NETZSCH

Proven Excellence.

NETZSCH Mine Dewatering Pumps & Pump Skids

Creating Dewatering Solutions for the Worldwide Mining Industry

Pumps & Systems

Mine Dewatering Pump Skids

SAFE, RELIABLE, COST EFFICIENT

NETZSCH now offers dewatering systems or skids to help mines that require a small and compact movable unit to address their dewatering challenges.

The Base Unit

The base unit includes a tank, progressing cavity pump with right angle gearmotor, inspection ladder, valves, and piping all mounted on a common galvanized steel skid. NETZSCH can optionally provide a unit with a control panel (with or without VFD on a removable stand) and instrumentation such as high/low level switches for the tank or dry run protection for the pump.

Design of the basic unit with customized controls for a mine in the midwest USA

Features and Benefits

- The tank includes baffle/divider screens to filter out any solids too big to fit through the pump.
- The pump, located to the side of the tank, allows for easier access and maintenance.
- A right angle gearmotor is used to save space and eliminate the need for a belt drive, but belt and pulley designs are also available.
- A removable inspection ladder with hand rails and a removable safety screen for the tank are provided for operator safety.
- Wide range of flow and pressure capability.
- The pump and tank are available in various materials to best suit each application, including low pH applications:
  Elastomer – BUNA, EPDM, FKM
  Metals – carbon steel, stainless steel, galvanized steel, Halar/ rubber lined steel.
- Standard or customized controls are optional for all units.
- All items can be custom designed to best address specific needs.
- Complies with all relevant safety standards (OSHA, MSHA, etc.).
- Anti-reversing devices are available to prevent the pump from running in reverse.

NETZSCH Mine Dewatering Unit for a gold mine in Montana, USA

Individual pumps are available to retrofit your existing skid.

NEMO® Progressing Cavity Pumps

Using NETZSCH standard range of NEMO® progressing cavity pumps, units can be built with a wide range of flow capacity, pressure capability, and materials of construction.

Features & Benefits of NETZSCH NEMO® Pump Design

- Rotors are available in wear and corrosion resistant metal designs and wear-free ceramic rotor design (NEMO CERATEC®). Various coatings are available to increase wear resistance, such as chrome plating and tungsten or chrome carbide.

- Stators are manufactured to the latest standards. Minimized tolerance ranges optimize pump performance. Our unique, fully networked prod- uction and process data monitoring system developed in-house, is supported by consistent quality testing.

  Stator inlet is vulcanized into the tubes with integrated seals on both ends. Inlets are available in a wide variety of NEMOLAST® elastomers, plastics, and metals. Cone-shaped stator inlet improves product feed into the conveying chamber.

  Special stator designs are available:

  iFD-Stator® - a two-part reusable housing with a replaceable elastomer insert.

  Adjustable Stator - with screws to increase the tensioning on the stator to compensate for wear, and so increase stator life.

Dry run protection is available.

- Drive Train – The drive and connecting shaft with coupling rod and two universal joints provide the power transmission from the drive to the rotor.

- Hardened shaft or shaft sleeve for added wear resistence.

- Anti reversing device for safety.

- Variety of joint types available:

  Pin Joints are standard with simple and easy-to-maintain design. The few parts make it easy to service in the field and low cost to replace.

  Double Sealed Gear Joints are a heavy duty design for extremely industrial applications involving constant pump running, frequent stops/starts, or shock loads.

  Double Sealed Pivot Joint is the most reliable and sturdy joint option used for the greatest flow rates and pressures possible, where torque and axial loads are at their highest (select larger pump sizes).

- Shaft Sealing – Standard design with single-acting, wear-resistant, bi-directional mechanical seals.

- Mechanical seals from a range of manufacturers, as well as cartridge and special seals and stuffing box packing with hardened/ coated shaft or shaft sleeve are available. All seal types are available with and without flush connection.

