
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

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.