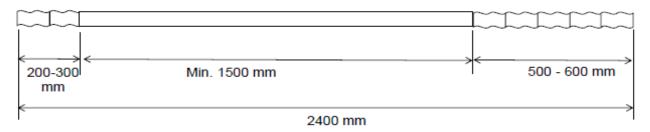
Self-Drilling Dynamic Bolt (SDDB®)



ROCK REINFORCEMENT

Leinster Type - Rock Reinforcement Bolt

TECHNICAL DATA SHEET



Specification SDDB Leinster Type R32N/18.5 x 2400mm with 1500mm smooth section and HDG

DESCRIPTION

The Self Drilling Dynamic – Leinster Bolt is intended to be used as a single member unit, although it may be extended where required.

The bolt is 2400 mm long with an 1500 mm smooth section to provide deformation and dynamic energy absorption capability.

The Leinster bolt is designed with a smooth seamless tube made of ductile steel and R32 ISO threads on each side.

The longer threaded section employs a 600 mm length R32 thread which works as anchor points and also accommodates the installation of the drill bit. The 300mm R32 thread on the opposite end is used as a coupling for drilling/installation and subsequently as bolt head anchorage and nut assembly to tighten the plate for surface support.

If an extension is required, a second bolt can be applied using the regular R32 SDA coupler. Where required for better bonding of the fracture zone closest to the face, the threaded ends may be rotated during installation.

The Leinster bolt is intended to be used in squeezing ground and in broken rock mass conditions.

KEY BENEFITS

- Simple installation
- Extendable
- Capable of High Pressure injection
- In addition to use as a ground support system, the bolts act to bear load as a deformable injection lance for strata consolidation and reinforcement)

TYPICAL APPLICATIONS

- Squeezing ground, broken, fractured and fissured rock where typical bolts are difficult to install.
- May be considered as an alternative to cable bolting in certain applications.

FUNCTIONALITY

The Leinster Bolt reinforces the rock mass by onstraining dilation between the anchor points. When the rock mass dilates, the anchor points assume the load and the smooth section between the anchor points stretch.

The load on the smooth section increases quickly with a small increase in dilation until the yield load is reached. With further increases in load beyond yield, the smooth section undergoes plastic elongation until failure.

The Leinster Bolt absorbs the dilation energy by utilizing strength and deformation capacities of the bolt material. The smooth section of the bolt provides localized and independent reinforcement to the surrounding rock mass.

TYPICAL APPLICATIONS

Squeezing ground, broken, fractured and fissured rock where typical bolts are difficult to install. May be considered as an alternative to cable bolting in certain applications.

TECHNICAL DATA

SDDB – Leinster Type	
Yielding Load	Min.190 kN
Ultimate Load	Min.270 kN
Elongation (A 200 mm)	≥ 15%
Shear Strength	Min. 162kN;
	typically over 200kN
Mass per meter	3.5 kg

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DIMENSIONS / PACKING / THREADS

2400 mm length bolt includes 1500 mm smooth section between R32 ISO threads – 600 mm length at one side and 300 mm on the other.

Bolts are supplied in bundles. Bundles can be either 50 or 100 bolts per bundle.

Bolt length and configuration may be adjusted depending on specific requirements.

ACCESSORIES

Standard R32 accessories from SDA (Self Drilling Anchors) Bits, Couplers, Plates and Nuts. – see TDS for SDA.

INSTALLATION

The Leinster Bolt is installed with Roto-Percussive drills using typical drilling jumbos or bolters and preferably injected with Normet TamPur RBG resin grout.