<td>575</td>
<td>18</td>
<td>125497</td>
<td>12/4 - 18/4</td>
<td>4SHDG200N4</td>
<td></td>
</tr>
</tbody>
</table>

## Important Notes

- Moisture and temperature sensor leads are integral to power cord.
- Pump rated for operation at ± 10% voltage at motor.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
- ▲ Cord sold separately.
## Solids Handling Submersible Pumps

### Series 4SHD

3" Spherical Solids Handling

**MODEL NO.**

<table>
<thead>
<tr>
<th>HP</th>
<th>VOLT (Nom)</th>
<th>PH.</th>
<th>Hz</th>
<th>RPM</th>
<th>NEMA START CODE</th>
<th>FULL LOAD AMPS</th>
<th>SERVICE FACTOR</th>
<th>SERVICE FACTOR AMPS</th>
<th>FULL LOAD CORD SIZE</th>
<th>NEMA START CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>E</td>
<td>40.9</td>
<td>1.2</td>
<td>59.0</td>
<td>206.6</td>
<td>125498</td>
</tr>
<tr>
<td>20.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>J</td>
<td>57.8</td>
<td>1.2</td>
<td>89.1</td>
<td>239.9</td>
<td>125497</td>
</tr>
<tr>
<td>25.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>J</td>
<td>77.4</td>
<td>1.2</td>
<td>119.5</td>
<td>339.0</td>
<td>125497</td>
</tr>
<tr>
<td>30.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>G</td>
<td>97.4</td>
<td>1.2</td>
<td>149.5</td>
<td>439.0</td>
<td>125497</td>
</tr>
<tr>
<td>40.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>G</td>
<td>117.4</td>
<td>1.2</td>
<td>179.5</td>
<td>539.0</td>
<td>125497</td>
</tr>
<tr>
<td>50.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>G</td>
<td>137.4</td>
<td>1.2</td>
<td>199.5</td>
<td>639.0</td>
<td>125497</td>
</tr>
<tr>
<td>60.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>G</td>
<td>157.4</td>
<td>1.2</td>
<td>219.5</td>
<td>739.0</td>
<td>125497</td>
</tr>
<tr>
<td>75.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>G</td>
<td>177.4</td>
<td>1.2</td>
<td>239.5</td>
<td>839.0</td>
<td>125497</td>
</tr>
<tr>
<td>100.0</td>
<td>208</td>
<td>3</td>
<td>60</td>
<td>1750</td>
<td>G</td>
<td>197.4</td>
<td>1.2</td>
<td>259.5</td>
<td>939.0</td>
<td>125497</td>
</tr>
</tbody>
</table>

**IMPORANT**!

Moisture and temperature sensor leads are integral to power cord. Pumped for a 3" OD hose. 10" OD hose at minimum. Service factor includes impeller repositioning. Cord sold separately. ± 10% voltage at motor. Cord sold separately.

▲ Cord sold separately.

▲ Cord sold separately when ordering.
## Series 4SHD
3" Spherical Solids Handling

