

Cable Bolts Product Data



Solutions from Materials Technology





Cable Bolts



Minova are an authorised distributor of Australian mining industry renowned Garford Cable Bolts. Garford have designed and manufactured cable bolts for Australian coal mining, metal mining and civil construction applications for over 20 years. Garford products are manufactured to quality accredited standards ISO:9001 at facilities in WA, NSW and QLD.

Minova has supplied and serviced Garford products for over 10 years and have enjoyed a beneficial relationship built on trust, communication and co-operation. Garford's cable bolt range includes continuous roll or cut to length 15.2 mm plain and bulbed cables, twin strand plain and bulbed cables, as well as the resin anchored 21.8 mm diameter Superstrand and 50T fully bulbed Strata Cables for coal mining applications. All cut to length cables and cable rolls are available in various lengths and bulb configurations.

Cut to length 15.2 mm cable bolts are supplied as a single unit complete with a fish hook to anchor the cable into the borehole prior to grouting. The bulb diameter can be changed to suit individual requirements and typical bulb diameter on 15.2 mm cables range from 26 mm to 28 mm with up to 6 bulbs per metre available.

Minova also provides a full range of cable bolt accessories including various barrel and wedges, numerous plate designs, rolls of grout and breather tube and several hole plugging products including cotton waste, Silent Seal and Conbex® Plug.

Product Specific Information

Strata Cable – resin point anchored high capacity cable bolt

- 3 x 38 mm diameter bulbs at the top of the cable to assist Lokset® resin capsule mixing and allow point anchoring and pre-tensioning of cable
- Resin retention device is attached to the cable to optimise resin point anchorage, this device can be placed at any point along the cable length
- 32 mm diameter reinforced bulbs every 500 mm down the groutable length of the cable
- Breather tube attached to the cable using metal ties to facilitate bottom up grouting
- Tensionable to 25 tonnes

Superstrand Cable – resin point anchored high capacity cable bolt

- Available as either plain strand lengths or with 3 x bulbs at the top of the cable to assist Lokset® resin capsule mixing and allow point anchoring and pre-tensioning of cable
- Various bulb diameter options are available (32 mm, 38 mm, 48 mm) to suite different diameter boreholes
- Resin retention device can be attached to the cable to optimise resin point anchorage and this device can be placed at any point along the cable length
- Breather tube can be attached to the cable using metal ties to facilitate bottom up grouting
- Tensionable to 25 tonnes



15.2 mm Cable

- Single strand or twin strand options available in numerous lengths
- Plain or bulbed options available, bulbs available at either 0.5m or 1 m spacing
- Single or double tails available on twin strand cables for tensioning or trusses
- Fish hooks fitted to cables for retention in holes prior to grouting
- Continuous rolls of either plain or bulbed single strand cable available for mechanised bolting

Barrel & Wedges

- Various barrel and wedges are available to suit all cables (see information below)

Cable Bolt Grout

- Specially developed high strength cable bolt grouts available

Resin Capsules

- Full range of Lokset® resin capsules are available for point anchoring

Technical Data

Mechanical Properties	15.2 mm Cable Typical	21.8 mm Superstrand Typical	21.8 mm Strata Cable Typical
Core Bolt Diameter – Plain section (mm)	15.2	21.8	21.8
Typical Bulb Diameter – (mm)	25–30	32–38	32–48
Cross Sectional area – Plain section (mm ²)	143	313	313
Number of Strands	7	19	19
Yield Strength (MPa)	202		
Yield Force – 0.2% (kN)	235	525	525
Tensile Strength (MPa)	1850	1800	1800
Tensile Force (kN)	270	590	590
Elongation on 600 mm length (%)	6.5	6–7%	6–7%
Mass per metre – Cable (kg/m)	1.125	2.482	2.482



Cable Bolts

Testing Standards

	15.2 mm Cable	21.8 mm Superstrand	21.8 mm Strata Cable
Material	AS1311	AS/NZS 4672.1:2007 JISG 3536	AS/NZS 4672.1:2007 JISG 3536
Steel Grade			

Plates

Minova manufactures a comprehensive range of specially designed plates for use with rock bolts and cable bolts. Extensive product data is available on Minova's full range of plates from Minova's product catalogue and web site, www.minova.com.au
Plates most typically used with Cable Bolts are:

15.2 mm Cable Bolts	<ul style="list-style-type: none"> Dome Plate 150 mm x 150 mm x 7 mm
15.2 mm Cable Bolts	<ul style="list-style-type: none"> Combi Plate 240 mm x 300 mm 125
21.8 mm Superstrand	<ul style="list-style-type: none"> Dome Plate
21.8 mm Strata Cable	<ul style="list-style-type: none"> Dome Plate

Barrel & Wedges

Minova can provide a range of Barrel and Wedges to suit the use of either 15.2 mm cable bolts or a 21.8 mm cable bolts with flat or domed plates. Barrel and Wedges consist of either two or three triangular shaped wedges placed inside a case hardened cylindrical barrel and are used to secure plates to the rock surface and in some instances to provide pre-tension to a resin point anchored cable bolt. The wedges have hardened serrations machined internally, providing grip to allow cable loading to be taken up.

