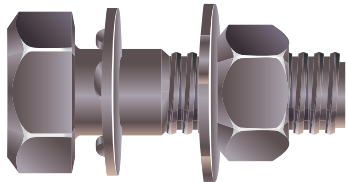


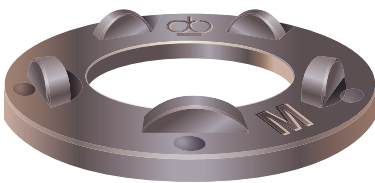
**Cooper & Turner**

Cooper and Turner have more than 30 years experience in structural bolting techniques. High standards in manufacturing and control are complemented by individual customer service. Market leadership has been gained by offering a comprehensive product range, available self colour or plated, with stock in all key areas. The company also provides technical advice and information covering all areas of application.



**HIGH STRENGTH FRICTION GRIPS BOLT (HSFG)**

Cooper and Turner manufacture these bolts, nuts, hardened washers and nut face washers in sizes from M12 (1/2") to M36 (1 1/2") diameter – manufactured to British, European, American and other national specifications. The general grade products are available in self colour and all recognised plated finishes. Higher grade products are available in self colour or sherardized finish. All products are supplied complete with full test certification.

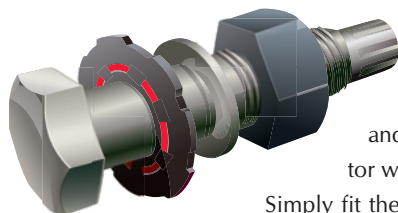


**"CORONET" DIRECT TENSION INDICATORS**

The simplest, most efficient, most easily inspected device for guaranteeing bolt tension was invented by Cooper and Turner. Now in use in bridges and large structures throughout the world, "Coronet" Direct Tension Indicators are only available from Cooper and Turner. Diameter ranges from M12 (1/2") to M36 (1 1/2") in plain or sherardized\* finish, and in general or higher grade for use with bolts to British and other national specifications. The products are supplied complete with full test certification, feeler gauges and instructions.

\* N.B. "Coronet" Direct Tension Indicators should only be used in the finish in which they leave the factory, otherwise we cannot be held responsible for the results.

**HIGH STRENGTH SQUIRTER ASSEMBLIES (HSSA)**



HSSA's consist of hot dip galvanized bolts and nuts and that conform to BS4395 Part 1, (the spline fits standard installation tooling) together with "Squirter"® direct tension indicators and nut face washers.

"Squirter"® were developed in the USA by Applied Bolting and are being manufactured and distributed in the UK & Europe by Cooper & Turner Ltd. They are a direct tension indicator with flexible silicone embedded in the depressions under the indicator protrusions.

Simply fit them as you would a standard DTI, start tightening, when orange silicone appears in volume from most of the squirt locations, stop tightening and move on to the next assembly.

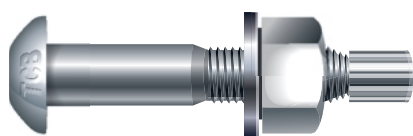
**That is all there is to it!!**

HSSA's are supplied in the hot dip galvanized condition but because they depend on tension control not torque control, they still provide accurate and consistent bolt shank tension.

**Tension Control Bolts**

Tension Control Bolts Ltd operates a quality management system in accordance with EN ISO 9001:2000 certificates no. GB2925, having upgrade from ISO 9002:1994.

**HIGH STRENGTH TENSION CONTROL BOLTS (TCB)**



It is the lowest cost method for properly installed High Strength Friction Grip Bolts. They are quick, safe and easy to install using non impacting electric shear wrenches with varying shapes and sizes available. One man installation and no torque wrenches are required. Guaranteed consistent tension together with visual inspection removes the like hood of operator error and ensures engineers that connections are tightened in accordance with specifications. It also reduces operator fatigue, tool maintenance and on-site noise levels.