

## **Dewatering Pumps for Mining**

Made  
for the  
real  
world

An aerial photograph of a large-scale open-pit mine. The mine is characterized by its deep, terraced levels, which are a mix of grey and brown earth. A central area contains a complex of structures, including what appears to be a processing plant or a large water reservoir, with some orange-colored material. The surrounding landscape is rugged and mountainous, with some snow visible on the higher peaks. The overall scene conveys a sense of industrial scale and the 'real world' of mining operations.

# The World's Smartest Dewatering Pump

Whether on the surface or underground, the conditions in mines are harsh. Besides the mud, slurry, stones and rocks, there are large volumes of water to remove in order to keep production moving.

This is the real world and it's tough. It's the reason Sulzer has taken a hard look at mining applications, using our experience to develop a new generation of dewatering pumps.

The result is the world's toughest and smartest dewatering pump for drainage or sludge. Introducing the submersible dewatering pump type ABS XJ/XJS – a pump made for the real world.

## With intelligence built in

The submersible dewatering pump type ABS XJ/XJS is packed with electronic intelligence. Features like AquaTronic, AquaPlug and a smart level sensor provide major benefits, including:

- **Correct motor rotation every time**  
The pump electronically adjusts for incorrect phase order.
- **Motor protection**  
The pump stops in the event of a power overload and/or high temperature.

- **Rapid assessment of operation/fault history**

A USB port allows pump condition to be checked with a PC – without disassembly.

- **No control panels required**

Built-in pump electronics eliminate traditional electrical control panels.

- **Reduced energy consumption and wear**

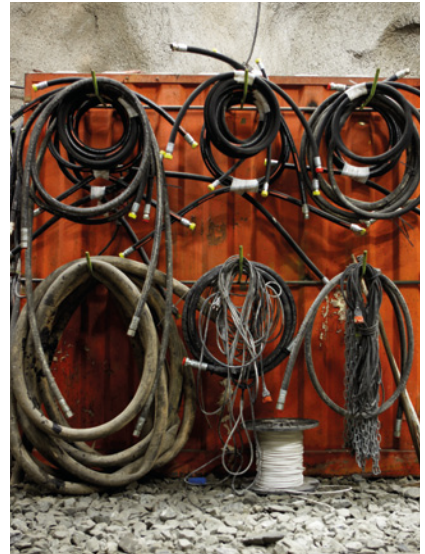
The pump can be set to stop at dry running and start again at a specified level, which saves energy and minimizes wear.



Submersible dewatering drainage pump type ABS XJ



Submersible dewatering sludge pump type ABS XJS



## The New ABS Pump for Tough Sites

When you're working against the clock to meet mine production demands, you need everything to go right. That's why you need the submersible dewatering type ABS pump XJ/XJS from Sulzer.

With its robust design and smart capabilities, the pump ensures reliable drainage and sludge dewatering. That means both an optimal working environment and high production efficiency.

### Key advantages

- Plug and pump, and walk away
- Unique design for trouble-free operation
- Robust construction for high wear resistance
- Smart features to maximize pump life
- Saves energy and the environment

*Fold out to see how the submersible dewatering pump type ABS XJ/XJS saves you both hassle and money.*

# Smart Reasons for Managers

Mine managers need solid economic reasons for purchasing equipment. The submersible dewatering pump type ABS XJ/XJS provides them. Easy and safe to use, its trouble-free operation ensures more time in the water and less in the workshop. Its low energy consumption saves running costs as well. The result is a drainage and sludge dewatering pump with optimal lifecycle economy.

## Trouble-free operation

- The new pump design, robust construction and premium materials ensure high wear resistance.
- With electronic supervision built into the pump, you always know it's protected.

## Easy and safe to use

- The correct direction of impeller rotation is ensured by our optional AquaTronic unit. Plug and pump, and walk away.
- Soft-start function with motors from 8 kW ensures a smooth start sequence.
- The AquaPlug control and monitoring module offers a range of alarms, enabling quick reaction to a potential problem.

