



SU+SP

SU+SL

Excellent performance for SUS304

Tap series for Stainless steels

SU+SP SU+SL

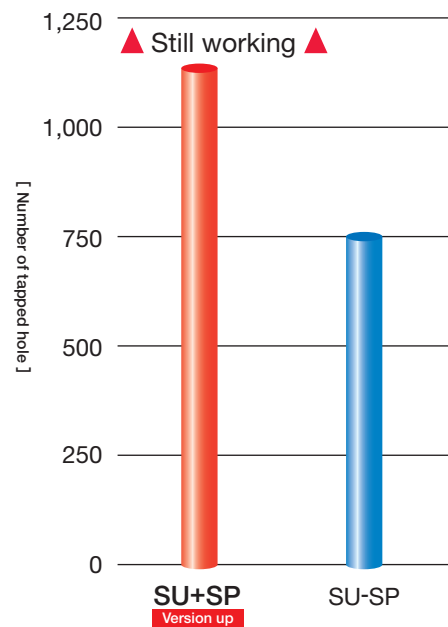
NEW TECHNOLOGY
versionUP⁺

Version up spiral fluted taps for Stainless steels

SU+SP



Comparison of tool life

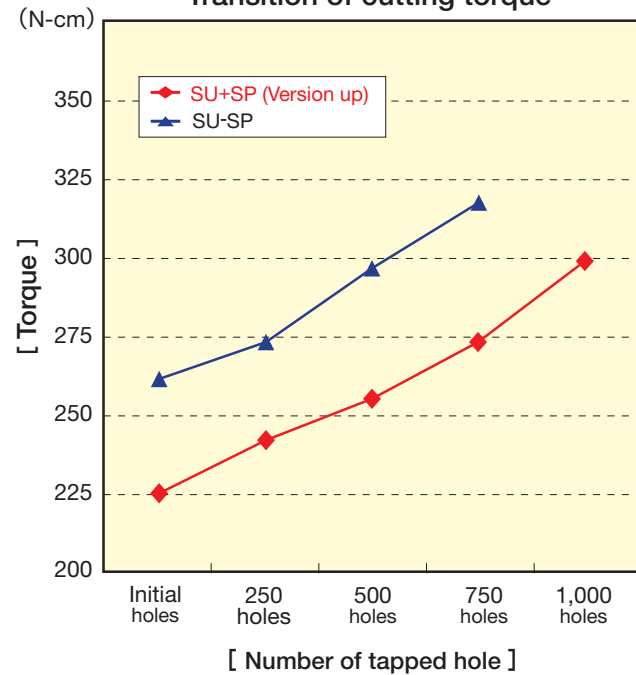


Tapping condition

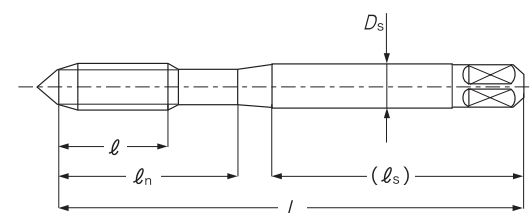
- Tapping condition
- Taps : SU+SP M6×1
- Work material : SUS304(90HRB)
- Cutting speed : 8m/min
- Hole size : $\phi 5$
- Tapping length : 9mm, blind hole
- Machine : Vertical machining center (with rigid feed)
- Lubricant : Unsoluble oil without chlorine

- Decrease of cutting resistance and increase of tool life.
- Improvement of chip ejection and good thread finish.
- Increase of tool life due to the improvement of tap strength.
- Suitable for both rigid tapping machine and non-rigid tapping machine.

Transition of cutting torque



Dimension



Nominal size	Limit	Overall length L	Thread length l	Neck length l_n	Shank length l_s	Shank diameter D_s
M2 ×0.4	P1	42	7	12	(24)	3
M2.5×0.45	P1	46	8	14	(28)	3
M2.6×0.45	P1	46	8	14	(28)	3
M3 ×0.5	P1	46	9	14	(26)	4
M4 ×0.7	P2	52	11	17	(29)	5
M5 ×0.8	P2	60	13	22	(33)	5.5
M6 ×1	P2	62	15	26	(33)	6

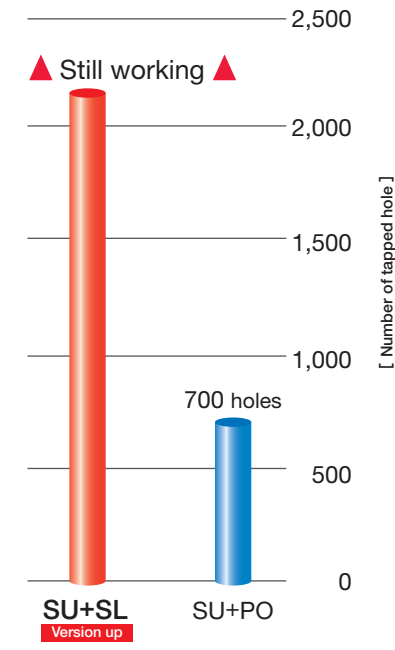
※The dimension of (l_s) is reference.
 ※Tap class is only the target for the limits of internal threads.