- Suction and Pressure Housing have a hydrodynamic design with flange or thread connections in accordance with ANSI, DIN and other international standards. Available in grey cast iron, stainless steel, rubber-lined or Halar-coated cast iron and special materials.

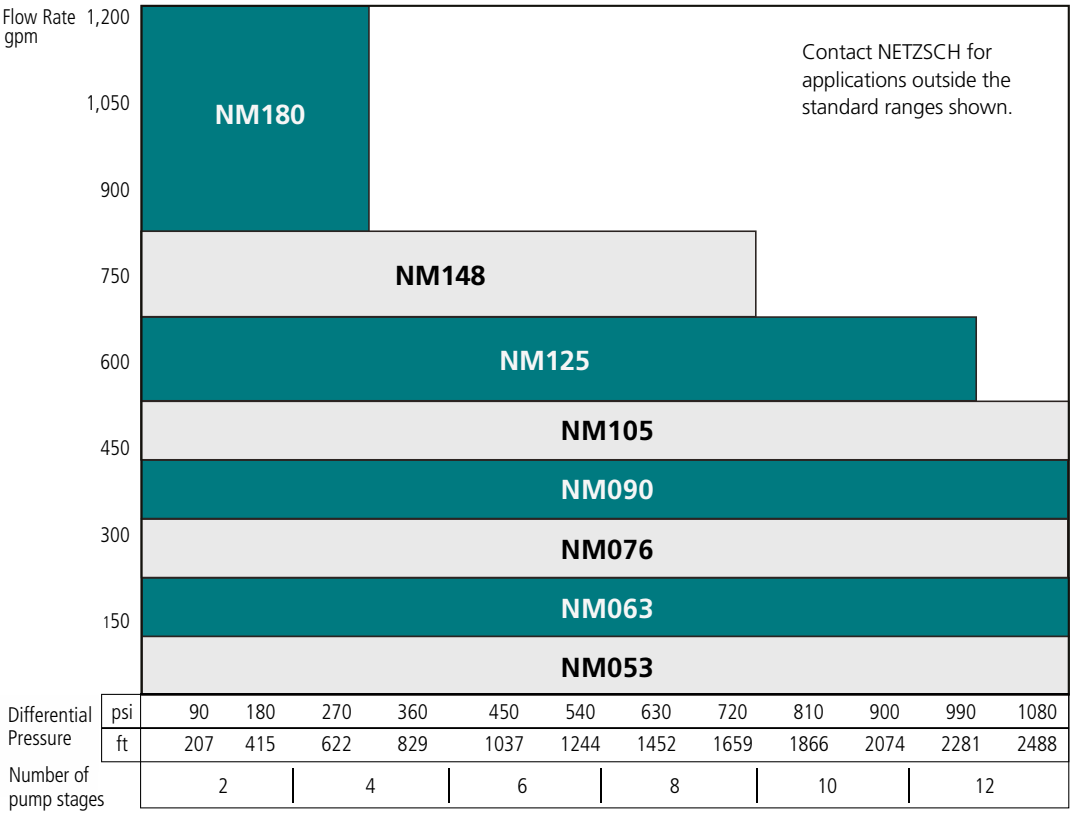
- Bearing Housing Design with integral bearings to the pump for heavy duty applications and increased reliability. A two-part shaft allows all types of drives to be used universally making rotating parts servicing simple and fast.

- Compact close couple pump design for reduced footprint are also available.

Performance

We select the pump most appropriate for your mine water management application — whether stock or specialized. Our wide flow and pressure capabilities ranges allow you to require fewer pumps in your pump station. Our engineers can recommend solutions to meet your challenges.

With custom designs we can meet:
Max flow rate up to 4400 gpm / 1,000 m^3h
Max pressure: number of stages ranging from 1 to 8 for pressures from 90 psi to 680 psi / 6 bar to 48 bar (standard) or up to 4,350 psi / 300 bar (high pressure)



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