## Saves energy and the environment

- The high-efficiency motor and hydraulics are combined with low-friction bearings to reduce power losses. You achieve low total energy costs and minimize your carbon footprint.
- Together with the water level sensor, the AquaPlug control and monitoring module provides cost-effective water level control and helps lower power consumption.

## Easy servicing

- The built-in service software of the AquaTronic unit can be viewed on a PC via USB link.
- The condition of the pump can rapidly be checked without disassembly.
- The modular design of the pump range saves costs by ensuring maximum pump availability with a smaller spare parts inventory.

## Local support worldwide

- Sulzer has a global reach and provides local support for its pump ranges. You are assured of excellent sales and service assistance, wherever you are located.



## Smart Reasons for Users



Users of the submersible dewatering pump type ABS XJ/XJS will be glad to know that it's a true plug-and-pump unit. There's no wondering whether the impeller will rotate correctly, or whether the pump will start and stop as desired. It's a stable, safe and reliable pump that can be transported and installed easily. Let it do its job, and you're free to do yours.

### Plug-and-pump installation

- Thanks to our AquaTronic unit, pumping starts immediately and is fail-safe. The direction of impeller rotation is always correct.
- The pump is the first of its kind with built-in compensation for incorrect phase order.

### Reliable pump operation

- Built-in pump monitoring avoids damage due to overheating, water in the oil or power supply issues.
- Operating efficiency is excellent. The highly wear-resistant impeller and adjustable wear ring are both made of high-chrome alloy steel. The diffuser is coated with oil-resistant nitrile rubber.

### Easy to handle

- Stable and balanced design makes for a safe and secure installation.
- A vertical handle on top of the pump allows simple lifting, either by hand or machine.

### Safe operation

- The pump can be started and stopped manually or automatically with our AquaPlug control and monitoring module.
- Environmentally safe white oil is used in the oil casing.

### Easy servicing

- The workshop manual and spare-parts list, readily available in the AquaTronic unit, can be viewed on a PC via USB link.

# The Next-Generation Dewatering Pump

Sulzer has over 50 years of experience with submersible pumps and plays a leading role in their development. As increasing demands are placed on our customers, we enable them to work in a more efficient way. With the high performance of the submersible dewatering pump type ABS XJ/XJS, the demand for quick and effective dewatering is met.

## Endurance for a hard life

The submersible dewatering pump type ABS XJ/XJS is a total solution for operation in tough conditions. It offers a sturdy, heavy-duty housing of cast aluminum, as well as an impeller and a wear ring in high-chrome steel alloy. It also has diffusers coated in nitrile rubber, opposing seal surfaces of silicon carbide and a double-cable-seal system for the power cable entry.

## Electronic intelligence

Building the world's smartest submersible dewatering pump means eliminating potential problems and unnecessary service work. Our AquaTronic unit prevents incorrect impeller rotation, as well as voltage and over-amp problems. It also has internal software that presents service history and helps you monitor the pump's life cycle.

