



Squirter® DTI Washer

Frequently Asked Questions (FAQs)

What are the advantages of using the Squirter® washer instead of the turn-of-nut method?

It is VERY simple and requires no expertise. It correctly indicates bolt tension and is not affected by poor torque tension correlation factors such as weathering, poor lubrication and damaged threads. It gives a clear visual indication when the bolt assembly is tensioned correctly by “squirting” bright orange silicone. By using Hobson Squirter® Washers one is alerted to poor quality AS1252 assemblies. As the bolt assembly is guaranteed to be tensioned correctly, any non-conforming assemblies will be highlighted as they will fail in the tensioning process.

What Australian Standard covers the use of the Squirter® washer or DTI?

AS4100 – Steel Structures (15.2.5.3) – Tensioning by use of a direct tension indication device. This standard covers the use of the squirter washer and details the pre-installation calibration requirements.

Is the Squirter® washer the same as the old style load indicator washer?

The Squirter® washer is the same as the old style load indicator washer and has the added advantage of orange silicone to allow visual inspection of correctly tensioned bolt and nut assemblies.

Does the orange silicone have a shelf life?

The silicone used is inert and has a shelf life of over 5 years.

How long does the orange silicone last on the edge of the washer once installed?

The silicone in the Squirter® washer is fully cured and when it is pressed out during installation it has a powdered texture. The powder will cling to the steel surface for a maximum of 3-4 weeks. This time period will be impacted by weather conditions such as heavy wind or rain.

In most conditions the powder on the edge of the washer allows enough time for inspection of each bolt assembly. If inspection is required after the orange has been removed a feeler gauge can easily be used.

Are special storage conditions required for the Squirter® washer?

The Squirter® washers have been tested in temperatures from -50 to 104 degrees Celsius. In application they have been successfully used from -20 to 60 degrees Celsius. The washers should be stored in the Hobson cartons in dry conditions to ensure they are protected from heat, moisture, rain and dust. Cartons should not be left out in the weather on site.

Can the Squirter® washer be used at both ends of a bolt and nut assembly?

Yes the Squirter® washer can be used at either the nut or bolt head end of an assembly. The selection of either end would be based on clearance requirements, appearance, consistency and access to both tooling and inspection.

Refer the Hobson Squirter® Brochure for correct installation.

What is the correct hole size for the bolt?

Refer AS4100 14.3.5.2. The nominal diameter of the bolt hole in the steel beam should be 2mm larger than the bolt diameter for bolts ≤ 24mm and 3mm larger for bolts >24.

What should be done if the hole is oversize?

Refer AS4100 14.3.5.2. A plate washer minimum thickness 4mm should be used under the nut if the hole diameter is 3mm or more larger than the bolt diameter. The plate washer can be mild steel.