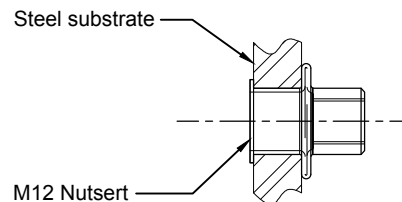


INSTALLING THE NUTSERT

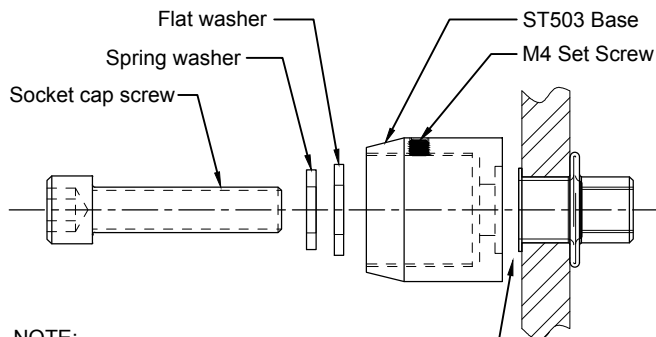
Install M12 nutsert into steel structure (see nutsert installation manual)



INSTALLING THE BASE TO THE SUBSTRATE

Bolt the ST503 base directly onto the metal substrate with the M12 socket cap screw or stud & hex nut provided. Loctite is recommended to secure the screw.

NOTE: Ensure the base is oriented such that the M4 set screw can be reached after the glass is installed!

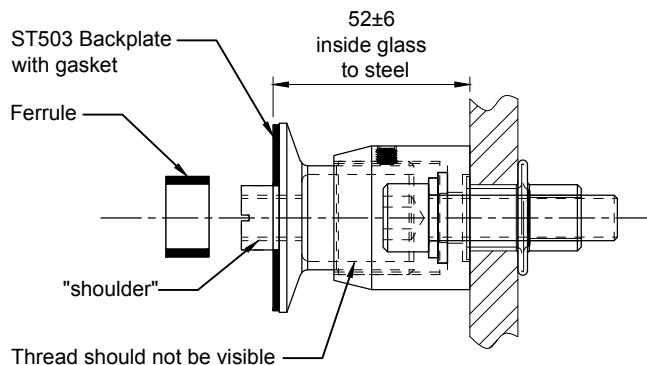


NOTE: For weather exposed applications it is recommended to seal-off the nutsert with silicone to prevent water ingress

INSTALLING THE BACK PLATE

Install ST503 back plate onto the base and set it to the required distance (usually inside of glass to substrate).

NOTE: The outer thread of the back plate should not be visible. If this thread is visible, the backplate is not engaged far enough into the base, which may affect the structural integrity of the hardware.



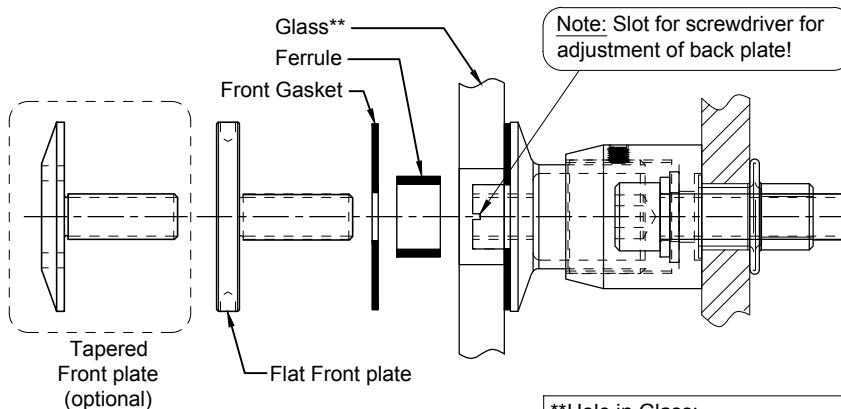
INSTALLING AND ALIGNING THE GLASS

Install glass onto the shoulder of the backplate and fasten the face plate (ensure gaskets and ferrule are in place to prevent glass-to-metal contact).

If glass requires re-alignment, remove the face plate and adjust the backplate using a flat screwdriver (lift glass to take weight off the back plate, but removal of glass is not required).

For final tightening of the front plate, use the following spanner (can be supplied by Stella):

- Flat front plate: C-Spanner
- Tapered front plate: Pin-Spanner



Optional: tighten the M4 set screw to lock the back plate.

