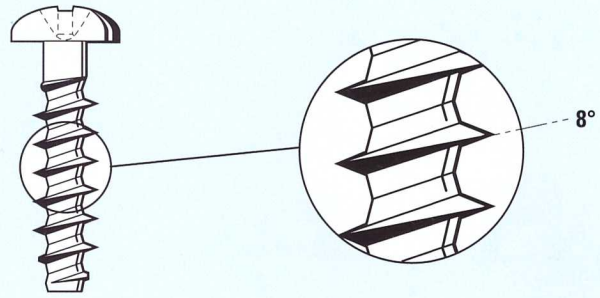


# DESIGN FEATURES

# PT<sup>®</sup> TYPE

## 8° OPTIMUM PITCH ANGLE

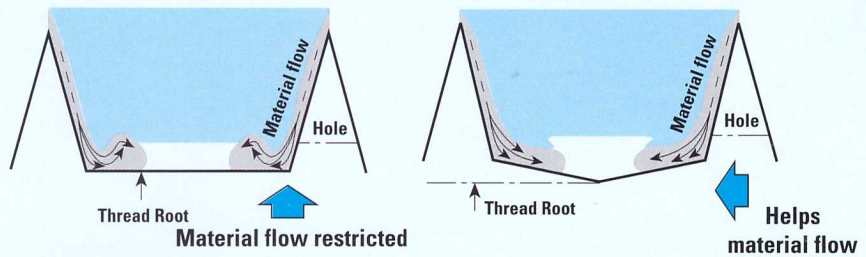
- Lowest installation torque/highest stripping torque
- Maximum resistance to vibration loosening and material relaxation in the component



## PROFILED THREAD ROOT

- Improved plastic flow reduces stress, providing long term reliability
- Greater surface area contact between screw thread and plastic, to give a high shear and stripping torque
- Lower installation torques

Flat Root thread v PT Profiled Root thread



## 30° COMBINED FLANK ANGLE

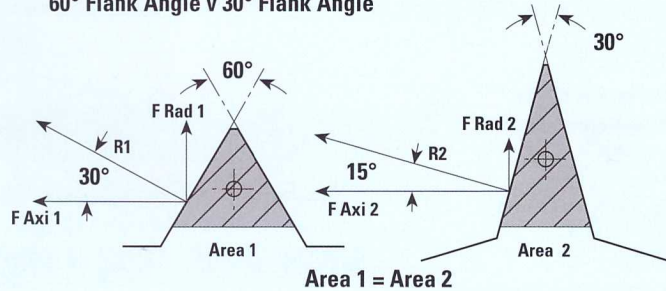
- Lower radial stresses, reducing boss bursting force
- Greater thread penetration into the plastic material, permitting enhanced clamping torque
- Reduced centre of pressure, producing lower installation torque

Resolution of Resultant Forces for the Same Volume Displacement

$$F_{Rad 1} = 0.500R \quad F_{Rad 2} = 0.259R$$

$$F_{Axi 1} = 0.867R \quad F_{Axi 2} = 0.966R$$

60° Flank Angle v 30° Flank Angle



## DESIGN RECOMMENDATION

MATERIAL	Hole Diameter	Boss Diameter	Min. Screw Penetration Depth
ABS	0.8d	2d	2d
ABS/PC Blend	0.8d	2d	2d
ASA	0.78d	2d	2d
PA 4.6	0.73d	1.85d	1.8d
PA 4.6 - GF 30	0.78d	1.85d	1.8d
PA 6	0.75d	1.85d	1.7d
PA 6 - GF 30	0.8d	2d	1.9d
PA 6.6	0.75d	1.85d	1.7d
PA 6.6 - GF 30	0.82d	2d	1.8d
PBT	0.75d	1.85d	1.7d
PBT - GF 30	0.8d	1.8d	1.7d
PC	0.85d	2.5d	2.2d*
PC - GF 30	0.85d	2.2d	2.0d*

MATERIAL	Hole Diameter	Boss Diameter	Min. Screw Penetration Depth
LDPE	0.7d	2d	2d
HDPE	0.75d	1.8d	1.8d
PET	0.75d	1.85d	1.7d
PET - GF 30	0.8d	1.8d	1.7d
PMMA	0.85d	2d	2d
POM	0.75d	1.95d	2d
PP	0.7d	2d	2d
PP-TF 20	0.72d	2d	2d
PPO	0.85d	2.5d	2.2d*
PS	0.8d	2d	2d
PVC (Hard)	0.8d	2d	2d
SAN	0.77d	2d	1.9d
PPS	Contact PSM		

For other materials contact PSM.

d = Nominal External Thread Diameter.

\* Where materials are known to be sensitive to environmental stress cracking, ageing tests should be carried out as recommended by the material manufacturer.

DIRECT SCREW FIXINGS PT<sup>®</sup> TYPE

