

# CT Corrosion Protected Mechanical Bolt

**CT**

Product – CT Bolt

Product Code Guide	Bolt Type	Bell Type	Length	Thread Lengths	Thread Type
		CT		400	15065
	CT	SS	400	15065	LH

## Physical Properties

	Minimum		Typical	
Yield Strength	600MPa	220kN	650MPa	240kN
Tensile Strength	840MPa	310kN	920MPa	340kN
Calculated Shear Strength	205kN		225kN	
Elongation (after fracture)	13%		15%	
Mass Per Metre	2.92kg			
Bar Core Diameter	21.7mm			
Major Bar Diameter	23.2mm			
Cross Sectional Area	370mm <sup>2</sup>			
Rolled Thread	M24 x 3.0mm Pitch			

## Key Features

- The CT Bolt is designed to be used with cementitious grouts or resin.
- The bolt is provided with an expansion shell for preloading, thus allowing for tunnel or mine heading to advance without immediate grouting.
- Grout Bell allows for grouting after preloading.
- Anti-corrosion tube over full length of bolt for long life term protection.
- Available in differing material forms to suit design requirements.

## Installation Guidelines

- Drill 43-45mm hole diameters. The drill hole length must be longer than the bolt by approximately 50mm.
- Domed washer plate is fitted to the bolt.
- The bolt is inserted into the hole.
- After placing the bolt in the hole to its full length, the bolt is then rotated to set the expansion shell to the required tension. DSI Underground recommend no more than 55kN.
- Attach grouting adaptor to Grout Bell.
- Mix 0.33 to 0.35 W/C Grout. Pump grout. Grout is pumped through the inner annulus to the bolt end and returns along the outer annulus.
- Terminate grouting with visible grout return.
- Detach adaptor and proceed to the next bolt.



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## Standard Lengths and Packaging

- Standard bolt lengths range from 1,200 to 9,000mm in increments of 300mm.
- Non-standard lengths are available upon request.
- Bolts are packaged in bundles with threads protected by heavy duty polyethylene bags.
- All bolts are supplied fitted with accessories with the exclusion of washer plates which are supplied loose.
- Detach adaptor and proceed to next bolt.



## Optional Blind Nut End

- No thread protruding below nut.
- Reduce bolt tail protruding below roofline.
- Existing bolts can be pull tested without need for special pull rings – the pull test coupler threads straight onto the exterior nut thread.
- Standard hex nut size – standard bolt dolly's.
- Exterior thread exceeds 300kN.

## Validation

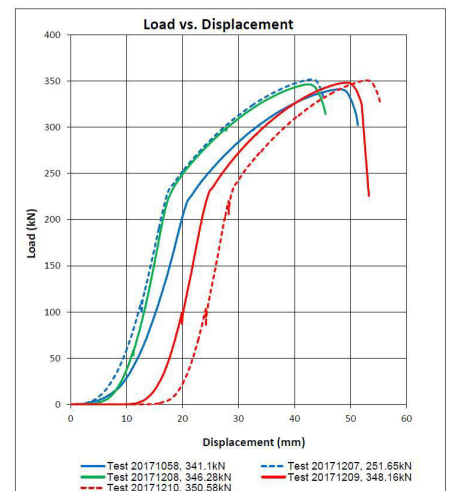
- The five tests indicated that the external thread and coupling can transfer a typical tensile load of the bar, being 340kN. Note: the variation in the displacement is due to the take up of the coupling and the gripping of the grips on the bar.

## Notes

- Only DSI Underground rock bolt components should be used to enable the optimum performance of the bolt system to be obtained.
- DSI Underground is Quality Assured to ISO 9001:2015

## Phone APP

- Want to know more? Our full product range, knowledge centre, and other details are available via the DSI Underground App; available on iOS and Android devices by searching “DSI Underground”.



iOS



Android