

# Cross Spiralock\* Wire Thread Inserts - User torque values

## Unified coarse pitch series

The following table shows the applied torque required to achieve a preload in the bolt of 75% of the proof stress (Grade S) or 0.2% proof stress of the bolt material.

Light oil is recommended as the thread lubricant for consistent torque / preload values.

| Property class - strength grade designation<br>(General workshop quality high tensile steel) | 8.8 and S |                      |
|--|-----------|----------------------|
| Bolt size  | Torque Nm | Design aim preload N |
| 4 - 40   | 1.2       | 1920                 |
| 6 - 32   | 2.2       | 2880                 |
| 8 - 32   | 4.0       | 4400                 |
| 10 - 24  | 5.9       | 5540                 |
| 1/4 - 20   | 14.0      | 10030                |
| 5/16 - 18  | 28.8      | 16470                |
| 3/8 - 16   | 51.0      | 24340                |
| 7/16 - 14  | 81.6      | 33380                |

| Property class - strength grade designation<br>(Aerospace quality high tensile steel) | 12.9      |                      |
|---|-----------|----------------------|
| Bolt size   | Torque Nm | Design aim preload N |
| 4 - 40  | 2.0       | 3240                 |
| 6 - 32  | 3.7       | 4860                 |
| 8 - 32  | 6.8       | 7420                 |
| 10 - 24   | 9.9       | 9350                 |
| 1/4 - 20  | 23.7      | 16930                |
| 5/16 - 18   | 48.5      | 27800                |
| 3/8 - 16  | 86.1      | 41070                |
| 7/16 - 14   | 138       | 56330                |

It is recommended that user refers to the CMC 'Users Guide for Insert Length Selection' to ensure that the insert length specified is sufficient relative to the shear strength of the parent material. Torque wrenches should be calibrated to give accuracy within +/- 10%

### Disclaimer

*The figures in this table are for guidance only. It remains the responsibility of the user to ensure that torque figures used are suitable for the application. Dependence on the contents of these tables for any purposes by any person is at the sole risk of that person, and Cross Manufacturing Company is not responsible for any loss, claim or damages arising therefrom.*