Barrel and Wedges are supplied fully assembled in plastic buckets containing thirty units.

Technical Data – Barrel & Wedges

Item	Length	Diameter
2 Leaf Flat or Domed to suit 15.2 mm diameter Cable	45.5 mm	42 mm
3 Leaf Flat or Domed to suit 15.2 mm diameter Cable	45.5 mm	42 mm
2 Leaf Flat or Domed to suit 21.8 mm diameter Cable		

Codes, Dimensions and Weights

The table below lists the typical Cable Bolts and Barrel & Wedge, purchase codes, descriptions and unit weights. Other sizes are available on request, depending on the number required.

Item Code	Description	Unit Weight	Pack Size
CB206051	Cable Bolt 6 m x 15.2 mm Single 1 Bulb/1.0 m	338 kg	50
CB206056	Cable Bolt 6.5 m x 15.2 mm Single 1 Bulb/1.0 m	365 kg	50
CB206115	Cable Bolt 4 m x 15.2 mm Twin Plain	900 kg	100
CB206230	Cable Bolt 4 m x 15.2 mm Twin 1 Bulb/1.0 m	900 kg	100
CB206101	Cable Bolt 6 m x 15.2 mm Twin Plain	675 kg	50
CB206205	Cable Bolt 6 m x 15.2 mm Twin 1 Bulb/1.0 m	675 kg	50
CB206	Cable Bolt 8 m x 15.2 mm Twin Plain	900 kg	50
CB206203	Cable Bolt 8 m x 15.2 mm Twin 1 Bulb/1.0 m	900 kg	50
CB206209	Cable Bolt 10 m x 15.2 mm Twin 1 Bulb/1.0 m	1125 kg	50
CB206304	Cable Bolt 700 m x 15.2 mm 1 Bulb/1.0 m	788 kg	1
CB206310	Cable Bolt 650 m x 15.2 mm 1 Bulb/1.0 m	732 kg	1
CB206330	Cable Bolt 800 m x 15.2 mm 1 Bulb/1.0 m	900 kg	1
CB5S40P	Cable Bolt Superstrand 4.1 m x 21.8 mm Plain	496 kg	50
CB5S60P	Cable Bolt Superstrand 6.1 m x 21.8 mm Plain	745 kg	50
CB5S80P	Cable Bolt Superstrand 8.1 m x 21.8 mm Plain	992 kg	50
CB5S40B	Cable Bolt Superstrand .14 m x 21.8 mm Bulbed	496 kg	50
CB5S60B	Cable Bolt Superstrand 6.1 m x 21.8 mm Bulbed	745 kg	50
CB5S80B	Cable Bolt Superstrand 8.1 m x 21.8 mm Bulbed	992 kg	50
CB5C61B	Strata Cable 6.1 m x 21.8 mm Fully Bulbed – 50 Tonne	758 kg	50
CB5C81B	Strata Cable 8.1 m x 21.8 mm Fully Bulbed – 50 Tonne	1005 kg	50
CB5C111B	Strata Cable 11.1 m x 21.8 mm Fully Bulbed – 50 Tonne	1380 kg	50
BW401500	Barrel & Wedge Flat 2 Leaf to suit 15.2 mm Cable	0.42 kg	30
BW401501	Barrel & Wedge Domed 2 Leaf to suit 15.2 mm Cable	0.42 kg	30
BW401507	Barrel & Wedge Flat 3 Leaf to suit 15.2 mm Cable	0.42 kg	30
BW401508	Barrel & Wedge Domed 3 Leaf to suit 15.2 mm Cable	0.42 kg	30
BW401520	Barrel & Wedge Flat 2 Leaf to suit 21.8 mm Cable		
BW401521	Barrel & Wedge Domed 2 Leaf to suit 21.8 mm Cable		

Garford®, Dynamic® and Bulb Anchor® are registered trademarks, owned by Garford Pty Ltd.





Product Service Support

Minova provides a full service support package to customers, including underground pull testing, operator awareness training, underground audits and stock control assistance. Each service package is developed to suit the individual customers requirements.

All aspects of Minova's product service support service is provided by experienced trained and qualified personnel.

Additional Information

For additional information relating to any aspect of this product specification data, including product performance, quality, testing, specification, range, availability etc. please contact your nearest Minova office, or email: technicalsupport@minovaint.com

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