Bag full of wisdom when you are in trouble



No. 027 What are Helisert Taps?

Cutting Taps

[Question]

Does YAMAWA produce and sell specific taps for STI (Screw Thread Insert) like the brand name "Helisert" or Helicoil?

(Answer)

"Helisert" is a brand name of the helical coil wire manufactured in India and used throughout Asia. "Helicoil" is the brand name of the helical wire manufactured in the USA and used throughout North America. A helical coil wire is inserted into an internal screw thread to prevent damage and reinforce the original thread. Each manufacturer has its own brand name.

YAMAWA calls these "Helical Coil Wire Screw Thread Inserts". We produce and sell selective taps for this particular usage in a variety of tap series such as Hand Taps, Spiral Fluted Taps, Spiral Pointed Taps, and others.

Tap sizes use the same size call out as a normal thread but the STI taps are larger in diameter to accommodate the oversize condition of the outside diameter of the Screw Thread Insert (STI). To produce a M10 tap would require a M10 STI tap. The rhombic shaped coil wire is referred to by different brand names like "Insert", "Helisert", "Helicoil", "Silmcet" or "E-sert".

A thread coil wire is inserted into the internal screw threads of the original part that is made from soft material or is an expensive delicate component that needs to be protected or one that needs reinforcement of the internal screws.

(See picture on the right). YAMAWA offers selective taps for Helical Coil Wire Screw Thread Inserts (or STI Taps) for tapping the screw threads where this type of coil wire is required.

Note: Each manufacturer has its own brand name as well as the definition of the specifications.

STI: Screw Thread Insert



Hand Taps: AL-HT STI (for the Class 1b)



Spiral Fluted Taps: AL-SP STI(for the Class 1b)



Size range;

- -M2.6 to M24 (Coarse and Fine for Metric Threads)
- -No.4 to 3/4 (UNC, UNF for Unified Threads)

Product range;

Besides those shown on the left, the additional STI taps that are available are:

- -N-CT LA STI (for the Class 1b): Ultrafine Grain Carbide Taps
- -N-RS STI (for the Class 1b): Roll Taps

Spiral Pointed Taps: AL-PO STI(for the Class 1b)

[Information]

Product symbols for STI Taps have been revised effective from April 2015.

The material color identification was also changed from blue to red for an easy recognition of the target workpiece materials. (ex, AL and LA: for the Aluminum materials)

-STI-HT > AL-HT STI -PO-STI > AL-PO STI -STI-SP > AL-SP STI
-N-CT STI > N-CT LA STI