Submersible dewatering pumps
In the real world time is money, and worksites have no time for unwanted water. Sulzer has the solutions in a complete pump range for reliable dewatering.

This brochure is an overview of Sulzer’s submersible dewatering pumps, which are the result of more than 50 years of technical and real-world experience. Each pump type is presented with its key features, as well as dimensions, performance curves and the most important technical data for specific pump models.

Whether you work in mining, tunneling or construction, the pumps here are your best insurance against water-related downtime. From purchasing to service, you can turn to Sulzer for dewatering solutions that make a difference in the real world.

Performance range 60 Hz
Sulzer’s complete range of submersible dewatering pumps provides reliable solutions for all major dewatering needs.

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Submersible drainage pump J

Submersible drainage pump J is suitable for pumping water and dirty water mixed with light abrasives. The low weight and compact design makes for convenient transport, handling and installation.

1 Easy start
A built-in contactor connected to the thermal sensors in the stator windings protects the motor from overheating and features an automatic restart function.

2 Wear resistance
An impeller in white cast iron with a full upper shroud and adjustable wear parts coated in nitrile rubber ensure high abrasion resistance.

3 Reliable operation
A double mechanical shaft seal in an oil bath, with primary and secondary seal surfaces in silicon carbide, extends the life of the pump. A double outer casing and good heat convection enable the pump to operate continuously at low levels – or even run dry without damaging the motor.

4 Serviceability
Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. An adjustable diffuser ensures proper clearance throughout the impeller lifetime. By removing the top cover of the pump, the electrical junction area can easily be checked.
### Submersible drainage pump J 12

<table>
<thead>
<tr>
<th>Model</th>
<th>1-phase</th>
<th>3-phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>J 12 W/J 12 WKS*</td>
<td>1.5 Hp, 1<del>1.5 Hp, 3</del>1.5 Hp, 3~</td>
<td></td>
</tr>
<tr>
<td>Motor rating P2</td>
<td>1.5 Hp, 3~</td>
<td></td>
</tr>
<tr>
<td>Voltage (V)</td>
<td>115 or 230</td>
<td>230/460 or 575</td>
</tr>
<tr>
<td>Full load amps (A)</td>
<td>13.8 or 6.9</td>
<td>4.3/2.1 or 1.7</td>
</tr>
<tr>
<td>Speed</td>
<td>3’360 rpm</td>
<td>3’380 rpm</td>
</tr>
<tr>
<td>Strainer hole</td>
<td>1/4” x 7/8”</td>
<td></td>
</tr>
<tr>
<td>Discharge connections</td>
<td>Thread NPT 2”, 3”</td>
<td></td>
</tr>
<tr>
<td>Weight (excl. cable)</td>
<td>42 lb. (W), 40 lb. (D)</td>
<td></td>
</tr>
<tr>
<td>Motor protection</td>
<td>Built in</td>
<td></td>
</tr>
<tr>
<td>Electric cable</td>
<td>65 ft.</td>
<td></td>
</tr>
</tbody>
</table>

* Built-in float switch available as option.

### Submersible drainage pump J 15

<table>
<thead>
<tr>
<th>Model</th>
<th>1-phase</th>
<th>3-phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>J 15 W/J 15 WKS*</td>
<td>2.0 Hp, 1<del>2.3 Hp, 3</del></td>
<td></td>
</tr>
<tr>
<td>Motor rating P2</td>
<td>2.3 Hp, 3~</td>
<td></td>
</tr>
<tr>
<td>Voltage (V)</td>
<td>230</td>
<td>230/460 or 575</td>
</tr>
<tr>
<td>Full load amps (A)</td>
<td>10.3</td>
<td>6.2/3.1 or 2.5</td>
</tr>
<tr>
<td>Speed</td>
<td>3’420 rpm</td>
<td>3’320 rpm</td>
</tr>
<tr>
<td>Strainer hole</td>
<td>1/4” x 7/8”</td>
<td></td>
</tr>
<tr>
<td>Discharge connections</td>
<td>Thread NPT 2”, 3”</td>
<td></td>
</tr>
<tr>
<td>Weight (excl. cable)</td>
<td>46 lb. (W), 42 lb. (D)</td>
<td></td>
</tr>
<tr>
<td>Motor protection</td>
<td>Built in</td>
<td></td>
</tr>
<tr>
<td>Electric cable</td>
<td>65 ft.</td>
<td></td>
</tr>
</tbody>
</table>

* ** KS version not available in 575 V.
Submersible drainage pump XJ is excellent for pumping water and dirty water mixed with light abrasives. The slim design makes the pump easy to move and easy to handle.

1. **Easy start**
   A built-in contactor connected to the thermal sensors in the stator windings protects the motor from overheating and features an automatic restart function.

2. **Wear resistance**
   An impeller and wear ring in white cast iron, as well as diffusers coated in oil-resistant nitrile rubber, provide high abrasion resistance.

