

【Consultation】



I've heard there are HT Hand Taps, SP Spiral Flute Taps, and PO Spiral Point Taps offered as cutting taps. I don't clearly understand the difference. Can you please explain what each type of tap is for and when to use them.

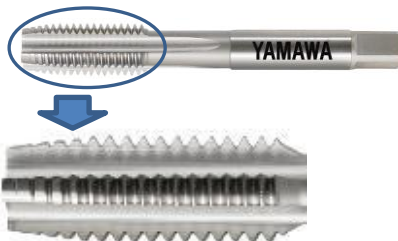
【Answer】

First, let's check the difference of the flute shapes of a HT hand tap, a SP spiral flute tap and a PO spiral point tap in the picture below. There is a big difference in the performance and flute shape. Each tap creates a different type of chip. The three styles of taps discharge the chips in a different direction.



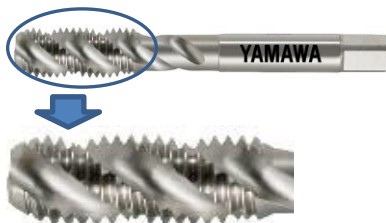
【Description】

【Hand taps: HT】



The hand tap is a straight flute tap as shown in the photo on the left. The chips created from cutting the material are relatively fine, and are normally stored in the flutes. These taps are available as a plug tap with a 5 thread cutting chamfer and bottoming tap with a 1.5 thread cutting chamfer. The hand tap is used for general purpose applications.

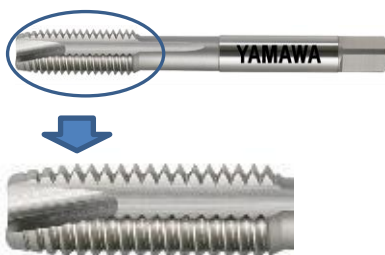
【Spiral Tap: SP】



The spiral flute tap is a tap whose flutes are ground in a helix like the picture on the left. The photo on the right shows the chips as they are ejected from the bored hole. These chips are continuously curled backward. The length of the cutting chamfer is usually 2.5 threads and this is the best tap for a tapping blind hole.



【Point tap: PO】



The spiral point tap is a straight flute tap with a separate gash in the front of the tap ground at a diagonal angle to the flute. This gash is located at the cutting chamfer portion of the tap as shown on the left picture. Chips are discharged forward from the separate gash in the direction of travel. There are very few problems with recutting the chips. The straight flute portion of the tap is shallow, which adds to the taps strength and results in a high breaking resistance. The length of the cutting chamfer is usually 5 threads and it is the best tap for through hole tapping.