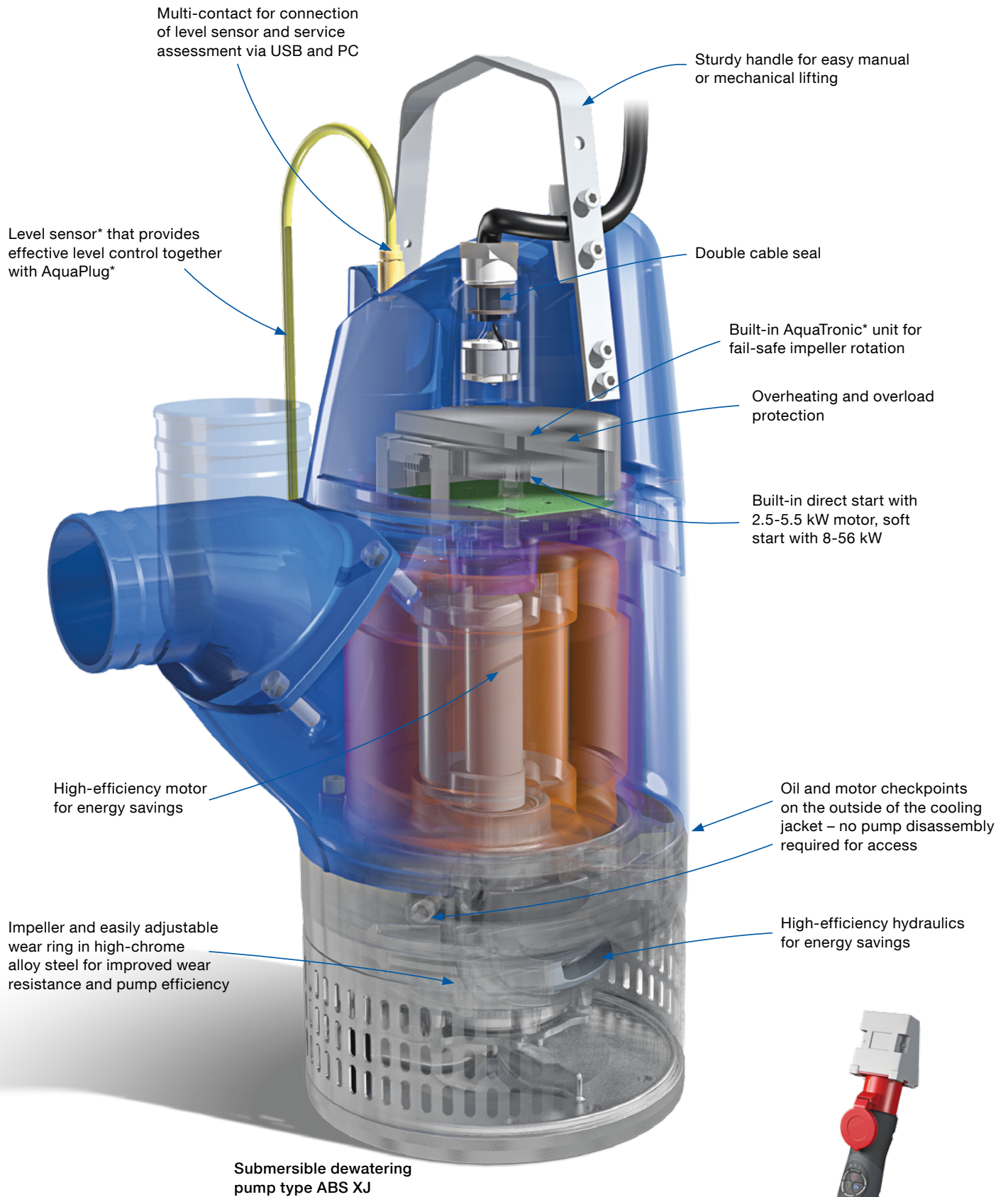
Our AquaPlug operates as a start-stop panel would, offering a series of monitoring features to warn the user of potential problems before they cause failure. There is no need for an external control panel.



## Hands-on development

At Sulzer, our entire staff is committed to improving our products. We visit the worksites and mines where pumps are being used. From sales to service, we listen to the views of users.

We learn which improvements to our products would make your job easier, and we channel this valuable feedback into our R&D.



# Several Outstanding Innovations

The submersible dewatering pump type ABS XJ/XJS is packed with exceptional innovations. These innovations allow the pump to truly deliver in mine-site dewatering applications. For both management and users, the superior features shown below provide benefits not found in any other submersible dewatering pump.

