GO FURTHER WITH HIGH-QUALITY PUMP SOLUTIONS
TOUGH CONDITIONS ARE OUR SPECIALTY

If you are looking for a truly dedicated and reliable pump partner, Grundfos is the one to turn to. Backed by decades of experience in developing state-of-the-art pump solutions, we understand the challenges you face in the mining industry and design every one of our products accordingly to make sure they are tough enough to tear through some of the harshest environments on the planet.

Our robust pumps cover most processes in surface, open pit and underground mining. Materials are carefully chosen to reduce wear, tear and corrosion and offer you long product life and reliable continuous operation to eliminate downtime. Unique features include:

- Bearings designed to keep aggressive liquids in and sand out
- High efficiency motors that generate less heat
- All vulnerable parts made from high grade stainless steel

Contact your local Grundfos sales representative to find out how we can apply our extensive knowhow to your mining operation and tailor pump solutions that will benefit your business.

HIGH OPERATIONAL EQUIPMENT EFFICIENCY IS KEY

Grundfos keeps a clear focus on the operational equipment efficiency (OEE) in every partnership we enter into—because we understand the tangible value of reliable pump operation underground. No two mines are exactly alike and customised solutions are a cornerstone in our quest for high OEE. In North West Australia we helped increase an OEE of just 27% in one of the world’s largest iron ore deposits by means of:

- High grade stainless steel submersible pumps – corrosion resistant in the aggressive ground water
- Pump units fitted with stainless steel flow sleeves to provide adequate cooling in the hot desert climate
- Cables joined with special heat shrink kites to handle the aggressive ground water

Grundfos’ customised dewatering solution has moved the OEE closer to the original target of 75%—and equally important eliminated the risk of loosing several million dollars per day due to inefficient pumps and subsequent ceased mining.

HIGH EFFICIENCY MOTORS GENERATE LESS HEAT

Designed for efficient operation in the hot areas of the world where mines are often located, Grundfos pumps are fitted with high efficiency motors that generate less heat. Their innovative design translates into a reduced need for cooling which affects both the energy efficiency and product wear positively.
MEET THE UNDERGROUND STARS

You will probably agree with us that reliability and operational efficiency are what matter the most when you work underground. Robust, hard-working and dependable, Grundfos dedicated mining products fit that bill and are the perfect fit for the world’s toughest conditions. Meet a few of our underground stars here and find out why they are making a big difference in the mining industry.

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CR/T/N
- Designed to resist aggressive, corrosive liquids, the CR/T/N series comprises some of our most flexible, all-round pumps for a wide range of mining applications:
  - Available in four different materials: cast iron, two grades of stainless steel and all-titanium
  - Customisable with a variety of shaft seals
  - High-efficiency motor
  - Able to produce up to 50 bar of pressure

DWK
- The DWK range features robust, high-efficiency dewatering pumps, ideal for temporary installation in pits:
  - Solid cast-iron construction and narrow design
  - High-efficiency motor
  - Available in high-chrome stainless steel impeller
  - MP204 available as an optional pump control

NBG/NKG
- The NBG/NKG end-suction pumps are made from stainless steel and suitable for a variety of different mining applications requiring reliable, cost-efficient supply:
  - Ideal for water treatment processes
  - Excellent corrosion-resistant properties
  - Available with double seals for pumping of abrasive and aggressive liquids

SP
- An industry favourite for almost 50 years, Grundfos SP submersible pumps are renowned for their high efficiency and unsurpassed reliability:
  - 100% stainless steel
  - High resistance to sand and other abrasive materials
  - Motor burnout protection
  - Easy maintenance

DIG INTO A POOL OF GLOBAL REFERENCES

Open-pit nickel mine in Talvivaara
- Finland
  - Applications: Dewatering, pond/dust suppression, heap leaching, water intake, wastewater
  - Products: AP, KP S-range, CBN, Hydro MPC, DME, SP, SQE, MTR.

