**Installation of Austvision 445 Series Spider Fittings**

**Austvision M10 fixing assembly with a spring washer and AGA nut**

When fixing Austvision 445 series spider to steel or glass fin support structures to support lateral loads from wind the M10 AGA nut, spring washer and washer fixing are hand tightened to compress the spring washer to approximately 75% of flat.

 This can be achieved by hand tightening using your fingers then a tweak with an allen key or by using a torque wrench to about 4 Nm (3 ft/Ibs). At 4 Nm the AGA nut will be difficult to undo by hand.

We advise tightening by hand during installation and then using a torque wrench to set all fixings for uniformity.

This also applies to the M10 spider to glass connection.

**Austvision M10 fixing assembly without a spring washer**

When fixing Austvision 445 series spider to steel or glass fin support structures to support lateral loads from wind the M10 AGA nut, with a flat washer only the fixing are hand tightened and then tightened with a torque wrench to 10Nm (20Nm max).

When fixing Austvision 445 series spider to steel or glass fin support structures to support lateral loads from wind using a M10 AGA - T NUT and flat washer only the fixings are hand tightened and then tightened with a torque wrench to 10 Nm (20 Nm max)

**AGA M14 swivel fixing with spring washer and AGA Nut**

 For M14 swivels fittings the M14 AGA nut can be hand tightened to compress the spring washer to approximately 75% of flat.

This can be achieved by hand tightening using your fingers then a tweak with an allen key or by using a torque wrench to about 5 Nm (3.7 ft/Ibs). At 4 Nm and above the AGA nut will be difficult to undo by hand

We advise tightening by hand during installation and then using a torque wrench to set all fixings for uniformity.

Note – 1Nm= 0.73 ft/lbs