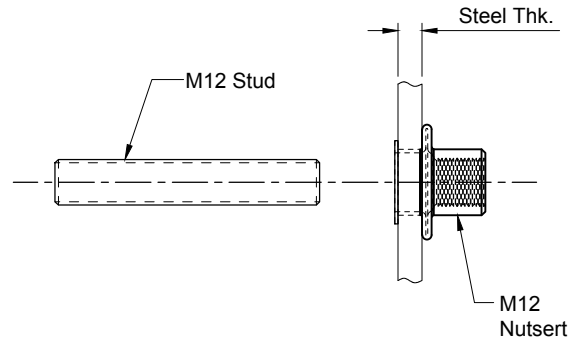


INSTALLING THE M12 NUTSERT

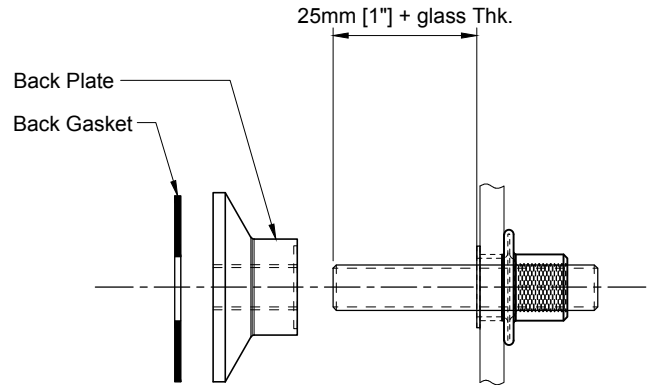
Install M12 nutsert into steel structure. (See nutsert installation manual)

Twist M12 stud into M12 nutsert.



INSTALLING THE BACK PLATE

Twist back plate on to the M12 stud. Then slide gasket onto the M12 stud.



INSTALLING AND ALIGNING THE GLASS

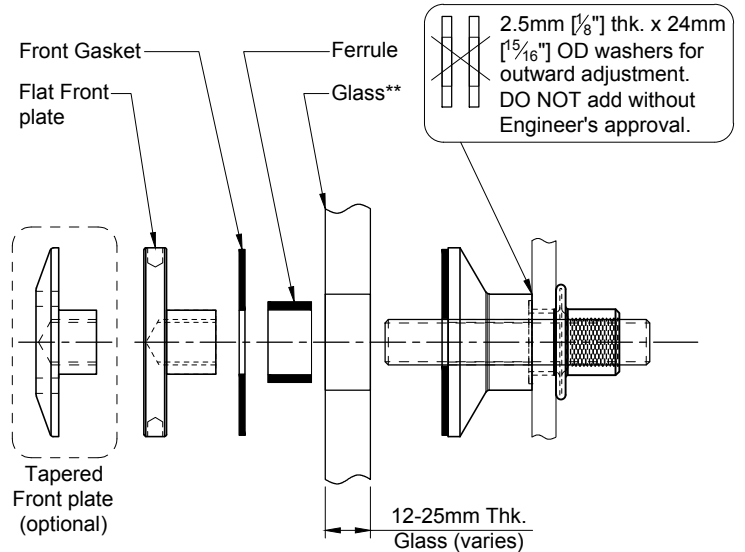
Position glass and twist flat (or tapered) front plate with front gasket and ferrule onto the M12 stud.

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

Outward alignment of the glass can be done by adding 2.5mm [$\frac{1}{8}$ "] thk. x 24mm [$\frac{15}{16}$ "] OD washers between the back plate and substrate or, 1.6mm [$\frac{1}{16}$ "] fiber gaskets (Stella supplied) between glass and back plate. The M12 stud should be extracted at the corresponding distance, as long as the stud remains fully engaged within the nutsert.

NOTE: As the addition of separate washers affects the structural integrity, this adjustment should not be performed without Engineer's approval.



****Hole in Glass:**
 Minimum: $\varnothing 22.2\text{mm}$ [$\varnothing \frac{7}{8}$ "]
 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	Feb 06-2020	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
NY	JUN 11-14
Checked	Checked date
BL	JUN 13-14
Scale	Rev.
1:2	1
DWG No	
ST505-N-IM	



INSTALLATION INSTRUCTION STANDOFF MOUNTED WITH NUTSERT ST505-N (FLAT OR TAPERED FACE)



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.