3. **Reliable operation**
   Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide and secondary seal surfaces in silicon carbide on carbon, extend the life of the pump. A double cable-entry seal system increases the protection against moisture entering the electrical junction area. A double outer casing and good heat convection enable the pump to operate continuously at low levels – or even run dry without damaging the motor.

4. **Serviceability**
   Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. The adjustable wear ring ensures proper clearance throughout the impeller lifetime. External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked.

5. **Less energy and environmental impact**
   The high-efficiency motor and new hydraulics combine with low-friction bearings to reduce power losses. The result is low total energy costs and minimized carbon footprint.

6. **Flexibility**
   Conversion between high-volume and high-head hydraulics is managed with only a few parts, ensuring the right performance for the application.

### Submersible drainage pump XJ 25

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Motor rating P2</th>
<th>Voltage (V)</th>
<th>Full load (A)</th>
<th>Speed</th>
<th>Strainer hole</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Motor protection</th>
<th>Electric cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>XJ 25 ND*</td>
<td>Medium head</td>
<td>4 Hp, 3 –</td>
<td>230 / 460 / 575</td>
<td>9.8 / 4.9 / 3.9</td>
<td>3’500 rpm</td>
<td>5/16”x 7/8”</td>
<td>Thread NPT 2½”, 3”, 4”</td>
<td>86 lb</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
<tr>
<td>XJ 25 HD*</td>
<td>High head</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
## Submersible drainage pump XJ 40

<table>
<thead>
<tr>
<th>Model</th>
<th>Head Type</th>
<th>Motor Rating P2</th>
<th>Voltage (V)</th>
<th>Full Load (A)</th>
<th>Speed (rpm)</th>
<th>Strainer Hole</th>
<th>Discharge Connections</th>
<th>Weight (excl. cable)</th>
<th>Motor Protection</th>
<th>Electric Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>XJ 40 ND</td>
<td>Medium head</td>
<td>6 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>14.8 / 7.4 / 5.9</td>
<td>3'470</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 2½”, 3”, 4”</td>
<td>93 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
<tr>
<td>XJ 40 HD</td>
<td>High head</td>
<td>9 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>22.4 / 11.2 / 9.0</td>
<td>3'520</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>130 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
</tbody>
</table>

**Max measurement based on largest discharge size.**

## Submersible drainage pump XJ 50

<table>
<thead>
<tr>
<th>Model</th>
<th>Head Type</th>
<th>Motor Rating P2</th>
<th>Voltage (V)</th>
<th>Full Load (A)</th>
<th>Speed (rpm)</th>
<th>Strainer Hole</th>
<th>Discharge Connections</th>
<th>Weight (excl. cable)</th>
<th>Motor Protection</th>
<th>Electric Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>XJ 50 LD</td>
<td>High flow</td>
<td>9 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>31.4 / 15.7 / 12.6</td>
<td>3'520</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>139 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
<tr>
<td>XJ 50 ND</td>
<td>Medium head</td>
<td>13 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>3'520</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>172 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
<td></td>
</tr>
</tbody>
</table>

## Submersible drainage pump XJ 80

<table>
<thead>
<tr>
<th>Model</th>
<th>Head Type</th>
<th>Motor Rating P2</th>
<th>Voltage (V)</th>
<th>Full Load (A)</th>
<th>Speed (rpm)</th>
<th>Strainer Hole</th>
<th>Discharge Connections</th>
<th>Weight (excl. cable)</th>
<th>Motor Protection</th>
<th>Electric Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>XJ 80 LD</td>
<td>High flow</td>
<td>13 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>42.8 / 21.4 / 17.1</td>
<td>3'500</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>179 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
<tr>
<td>XJ 80 ND</td>
<td>Medium head</td>
<td>18 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>3'500</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>179 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
<td></td>
</tr>
<tr>
<td>XJ 80 HD*</td>
<td>High head</td>
<td>21 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>47.2 / 23.6 / 19.0</td>
<td>3'500</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>179 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
<tr>
<td>XJ 80 SD</td>
<td>High head</td>
<td>26 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>54.6 / 27.3 / 22.5</td>
<td>3'500</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>179 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
</tbody>
</table>

## Submersible drainage pump XJ 110

<table>
<thead>
<tr>
<th>Model</th>
<th>Head Type</th>
<th>Motor Rating P2</th>
<th>Voltage (V)</th>
<th>Full Load (A)</th>
<th>Speed (rpm)</th>
<th>Strainer Hole</th>
<th>Discharge Connections</th>
<th>Weight (excl. cable)</th>
<th>Motor Protection</th>
<th>Electric Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>XJ 110 ND</td>
<td>Medium head</td>
<td>18 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>42.8 / 21.4 / 17.1</td>
<td>3'500</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>179 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
<tr>
<td>XJ 110 HD</td>
<td>High head</td>
<td>21 Hp, 3 ~</td>
<td>230 / 460 / 575</td>
<td>47.2 / 23.6 / 19.0</td>
<td>3'500</td>
<td>5/16” x 7/8”</td>
<td>Thread NPT 3”, 4”, 6”</td>
<td>179 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
</tbody>
</table>

**Max measurement based on largest discharge size.**
Submersible drainage pump XJ 900

Submersible drainage pump XJ is designed for difficult application environments with abrasives and small solids. The innovative design allows for easy conversion from high head to high flow.

