

D47 MDX Bolt



Designed and developed in Australia for underground hard rock mines. The D47 Mechanical Dynamic Extra (MDX Bolt) has unparalleled “extra expansion” for extremely effective anchorage using the unique wedge design that is able to expand up to 60 mm. The D47 MDX Bolt is particularly suitable for seismic rock conditions and is the new benchmark in seismic ground support stability.

The Sandvik D47 MDX Bolt has been developed to provide strata support in a wide variety of rock conditions (weak and competent), and in particular seismic rock conditions. This development is a progression on the successful MD Bolt being used in Australian mines since 2010.

While the MDX Bolt maintains the key features of the MD Bolt, regarding the ease of installation (single pass with no grout), its performance in both the seismic and very weak rock conditions has been significantly improved.

Features

- A universal bolt suitable for broken, very weak, strong and seismic rock conditions
- A very quick and simple “one-pass” installation-same as the MD Bolt
- No resins or grouts required, making it far easier to install, able to hammer straight in through wet and broken ground with no complications
- Easily installed with standard jumbo tools
- Unique wedge design
- Unique yield design capable of absorbing very high dynamic loads
- High tensile and shear strength
- Fully galvanized for corrosion protection
- The stopper safety device arrests bar ejection
- The bottom of the tube is sealed to prevent atmospheric corrosion
- Low profile head, no protrusion below the nut
- Accessories can be screwed directly onto the installed bolts
- Bolt installation quality apparent to operator
- These bolts are available in a range of sizes from 1.8 m, 2.1 m, 2.4 m, 3.0 m, 3.8 m and 4.0 m

Component properties

Bar diameter	Ø20 mm
Bar elongation (5d)	22 %
Bar rolled thread	M22x2.5 LH
Tube thickness	2.5 mm
Drill bit size	Ø43-45 mm
Bolt diameter	47 mm
Bolt length	1.8 m, 2.1 m, 2.4 m, 3.0 m, 3.8 m and 4.0 m

Bolt technical specifications

Property	Minimum	Typical
Ultimate tensile strength	205 kN	225 kN
Yield strength	155 kN	180 kN
Shear strength (calculated)	225 kN	246 kN
Dynamic capacity	28 kJ	30 kJ
Dynamic displacement	129 mm	142 mm
	Maximum	
Wedge expansion	60 mm	

Part number	Description (47 mm)	Weight
BXG4718	1.8 m long MDX Bolt galvanized	9.5 kg
BXG4721	2.1 m long MDX Bolt galvanized	10.9 kg
BXG4724	2.4 m long MDX Bolt galvanized	12.3 kg
BXG4730	3.0 m long MDX Bolt galvanized	15.4 kg
BXG4738	3.8 m long MDX Bolt galvanized	19.4 kg
BXG4740	4.0 m long MDX Bolt galvanized	20.5 kg

