
MICRO HYDROPOWERED MINING

SMALLER-SCALE HYDROPOWER SYSTEMS



NOVATEK
INNOVATION IN MINING

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APPLICATION

Hydropowered mining systems can be very effectively used to power specific working areas and localised areas, such as a complete raiseline. The result is a locally-controlled system that can be operated energy-efficiently, more productively and more cost effectively than pneumatic systems.

ENERGY EFFICIENCY

- Water drilling systems can be 90% more energy efficient than pneumatic systems, requiring a lower installed capacity and having much lower operating costs.

PRODUCTIVITY

- Water drilling systems can be 90% more energy efficient than pneumatic systems, requiring a lower installed capacity and having much lower operating costs.

SAFETY

- Better productivity means fewer personnel in risk areas and for a shorter time.
- Lower noise output, no exhaust mist, no oil discharge means a healthier working environment.

COST SAVING

- Capital costs can be 40% lower than pneumatic systems for the same drilling capacity.
- Productivity and energy savings more than offset higher maintenance costs, to provide overall operational savings.

COMPONENTS OF A MICRO HYDROPOWER SYSTEM

- POWERPACKS – including pumps and their control systems, supply tanks and filters.
- RETICULATION – including piping, isolating and safety valves and fuses, manifold and hoses for high pressure water. Hose and piping for low pressure return water.
- ROCKDRILLS – for drilling of blastholes and roofbolts.
- MINING EQUIPMENT – including water jetting guns, blasthole cleaners, watering-down guns, jet pumps, saws, and other tools.
- DRILLING RIGS (optional) – varying from simple beam rigs and portable bolters to tracked and trackless rigs.

TURNKEY SYSTEMS

- Novatek can specify, supply and commission turnkey installations.
- Training and maintenance services are also provided.

TYPICAL SPECIFICATIONS

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| Supply Pressure at Pump | 17-18 MPa |
| Supply Pressure at Rockdrills | 12 MPa (at worst point) to 16 MPa |
| Service water Supply | Clear water at 500 kPa min, 5 to 30° C |
| Water recirculation option | Can recirculate up to 75% of drill exhaust. Requires supply tank. |
| Pump control system | Unloading valves, PLC controls or variable speed drive systems. |

Note that specifications are subject to change without notice. Products are subject to patent protection.