

EXPANSION SHELL BOLT WITH FORGED INTEGRAL HEAD

ES2

20mm

Product Code Guide	Bolt Type	Diameter	Length	Drive Nut & Accessories	Coating	Packaging
	ES	2	120	J5		

Physical Properties

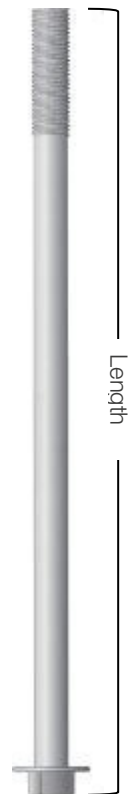
	Minimum		Typical	
Yield Strength	375MPa	95kN	440MPa	110kN
Tensile Strength	540MPa	135kN	680MPa	170kN
Calculated Shear Strength	90kN		110kN	
Standard Elongation	19%		22%	
Elongation (After Fracture)	19%		22%	
Mass Per Metre	1.99kg			
Cross Sectional Area	250mm ²			
Bar Core Diameter	Ø18.0mm			
Rolled Thread	M24 x 3.0mm Pitch			

Key Features

- Manufactured from round bar with a hot forged integral head on one end and a rolled thread on the other end.
- Expansion shell bolts are compatible with DSI expansion shells. Refer to data sheet ASES for details of the expansion shell range.
- Expansion shell bolts, with integral head, are suitable for use in areas where headroom is low or when long bolt tails are undesirable.
- The rolled thread strength is nominally equal to the column strength of the bar.
- For longer term installations these bolts can be grouted with cementitious grouts.
- Corrosion protection may be provided by hot dip calvinizing or alternative coatings.

Installation Guidelines

- It is imperative that the bolt hole diameter suits the expansion shell to be used.
- The length of the hole must be longer than the bolt by approximately 50mm.
- The expansion shell, separately supplied, is screwed onto the bolt until the bolt thread just protrudes through the expansion shell plug.
- After placing the bolt in the hole to its full length the bolt head is rotated to set the shell and tension the bolt.



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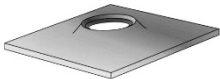


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Product Accessories Examples

- 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 900 to 2400mm in 300mm increments
- Non standard requirements are available by negotiation
- Bolts are packaged in bundles with threads protected by heavy duty polyethylene bags

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



iOS



Android

- 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".