

Installation Instructions for STAY GRATE™ SS3 units

Version current 3 February 2016

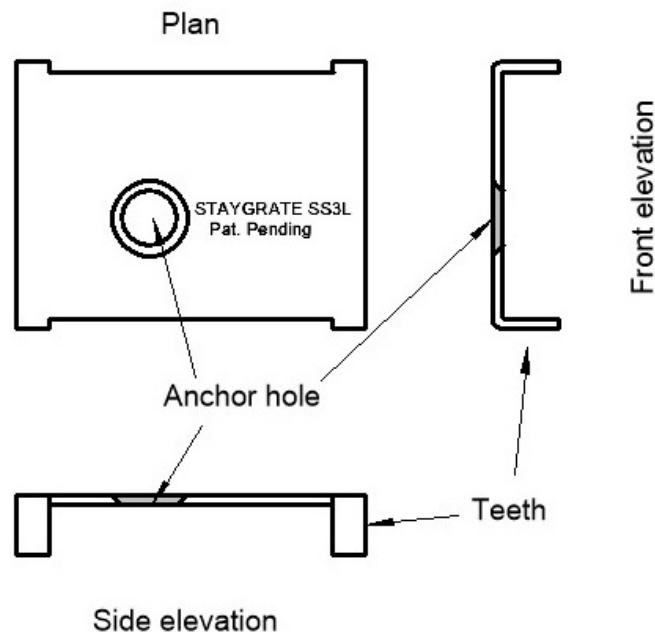
STAY GRATE™ SS3 is a bracket designed to fasten grates supported by steel members in elevated walkways, ramps, pedestrian bridges, machinery surrounds, and oil-rig platforms.

STAY GRATE™ SS3 brackets can be used to fasten grates and mesh onto galvanised steel support members, using the recommended installation method.

Note: Minimum flange thickness of supporting steelwork : 6mm.
Required steel support yield strength Rp 0.2 : 250MPa

STAY GRATE™ SS3 assembly includes STAY GRATE™ SS3 Unit and M10 Screw. Installation instructions are for STAY GRATE™ SS3 assemblies using Hobson 316 M10 countersunk socket screw*

Figure 1. Plan and profile of STAY GRATE™ SS3 unit.



*Grate Engineering™ can supply tamper-resistant screws suited to use with STAY GRATE™ units if required. All screws used in conjunction with STAY GRATE™ SS3 units must be installed strictly in accordance with the Manufacturer's Specifications.

Installation Instructions for *STAY GRATE™* SS3 units

1. Identify the number of *STAY GRATE™* SS3 units to be installed, and the configuration in which they need to be placed, dependent on the size and number of grates to be fixed.
2. *STAY GRATE™* SS3 may be installed against the edge of a grating where it is supported by the sub-frame, or at a junction of up to four gratings away from the edge, provided the plate can be orientated to give clear access for the 10mm bolt to the tapped hole in the sub-frame below. Typical placement and configuration are shown in Figures 2 and 3.

Figure 2. *STAY GRATE™* SS3 mounted to secure grates against an edge of the supporting girders