### Solids Handling Submersible Pumps

<table>
<thead>
<tr>
<th>MODEL NO</th>
<th>HP</th>
<th>VOLTM</th>
<th>RPM (Nom)</th>
<th>SERVICE FACTOR</th>
<th>FULL LOAD AMPS</th>
<th>SERVICE FACTOR AMPS</th>
<th>LOCKED ROTOR AMPS</th>
<th>DRIVER FRAME</th>
<th>FRAME</th>
<th>PIN ▲</th>
<th>CORD SIZE</th>
<th>CORD PIN ▲</th>
<th>CORD SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4SHD75N6</td>
<td>7.5</td>
<td>208</td>
<td>3 60</td>
<td>1150 H</td>
<td>47.0</td>
<td>1.2</td>
<td>56.8</td>
<td>248.6</td>
<td>28</td>
<td>138317</td>
<td>12/4 - 18/4</td>
<td>125497</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD7556</td>
<td>7.5</td>
<td>208</td>
<td>3 60</td>
<td>1150 H</td>
<td>9.6</td>
<td>1.2</td>
<td>11.0</td>
<td>55.0</td>
<td>21</td>
<td>125497</td>
<td>125498</td>
<td>125497</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD100N6</td>
<td>10.0</td>
<td>208</td>
<td>3 60</td>
<td>1150 H</td>
<td>32.9</td>
<td>1.2</td>
<td>41.0</td>
<td>137.6</td>
<td>21</td>
<td>125497</td>
<td>125498</td>
<td>125498</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD10056</td>
<td>10.0</td>
<td>208</td>
<td>3 60</td>
<td>1150 H</td>
<td>12.1</td>
<td>1.2</td>
<td>14.3</td>
<td>99.4</td>
<td>21</td>
<td>125497</td>
<td>125498</td>
<td>125498</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD150N6</td>
<td>15.0</td>
<td>208</td>
<td>3 60</td>
<td>1150 H</td>
<td>47.0</td>
<td>1.2</td>
<td>71.5</td>
<td>354.0</td>
<td>28</td>
<td>138318</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD15056</td>
<td>15.0</td>
<td>208</td>
<td>3 60</td>
<td>1150 H</td>
<td>12.1</td>
<td>1.2</td>
<td>14.3</td>
<td>99.4</td>
<td>21</td>
<td>125497</td>
<td>125498</td>
<td>125498</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD20096</td>
<td>20.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>75.2</td>
<td>1.2</td>
<td>90.8</td>
<td>354.0</td>
<td>28</td>
<td>138319</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD20046</td>
<td>20.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>35.4</td>
<td>1.2</td>
<td>41.3</td>
<td>177.0</td>
<td>28</td>
<td>138317</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD20056</td>
<td>20.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>22.9</td>
<td>1.2</td>
<td>27.9</td>
<td>99.4</td>
<td>21</td>
<td>125497</td>
<td>125498</td>
<td>125498</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD25096</td>
<td>25.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>75.2</td>
<td>1.2</td>
<td>90.8</td>
<td>354.0</td>
<td>28</td>
<td>138319</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD25046</td>
<td>25.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>35.4</td>
<td>1.2</td>
<td>41.3</td>
<td>177.0</td>
<td>28</td>
<td>138317</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD25056</td>
<td>25.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>22.9</td>
<td>1.2</td>
<td>27.9</td>
<td>99.4</td>
<td>21</td>
<td>125497</td>
<td>125498</td>
<td>125498</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD30096</td>
<td>30.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>75.2</td>
<td>1.2</td>
<td>90.8</td>
<td>354.0</td>
<td>28</td>
<td>138319</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD30046</td>
<td>30.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>35.4</td>
<td>1.2</td>
<td>41.3</td>
<td>177.0</td>
<td>28</td>
<td>138317</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD30056</td>
<td>30.0</td>
<td>230</td>
<td>3 60</td>
<td>1150 H</td>
<td>22.9</td>
<td>1.2</td>
<td>27.9</td>
<td>99.4</td>
<td>21</td>
<td>125497</td>
<td>125498</td>
<td>125498</td>
<td>125498</td>
</tr>
<tr>
<td>4SHD40036</td>
<td>40.0</td>
<td>460</td>
<td>3 60</td>
<td>1150 E</td>
<td>110.4</td>
<td>1.2</td>
<td>131.8</td>
<td>476.0</td>
<td>28</td>
<td>138319</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD40046</td>
<td>40.0</td>
<td>460</td>
<td>3 60</td>
<td>1150 E</td>
<td>55.2</td>
<td>1.2</td>
<td>65.9</td>
<td>238.0</td>
<td>28</td>
<td>138317</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
<tr>
<td>4SHD40056</td>
<td>40.0</td>
<td>460</td>
<td>3 60</td>
<td>1150 E</td>
<td>44.2</td>
<td>1.2</td>
<td>52.7</td>
<td>190.4</td>
<td>28</td>
<td>138317</td>
<td>24 - 184</td>
<td>12/4 - 18/4</td>
<td>8/4 - 184</td>
</tr>
</tbody>
</table>

**IMPORTANT!**

Moisture and Temperature sensor leads are integral to power cord. Pump rated for operation at ± 10% voltage at motor.▲ Cord suffix: XC - 30 Feet, XF - 50 Feet, XJ - 75 Feet, or XL - 100 Feet.▲ Cord sold separately.* Select impeller diameter when ordering.
## Standard Impeller Sizes

<table>
<thead>
<tr>
<th>Pump HP</th>
<th>Impeller Dia. mm (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0</td>
<td>190 (7.48)</td>
</tr>
<tr>
<td>7.5</td>
<td>180 (7.09)</td>
</tr>
<tr>
<td>5.0</td>
<td>160 (6.30)</td>
</tr>
<tr>
<td>3.0</td>
<td>140 (5.51)</td>
</tr>
</tbody>
</table>

Service Factor: 1.20

### 4SHDF Pump Performance Curve

- **3 - 10HP, 1750RPM, 60Hz**

**4SHDF 1750RPM 18 FRAME**
### Standard Impeller Sizes

<table>
<thead>
<tr>
<th>Pump HP</th>
<th>Impeller Dia.</th>
<th>mm (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0</td>
<td>200</td>
<td>(7.87)</td>
</tr>
<tr>
<td>7.5</td>
<td>185</td>
<td>(7.28)</td>
</tr>
<tr>
<td>5.0</td>
<td>170</td>
<td>(6.69)</td>
</tr>
</tbody>
</table>

