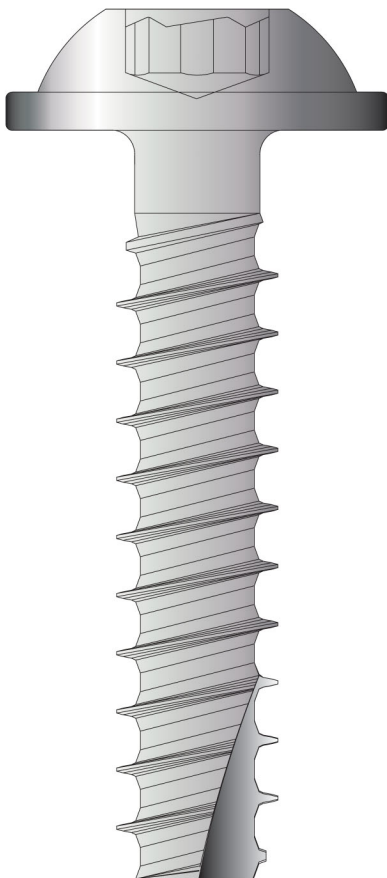


INFO 02/03 Assemblies in thermosets










The DELTA PT[®] screw is a proven fastener element for thermoplastics, which can also be used in many thermosetting plastics.

The expansion, happen during thread forming, overextends the capability of some thermosets.

Therefore the DELTA PT[®] S has been developed. The introduction of a cutting edge reduces radial stress during thread cutting in the thermoset material.

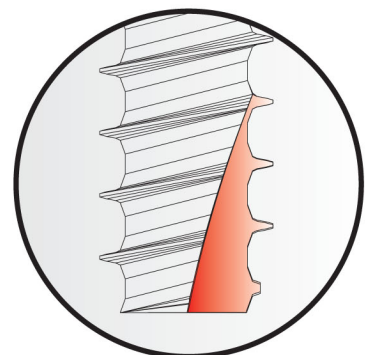


Benefits of the DELTA PT[®] screw S

-  minimized radial stress due to low thread flank angle and cutting edge
-  with optimised thread pitch the screw offers high retention when used in thermosets
-  high tensile strength
-  high torsion strength
-  material through hardened steel grade PT10
-  cost effective when using standard norm parts
-  process-safe assembly
-  repeat assembly possible
-  possible elimination of threaded inserts

The cutting edge

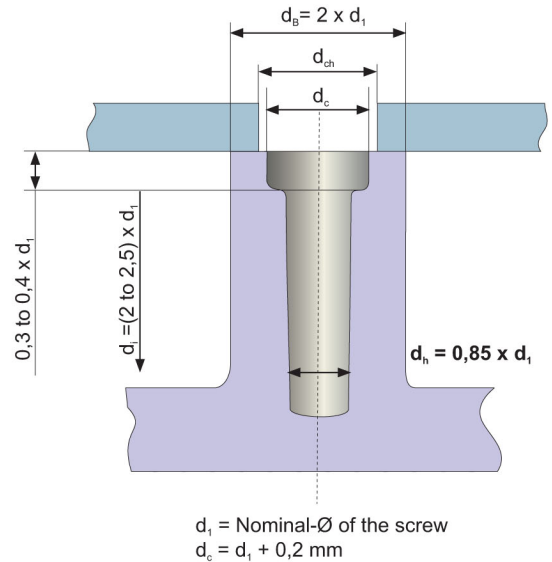
The DELTA PT[®] screw S is made with a DELTA PT[®] thread form and has an additional feature of a milled cutting edge over approximately three pitches at the lead thread end of the screw.



Design guidelines

The DELTA PT® screw without cutting edge is suitable for assembly in many thermosets. To establish if the cutting notch is required the toughness and impact strength of the thermoset material should be established. The initial evaluation can establish if the cutting edge is necessary. Assembly test on original components will give final performance confirmation.

The geometry of the boss design should be in generally as shown on the right. It is important that the filling of it is homogeny, especially in conjunction with long fibre materials. Extra fins on the boss can be of benefit.



Dimensions

The possible dimension of the DELTA PT® screw with cutting edge is limited due to manufacturing technique.

Current lengths and diameters that are available are listed in the matrix to the right. Parts are produced with the standard DELTA PT® styles. (see also catalogue DELTA PT® screw, page 10/11)

DELTA PT® screw S	25	30	35	40	45	50	60
d1 [mm]	2,5	3,0	3,5	4,0	4,5	5,0	6,0
length [mm] L							
7 ± 0,45							
8 ± 0,45							
9 ± 0,45							
10 ± 0,45							
11 ± 0,55							
12 ± 0,55							
14 ± 0,55							
15 ± 0,55							
16 ± 0,55							
18 ± 0,55							
20 ± 0,65							
21 ± 0,65							
22 ± 0,65							
24 ± 0,65							
25 ± 0,65							
30 ± 0,65							
35 ± 0,80							
40 ± 0,80							
45 ± 0,80							
50 ± 0,80							
60 ± 0,95							

	head design acc. WN5412/WN5452
	head design acc. WN5411, WN5451, WN5453, WN5454

Special geometries upon request.
 Full thread only to 50mm length possible.