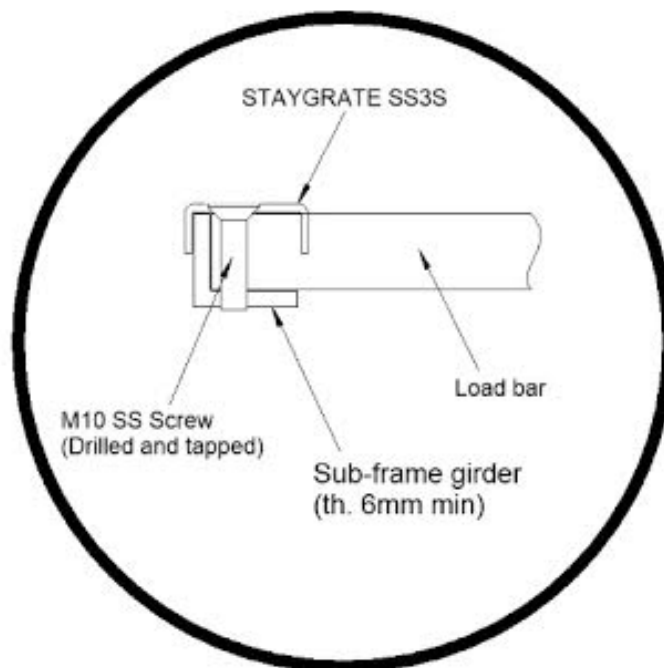
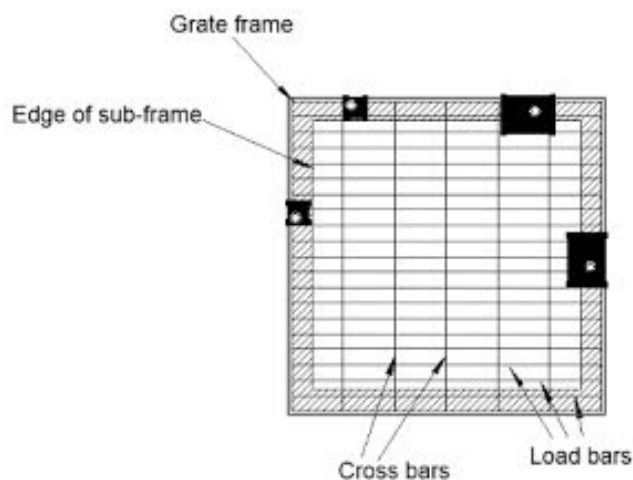
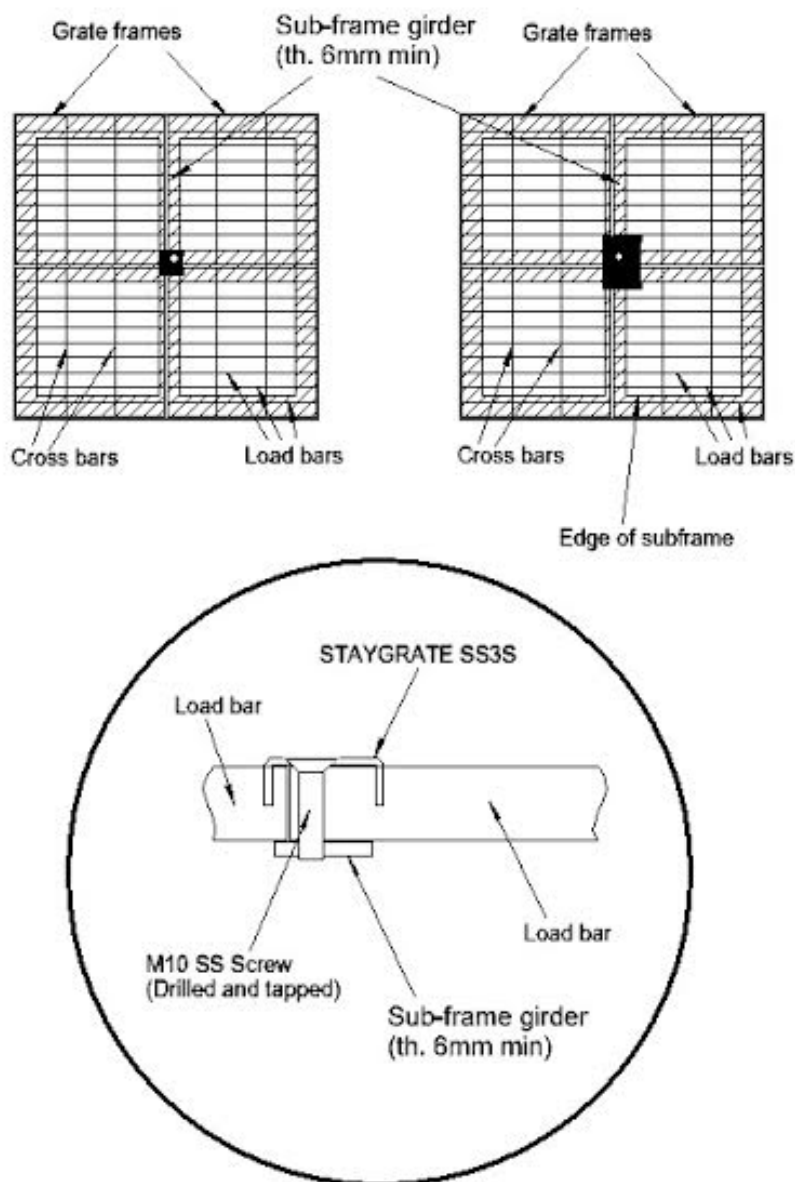


Figure 3. STAY GRATE™ SS3 mounted to engage 4 gratings away from the edge.



3. Place STAY GRATE™ SS3 units in intended location, ensuring there are no obstructions to the plate and that it makes close contact with the gratings to be fastened.

If necessary, use a straight edge or string line to align the brackets.

4. Ensure the teeth engage the grate frame or the first load bar.
5. Ensure the screw is located over the steel member support.
6. Mark the location of the hole in the steel member.
7. Drill the hole out with 8.5mm bit. Tap the hole for the M10 thread. If the girder is galvanized, do not use any cutting compound in tapping, so as to leave a clean thread.
8. For galvanized girders it is important to seal the threaded hole against atmospheric corrosion. Cover the screw thread with sealant or silicone (or Cold Gal, Loctite™ or similar product) and inject a small quantity into the top of the hole.
9. Screw in the STAY GRATE™ SS3 mounting screw, tension to 11 Nm torque with a suitable tool, and wipe the underside of the hole. For mounting in galvanized girders, the sealant residue should seal the hole with a ring, as shown in Figure 4.

Please refer to Worksafe Safety Alert July 2014 "Torqueing fasteners with rattle guns" and ensure fasteners are correctly torqued to manufacturer's specifications.

<http://www.worksafe.vic.gov.au/forms-and-publications/forms-and-publications/torqueing-fasteners-with-rattle-guns>

Figure 4. STAY GRATE™ SS3 demonstrating use of sealant in conjunction with galvanised support member.

