

# STAY GRATE™ SS3

# Including STAY GRATE™ SS3-L, SS3-SR, SS3-PC and SS3-BB variants



STAY GRATE™ SS3 is a fastening device designed to safely secure steel, aluminium, and fibre-reinforced plastic grates into steel support members in elevated walkways, ramps, pedestrian bridges, machinery surrounds, and oil-rig platforms. STAY GRATE™ SS3 is designed to fasten grates to steel supports, engaging grate frames, loadbars or crossbars, or to engage the junction where multiple grates meet.

NB: minimum flange thickness of supporting steelwork is 6mm, required steel yield strength Rp 0.2 is 250MPa.

STAY GRATE ™ SS3 fasteners comply with the requirements of:

AS 1657: 2013 Fixed platforms, walkways, stairways and ladders,

AS 3996: 2006 Access covers and grates

Melbourne Water CORP AM S020: 2014 Access covers, platforms and walkways standards.

STAY GRATE™ SS3-SR anti-slip brackets have a Floorsafe® finish compliant with:

AS/NZS 4586: 2004 Slip resistance classification of new pedestrian surface materials HB 197-1999 for Ramps, stairways & walkways and are suited for use in in public and pedestrian access areas

## BENEFITS OF STAY GRATE™ SS3:

- Restricts unauthorized access and opening of grates from above or below without the use of a specific tool.
- Prevents movement and dislodgment of the grates due to pedestrian and vehicular traffic.
- Prevents grates rocking in the frame under traffic, minimizing noise under traffic loads.
- Prevents grates being dislodged from the frame in the event of uplift forces.
- Enables fasteners to be mounted and disassembled from above, without need for access to the sub-frame.
- Reduced risk of components falling into workspaces or machinery below.
- STAY GRATE ™ SS3 is supplied as a ready to install assembly including the STAYGRATE™ SS3 plate and a
  Hobson's 316 M10 allen-key countersunk screw of required length depending on grate type to be secured\*
   \* Tamper-proof screws can be supplied when required

STAY GRATE™ SS3 is manufactured in Melbourne, Australia.

All components of the STAY GRATE™ SS3 assembly are sourced in Australia.



#### FEATURES OF STAY GRATE™ SS3:

- STAY GRATE™ SS3 body is manufactured from 3mm 316L Stainless Steel plate, which is resistant to corrosion, chlorine and sulphuric acid, and suited to use in potable water, stormwater and marine environments.
- STAY GRATE™ SS3 has the hole off-centre, providing four possible orientations to accommodate variable grate and frame configurations
- STAY GRATE™ SS3-L has an assembly uplift load resistance of 4.26kN^
- STAY GRATE™ SS3-S has an assembly uplift load resistance of 2.5kN^

## STAY GRATE™ SS3 PRODUCT VARIANTS:

- STAY GRATE™ SS3-L Plate length 105mm; plate width 80mm, for use where different grate mesh types and configurations intersect
- STAY GRATE™ SS3-S Plate length 48mm; plate width 48mm suited for fastening adjacent grates

STAY GRATE™ SS3-L and STAY GRATE™ SS3-S are available in the following upper surface treatments:

- STAY GRATE™ SS3-SR has a Floorsafe® anti- slip finish which meets AS/NZS Standard 4586 : 2004
- STAY GRATE™ SS3-PC has a powder-coated Dulux Yellow Gold 33617 finish which enables service personnel to readily identify the edge of the grate in reduced visibility conditions.
- STAY GRATE™ SS3-PC Powder-coated colour finish is available in a range of alternate colour selections.
- STAY GRATE™ SS3-BB has a bead- blasted anti-reflective textured finish.

## STAY GRATE™ SS3 - INTENDED USE AND RECOMMENDED APPLICATIONS

STAY GRATE™ SS3 units are suited for use as a fastening device for grates in steel frames or grates supported by steel members.

STAY GRATE™ SS3-SR are <u>suited for use in public and pedestrian accessible areas.</u>

### VIBRATION RESISTANCE OF STAY GRATE™ SS3

In applications where resistance to vibration is required the use of a suitable Locktite™ thread-adhesive or similar product is recommended.

#### **GUARANTEE OF PRODUCT OUALITY\***

Grate Engineering™ guarantee the quality and durability of the STAY GRATE™ SS3 plates in field conditions commonly encountered in industry for 25 years, when used for the intended purpose and installed in accordance with our specifications.

\*The screws used with STAY GRATE™ SS3 plates are not covered by our guarantee.

^STAY GRATE ™SS3 Load Calculations by Bodo Siemienowicz, Copernicus Engineering. Mt.Waverley VIC 3149, Australia.

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### TYPICAL INSTALLATIONS OF STAY GRATE™ SS3

STAY GRATE™ SS3-SR (anti-slip) units are suited for fastening grates in public access areas such as:

- Pedestrian walkways and cycle tracks
- Schools and playgrounds
- Hospital and medical facilities
- Service stations and carwashes
- Stormwater easements

- Footpaths, bridges and ramps
- Shopping precincts and car-parks
- Nature strips and streetscapes
- Sports and entertainment stadiums
- Harbours and airports

STAY GRATE™ SS3 units are suited for fastening grates in service and production areas such as:

- Plant rooms
- Commercial kitchens
- Communication towers

- Maintenance storerooms and access ways
- Oil Rigs and platforms
- Delivery docks

STAY GRATE™ SS3-BB (bead blasted) and STAY GRATE™ SS3-PC (powder coated) units are suited for use in restricted access areas such as:

- Water treatment facilities
- Sewerage treatment facilities
- Water storage and transfer facilities
- Sewerage storage and transfer facilities

- Mining and machinery platforms
- Industrial and food processing plants
- Warehouses and storage facilities
- Machinery wash-down facilities

Grate and mesh types suited to installation of STAY GRATE™ SS3 units include:

- Open Mesh Steel grating, flooring, walkways and pit covers
- Steel Grid Flooring
- Expanded Mesh Grates
- Grid Grating

- Grid Mesh
- Aluminium Grid Flooring
- Fibre-glass Reinforced Plastic (FRP) Grates and Mesh

## LIMITATIONS TO INSTALLATION OF STAY GRATE™ SS3 ASSEMBLY

STAY GRATE™ SS3 is not suitable for use with grate or mesh types where the load-bar or crossbar dimensions or spacings are incompatible with the configuration of the engagement teeth.

Grate Engineering™ have an alternative range of STAY GRATE™ fasteners suited to use with grates in concrete surrounds.

Grate Engineering™ can design, engineer and manufacture specialized configurations of STAY GRATE™ to suit client's requirements.

For further information see <a href="https://www.grateengineering.com">www.grateengineering.com</a>