

Speeds and Feeds



			SERIES				NPT/F	NPS/F	
			DESCRIPTION				Tapered Pipe Tap	Straight Pipe Tap	
HIGH PERFORMANCE TAPS RECOMMENDATION TABLE HSS : Premium HSS Metallurgy P HSS : Powdered Metallurgy HSSEV3 : 3% Vanadium Alloy HSS EX HSS V : Vanadium Alloy HSS									
			THREADS				NPT / NPTF	NPS/NPS F	
			TAP MATERIALS				HSSE-V3	HSS	
			CHAMFER LENGTH [2 to 5 Threads]				2-3P	4-5P	
			SURFACE TREATMENT				Steam Oxide	Steam Oxide	
			SPIRAL FLUTE ANGLE				15°	-	
			°= RECOMMENDED °= SUITABLE			Thread Depth			
HOLE TYPE						Blind	Blind Through		
COOLANT A = Cutting Oil T = Oil Emulsion X = Cutting Oil/Oil Emulsion			Hardnes s (HRC)	Hardnes s (BHN)	Cutting Speed (SFM)		COOLANT		
Material Group	Material Sub-Group	ISO			Uncoate d	Coated			
Steel	Low carbon steels	P	<15	<180	25 - 50	50 - 80	T	○	○
	Free machining carbon steels								
	Medium to high carbon steels Low alloyed steels	P	<23	<240	25 - 50	50 - 80	T	◎	○
	Steel castings & forgings Heat-treatable alloy steels	P	>24	>250	6 - 30	10 - 35	X	○	
			≤38	≤350					
	Alloyed tool steels Mold steels	P	>38	>350	6 - 12	-	A		
			≤44	≤420					
Stainless Steel	Free machining stainless steels	M	<23	<240	12 - 35	20 - 50	A	◎	
	Heat-and corrosion-resistant stainless steels Valve stainless steels	M	>24	>250	12 - 15	12 - 15	A	○	
			≤38	≤350					
	Stainless steel castings	M	>38	>350	12 - 15	-	A		
	Precipitation hardening stainless steels		≤44	≤420					
Aluminum	Pure Aluminum Aluminum alloys	N	-	-	50 - 65	-	T		○
	Aluminum alloy castings	N	-	-	40 - 65	45 - 90	T	○	○
Cast Iron	Grey cast iron	K	-	≤220	35 - 50	50 - 65	T		○
	Nodular cast iron / Chilled cast iron Meehanite iron / Ductile iron	K	-	≥250	12 - 45	25 - 55	X	○	