



- Products
- New Products
- New Product Leaflets
- Rock and Roof Bolts
  - Product Index
  - 24mm Chemical Anchor Bolt
  - 24mm Chemical High Ribbed Anchor Bolt
  - 24mm Chemical Anchor Bolt with Forged Integral Head
  - 24mm VIDEX Chemical Anchor Bolt
  - 16 / 20 / 24mm Solid Deformed Bolt
  - 24mm Chemical High Ribbed Quick Link Coupled Bolt
  - 20mm Thread Bar Bolt
  - 25mm Thread Bar Bolt
  - Wriggle Bolt
  - Posimix Resin Bolt System
  - HI-TEN Strand Bolt High Pre-Tension
  - Post Groutable HI-TEN Strand Bolt High Pre-Tension
  - Ultra Strand
  - Post Groutable Ultrastrand
  - GXT Cable Bolt
  - Mechanical Pregroutable Bolt (MP Bolt)
  - Tiger Bolt®
  - DCP Bolt
  - DSI Hollow Bolt - Self Drilling Bolt
  - Expansion Shell Bolt with Forged Integral Head
  - Expansion Shell Bolt (Round Bar) or Double Ended Bolt
  - 24mm Slot and Wedge Bolt**
  - Friction Bolt
  - Cable Bolt
  - Minicage® Cable Bolt
  - 20mm Fibreglass Dowel
- Rock Bolt Accessories
- W Strap and Mesh
- Drilling Products
- Resin Anchoring
- Hanger Systems
- Galvanizing
- Conference Papers



## 24mm Slot and Wedge Bolt

Physical Properties	Minimum		Typical	
	Yield Strength	500MPa	200kN	540MPa
Ultimate Tensile Strength	540MPa	220kN	635MPa	260kN
Calculated Shear Strength	145kN		170kN	
Standard Elongation	5%		20%	
Uniform Elongation	12%			
Tensile Strength of the Threaded End	200 kN UTS			
Mass Per Metre	3.46kg			
Bar Core Diameter	23.0mm			
Cross Sectional Area of Bar	415mm <sup>2</sup>			
Major Bar Diameter	27.0mm			
Bar Straightness to AS 1442-1991				
Rolled Thread M24x3.0mm Pitch				

### General Features

- This slot and wedge bolt is manufactured from hot rolled reinforcing bar which has a rib deformation generally in a "herringbone" form. It has a 150mm long slot cut into the up hole end of the bolt and M24x3mm pitch rolled thread on the other end.
- The 150mm long slot is designed to accept a steel wedge which acts as a mechanical type point anchor. Refer to Data Sheet B4.8 for details of steel wedges.
- The solid deformed slot and wedge bolt parent bar is reduced in diameter to allow forming of the M24 rolled thread. The threaded section of the bolt accordingly has reduced physical properties adapted to those of the parent bar.
- The 24mm solid deformed slot and wedge bolt can be pre or post grouted if required with cementitious grouts. Corrosion protection may be provided by hot dip galvanizing (refer to Section G). Alternative coatings are available by negotiation.

### Installation Guidelines

- 34mm hole diameters are preferred. Larger diameters than these can be used but anchorage capacity may be reduced. Holes larger than 36mm and smaller than 32mm are not recommended.
- Hole depth is critical and should be approximately 50mm shorter than the bolt.
- The wedge is assembled into the slot, just sufficient to support the wedge, for entry into the bolt hole. The nut is also rotated along the bolt thread to leave approximately 50mm of thread exposed.
- The bolt with the wedge is entered into the hole and the nut end of the bolt is fitted into a special spanner contained in a rotary percussive rock drill.
- Using both the thrust of the machine and full impact, the bolt is driven onto the wedge to set the bolt. The spanner is then changed and the nut rotated to tighten the bolt.

### Standard Lengths & Packaging

- Standard bolt lengths range from 600 to 3000mm in 300mm increments.
- Non-standard lengths are available by negotiation.
- Bolts are packaged in bundles with threads protected by heavy duty polyethylene bags.
- Bolt fittings, such as nuts, anti-friction washers and dome balls, are supplied fitted to rock in the configuration requested.

### Notes

- Only DSI rock bolt components should be used in order to obtain full performance of the bolt system.
- DSI's Mining Products Division is Quality Assured to ISO 9001:2000, Registration No.QAC/R61/0315.

Convert Technical Units

Search DSI Website

may be amended from time to time.