1 Easy conversion from ND to HD
The pump is fitted with impellers and diffusers for both HD and ND versions. When connected in series they give high head and when connected in parallel they give half head double flow. This gives fewer parts and a simplified conversion from ND to HD.

2 Wear resistance for long life
Impellers and flow elbows in white cast iron together with rubber coated volutes ensure a long lifetime and high efficiency. The impellers are built back to back together with double exit volutes which gives low axial forces and secures long bearing life.

3 Reliable operation
Strong cast iron construction with outer casing gives good cooling and enables the pump to run all the way until the water level reaches the strainer. Double mechanical seals with silicon carbide surface give extended service life.

4 Built-in motor protection
Bimetal thermal switches or Pt100 sensors in stator windings are used to protect the motor from overheating. Moisture sensors are used in the oil chamber, the motor chamber and in the connection chamber to signal the ingress of moisture into the motor. An additional monitoring option for Pt100 sensors in bearings for temperature measurement provides an added level of protection.

5 Serviceability
External inspection ports for the oil and the motor chambers enable quick and easy evaluation of the shaft seal during service. The electrical installation can be easily checked by removing the inspection cover of the pump.

6 Reduced environmental impact
The high-efficiency IE3 motor and the new hydraulics combined with low-friction bearings reduce power losses and extend stator life. The result is low total energy costs and minimized carbon footprint.
State of the art design
The innovative design with dual impellers allows for a quick and simple conversion between hydraulic performance options, reducing the need to add additional inventory to cover the range. Both high head and high flow versions use the same two impellers.

In the HD version, the water circulates from the first impeller to the second impeller, connecting the impellers in series, creating higher pressure.

For the ND version, the impellers are connected in parallel. The water flows into both impellers simultaneously, creating higher flow.

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### Submersible drainage pump XJ 900

- **XJ 900 ND**
  - High flow

- **XJ 900 HD**
  - High head

- **Motor rating P2**
  - 145 Hp 3–

- **Voltage (V)**
  - 480 / 575

- **Full load (A)**
  - 154 / 124

- **Speed**
  - 3'560 rpm

- **Strainer hole**
  - 5/16” – 1 5/16”

- **Discharge connections**
  - DN100/4” (standard HD)
  - DN150/6” (standard ND)

- **Flanged connections**
  - Class 250 (standard HD)
  - Class 150 (standard ND)

- **Weight (excl. cable)**
  - 2'600 lb.

- **Motor protection**
  - Built-in

- **Electric cable**
  - 98 ft. (longer cable on request)
Submersible drainage pump J

Submersible drainage pump J is suitable for pumping water and dirty water mixed with light abrasives. The pump design enables convenient transport, handling and installation.

1. **Easy to start**
Pump J 205 has a built-in contactor connected to the thermal sensors in the stator windings, which protects the motor from overheating and features an automatic restart function. Pumps J 405 and J 604 have thermal sensors in the stator windings that protect the motor from overheating by means of an external control panel.

2. **Wear resistance**
Abrasive-resistant impellers, combined with diffusers and wear rings coated in oil-resistant nitrile rubber, provide extended pump life in tough applications.

3. **Reliable operation**
Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide, extend the life of the pump. In pumps J 205 and J 405, the primary and secondary seals comprise an easy-to-replace seal cartridge. A double outer casing and good heat convection enable the pump to operate continuously at low levels – or even run dry without damaging the motor.

4. **Serviceability**
External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked. The adjustable wear ring ensures proper clearance throughout the impeller lifetime.

5. **Flexibility**
Conversion between high-volume and high-head hydraulics is managed with only a few parts, ensuring the right performance for the application.
## Submersible drainage pump J 205

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Motor Rating</th>
<th>Voltage (V)</th>
<th>Full load amps (A)</th>
<th>Speed</th>
<th>Strainer hole</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Electric cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>J 205 ND</td>
<td>Medium head</td>
<td>35 Hp, 3 ~</td>
<td>230/460 or 575</td>
<td>82/41 or 33</td>
<td>3'500 rpm</td>
<td>5/16&quot; x 1 5/16&quot;</td>
<td>Thread NPT 4&quot;, 6&quot;, 8&quot;</td>
<td>342 lb.</td>
<td>65 ft.</td>
</tr>
<tr>
<td>J 205 HD</td>
<td>High head</td>
<td>68 or 54</td>
<td>460 or 575</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Submersible drainage pump J 405

