

MINOVA

SECURA DB

DYNAMIC YIELDING ROCK BOLT



DESCRIPTION

Minova R24 Secura DB consists of Smooth Solid bar with paddle on one end. The bolt end is equipped with Nova R thread and an integrated dome torque nut. The bolt is encapsulated completely with Lokset® Resin and securely anchored by the unique paddle profile. Custom alloy steel enables the smooth section of the bar between the anchor point and face plate capable of deforming thereby absorbing large amounts of energy in dynamic grounds. The paddle profile also assists in resin film shredding and provides consistent and efficient mixing of resin capsule components.

Available in various lengths either black or hot dip galvanised.

ADVANTAGES

- > Design includes a unique and historically proven crimped paddles system to improve resin mixing, providing higher bond strength in large diameter boreholes
- > Permanent primary support
- > Consistent pin nut torque drive system, using standard square nut size, standard drivers and installation equipment
- > High strength proprietary 'Nova' thread (R thread) profile consisting in a modified rope thread with large root and small crest areas
- > Maintains support capacity while squeezing ground movement is taking place
- > Allows for full encapsulation to be maintained
- > Can be used in the most common resin bolt hole sizes
- > Installation is similar to regular resin bolt procedures

APPLICATION AND USES

Minova Secura DB is a highly effective ground support element in underground installations and tunnels subjected to large deformations in rock masses, caused by rock bursting or squeezing rock.

TECHNICAL PROPERTIES

PROPERTIES	Secura DB22 R24
Bolt diameter ¹ (mm)	22
Cross-sectional area ¹ (mm ²)	380
Paddle Diameter ¹ (mm)	26-30
Yield Strength ² (MPa)	385
Yield Force ² (kN)	150
Tensile Strength ² (MPa)	625
Tensile Force ² (kN)	235
Elongation ¹ (A200 %)	20
Breakout Pin Torque (Nm)	120-170
Displacement Capacity ¹ (mm)	200-250
Recommended bore hole size (mm)	32-36
Dynamic Performance (kJ)	>30

Elongation and Energy values are for a typical 2.4 m long Secura DB bolt. Different lengths will exhibit slightly different results.

¹ Typical
² Minimum

SUPPORTING PRODUCTS

Plates

Minova supplies a comprehensive range of plates for use with the Secura DB. Plates most typically used are:

ITEM CODE	DESCRIPTION	IMAGE
NT0004752	PLATE CRN 38X200X200X5MM8L LOOP BK	
NT0004812	PLATE CRN 38X200X200X5MM 8L LOOP GL	

Drivers

ITEM CODE	DESCRIPTION	IMAGE
NF0000243	DRIVER SKT T38X800 HEX 36AF	

Lokset Resin Capsules

The Lokset system consists of an easily handled capsules filled with a reinforced polyester resin in one compartment and a catalysed mastic filler in the other, separated by a physical barrier. The rotation of the bolt during installation ruptures the capsule, shreds the skin and mixes the two components causing a chemical reaction and transforming the resin mastic into a solid anchor.



TECHNICAL SUPPORT

We provide technical advisory service by a team of specialists in the field. The service includes on site assistance and advice on evaluation trials and laboratory work.

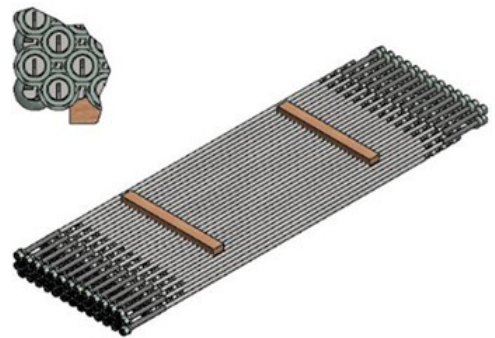
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PACKAGING AND TRANSPORTATION

Secura DB are packaged in bundles of 100 in a staggered configuration.

ITEM CODE	DESCRIPTION
NT0005052	BOLT SECURA DB R24X2400 BK
NT0005119	BOLT SECURA DB R24X2400 GL
NT0005053	BOLT SECURA DB R24X3000 BK
NT0005120	BOLT SECURA DB R24X3000 GL
NT0005821	BOLT SEC R28X2400 LHT WDDP LNUT 30P GL
NT0005822	BOLT SEC R28X2400 LHT WDDP LNUT 30P GL



MANUFACTURER

Minova Australia Inc

An ISO 9001:2015

Quality Management Certified Company

Certificate No. FM 689118



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