

RECOMMENDED CUTTING CONDITIONS

Ideal ◎ Good ○

WORK MATERIAL		Tapping Speed (m/min)	Drill for pilot holes								
			OIL-S-XPF	Drill for pilot holes							
		10	20	30	S-XPF LT-S-XPF	MRS-GDL	WX-MS-GDS	WDO-5D	WD-2D	VPH-GDS	
LOW / MEDIUM TENSILE STRENGTH STEELS	C ≤ 0.4%	15~40	S-XPF-LT-S-XPF OIL-S-XPF			◎	—	◎	◎	◎	○
HIGH TENSILE STRENGTH STEELS	C ≥ 0.45%	15~30				◎	—	○	◎	◎	○
ALLOY STEELS	SCM	15~30				◎	—	○	◎	○	○
HARDENED STEELS	25~35HRC	5~20				◎	—	—	◎	○	◎
CAST STEELS	SC	15~40				○	—	—	◎	○	◎
※ STAINLESS STEELS	SUS	5~15				◎*1	◎	○	◎	—	—
※ COPPER	Cu	10~30				◎	—	◎	○	○	—
※ BRASS/BRASS CASTING	Bs · BsC	10~30				◎	—	◎	◎	◎	◎
※ ALUMINUM ROLLED STEELS	AL	20~50				◎	—	○	—	—	—
※ ALUMINUM ALLOY CASTING	AC · ADC	20~40				◎	—	○	○	○	—
※ ZINC ALLOY CASTING	ZDC	10~30				◎	—	—	○	○	—

Note : The indicated speeds and feeds are for tapping with chlorine-free water soluble coolant.

: Cutting speed is recommended to be reduced by at least 30% in case of M24 and up.

※ : For Stainless Steel to Zinc Alloy Casting on the above, use EX-SUS and NEXUS drill series.

* 1 For stainless steel, use non-water soluble coolant.

WORK MATERIAL		CC-SUS-SFT			
		M2 ~ M6 (2 FLUTES)		M6 (3 FLUTES) ~ M24	
		Tapping Speed (m/min)	Ideal ◎ Good ○	Tapping Speed (m/min)	Ideal ◎ Good ○
STAINLESS STEELS (AUSTENITIC · FERRITIC)	SUS304 · SUS420	6 ~ 10	◎	6 ~ 10	◎
MEDIUM TENSILE STRENGTH STEELS	S45C	25 ~ 35	○	15 ~ 25	○
ALLOY STEELS	SCM (30HRC)	15 ~ 30	◎	—	—
MILD STEELS	SS400	30 ~ 40	○	—	—

· When machining steels, please do cyclonised feeding.

WORK MATERIAL		WHR-NI-SFT · WHR-NI-POT										
		Tapping Speed (m/min)							CUTTING FLUIDS			
		STRAIGHT FLUTED TAP	SPIRAL FLUTED TAP	SPIRAL POINTED TAP	TUNGSTEN CARBIDE TAP	FLUTELESS TAP	HIGH SPEED SYNCHRO TAP	PIPE THREAD TAP	NON WATER-SOLUBLE	WATER-SOLUBLE	SEMI-DRY	DRY
NICKEL ALLOYS	Inconel®	—	1~3	2~4	—	—	—	—	◎	—	—	—

WORK MATERIAL		WH55-OT		
		Tapping Speed (m/min)	CUTTING FLUIDS	使用機械
HIGH HARDENED STEELS	40 ~ 50HRC	2~4	Water Soluble, Non-Water Soluble	Machining Center
HIGH HARDENED STEELS	50 ~ 55HRC	1~3	Water Soluble, Non-Water Soluble	Machining Center

1. Make sure to select the correct cutting speed and cutting fluids. Tapping paste is not recommended.

2. When you use water soluble coolant, please select a coolant with better lubrication character.

3. The WH55-OT is designed for machine use only. Tapping by hand will cause chips to get stuck between the tool and the work material, and result in chipping of the taps.

タップ

RECOMMENDED CUTTING CONDITIONS