

## TAPPEX THREAD INSERTS LIMITED

Masons Road Stratford-upon-Avon Warwickshire CV37 9NT

Telephone: +44(0) 1789 206600 Fax: +44(0) 1789 414194 Email: sales@tappex.co.uk

## **ETP 58**

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## **TAPPEX TRISERT-3® TITANIUM**

Tappex have been designing, developing and manufacturing many types of threaded inserts to meet the ever-changing demands of industries around the world, particularly where both installation time and reliability are of prime importance.

In-line with our philosophy of continuous product development, Tappex has introduced a new material to the proven Trisert-3 range made from Titanium Grade 5, this option opens up opportunities for applications in particularly harsh environments or corrosive atmospheres, and where weight is of prime importance.

Titanium has three key properties that make it particularly desirable:

- 1. High level of corrosion resistance.
- 2. Low density (4.43 g/cc).
- 3. High strength (950 MPa).

The Trisert-3 Titanium retains all the advantages of the existing Trisert-3 range:

- three facets offering balanced cutting
- enhanced back-out performance
- large bearing surface the reduced head also aids orientation of the insert
- speed of installation
- free running internal thread
- compatibility with the existing Trisert / Trisert-3 hole sizes
- reduced external diameter
- fully supported cutting edges.
- no contaminating flitter

Titanium Grade 5 is an alloy of Titanium offering high strength, light weight and excellent corrosion resistance.

When Titanium is exposed to atmosphere, a stable, substantially inert, oxide film is immediately formed. It is this surface film that gives the material its excellent corrosion resistance.

Titanium does not corrode in normal seawater environments, or polluted waters such as ports and harbours.



Titanium has a high strength to weight ratio and a much lower density, approx. 50% lower than 316 stainless steel, for example.

The part number is defined as per the Trisert-3 range, with regular 6238 and long 6270 lengths as standard, followed by the thread size, and material designation defined as -Ti5.



Specials, Imperial threads, Headed and Blind variants would be considered; please contact our Engineering Department with your requirements.

## Current and planned availability and key dimensions:

| Part Number | Available | Thread<br>Size | Length<br>(mm) | Outside<br>dia. (mm) | Hole dia.<br>(mm) | Minimum<br>boss dia.<br>(mm) |
|-------------|-----------|----------------|----------------|----------------------|-------------------|------------------------------|
| 6238M4-Ti5  | Planned   | M4             | 7.1            | 6.31                 | 5.8 – 6.15        | 10.7                         |
| 6238M5-Ti5  | Yes       | M5             | 8.4            | 7.50                 | 6.9 – 7.35        | 12.6                         |
| 6238M6-Ti5  | Yes       | M6             | 9.8            | 8.69                 | 8.0 – 8.55        | 14.7                         |
| 6238M8-Ti5  | Planned   | M8             | 12.4           | 11.06                | 10.1 – 10.85      | 18.6                         |
| 6270M4-Ti5  | Planned   | M4             | 8.4            | 6.31                 | 5.8 – 6.15        | 10.7                         |
| 6270M5-Ti5  | Yes       | M5             | 10.0           | 7.50                 | 6.9 – 7.35        | 12.6                         |
| 6270M6-Ti5  | Yes       | M6             | 12.0           | 8.69                 | 8.0 – 8.55        | 14.7                         |
| 6270M8-Ti5  | Planned   | M8             | 14.0           | 11.06                | 10.1 – 10.85      | 18.6                         |

The hole and minimum boss diameter are for guidance only and will depend on the particular grade of material into which the inserts are being installed. To determine the optimum dimensions for your application, please contact our Engineering Department - testing is always recommended.

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**Technical Department.**