Sandstone ore bodies
- Kazakhstan
  - Applications: Intake and monitoring
  - Products: SP, CRNE, MTR, MP204

Iron Ore mine
- South Africa
  - Applications: Underground Dewatering
  - Pumps: SP

Coal mine
- South Africa
  - Applications: Open Pit Dewatering, Potable Water Supply, Potable plant water
  - Pumps: DWK, NK, NK booster sets

Platinum mine
- South Africa
  - Applications: Shaft water booster pumps, Underground dewatering pump
  - Pumps: DWK, CR

Gold mine
- South Africa
  - Application: Plant Fire control
  - Pumps: NK, CR

Copper mine
- Zambia
  - Sewage treatment works
  - Pumps: SVP pumps with guide rails and duck foot connectors

Open pit Iron Ore
- Australia
  - Applications: Dewatering, pond/dust suppression, heap leaching, water intake, wastewater
  - Products: SP/SP-R, Minescope Hydro MPC

Open pit Coal mine
- Australia
  - Applications: Underground water transfer
  - Products: SVP pumps

Open pit Iron Ore
- Australia
  - Applications: Dewatering, Pressure boosting
  - Products: SVP-SP, SVP-X, Minescope Hydro MPC

Open pit Coal mine
- Australia
  - Applications: Raw water transfer
  - Products: S pumps
COVERING YOUR EVERY REQUIREMENT ON SITE

At Grundfos, we understand that no two mining operations are alike. With hundreds of variables coming into play, defining and implementing a solution has to be done with the utmost precision and care. Our complete solution approach includes pumps for surface, open pit and underground mining. And our CUE frequency converters make it very easy to set up, optimise and regulate an entire system in just a few steps. In short, Grundfos pumps are built to last—even under the toughest working conditions.

See the complete selection of mining pumps on the next page, or visit us online at grundfos.com for more information.

### Flow, Q:
- max. 1000 m³/h
- max. 432 m³/h
- max. 468 m³/h
- max. 460 m³/h
- max. 120 m³/h
- max. 1080 m³/h
- max. 850 m³/h
- max. 880 m³/h
- max. 120 m³/h
- max. 120 m³/h
- max. 1440 m³/h
- max. 1680 m³/h
- max. 1080 m³/h
- max. 660 m³/h
- max. 250 m³/h
- max. 250 m³/h
- max. 250 m³/h
- max. 250 m³/h

### Head, H:
- max. 160 m
- max. 102 m
- max. 810 m
- max. 102 m
- max. 70 m
- max. 55 m
- max. 470 m
- max. 340 m
- max. 230 m
- max. 238 m
- max. 44 m
- max. 44 m
- max. 50 m

### Liquid temp.:
- max. +140 °C
- max. +40 °C
- max. +60 °C
- max. +40 °C
- max. +40 °C
- max. +70 °C
- max. +180 °C
- max. +40 °C
- max. +40 °C
- max. +40 °C
- max. +40 °C

### Operat. pressure:
- max. 16 bar (NB/NBG/NK)
- max. 10 bar (Maxa/Maxana)
- max. 16 bar (NB/NBG/NK)
- max. 82 bar
- max. 50 bar
- max. 16 bar
- max. 25 bar
- max. 82 bar
- max. 25 bar
- max. 82 bar
- max. 25 bar

### Materials:
- (NB/NBG/NK): Cast iron and Stainless steel (EN 1.4404.316L)
- Stainless steel (AISI 304)
- Stainless steel (AISI 316)
- Stainless steel (AISI 904L)
- Cast iron
- Stainless steel
- Stainless steel
- Stainless steel
- Cast iron
- Stainless steel (EN 1.4404.316)
- Cast iron
- Stainless steel
- Stainless steel

Grundfos offers a complete range of pumps, control systems, frequency converters, motor protection units, sensors, and monitoring solutions. In combination with Grundfos pumps, the Grundfos monitoring and control solutions offer substantial savings in installation, management, energy cost, energy consumption, as well as the day-to-day operations.
WHY CHOOSE GRUNDFOS AS YOUR MINING PARTNER?

- The biggest pump manufacturer in the world with over 16 million pumps produced every year
- Present with 80 sales and service companies in 51 countries, which also ensures presence in all the major mining markets in the world
- Cutting-edge technology based on the largest R&D budget in the industry with focus on optimising energy efficiency
- Grundfos iSOLUTIONS offer remote communication and complete control of the pump solutions, e.g. monitoring of liquid levels, automation of pumps, detailed log files as well as warnings/alarms.