Version up left spiral fluted taps for Stainless steels

SU+SL



Comparison of tool life

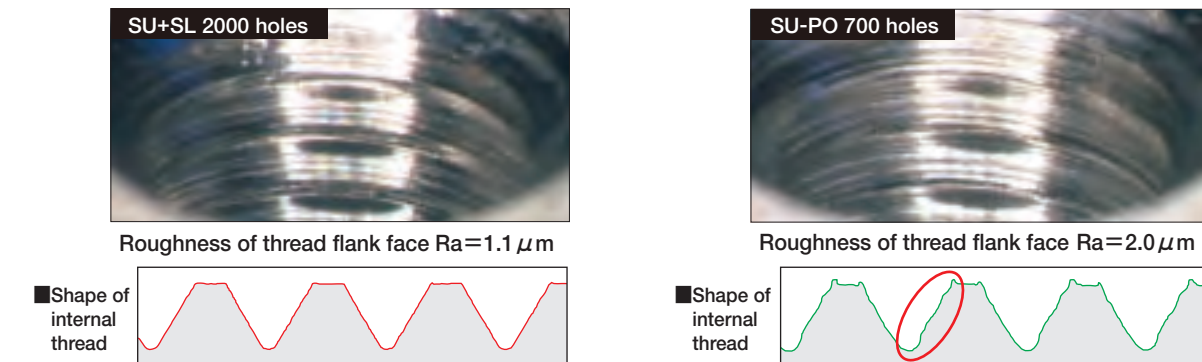


- Recommended speed : 10~20m/min. (Rigid tapping is recommended in the case of 15m/min and faster.)
- In medium cutting speed, SU+SL has more than 3 times longer tool life than SU-PO. Even if 2000 tapping holes, the surface of thread finish is good and the shape of threads is clearly stable.
- Adopting left hand spiral flutes, compared with SU-PO, SU+SL improves the chip ejection and realizes longer tool life.

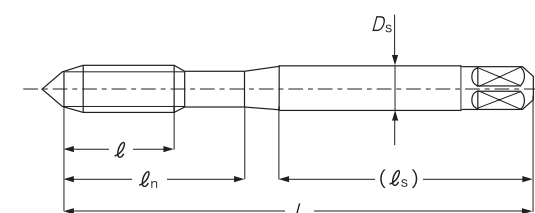
Tapping condition

- Taps : SU+SL M5×0.8
- Work material : SUS304(90HRB)
- Cutting speed : 15m/min
- Hole size : $\phi 4.2$
- Tapping length : 12mm, through hole
- Machine : Vertical machining center
- Lubricant : Unsoluble oil without chlorine

Comparison of internal threads



Dimension



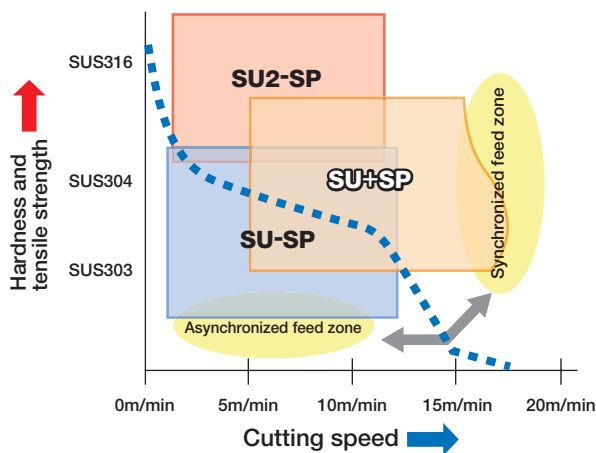
Nominal size	Limit	Overall length L	Thread length l	Neck length l_n	Shank length l_s	Shank diameter D_s
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M5×0.8	P2	60	13	22	(33)	5.5
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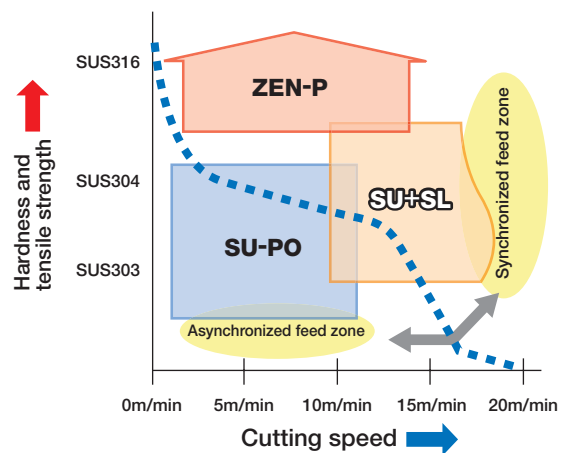
SU+SP (For blind hole) SU+SL (For through hole)

Tapping zone of SU taps series

System table of taps for Stainless steels, blind hole use



System table of taps for Stainless steel, through hole use



What is version up series?

Longer tool life and consistent "Reliable screw threads"

- New type of tap blanks with good shank consistency to meet the demand of high speed tapping and high precision tapping. Improvement of total quality.
- Version up series realize the reduction of cutting load on each cutting edges.
- The reduction of cutting torque realizes the longer tool life.

Marking at square portion

- Laser marking can roughen the shank surface. In order to keep run-out high accuracy and shank high concentricity, laser marking has been transferred to square portion.



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