Service Factor: 1.20

---

### Performance Curve

**Series 4SHDG**

- **5 - 10HP**, 1750RPM, 60Hz, 18 Frame

**4SHDG Pump**

<table>
<thead>
<tr>
<th>TOTAL METERS</th>
<th>HEAD FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>21</td>
<td>70</td>
</tr>
<tr>
<td>18</td>
<td>60</td>
</tr>
<tr>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. GALLONS PER MINUTE</th>
<th>200</th>
<th>400</th>
<th>600</th>
<th>800</th>
<th>1000</th>
<th>1200</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITERS PER SECOND</td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>48</td>
<td>60</td>
<td>72</td>
</tr>
</tbody>
</table>

**4SHDG 1750RPM 18 FRAME**

<table>
<thead>
<tr>
<th>5 HP</th>
<th>7.5 HP</th>
<th>10 HP</th>
<th>12 HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>60%</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>50%</td>
<td>40%</td>
<td>60%</td>
<td>68%</td>
</tr>
<tr>
<td>40%</td>
<td>50%</td>
<td>60%</td>
<td>68%</td>
</tr>
<tr>
<td>30%</td>
<td>40%</td>
<td>50%</td>
<td>68%</td>
</tr>
<tr>
<td>20%</td>
<td>30%</td>
<td>40%</td>
<td>68%</td>
</tr>
</tbody>
</table>

**5 - 10HP, 1750RPM, 60Hz, 18 Frame**

**PUMPS & SYSTEMS**

- USA: (937) 778-8947
- Canada: (905) 457-6223
- International: (937) 615-3598

**A Crane Co. Company**
## Series 4SHDG

**Performance Curve**

15 - 20HP, 1750RPM, 60Hz, 21 Frame

### Solids Handling Submersible Pumps

### 4SHDG Pump

<table>
<thead>
<tr>
<th>U.S. GALLONS PER MINUTE</th>
<th>200</th>
<th>400</th>
<th>600</th>
<th>800</th>
<th>1000</th>
<th>1200</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITERS PER SECOND</td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>48</td>
<td>60</td>
<td>72</td>
</tr>
</tbody>
</table>

### STANDARD IMPELLER SIZES

<table>
<thead>
<tr>
<th>Pump HP</th>
<th>Impeller Dia. (mm in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.0</td>
<td>235 (9.25)</td>
</tr>
<tr>
<td>15.0</td>
<td>210 (8.25)</td>
</tr>
</tbody>
</table>

Service Factor: 1.20

### Chart Details

- **Impeller Sizes:**
  - 235mm
  - 220mm
  - 210mm
  - 200mm
  - 190mm
  - 165mm

- **Pump HP:**
  - 20 HP
  - 15 HP

- **Head:**
  - 31.5
  - 27.0
  - 22.5
  - 18.0
  - 13.5
  - 9.0
  - 4.5

- **Total Meters:**
  - 105
  - 90
  - 75

- **RPM:**
  - 1750

- **Frame:**
  - 21
Series 4SHDG
Performance Curve
7.5HP, 1150RPM, 60Hz

Solids Handling Submersible Pumps

4SHDG Pump

TOTAL HEADS
METERS
FEET

HEADS
50
45
40
35
30
25
20
15
10
5

TOTAL HEADS
METERS
FEET

HEADS
50
45
40
35
30
25
20
15
10
5

U.S. GALLONS
PER MINUTE
100
200
300
400
500
600
700

LITERS
PER SECOND
6
12
18
24
30
36
42
48

STANDARD IMPELLER SIZES
Pump HP
7.5
Impeller Dia. (mm)
235

Impeller Dia. (in)
9.25

Service Factor: 1.20

220mm
20%
30%
40%
50%
60%
66%

235mm
5 HP
7.5 HP

200mm

4SHDG 1150RPM 21 FRAME
Series 4SHDI
Performance Curve
15 - 100HP, 1750RPM, 60Hz

Solids Handling Submersible Pumps

STANDARD IMPELLER SIZES

<table>
<thead>
<tr>
<th>Pump HP</th>
<th>Impeller Dia. mm (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>370 (14.57)</td>
</tr>
<tr>
<td>75</td>
<td>330 (12.99)</td>
</tr>
<tr>
<td>60</td>
<td>315 (12.40)</td>
</tr>
<tr>
<td>50</td>
<td>295 (11.61)</td>
</tr>
<tr>
<td>40</td>
<td>280 (11.02)</td>
</tr>
<tr>
<td>30</td>
<td>260 (10.24)</td>
</tr>
<tr>
<td>25</td>
<td>245 (9.65)</td>
</tr>
<tr>
<td>20</td>
<td>235 (9.25)</td>
</tr>
<tr>
<td>15 **</td>
<td>*</td>
</tr>
</tbody>
</table>

* Select impeller diameter when ordering

US gpm vs. Head - ft

15 hp to 100 hp performance curve for Series 4SHDI submersible pumps.