

ROCK REINFORCEMENT

Self-Drilling Dynamic Bolts (SDDB®)



The Normet Self-Drilling Dynamic Bolt (SDDB[®]) is permanent ground support intended for use in medium to competent ground under high-stress and prone to deformation or seismicity. The SDDB system consists of a hollow, deformable bolt with an R32 ISO thread at both ends and a smooth de-bonded centre section. It is installed in combination with pumpable resin or grout encapsulation and can be installed as single-pass self-drilling product, or as a two-step installation into a pre-drilled support hole. The SDDB can be installed as single-length or multiple segments can be coupled together for extension applications.

WORKING PRINCIPLE

SDDB's comprise of a smooth hollow bar section flanked by R32 threads at either end that can act as anchors into the encapsulating medium. The smooth section allows deformation in between anchors to absorbs dynamic energy and deformation of the rock mass. The sacrificial drill bit is used for self-drilling applications, making this system the best option for installation into broken, fractured, and fissured rock where conventional bolts are difficult to install due to hole collapse.

BENEFITS

- > Can be installed into support holes prone to collapse or closing.
- Consolidates primary and secondary support into one installation
- Versatile configurations
- > Single-length or coupled extension
- > Suitable for high-pressure injection
- Can act as a deformable injection lance for strata consolidation and reinforcement
- May be considered as an alternative to cable bolting in certain applications



THREAD CONFIGURATIONS

200 - 300 mm

- Bolt head anchorage for the nut and plate assembly
- Coupler for bolt extension
- > Not suitable as an end anchor on single length installations

< 600 mm

- > Anchor points
- Sacrificial drill bit attachment
- Suitable as an end anchor when combined with a coupler or sacrificial bit

> 600 mm

- > Provides better bonding on fractured sections
- > Suitable as an end anchor without couple or sacrificial drill bit

SPECIFICATIONS

Specifications	Group A	Group B	Group C
Typical UTS (kN)	250	270	290
Typical Yield Load (kN)	170	190	200
Outer Diameter (mm)	32	32	32
Inner Diameter (mm)	~24.9	~23.3	~20.5
Cross Sect. Area (mm²)	350	382	433
Typical Elongation	23%		
Weight (kg/m)	2.75	3.0	3.5

DEFINING THE FUTURE