



A Brand & Premium Tooling Recommendation Guide

Tapping

VOL. 2

	Work Material	Cutting Taps		Forming Taps		Thread Milling			
		Tool Name	Rec'd Starting Parameters	Tool Name	Rec'd Starting Parameters	Tool Name	Recommended Starting Parameters		
			SFM		SFM		SFM	Feed Rate (IPT)	Number of Passes
P	Carbon Steels <35 HRC	A-Tap	80-120	XPF	50-115	AT-1	260-800	0.0004-0.002	1
	Alloy Steels <35 HRC	A-Tap	35-65	XPF	50-85	AT-1	200-650	0.0004-0.002	1
M	Stainless Steels 300 & 400 Series <35 HRC	A-Tap / CC-SUS / VA-3	15-75	XPF	15-40	AT-1	260-800	0.0004-0.002	1
	Stainless Steels PH & Duplex <35 HRC	A-Tap / CC-SUS / VA-3	15-60	XPF	15-35	AT-1	260-800	0.0004-0.002	1
	Stainless Steels 300 & 400 Series 36-42 HRC	VC-10 Ti / VC-10 Ni / WHR-Ni	15-30	XPF	15-35	-	-	-	-
	Stainless Steels PH & Duplex 36-42 HRC	VC-10 Ti / VC-10 Ni / WHR-Ni	10-25	XPF	10-25	-	-	-	-
K	Cast Iron	EXO-DC / A-Tap	50-120	-	-	AT-1	250-800	0.0004-0.002	1
N	Cast Aluminum	EXO-DC / A-Tap	50-120	XPF	65-90	AT-1	300-1000	0.002-0.008	1
	Aluminum Alloys	A-Tap	70-120	XPF	65-115	AT-2 R-SPEC	330-985	0.0118-0.0157	1
						AT-1	250-800	0.001-0.004	1
AT-2 R-SPEC	330-985	0.00118-0.00197	1						
S	Titanium Alloys <35 HRC	VC-10 Ti / EXPRO-Ti	15-20	XPF	8-15	-	-	-	-
	Titanium Alloys >36 HRC	VC-10 Ti / EXOPRO-Ti	3-10	XPF	8-12	-	-	-	-
	Nickel Alloys <35 HRC	WHR-Ni / VC-10 Ni	8-15	XPF	8-12	-	-	-	-
	Nickel Alloys >36 HRC	WHR-Ni / VC-10 Ni	3-10	XPF	8-10	-	-	-	-
H	Alloy, Tool & Die Steels 30-40 HRC	VC-10	15-30	XPF	8-25	AT-1	260-650	0.0004-0.002	1
	Alloy, Tool & Die Steels 36-45 HRC	VC-10 Ti / VC-10 Ni	10-20	XPF	10-40	AT-1	260-650	0.0004-0.002	1
	Steels 43-52 HRC	VCX	3-10	XPF	12-25	AT-2	115-215	0.0004-0.0028	1
	Steels >52 HRC	VX	3-8	XPF (Small Size and/or Fine Pitch Only)	8-15	AT-2	115-180	0.0004-0.0028	1
Other	Composites	EXO-DIA	10-20	-	-	-	-	-	-



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Drilling

	Work Material	Carbide Coolant-Through Drills			Solid Carbide Drills		
		Tool Name	Recommended Starting Parameters		Tool Name	Recommended Starting Parameters	
			SFM	%xD		SFM	%xD
P	Carbon Steels <35 HRC	ADO / A-TRS	260-395	2-3% (4-6%)	AD	210-315	2-3%
	Alloy Steels <35 HRC	ADO / A-TRS / WHO-Ni	260-395	2-3% (4-6%)	AD	210-315	2-3%
M	Stainless Steels 300 & 400 Series <35 HRC	ADO-SUS	200-330	2-3%	AD	100-185	2-3%
	Stainless Steels PH & Duplex <35 HRC	ADO-SUS	130-260	2-3%	AD	65-145	2-3%
	Stainless Steels 300 & 400 Series 36-42 HRC	ADO-SUS	130-200	2-3%	AD	100-130	2-3%
	Stainless Steels PH & Duplex 36-42 HRC	ADO-SUS	130-200	2-3%	AD	100-130	2-3%
K	Cast Iron	A-TRS / ADO / WHO-Ni	195-400	5-8%	AD	150-315	5-8%
N	Cast Aluminum	A-TRS / ADO	195-400	5-8%	AD	150-315	5-8%
	Aluminum Alloys	ADO-SUS	200-390	5-8%	AD	160-300	5-8%
S	Titanium Alloys <35 HRC	ADO-SUS	100-165	2-3%	AD	80-145	2-3%
	Titanium Alloys >36 HRC	ADO-SUS	80-135	1-2%	AD	60-100	1-2%
	Nickel Alloys <35 HRC	WHO-Ni	100-165	2-3%	AD	50-90	2-3%
	Nickel Alloys >36 HRC	WHO-Ni	35-100	1-2%	AD	25-80	1-2%
H	Alloy, Tool & Die Steels 30-40 HRC	ADO / WHO-Ni	140-180	2-3%	AD	120-180	2-3%
	Alloy, Tool & Die Steels 36-45 HRC	ADO / WHO-Ni	120-160	2-3%	AD	100-160	2-3%
	Steels 43-52 HRC	WHO-Ni	115-150	1-2%	AD / WH-70	65-95	1-2%
	Steels >52 HRC	WHO-Ni / WH-70	65-100	1-2%	WH-70	25-50	1-2%
Other	Composites	-	-	-	AERO-STAD, D-REAM	150-300	0.002-.004