## AquaTronic

- Ensures correct motor rotation, irrespective of power connection
- Stops the pump at dry running
- Allows pump start via level sensor
- Stops the pump upon alarm for overload or high temperature
- Stops the pump upon missing phase or extreme phase unbalance
- Allows pump performance and service diagnostic data to be viewed on a PC via USB connection, enabling accurate evaluation of service and maintenance needs
- Provides warnings for:
  - High and low voltage
  - Low motor insulation
  - Water in oil

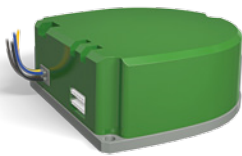


## AquaPlug

- Identical plug for all pumps, available with 16A and 32A sockets
- Alarm for motor overheating or power failure, plus indication when service is needed, e.g. due to water in oil
- Selector for automatic or manual stop/start
- Pump control and monitoring – can stop the pump when snoring
- Power line communication over 4-core power cable

## Level sensor

- Together with AquaPlug, provides precise water level control







### High-efficiency motor and hydraulics

- Reduce power losses
- Lower total energy costs
- Run cool for longer life cycle

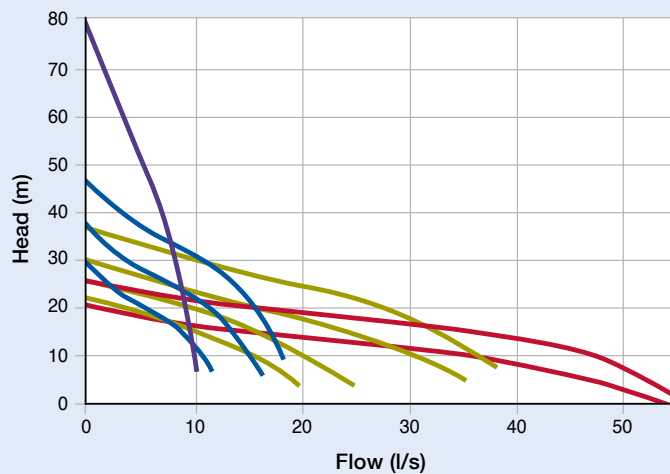
### High performance and wear resistance

- A double outer casing and good heat convection allow continuous operation at low water levels – or even dry running – without motor damage
- Robust and reliable materials: outer casing in cast aluminum, cast parts in lightweight aluminum alloy, mechanical shaft seals in silicon carbide
- High-efficiency, long-life construction: highly wear-resistant impeller and adjustable wear ring, both of high-chrome alloy steel, plus diffuser in oil-resistant nitrile rubber

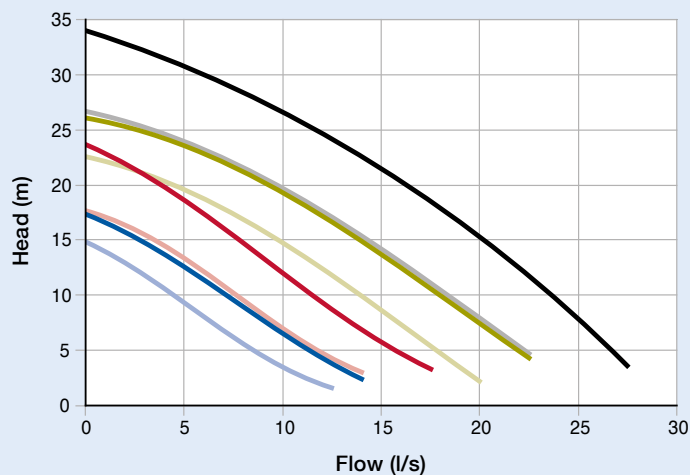
## Submersible Dewatering Pump Range, type ABS XJ/XJS

Pump performance curves for the range of submersible dewatering pumps type ABS XJ/XJS allow you to select the most suitable pumps for your applications.

### Drainage pumps, submersible dewatering pump type ABS XJ



### Sludge pumps, submersible dewatering pump type ABS XJS



As our product range is under constant development, visit [www.MadeForTheRealWorld.com](http://www.MadeForTheRealWorld.com) occasionally to check the progress of new model introductions.

# Combined Strength for Unmatched Expertise

Sulzer is associated with innovation and well proven solutions for wastewater handling and dewatering. Strong customer service combined with extensive application

expertise in solving wastewater and dewatering challenges is the foundation of this strong global brand. For more information, visit [www.sulzer.com](http://www.sulzer.com)

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