

Mine Dewatering Pumps

For Mine-shaft Applications

Boost mine uptime while reducing maintenance costs

Flowserve offers a range of high-pressure, ring section pumps capable of handling the head and flow requirements of mine shaft dewatering. These pumps are engineered to increase mean time between failures (MTBF) with reduced maintenance and repair costs.

NMDW dewatering pump

Designed specifically for mine-shaft dewatering, the NMDW pump is equipped to handle amounts and types of solids that regularly damage lesser rivals. With sustainable solids-handling capabilities up to 100 microns (μ m) in a Class 1 slurry application, the NMDW pump is capable of withstanding occasional settling upsets for solids handling up to 200 μ m.

The site will operate longer with reduced cost of maintenance. This durable multistage pump has been engineered to increase MTBF. It features a robust design with hardened surface materials and larger clearances to reduce wear and minimize NPSH requirements. All components are designed for easy disassembly and reassembly to dramatically reduce downtime.

| Туре | Class 1: Fine silica sand | | |
|---------------|---------------------------------|--|--|
| Concentration | 25–100 g/L (25 000–100 000 ppm) | | |
| Solid Size | 50–200 μm (0.002–0.0079 in) | | |
| рН | 7±1 | | |
| Max. Pressure | 45 bar (650 psi) | | |
| Max. Head | 455 m (1500 ft) | | |

Superior performance for light slurry applications

- Up to 6 percent slurries (by volume)
- Suspended solids (silica) specific gravity to 2.65
- Nominal particulate sizes up to 100 µm
- Occasional upsets to 200 µm particles

Rotor hydraulic balancing — less wear, longer life

The NMDW features integrated counter vane expeller technology for:

- Self-balancing impellers
- Minimized axial forces
- It eliminates:
- Balance drum system
- Pressure-equalizing holes





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Other dewatering solutions from Flowserve

While the NMDW pump manages the widest range of solids at the lowest lifecycle cost, Flowserve offers a family of solutions to address specific dewatering challenges. Contact your representative to determine which option is right for your application.

MS Series

For applications requiring higher pressure ratings and flow capabilities.

WDX

A tough, durable pump for applications with lower flow rates.

HEG

A cost-effective alternative for lower-pressure applications.



Typical Operating Parameters

| 6%- | | | | |
|-----|------------|-------------|-----------------|-----|
| 5%- | | | | |
| 4%- | | | | |
| 3%- | | | < | |
| 2%- | | | | |
| 1%- | WDX/MS HEG | NMDW | | |
| | | | | |
| Į | 50 80 | 90 | 100 | 200 |
| | | Average Par | ticle Size (µm) | |

| | NMDW | HEG | WDX | MS Series |
|-------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Max. | 700 m ³ /h | 145 m ³ /h | 190 m ³ /h | 450 m ³ /h |
| Flow | (3080 gpm) | (638 gpm) | (800 gpm) | (1981 gpm) |
| Max. | 455 m | 390 m | 760 m | 1600 m |
| Head | (1500 ft) | (1280 ft) | (2500 ft) | (5250 ft) |
| Max. | 45 bar | 40 bar | 75 bar | 160 bar |
| Pressure | (650 psi) | (580 psi) | (1090 psi) | (2320 psi) |
| Max. | 140°C | 194°C | 210°C | 180°C |
| Temperature | (285°F) | (380°F) | (410°F) | (356°F) |

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Class 1 Slurry Concentration by Volume %