

Product Code Guide	Bolt Type	Diameter	Length	Drive Nut & Accessories	Coating	Packaging
	WS	2	120	DFPL		550E

## Physical Properties

	Minimum	Typical
Yield Strength	375MPa 95kN	440MPa 110kN
Tensile Strength	540MPa 135kN	680MPa 170kN
Calculated Shear Strength	90kN	110kN
Standard Elongation	19%	22%
Elongation (After Fracture)	19%	22%
Mass Per Metre	1.99kg	
Cross Sectional Area	250mm <sup>2</sup>	
Bar Core Diameter	Ø18.0mm	
Rolled Thread	M16 x 2.0mm Pitch	

## Key Features

- These bolts are manufactured from round bar with “wriggles” on the up hold end which allows a small diameter bolt to mix chemical anchors in standard diameter holes.
- The wriggle bolt is an economic alternate when the tensile strength of larger bolts is not required.
- The rolled thread strength nominally equals the column strength of the bar.
- The wriggle bolt is designed to be used with resin anchors, but can be effectively used with cementitious grouts.
- The wriggle bolt has been found to be effective in coal rib stabilization and mesh retention on rock embankments.
- The nut fitted to wriggle bolts has similar across flats dimensions as nuts fitted to 24mm bolts to utilise standard roof bolt spanners.
- Corrosion protection may be provided by OBDORO coatings.

## Installation Guidelines


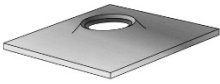


- 27-29mm hole diameters are preferred for the 20mm wriggle bolt.
- Hole depth is critical. Hole depth should be shorter than the bolt to allow for the height of the washer and nut.
- After insertion of the chemical anchors the bolt is rotated through the anchors while being pushed to the back of the hole. Care should be exercised to ensure the bolt is held axially during installation.
- It is important to follow the resin anchors recommended mixing and hold times as printed on the resin anchor cartons. Do not over mix.
- For further details regarding installation procedures refer to DSI Underground’s “Practical Guide to Rock Bolting”.



## Product Accessories Examples

- DSI Underground manufactures a comprehensive range of plates specifically designed for this bolt.

Typically, plates used are:

	Products			
Product Group	Starplates	Dome Plates	Butterflies	W-Strap
Product Imagery				
Product Code Prefix	STP	D	BUTT	MW

## Standard Lengths & Packaging

- Standard bolt lengths range from 600 to 3000mm in 300mm increments.
- Non standard requirements are available by negotiation.
- Bolts are packaged in bundles with threads protected by heavy duty polyethylene bags.
- Bolt fittings, such as nut and anti-friction washer, are normally supplied fitted to wriggle bolts in the configuration as requested.

## 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 App; available on iOS and Android devices by searching "DSI Underground".



iOS



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