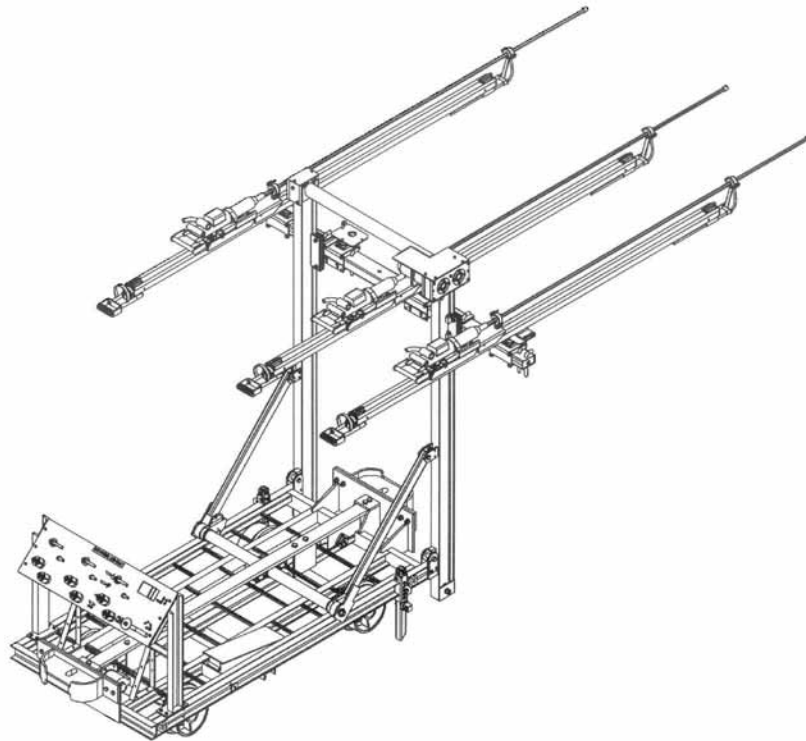


NOVATEK DRILLING SYSTEM FOR LARGE-END DEVELOPMENT



Novatek's drilling system for large-end development is engineered to provide a cost-effective and simple means for the drilling of blastholes and roofbolts. The system is mechanised to enable faster and more accurate drilling - with a smaller crew. The benefits are improved advance per blast and faster development rates, improved productivity, operating cost savings and enhanced safety.

The system is mounted on a railcar and features a simple winch-powered mechanism to deploy the supports and drill feeds with a minimum of physical labour. A pneumatic winch is used to raise and lower the drill feeds to the correct drilling positions. A normally-on brake automatically holds the crossbeam and drills in position. Once deployed, the system is operated remotely from the rear of the drill car. Operators are only required to reposition the drills for each vertical row of holes.

The railcar is of a light construction so that it can easily be moved by hand from its storage position in a cubby to the working face. This ensures that drilling is not delayed while waiting for a loco. Installation and drilling can be done by 2 to 3 operators.

The same machine is also able to drill and install roofbolts by mounting a suitable drill feed on the crossbeam assembly. Breakaways and cubbys can also be drilled with ease.

Novatek Drills (PTY) LTD
Phone (011) 680-5006
Fax (011) 680-5033
Email novatek@iafrica.com

NOVATEK
D R I L L S
INNOVATION IN MINING

BENEFITS OF DRILLING WITH THE NOVATEK LED SYSTEM

- More accurate drilling and positioning of blastholes results in better blast control – improved tunnel shape and better advances per blast.
- More effective drilling – 50% Faster drilling rates and higher productivity, lower drill operating costs and improved drill reliability
- Labour saving. Less physically demanding on drill operators.
- Safer operation and lower exposure to hazardous conditions - operators are located well back from the face.
- Relatively unskilled operators compared to sophisticated hydraulic drifter drilling.
- Ability to drill roofbolts as well as face holes.
- Ability to drill breakaways, cubbies as well as install roofbolts.

FEATURES

- Designs are engineered to be simple and robust - providing more accurate and faster drilling without restricting the flexibility of mining operations.
- The drillcar is simple and light to transport and erect. Standard pneumatic drills are used.
- Maintenance is minimal.
- Controls are simple and are located at the rear of the rig for remote operation.

SPECIFICATIONS : DRILLING SYSTEM FOR 3m x 3m LARGE-END DEVELOPMENT DRILLING

The drill rigs are designed to use standard pneumatic drills (Seco S 215, S23, S25). We recommend the use of the more powerful S 25 drills.

End height	Typically 3.0 to 3.5 m
End width	Typically 3.0 m (2.0 m min)
Buffers and drawbars	Supplied either with rear buffer only, or front and rear buffer plus drawbar,
Drillcar length	3200 mm for transport (excl drill feeds) (1 buffer version) 3000 mm for transport (excl drill feeds) (2 buffer version) 3000 mm in drilling position (excl drill feeds)
Drillcar width	Approx 1510 mm travelling Approx 2500 mm when drilling
Drillcar height	Approx. 1400 mm travelling Approx 2800 mm when drilling
Estimated mass	1200 to 1500 kg drillcar only (depending on spec) plus 90 kg per drill feed (depending on spec)
Rail gauge	610 mm, 762 mm, 914 mm as standard
Design of round	Burn cut with 2.0 to 3.0 m advance/blast
Drilled hole depth	Typically 2.2 m to 3.0 m
Drilling capacity	Up to 3 drills operating on a common crossbeam
Positioning and orientation of holes	Indexing of hole position on crossbeams. Horizontal and vertical angle adjustment using saddle.
Operating air pressure	400 to 600 KPa (lower pressures require modification of the winch)
Crossbeam motion	Crossbeam guided on 2 vertical columns, pneumatically controlled via MME air winch with automatic normally-on brake and rate-control valve.
Deployment of columns	Columns are deployed using a MME pneumatic winch with a normally-on brake.
Supply manifolds	Attached to railcar
Rockdrill, drill feed and crossbeam controls	Control panel located at rear of railcar

Novatek drill rigs, feed booms, methods of support and attachment are patented. Specifications are subject to change without notice.