

Stay Grate™ Technical Data

STAY GRATE™ Range for Concrete Surrounds.

	STAY GRATE™ Assembly & Load Capacity	STAY GRATE™ Dimensions
STAY GRATE™ SS2		
	STAY GRATE™ SS2 Assembly installed with Anzor Internal Threaded Anchor DYITM10 using Ramset Chemset 101 Plus™ Resistance of assembly to service live loads: $F_x = 2.8\text{kN}$, $F_y = 0.65\text{kN}$, $F_z = 0.95\text{kN}$	316L 4mm Stainless Steel Plate STAY GRATE™ SS2 Body Length = 100mm Single-tooth model Tooth Width = 20mm
STAY GRATE™ SS5		
	STAY GRATE™ SS5 Assembly installed with Anzor Internal Threaded Anchor DYITM10 using Ramset Chemset 101 Plus™ Resistance of assembly to service live loads: $F_x = 2.8\text{kN}$, $F_y = 0.67\text{kN}$, $F_z = 0.57\text{kN}$	316L 5mm Stainless Steel Plate STAY GRATE™ SS5 Body Length = 155mm Twin-tooth model Tooth Gap of 9mm
STAY GRATE™ SS5-15		
	STAY GRATE™ SS5-15 Assembly installed with Anzor Internal Threaded Anchor DYITM10 using Ramset Chemset 101 Plus™ Resistance of assembly to service live loads: $F_x = 2.8\text{kN}$, $F_y = 0.67\text{kN}$, $F_z = 0.57\text{kN}$	316L 5mm Stainless Steel Plate STAY GRATE™ SS5 Body Length = 155mm Twin-tooth model Tooth Gap of 15mm
STAY GRATE™ SSZ-75		
	STAY GRATE™ SSZ-75 Assembly installed with Anzor Internal Threaded Anchor DYITM10 using Ramset Chemset 101 Plus™ Resistance of assembly to service live loads: $F_x = 1.1\text{kN}$, $F_y = 0.81\text{kN}$, $F_z = 1.26\text{kN}$	316L 5 mm Stainless Steel Plate Wall Mounted Z-shaped Bracket 75 mm bracket reach Single-tooth model Tooth Width = 20mm

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

STAY GRATE™ SS3. Designed to Fasten Grates into Steel Frames and Supports*

	STAY GRATE™ Assembly & Load Capacity	STAY GRATE™ Dimensions
STAY GRATE™ SS3-L		
	STAY GRATE™ SS3-L Assembly installed with M10 screw into steel support* 6mm thread engagement Resistance of assembly to service live loads: $F_y = 4.26\text{kN}$ $F_x = F_z = 0.98\text{kN}$ for 25mm grate 0.78kN for 32mm grate 0.63kN for 40mm grate.	STAY GRATE™ SS3-L 316L 3mm Stainless Steel Plate Plate Length = 105mm Plate Width = 80mm
STAY GRATE™ SS3-S		
	STAY GRATE™ SS3-S Assembly installed with M10 screw into steel support* 6mm thread engagement Resistance of assembly to service live loads: $F_y = 2.5\text{kN}$ $F_x = F_z = 0.98\text{kN}$ for 25mm grate 0.78kN for 32mm grate 0.63kN for 40mm grate.	STAY GRATE™ SS3-S 316L 3mm Stainless Steel Plate Plate Length = 48mm Plate Width = 48mm

*Minimum flange thickness of supporting steelwork 6mm. Required steel support yield strength $R_p 0.2$ is 250MPa.

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

The following data is extracted from manufacturers and suppliers technical data sheets

316 Stainless Steel Chemical Anchor Anzor Fasteners LLP Internal Threaded Anchor DYITM10* *For STAY GRATE™ assemblies in concrete surrounds.	Recommended Load – Tension 21.9 kN Recommended Load – Shear 13.1 kN	Minimum edge distance 50mm Min Concrete Thickness 120mm Tightening Torque 11Nm
316 Stainless Steel Screw Hobson Engineering Pty Ltd Countersunk Socket Screw SC16PCM100025 M10 x 25# Screw can be supplied to required length for STAY GRATE™ SS3 assemblies mounted into steel supports,	Maximum Installation Torque 11Nm for Anzor DYITM10 (6mm Allen Key required)	Thread Engagement Length Min 10mm Max 19mm for Anzor DYITM10 Minimum thread engagement into supporting steelwork 6mm for STAY GRATE™ SS3 assemblies