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Motor Rating</th>
<th>Voltage (V)</th>
<th>Full load amps (A)</th>
<th>Speed</th>
<th>Strainer hole</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Electric cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>J 405 ND</td>
<td>Medium head</td>
<td>57 Hp, 3 ~</td>
<td>460 or 575</td>
<td>68 or 54</td>
<td></td>
<td></td>
<td>Thread NPT 4&quot;, 6&quot;, 8&quot;</td>
<td>595 lb.</td>
<td>65 ft.</td>
</tr>
<tr>
<td>J 405 HD</td>
<td>High head</td>
<td>113 or 91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Submersible drainage pump J 604

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Motor Rating</th>
<th>Voltage (V)</th>
<th>Full load amps (A)</th>
<th>Speed</th>
<th>Strainer hole</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Motor protection</th>
<th>Electric cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>J 604 ND</td>
<td>Medium head</td>
<td>94 Hp, 3 ~</td>
<td>460 or 575</td>
<td>113 or 91</td>
<td>1'730 rpm</td>
<td>1/2&quot; x 2 3/8&quot;</td>
<td>Thread NPT 6&quot;, 8&quot;, 10&quot;</td>
<td>1157 lb.</td>
<td>Thermal overload sensors</td>
<td>100 ft.</td>
</tr>
<tr>
<td>J 604 HD</td>
<td>High head</td>
<td>150 300 400</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Consult factory for 230 V version.
Submersible drainage center-line pumps JC and XJC

Submersible drainage center-line pumps JC and XJC are excellent for pumping water and dirty water mixed with light abrasives. The slim design makes them easy to move and easy to handle, and they are perfect for applications with limited installation space.

1. Easy and fail-safe starting
   In XJC pump models, an optional AquaTronic unit can be used instead of a built-in contactor. The AquaTronic unit compensates for incorrect phase order, which ensures correct motor rotation every time. (Additional AquaTronic functions for electronic supervision are explained on pages 18-21.) In JC pump models, a built-in contactor with an automatic restart function protects the motor.

2. Wear resistance
   An impeller and wear ring in white cast iron, as well as diffusers coated in oil-resistant nitrile rubber, provide high abrasion resistance.

3. Reliable operation
   Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide and secondary seal surfaces in silicon carbide on carbon, extend the life of the pump. Pumps XJC 50 - XJC 110 have a double cable-entry seal system that increases the protection against moisture entering the electrical junction area. A double outer casing and good heat convection enable the pump to operate continuously at low levels – or even run dry without damaging the motor.

4. Serviceability
   Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. The adjustable wear ring ensures proper clearance throughout the impeller lifetime. External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked.

5. Less energy and environmental impact
   Pumps XJC 50 - XJC 110 are equipped with high-efficiency motors and new hydraulics, which combine with low-friction bearings to reduce power losses. The result is low total energy costs and minimized carbon footprint.

6. Flexibility
   Pumps XJC 50 - XJC 110 allow conversion between high-volume and high-head hydraulics with only a few parts, ensuring the right performance for the application.
Submersible drainage center-line pump JC 6

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Motor rating P2</th>
<th>Voltage (V)</th>
<th>Full load amps (A)</th>
<th>Speed</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Motor protection</th>
<th>Electric cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>JC 6 W</td>
<td>1-phase</td>
<td>0.6 Hp, 1 ~</td>
<td>115</td>
<td>5.4</td>
<td>3'450 rpm</td>
<td>Thread NPT 2”</td>
<td>30 lb.</td>
<td>Built in</td>
<td>32 ft.</td>
</tr>
</tbody>
</table>

Submersible drainage center-line pump JC 11 W-2

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Motor rating P2</th>
<th>Voltage (V)</th>
<th>Full load amps (A)</th>
<th>Speed</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Motor protection</th>
<th>Electric cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>JC 11 W-2</td>
<td>1-phase</td>
<td>1.0 Hp, 1 ~</td>
<td>115</td>
<td>10.3</td>
<td>3'316 rpm</td>
<td>Thread NPT 2”</td>
<td>29 lb.</td>
<td>Built in</td>
<td>32 ft.</td>
</tr>
</tbody>
</table>

Submersible drainage center-line pump JC 34

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Motor rating P2</th>
<th>Voltage (V)</th>
<th>Full load amps (A)</th>
<th>Speed</th>
<th>Strainer hole</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Motor protection</th>
<th>Electric cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>JC 34 ND</td>
<td>Medium head</td>
<td>6.0 Hp, 3 ~</td>
<td>230/460 or 575</td>
<td>16/8.0 or 6.4</td>
<td>3'400 rpm</td>
<td>5/16” x 1 5/16”</td>
<td>Thread NPT 2”, 3”</td>
<td>68 lb.</td>
<td>Built in</td>
<td>65 ft.</td>
</tr>
<tr>
<td>JC 34 HD</td>
<td>High head</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graphs showing performance characteristics of the pumps.
Submersible drainage center-line pump XJC 50

XJC 50 LD*  High flow
XJC 50 ND*  Medium head
XJC 50 HD*  High head
Motor rating P2  9 Hp, 3 ~
Voltage (V)  230 / 460 / 575
Full load (A)  22.4 / 11.2 / 9.0
Speed  3'520 rpm
Strainer hole  5/16" x 7/8"
Discharge connections  Thread NPT 3", 4", 6"
Weight (excl. cable)  130 lb.
Motor protection  Built in
Electric cable  65 ft.

