

Installation and Tooling Selection 400 Series and D1800 (NAS 1800) Types

Panel Preparation

The following installation procedure pertains to most Delron potted-in type fasteners. Panels are prepared as illustrated in figures 1 and 2. Drill diameters for various types are shown in the tables below.

Installation Drill Diameters 400 Series

Size	Type H-HE	S-SE	SF-HF
440	.375	.344	-
632	.437	.406	.500
832	.500	.469	.562
1032	.500	.469	.562
428	.562	.531	.687
524	.687	.656	.812
624	.812	.781	.937

D1800 (NAS 1800) Series

Size	D1832, D1833, D1834	D1835	D1836	
06	.561566	-	.452457	
08	.561566	.686691	.452457	
3	.561566	.686691	.452457	
4	.686691	.749755	.499504	
5	.686691	.811817	-	
6	.842847	.874880	-	

Bonding Procedure

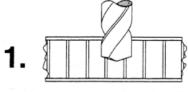
Most blind applications for potted-in fasteners can use the "Pre-pot" technique. This involves filling the cavity nearly full, giving consideration to the displacement factor of an installed fastener. Sufficient potting material must be used to bond securely yet avoid overflow (Figure 3).

Fastener insertion is very simple using the Series 400 SF and 400S-SE which provide self-retention (Figure 4). Other head styles use tabs to position and hold the fastener in a flush, perpendicular position. Slots or holes in the tabs and insert head, allow additional potting material to be injected into the panel cavity (Figures 5 and 6).

Potting Material

Potting materials suitable for sandwich panel inserts are manufactured by companies such as American Cyanamid, Hexcel, HysolTM™, BASF, Ciba-Geigy, etc. Information on type, setting time, and usage may be secure from them.

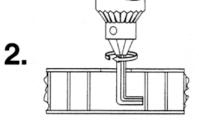
Installation Sequence



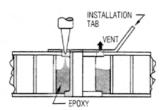
Hole is drilled through top facing skin and most of core material



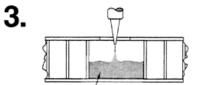
Hole is drilled thru entire panel.



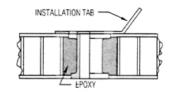
Core material is undercut below top facing skin and down to the bottom skin (as close as possible without risking skin damage).



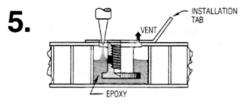
Install insert and fill cavity with potting material



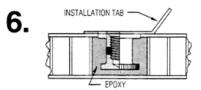
Partially fill cavity with potting material Leave displacement space for insert.



Delron 400 'S', 'SE' and 'SF' styles snap into the top facing skin, for a completed installation.



Non-snap-in versions, using installation tabs can be "topped-off" with potting material



Installation tab is left in place until potting material is cured