

# Fiberglass Bolts & Dowels

Category: Fiberglass (FRP) dowel



## Composite rockbolt specifications

	Units	†20mm	22mm	25mm	†29mm	†32mm
Rockbolt ultimate tensile load	kN	280	350	490	650	790
	Lbs	62,793	78,491	109,888	145,770	177,166
Rockbolt tensile modulus*	Gpa			53		
	Msi			7.7		
Reinforcement content	%			82		
	°C			110		
Glass transition temperature	°F			230		
Transverse shear strength (single shear)	kN	58	75	85	110	122
	Lbs	13,007	16,820	19,062	24,669	27,360
Unit weight	Kg/m	0.58	0.70	0.94	1.26	1.50
	Lbs/ft	0.39	0.47	0.63	0.84	1.01

\* Tensile modulus is based on the working area of the rockbolt and not the nominal size

## † Products in prototype development phase, values to be validated

- The entire length of the Rockbolts are threaded
- Available in both left hand and right-hand threads.
- Rockbolt standard lengths up 10 feet (other lengths available upon request).

## Standard washer plate\*\*

	Units	†20mm	22mm	25mm	†29mm	†32mm
Standard flat washer plate diameter	Mm			190		
	Inch			7 1/2		
Maximum compression load capacity	kN	50	50		65	
	Lbs	11,200	11,200		14,500	
Flexural load capacity (Parallel 155mm span)	kN			3344		
	lbs			750		

\*\*Various types of washers such as swivel or high-capacity plates can be made according to the customers' needs and applications.

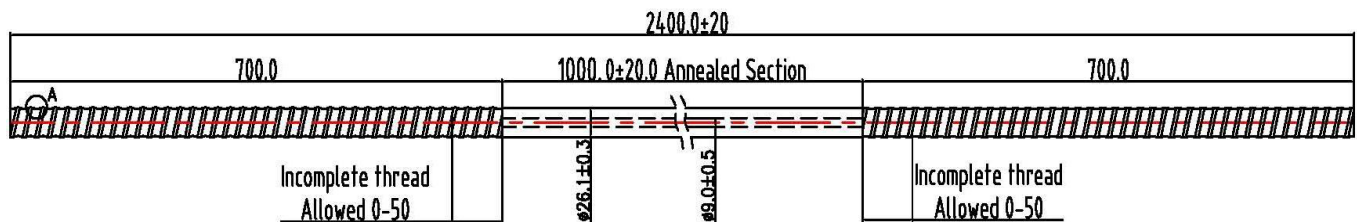
### Standard nuts

	Units	†20mm	22mm	25mm	†29mm	†32mm
Nut punch-out torque	m-Kg	7.6	8.3	11.1	12.4	13.8
	Ft-lb	55	60	80	90	100
Nut tensile capacity	kN	65	85		140	160
	Lbs	14,577	19,062	110	31,397	35,882
Nut Hex size	Mm	38	38	24,669	50	50
	Inch	1.5	1.5	44	1 15/16	1 15/16
Nut Length	Mm		51	1.75	63.5	
	inch		2		2 ½	
Nut thread engagement length (prior to punch-out)	Mm		41		54	
	inch		1 5/8		2 1/8	

### Technical Specifications – T Type

Description	T30N	T40L
Nominal Outer Diameter [mm]	26.0	28.0
Nominal Inner Diameter [mm]	9.0	9.0
Yield Strenght Steel	150 kN	150kN
Tensile Strenght of Steel	200 kN	200kN
Elongation	150mm	A5≥10%
Material:	GB Q345B/ ASTM Gr-50/EN S355	
Weight:	≈3.45kg/m	

length can be special order



### General features

- The dowels are pull formed (matched die) fibreglass construction and are ribbed over its full length to provide maximum load transfer.
- Thread form is of a sinusoidal type, nominally 150mm long and 25mm diameter, and is fitted with an integral drive nut with radial face.
- All fibreglass dowels are designed to be used with chemical anchors and be fully encapsulated.
- Bolts over 2400mm in length are available in all dowel types by negotiation.

### Installation guidelines

- 26-27mm hole diameters are preferred. Holes over 28mm diameter are not recommended.
- 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 anchor(s) while being pushed to the back of the hole.
- It is important to follow the chemical manufacturer's recommended mixing and hold times as printed on the chemical anchor cartons. DO NOT OVER MIX.
- For further details regarding installation procedures refer to Sandvik's "Practical Guide to Rock Bolting"

**Standard lengths & packaging**

- Standard bolt lengths range from 1200 to 1800mm in 300mm increments.
- Other lengths are available by negotiation.
- 1200mm long dowels are packed in 10's then palletized in lots of 1000.
- 1500 and 1800mm long dowels are packed in 10's then palletized in lots of 500.

**Legal disclaimer**

All dimensions, weights, quantities, and specifications are those applicable at the time of this publication and may be amended from time to time. Please contact your local representative for final confirmation of any key specifications.

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