Submersible drainage center-line pump XJC 80

XJC 80 LD*  High flow
XJC 80 ND*  Medium head
XJC 80 HD*  High head
XJC 80 SD*  High head
Motor rating P2  13 Hp, 3 ~
Voltage (V)  230 / 460 / 575
Full load (A)  31.4 / 15.7 / 12.6
Speed  3'520 rpm
Strainer hole  5/16" x 7/8"
Discharge connections  Thread NPT 3", 4", 6"
Weight (excl. cable)  ND/LD: 139 lb., SD: 172 lb.
Motor protection  Built in
Electric cable  65 ft.

Submersible drainage center-line pump XJC 110

XJC 110 ND*  Medium head
XJC 110 HD*  High head
Motor rating P2  18 Hp, 3~
Voltage (V)  230 / 460 / 575
Full load (A)  42.8 / 21.4 / 17.1
Speed  3'500 rpm
Strainer hole  5.16" x 7/8"
Discharge connections  Thread NPT 3", 4", 6"
Weight (excl. cable)  176 lb.
Motor protection  Built in
Electric cable  65 ft.

* Option: AquaTronic, built-in electronic pump control.
Submersible trash pump JS is excellent for pumping dirty water and water mixed with solids. The pump has a slim design and low weight, which makes it easy to move and easy to handle.

1. Easy to start
A built-in contactor connected to the thermal sensors in the stator windings protects the motor from overheating and features an automatic restart function.

2. Clog-free pumping
A free-flow vortex impeller and pump volute make the pump ideal for pumping solids. The impeller is available in different sizes to meet specific requirements.

3. Reliable operation
Both the impeller and volute are made from heavy-duty ductile iron for maximum durability. Double mechanical shaft seals in an oil bath, with primary and secondary seal surfaces in silicon carbide, extend the life of the pump.

4. Convenient handling
The top cover and motor housing are made of lightweight aluminum, which creates a pump that is very easy to handle and install.

5. Serviceability
Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked.
### Submersible trash pump JS 12

| Model         | Type       | Motor Rating | Voltage (V)  | Full Load Amps (A) | Speed       | Free Passage | Discharge Connections | Weight (excl. cable) | Motor Protection | Electric Cable |
|---------------|------------|--------------|--------------|--------------------|-------------|--------------|----------------------|---------------------|------------------|----------------|---------------|
| JS 12 W/KWS*  | 1-phase    | 1.5 Hp, 1    | 230          | 6.9                | 3'360 rpm   | Ø 1 9/16"   | Thread NPT 2", 3"    | 44 lb. (W), 42 lb. (D) | Built in         | 65 ft          |
| JS 12 W/KWS*  | 1-phase    | 1.5 Hp, 3    | 230/460 or 575 | 4.3/2.1 or 1.7    | 3'380 rpm   |             |                      |                     |                  |                |
| JS 12 D/DKS*  | 3-phase    | 1.5 Hp, 1    | 230          | 6.9                | 3'360 rpm   | Ø 1 9/16"   | Thread NPT 2", 3"    | 44 lb. (W), 42 lb. (D) | Built in         | 65 ft          |
| JS 12 D/DKS*  | 3-phase    | 1.5 Hp, 3    | 230/460 or 575 | 4.3/2.1 or 1.7    | 3'380 rpm   |             |                      |                     |                  |                |

* Built-in float switch available as option. KS version not available in 575 V.

### Submersible trash pump JS 15

| Model         | Type       | Motor Rating | Voltage (V)  | Full Load Amps (A) | Speed       | Free Passage | Discharge Connections | Weight (excl. cable) | Motor Protection | Electric Cable |
|---------------|------------|--------------|--------------|--------------------|-------------|--------------|----------------------|---------------------|------------------|----------------|---------------|
| JS 15D/DKS*   | 3-phase    | 2.3 Hp, 3    | 230/460 or 575 | 6.2/3.1 or 2.5    | 3'320 rpm   | Ø 1 9/16"   | Thread NPT 2", 3"    | 44 lb.              | Built in         | 65 ft          |

* Built-in float switch available as option. KS version not available in 575 V.
Submersible trash pump XJS

Submersible trash pump XJS is excellent for pumping dirty water and water mixed with solids. The slim design makes the pump easy to move and easy to handle.

1. Easy and fail-safe starting
   Instead of a built-in contactor, an optional AquaTronic unit can be used. The AquaTronic unit compensates for incorrect phase order, which ensures correct motor rotation every time. (Additional AquaTronic functions for electronic supervision are explained on pages 18-21.)

2. Clog-free pumping
   A free-flow vortex impeller and pump volute make the pump ideal for pumping solids. The impeller is available in different sizes to meet specific requirements.

