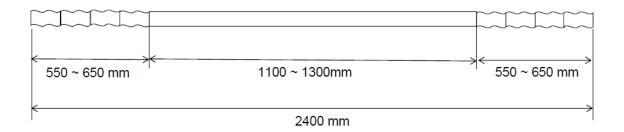
# Self-Drilling Dynamic Bolt (SDDB®)



ROCK REINFORCEMENT

Onaping Type - Rock Reinforcement Bolt

TECHNICAL DATA SHEET



# Specification SDDB Onaping Type R32N/18.5 x 2400mm with 1100 ~ 1300 mm smooth section

# **DESCRIPTION**

The Self Drilling Dynamic – Onaping type is intended to be used as a single member unit, although it may be xtended where required.

The bolt is 2400 mm long with an 1100-300 mm smooth section to provide deformation and dynamic energy absorption capability.

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

The threaded sections have approx. 600 mm long R32 threads which works as an anchor points and also accommodates the installation of the drill bit.

If an extension is required, a second bolt can be applied using the regular R32 SDA coupler.

The Onaping 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 Onaping bolt reinforces the rock mass by constraining 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 Onaping 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

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#### **TECHNICAL DATA**

SDDB – Onaping 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 1100-1300 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 Onaping Bolt is installed with Roto-Percussive drills using typical drilling jumbos or bolters and preferably injected with Normet TamPur RBG resin grout.