ANDRITZ
Pump solutions for mining

www.andritz.com/pumps
Andritz for mining
Tailor-made pumping solutions

Are you looking for safe and effective solutions in mining water management? Andritz is one of the leading manufacturers of pumps for water management and emergency drainage in surface and underground mining.

Safety and reliability are the greatest necessities in surface and underground mining in order to ensure that there are no disruptions in extraction. Mine operators around the world trust the single-flow and double-suction submersible motor pumps from Andritz in order to remove mine water reliably from operating areas. If rescue pumps are needed to drain water from mines reliably and quickly in emergencies, the patented HDM technology is the best possible solution to keep people and the environment safe.

HDM – Heavy Duty Mining
Two pumps are arranged one above the other, running in counter direction and driven by a continuous pump shaft. Splitting the workload between both pumps ensures complete axial thrust balancing and thus contributes towards solving the problems of force effects on the unit and loads on the thrust bearings; at the same time, the flow and suction speed outside the pump is halved. Thus, well walls are protected around the suction areas, and the intake of abrasive particles is minimized. Andritz submersible motor pumps with HDM-Technology provide maximum operating reliability, minimal wear, and long service life, which can often be more than 20 years.

Further technologies
MST (Modular Shaft Technology) allows easy adaptation to changing pumping conditions.

MCT (Modular Cooling Technology) enhances durability, and is at the same time the most efficient possible means of cooling submersible motors.

IPM (Interior Permanent Magnet Motor) the new premium class submersible motors with highest efficiencies over a wide performance range.

For complete information on our technologies kindly refer to our brochures and videos.

Advantages at a glance
- Deployment under extreme conditions
- Highest operating reliability
- Long service life
- Maintenance-free operation
- High-grade materials
OPEN PIT MINES

DEWATERING FROM EX-PIT BOREHOLES

DEWATERING FROM IN-PIT BOREHOLES

UNDERGROUND MINES

DEWATERING VIA EXTERNAL BOREHOLES

DEWATERING VIA SHAFT AND FOR RESCUE PURPOSES

ADVANTAGES:

– No pump station
– No flood protection
– No additional heat generation

PROTECTION OF ACTIVE MINE / ENVIRONMENTAL BY CONTROLLING THE GROUND WATER LEVEL IN CLOSED MINE

CLOSED MINE

ACTIVE MINE
# Pump types for operation in mining

## Double-flow submersible motor pumps
- **Flow rate**: up to 6,000 m³/h
- **Head**: up to 1,500 m
- **Pressure**: up to 150 bar
- **Well diameter**: from 20"
- **Temperature**: up to 75° C

## Single-flow submersible motor pumps
- **Flow rate**: up to 900 m³/h
- **Head**: up to 800 m
- **Pressure**: up to 100 bar
- **Well diameter**: from 6"
- **Temperature**: up to 75° C

## Submersible motors
- **Power**: up to 5,000 kW
- **Voltage**: up to 14,000 V
- **Well diameter**: from 8"
- **Temperature**: up to 75° C

## Highly wear-resistant centrifugal pumps
- **Flow rate**: up to 6,000 m³/h
- **Head**: up to 160 m
- **Pressure**: up to 25 bar
- **Efficiencies**: up to 80%

## High-pressure pumps
- **Flow rate**: up to 1,400 m³/h
- **Head**: up to 1,000 m
- **Pressure**: up to 100 bar

## Multi-stage, double-flow submersible motor pumps
- Multi-stage, double-flow submersible motor pumps. Compensation of axial thrust and halved flow velocity guarantee for longest service life even under most extreme operation conditions.

## Multi-stage, single-flow submersible motor pumps
- Multi-stage, single-flow submersible motor pumps. Absolutely reliable, maintenance-free and extremely long-lasting. With MST-Technology the pump may not only be flexibly adapted to changing pumping conditions but is furthermore also saving storage costs.

## Water-filled and water-cooled submersible motor
- Water-filled and water-cooled submersible motor. For consistently strong performance at high temperatures, special voltages and in extreme conditions. MCT- and IPM-Technology for perfect cooling and highest efficiencies.

## Single-stage centrifugal pumps
- Single-stage centrifugal pumps with closed, semi-open, or open impeller also available in highly wear-resistant design. Various material combinations available for most varied applications guarantee for long life cycles and outstanding efficiencies.

## Multi-stage high-pressure pumps
- Multi-stage high-pressure pumps in horizontal and vertical design. Manufactured in material variants of cast iron, bronze, aluminium-bronze or stainless steel.