3. Reliable operation
   Both the impeller and volute are made from heavy-duty ductile iron for maximum durability. Double mechanical shaft seals in an oil bath, with primary seal surfaces in silicon carbide and secondary seal surfaces in silicon carbide on carbon, extend the life of the pump. A double cable-entry seal system increases the protection against moisture entering the electrical junction area.

4. Convenient handling
   The top cover and motor housing are made of lightweight aluminum, which creates a pump that is very easy to handle and install.

5. Serviceability
   Due to the modular design, the same parts can be used for different pumps, which lowers the overall service costs. External inspection ports for the oil and motor chambers enable quick and easy evaluation of the shaft seal during service. By removing the top cover of the pump, the electrical junction area can easily be checked.

6. Less energy and environmental impact
   The high-efficiency motor and hydraulics combine with low-friction bearings to reduce power losses. The result is low total energy costs and minimized carbon footprint.

---

**Submersible trash pump XJS 25**

<table>
<thead>
<tr>
<th>Model</th>
<th>Motor rating P2</th>
<th>Voltage (V)</th>
<th>Full load (A)</th>
<th>Speed</th>
<th>Free passage</th>
<th>Discharge connections</th>
<th>Weight (excl. cable)</th>
<th>Motor protection</th>
<th>Electric cable</th>
</tr>
</thead>
</table>
Submersible trash pump XJS 40

XJS 40 D* -128
XJS 40 D* -143
Motor rating P2 6 Hp, 3 ~
Voltage (V) 230 / 460 / 575
Full load (A) 14.8 / 7.4 / 5.9
Speed 3'470 rpm
Free passage 2 3/16" x 1 3/4"
Discharge connections Thread NPT 2½", 3", 4"
Weight (excl. cable) 90 lb.
Motor protection Built in
Electric cable 65 ft.

Submersible trash pump XJS 50

XJS 50 D* -143
XJS 50 D* -160
Motor rating P2 9 Hp, 3 ~
Voltage (V) 230 / 460 / 575
Full load (A) 22.4 / 11.2 / 9.0
Speed 3’520 rpm
Free passage 1 7/8” x 2 3/8”
Discharge connections Thread NPT 2½", 3", 4"
Weight (excl. cable) 130 lb.
Motor protection Built in
Electric cable 65 ft.

Submersible trash pump XJS 80

XJS 80 D* -160
XJS 80 D* -175
Motor rating P2 13 Hp, 3 ~
Voltage (V) 230 / 460 / 575
Full load (A) 31.4 / 15.7 / 12.6
Speed 3’520 rpm
Free passage 1 7/8” x 2 3/8”
Discharge connections Thread NPT 2½", 3", 4"
Weight (excl. cable) 141 lb.
Motor protection Built in
Electric cable 65 ft.

Submersible trash pump XJS 110

XJS 110 D* -155
XJS 110 D* -166
Motor rating P2 18 Hp, 3 ~
Voltage (V) 230 / 460 / 575
Full load (A) 42.8 / 21.4 / 17.1
Speed 3’500 rpm
Free passage 1 7/8” x 2 3/8”
Discharge connections Thread NPT 2½", 3", 4"
Weight (excl. cable) 176 lb.
Motor protection Built in
Electric cable 65 ft.

* Option: AquaTronic, built-in electronic pump control.
Submersible drainage pumps J 10 - 350 MEX are approved explosion proof mine pumps suitable for pumping water and dirty water mixed with light abrasive soil. Approved MSHA (Mine Safety and Health Administration) and D.O.E.R. (Pennsylvania Department of Environmental Resources). Applications include gassy coal mines, tunnels, strip mines, and quarries where MSHA permissibility is required.

1 Convenient handling
- Designed to make your life easier
- Lightweight silumin parts makes transport, handling and installation easy

2 Reliability
- Compact design with durable silumin housing and mechanical shaft seals in silicon carbide provide a pump that you can rely on
- Sealminder moisture detector protects the pump if seal leakage occur

3 Reliable operation
- Minimizes time for maintenance
- Double outer casing and good heat transfer enables pump to operate continuously at low levels or even run dry without damaging the motor
- Thermal overload protection shuts off the pump upon an overtemp. condition

4 Wear resistance
- One investment, years of cost efficient pumping
- Stainless steel impeller, shaft and hardwear as well as adjustable wear parts in oil resistant nitrile rubber provide a long life and high efficiency

5 Robust design
- Rigid stainless steel shaft with heavy duty bearings gives vibration free operation

6 Complete supply – MSHA approved pump and panel
- All J MEX series are equipped with MSHA approved power cable and are supplied with a manual or automatic control panel
Submersible drainage pump J 20B MEX

**J 20B MEX**
- **Motor rating P2**: 3.6 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 5.4 or 4.3
- **Speed**: 3'450 rpm
- **Free passage**: 3/16” x 3/4”
- **Discharge connections**: Thread NPT 3”
- **Weight (excl. cable)**: 77 lbs
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.