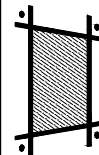
****Hole in Glass:**

Minimum: $\varnothing 22.2\text{mm}$ [$\varnothing 7/8"$]
 Recommend: $\varnothing 25.4\text{mm}$ [$\varnothing 1"$]
 Maximum: $\varnothing 28.6\text{mm}$ [$\varnothing 1\frac{1}{8}"$]

Rev.	Date	Description	Drawn by	Checked by
1	Sept 6-2019	Revised format	MT	JS

Disclaimer: These instructions provide guidance for installation only. They do not constitute suitability for application, which should be provided by a registered Engineer.	Hole in glass: See above Dimensions millimeter unless otherwise shown. Apply loctite 243 to all threads during assembly (To increase curing speed, please apply activator 7649)	Drawn	Drawn date
		Checked	Checked date

Drawn	Drawn date
RL	APR 3-2012
Checked	Checked date
JS	JUN 6-2012
Scale	Rev.
1:2	1
DWG No	
ST503-N-IM	



stella

[t] (604) 231 5892
 [f] (604) 231 5893
 [e] info@stellaglasshardware.com

INSTALLATION INSTRUCTION
 ADJUSTABLE STANDOFF WITH NUTSERT
 ST503-W (FLAT OR TAPERED)



HOW TO INSTALL A STELLA NUTSERT

The use of Nutserts in structural glass applications is a Stella Innovation; it is a labour and cost-saving alternative to drilling and tapping and works well with thin-walled HSS.

Stella Nutserts are available for M8, M12 and 3/8-16 UNC studs and bolts.

The Nutsert Manual Tool described in these instructions is available for purchase.



WHAT YOU WILL NEED

- Drill bit 17/32 or 11/16" (see step 1)
- Lubricant
- Deburring tool
- Impact driver with socket adaptor and socket for M8, M12 or 3/8-16 UNC hex
- Wrench (Size- 19mm or 3/4")



Step ONE – Hole preparation

Drill a hole in one side of the HSS.
Use the following drill bits:
M8 nutsert: 13.5 mm [17/32"]
M12 nutsert: 17.5 mm [11/16"]
3/8-16 UNC nutsert: 13.5 mm [17/32"]

NOTE:

With a deburring tool, remove burrs from the inside and outside of the hole to ensure proper installation.



Step TWO – Prepare tool

Screw a Stella Nutsert onto the Nutsert Manual Tool.



With two wrenches, tighten it up against the alignment nut to keep the nutsert from rotating during installation.
Do not over-tighten it, as you may then start to collapse the nutsert, after which it will not fit in the drilled hole.



The Manual Nutsert tool consists of:

- Hex bolt (M8, M12 or 3/8-16UNC)
- Top cap (M8 only)
- Washer + roller bearing + washer
NOTE: Periodically lube the washers to keep them lasting longer during multiple installations
- Alignment nut
NOTE: the side with the emboss needs to point outward, as it will straddle the edge of the nutsert.



Step THREE - Insert the nutsert with the threaded-on tool into the hole. Ensure the flange of the alignment nut sits flush onto the surface of the HSS.

TIPS:

- Be sure to check the washers of your nutsert tool regularly for any significant wear of the running surfaces. If they start getting chewed up, flip them over so that the unused side is in contact with the roller bearing. This will ensure that the roller bearing's rollers stay free of debris getting in.
- Check the bolt. During tightening, it can get hot and thread galling can occur. If you are having trouble getting the bolt out after installing, the threads could be damaged, and the bolt will need replacing.
- After installing a few nutserts, check the threads by trying a bolt or stud that will be used for mounting the hardware. If they are not going in smoothly, it is possible that the nutsert install-bolt is damaged. This in turn damages the nutsert and it may need to be tapped through.
- If the bolt from the tool does not go all the way through all the threads of the nutsert, it can strip the bolt and the nutsert when installing. This also should be checked on the bolts being used for mounting the hardware.
- Make sure that the wrench you are using to hold the alignment nut is not thicker than the flat on the alignment nut. This will stop the washers from sitting flush on the top.
- If you are having problems, you are welcome to give us a call at Stella: (604) 231-5892



Step FOUR – installing the nutsert

1. Hold the alignment nut pressed against the steel surface with a wrench.
2. Put your socket impact driver on the head of the bolt. Press down on top enough to keep alignment nut flat against the surface. Hold on to wrench firmly.



Turning the bolt will force the knurled body of the nutsert to collapse and form a collar on the backside of the steel as shown above.



The flange of the nutsert sits slightly proud on the face of the steel as shown above.