



ETP 44

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TAPPEX SETSERT® FOR COLD PRESS INSTALLATION INTO HARD AND FILLED THERMOPLASTICS AND THERMOSET PLASTICS

Tappex is introducing a family of inserts to overcome the problems associated with installation into the harder grades of Thermoplastic and Thermoset plastics.

The Setsert design may be double or single ended and could include a head. Illustrated below the insert includes a helical knurl with a broaching form and undercuts to enhance rotational and pull out performance.

Often the physical properties of glass filled thermoplastics and Thermoset plastics can give rise to high installation forces using conventional press fit inserts. In the worst case this can set up significant bursting forces in thin wall bosses and result in lower than expected pull-out and rotational performance. The Setsert design utilises a combination of a broaching feature and helical knurl to cut into the material reducing the build up of stresses. In application the torque applied through the fastener is transmitted by the helical knurl form into the plastic the helix tends to work against the forces ultimately trying to remove the insert.

The double ended Setsert insert simplifies orientation before installation into the plastic moulding for manual and automatic assembly methods.





Advantages

- Reduced in installation force over conventional press fit inserts.
- Particularly suitable in glass filled or Thermoset materials.
- Ideal for cold press fit but may be heat or ultrasonically installed
- Double ended version simplifies automatic and manual installation.
- Pilots provide a means of alignment with the receiving hole.

Setsert Range

The Part Number is defined 476, 076 followed by the thread size. The 476 series are double ended and the 076 series are single ended.

Current and planned availability and key dimensions:

| Part Number | Available | Thread Size | Length | Dia. over knurl | Hole Diameter | Min. Boss Diameter |
|-------------|-----------|-------------|--------|-----------------|---------------|--------------------|
| 476M2.5 | No | M2.5 | 3.9 | 3.75 | 3.35 | 7.35 |
| 476M2.6 | Yes | M2.6 | 3.9 | 3.75 | 3.35 | 7.35 |
| 476M3.5 | Yes | M3.5 | 7.0 | 5.25 | 4.85 | 9.85 |
| 476M4 | Yes | M4 | 8.0 | 6.25 | 5.90 | 10.9 |
| 076M3 | Yes | M3 | 5.3 | 4.25 | 3.85 | 7.85 |
| 076M5 | Yes | M5 | 8.3 | 6.75 | 6.35 | 11.35 |

The hole and min. boss diameter are for guidance only and will depend on the particular grade of material. To determine the optimum dimension, testing is recommended.

A small counter-bore is recommended a diameter 0.1mm larger than the knurl. This is to provide a good finish at the moulding surface and help align the insert with the receiving hole.