Submersible drainage pump J 50B MEX

**J 50BHH MEX**
- **Motor rating P2**: 8.2 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 10.3 or 8.2
- **Speed**: 3'450 rpm
- **Free passage**: 1/4” x 1 5/16”
- **Discharge connections**: Thread NPT 4”
- **Weight (excl. cable)**: 120 lb.
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.

**J 50BH MEX**
- **Motor rating P2**: 8.2 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 10.3 or 8.2
- **Speed**: 3'450 rpm
- **Free passage**: 1/4” x 1 5/16”
- **Discharge connections**: Thread NPT 4”
- **Weight (excl. cable)**: 120 lb.
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.

Submersible drainage pump J 80B MEX

**J 80BHH MEX**
- **Motor rating P2**: 13.6 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 16.2 or 13.0
- **Speed**: 3'450 rpm
- **Free passage**: 1/4” x 2”
- **Discharge connections**: Thread NPT 3", 6"
- **Weight (excl. cable)**: 177 lb.
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.

**J 80BH MEX**
- **Motor rating P2**: 13.6 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 16.2 or 13.0
- **Speed**: 3'450 rpm
- **Free passage**: 1/4” x 2”
- **Discharge connections**: Thread NPT 3", 6"
- **Weight (excl. cable)**: 177 lb.
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.

Submersible drainage pump J 200B MEX

**J 200BHV MEX**
- **Motor rating P2**: 31.3 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 38.2 or 30.6
- **Speed**: 3'450 rpm
- **Free passage**: 1/4” x 2”
- **Discharge connections**: Thread NPT 4", 6"
- **Weight (excl. cable)**: 377 lb.
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.

**J 200BHH MEX**
- **Motor rating P2**: 31.3 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 38.2 or 30.6
- **Speed**: 3'450 rpm
- **Free passage**: 1/4” x 2”
- **Discharge connections**: Thread NPT 4", 6"
- **Weight (excl. cable)**: 377 lb.
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.

Submersible drainage pump J 350B MEX

**J 350HH MEX**
- **Motor rating P2**: 59.8 Hp, 3 ~
- **Voltage (V)**: 460 or 575
- **Full load amps (A)**: 69 or 55.2
- **Speed**: 3'550 rpm
- **Free passage**: 1/4” x 2”
- **Discharge connections**: Thread NPT 4", 6"
- **Weight (excl. cable)**: 498 lb.
- **Motor protection**: Thermal overload sensors
- **Electric cable**: 50 ft.
Submersible sewage pump type ABS XFPT

Submersible sewage pump XFPT 80C - 150E is suitable for pumping sewage and water mixed with solids. The robust cast iron design provides a sturdy pump for rough conditions. The pump runs at any water level without overloading the motor.

1. **Dry running capability**
   Silicon carbide mechanical seals and oil filled motor allows for continuous dry running.

2. **Clog-free pumping**
   ContraBlock Plus impellers provide state of the art wastewater solids handling for clog free operation.

3. **Easy handling**
   Open stainless steel lifting hoop, and large, stable cast iron (optional stainless steel) pump support stand provide easy handling and stable operation.

4. **Reliability**
   Heavy duty shaft and bearings, as well as dual silicon carbide mechanical seals provide long life and market leading reliability. Seal protection system prolongs the life of the primary mechanical seal.

5. **Serviceability**
   Cable plug system and ContraBlock Plus field adjustable wear plate allow for easy field service. Modular system reduces spare parts inventory requirements.

6. **Safety and monitoring features**
   All XFPT sewage pumps are available in Class I Div 1 Group C&D explosion proof versions as standard. The XFPT range has built-in IE3 Premium Efficiency motors. Sulzer is the first company in the world to offer submersible motors with such a high standard.

### Submersible sewage pump type ABS XFPT

<table>
<thead>
<tr>
<th>XFPT 80C-150E</th>
<th>3-phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump sizes</td>
<td>3.2 to 32 in.</td>
</tr>
<tr>
<td>Capacities</td>
<td>up to 47'560 USgpm</td>
</tr>
<tr>
<td>Heads</td>
<td>up to 360 ft.</td>
</tr>
<tr>
<td>Motor powers</td>
<td>2.7 to 1'005 Hp</td>
</tr>
</tbody>
</table>
Overview of electronic supervision features

Submersible dewatering pumps XJ, XJC and XJS have several options for electronic supervision that make them even more reliable and easy to use. Most important is the AquaTronic unit, which ensures correct motor rotation every time.

