

No. 018

How to distinguish between SU-PO and SU+SL taps

Cutting

【Question】



For tapping through holes in Stainless Steel material, I wonder how I can make good use of a SU-PO tap and a SU+SL tap. Can you please advise?

【Answer】

You can distinguish them according to the tapping speed required.  
 The SU-PO is recommended for the lower tapping speed around 5m/min in stainless steel while the SU+SL is recommended for higher speeds up to 18m/min.



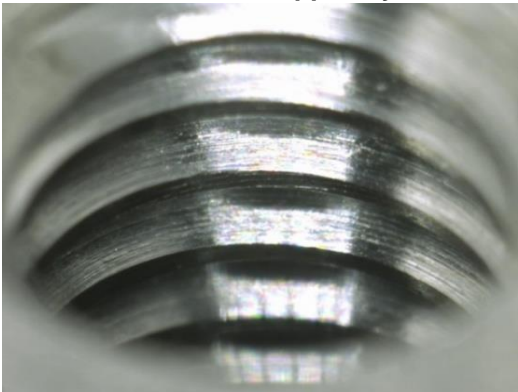
【Guide】

In the past the only option for tapping Stainless Steels in through holes was a SU-PO tap. Now the SU+SL tap is also available and you can choose either one to fit the tapping speed required. Use the SU-PO tap for less than 5m/min and the SU+SL for tapping speeds of 6m/min to 18m/min. Tapping with a fully synchronous feed is recommended for tapping speeds of more than 8m/min.



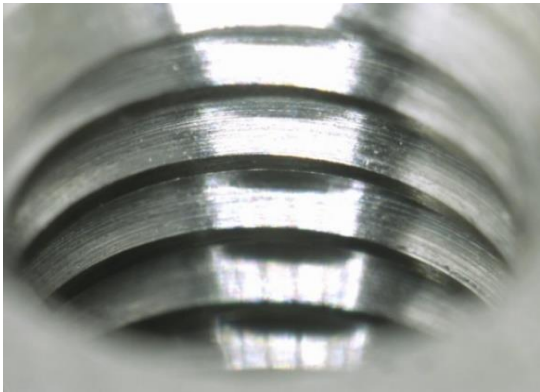
Distribution Stock: SU+SL is available from M3 to M6 in size range

M6×1 Internal thread tapped by a SU-PO



SUS304 Internal threads tapped at 7m/min speed

M6×1 Internal thread tapped by a SU+SL



SUS304 Internal thread tapped at 15m/min speed



The SU+SL taps are suitable for tapping through holes in work hardening and stringy materials like Stainless Steels, Chrome Steels, and Molybdenum Steels.



System Table for Tapping Stainless Steel through holes

|                  |                   | <div> <div>Low</div> <div>Tapping Speed</div> <div>High</div> </div> |   |         |         |         |                  |                   |
|------------------|-------------------|--|---|---------|---------|---------|------------------|-------------------|
|                  |                   | 5m/min   | 8m/min  | 10m/min | 15m/min | 20m/min |                  |                   |
| Ex)W ork p e c e | M a t e r i a l s |  |   |         |         |         | Ex)W ork p e c e | M a t e r i a l s |
|                  | SUS 304           |  | <div> <div>SU+SL</div> <div>When more than 8m/min of tapping speed is required, we recommend the taps to be installed in the Fully Synchronous Fedded machinery.</div> </div> |         |         |         | SUS 304          |                   |
|                  | SUS 303           | <div> <div>SU-PO</div> </div>  |   |         |         |         | SUS 303          |                   |
|                  |                   | 5m/min   | 8m/min  | 10m/min | 15m/min | 20m/min |                  |                   |