AquaTronic
The AquaTronic unit replaces the built-in contactor in the basic pump configurations and ensures that the motor always rotates correctly, no matter how the phases are connected. Key benefits of the AquaTronic unit include:
• Correction of motor rotation if phases are improperly connected
• Run mode
• Integrated start equipment (direct or soft start depending on pump model)
• Motor protection against high temperature, high amperage and missing phase

If the pump is also equipped with an optional Level sensor, AquaTronic provides:
• Precise level control
• Protection against dry running

AquaTronic service diagnostic program
Connecting a PC to the AquaTronic unit via USB cable provides access to the service diagnostic program, which offers:
• Pump status data (temp, voltage, moisture, etc.)
• Pump operating history
• Pump failure history
• Pump service and maintenance history
• Digital manual and spare parts documentation

AquaTronic control panel
AquaTronic control panel is an option that combine with AquaTronic provides additional alarm and start/stop functions, as well as indications for important parameters.
The table below shows the range of features available when the AquaTronic unit and other electronic supervision options are used with the submersible dewatering pumps XJ 25-110, XJC 50-110 and XJS 25-110.

<table>
<thead>
<tr>
<th>Electronic supervision feature</th>
<th>Basic pump configuration with contactor</th>
<th>Pump with AquaTronic</th>
<th>Pump with AquaTronic + level sensor</th>
<th>Pump with AquaTronic + AquaPlug/ AquaTronic control panel</th>
<th>Pump with AquaTronic + AquaPlug/ AquaTronic control panel + level sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run mode</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Integrated start equipment</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Automatic correction of rotation</td>
<td></td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Motor protection – high temp</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Motor protection – high amp</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Protection against missing phase</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Level control</td>
<td></td>
<td>✓</td>
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<td></td>
</tr>
<tr>
<td>Protection against dry running</td>
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<td></td>
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</tr>
<tr>
<td>Automatic restart</td>
<td></td>
<td>✓</td>
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<td>Stop mode</td>
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<td>✓</td>
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<tr>
<td>E-mode (automatic stop/run)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Indication of water in oil</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Indication of low motor insulation</td>
<td></td>
<td>✓</td>
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<td></td>
<td>✓</td>
</tr>
<tr>
<td>Indication of high/low voltage</td>
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<td></td>
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<td>✓</td>
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<tr>
<td>Indication of high temp</td>
<td>✓</td>
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<td></td>
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<td>Indication of high amp</td>
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<td></td>
<td>✓</td>
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<tr>
<td>Indication of phase imbalance</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>USB cable connection</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ = Fault indication when pump is automatically stopped to protect the motor
Pump options and accessories

**AquaTronic unit for correct motor rotation**
Our built-in AquaTronic unit integrates electronic intelligence into the pump, ensuring correct motor rotation by automatically adjusting for incorrect phase order. It also protects the motor by stopping the pump in the event of over-ampere, overheating, low or high voltage or missing phase. Another feature of the AquaTronic unit is the internal software that allows pump performance and service diagnostics data to be viewed on a PC via USB link, enabling accurate evaluation of service and maintenance needs. The workshop manual and spare parts list, readily available in the AquaTronic unit, can be viewed via the link as well. The AquaTronic unit should be ordered when ordering the pump.

**AquaTronic control panel**
AquaTronic control panel is an option that combine with AquaTronic provides additional alarm and start/stop functions, as well as indications for important parameters.

**Level Sensor for precise and cost effective water level control**
Together with AquaTronic, the level sensor provides precise and cost-effective water level control, and helps lower power consumption.

**SoftDrive for cost effective operation**
Sulzer offers a built-in SoftDrive concept on the J 205 pumps. It reduces starting current dramatically and provides smooth operation for both the power net and pump equipment. The pump can be started with a smaller-sized generator compared to a standard pump started directly on-line.

**Quick and easy installation with flotation ring**
Sulzer offers a solution for pumps up to 99 lb. The ring is easy to install and can be used with dewatering pumps J 12-15, XJ 25-40.

**Floatation system to prevent unnecessary wear**
A modular flotation system is available, covering pumps from 130 to 1’320 lb. The modular flotation system is easy to build and used with dewatering pumps XJ 50-110, XJS 50-110, J 205-604.
Protective belts for more durable operation
Sulzer submersible dewatering pumps can easily be fitted with zinc anode belts providing protection against galvanic corrosion. The cast parts of the pump can also be protectively coated, ensuring trouble-free operation when pumping salty or brackish water.

Stainless steel impellers for tough applications
Submersible dewatering pumps J 205HD and J 405HD can be fitted with stainless steel impellers to give an extra corrosive and abrasive resistance when pumping in harsh environments.

Polyurethane for prolonged drainage pump life
Sulzer offers wear rings in polyurethane, which increases resistance when pumping fine sand and other abrasive mediums. Polyurethane-coated wear rings are available as an option on J 205-604.

Series connections for pumping high heads
With minimal effort, the standard Sulzer drainage pumps can be rebuilt to function in series for high head applications.

Bottom suction adapter for total water removal
On pumps J 12-15, the standard bottom plate may be replaced by a bottom suction adapter. A basement floor or a tank can be pumped practically dry with this adapter.

Repair kits that save time and money
Sulzer offers repair kits for all submersible dewatering pumps. The repair kits include common parts required for a typical repair. Our modular pump design makes it possible to repair all drainage and trash pumps with just a few repair kits.
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