Tool Selection Guide
Tapping

Material		Material groups	Hardness (HB)	Code	DOREX	DOREX VAV	DOREX TiN	DOREX TiCN	TINIB	FEDUB	GG	GG TiN	SIREX	SIREX SR	TAREX
				Cutting material	HSS-E	HSS-E	HSS-E	HSS-E	PM	PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
				Surface	uncoated	vaporized	TiN	TiCN	vaporized	vaporized	nitrided	TiN	uncoated	uncoated	uncoated
				Blind bore							●	●		●	●
				Through hole	●	●	●	●	●	●	●	●	●		
				Chapter	8				8		8		8	8	8
															
				Strength (N/mm²)											
1. Steel	P	1.1 Magnetic soft iron	≤120	≤400		●	●	●							
		1.2 Structural, case hardened steel	≤200	≤700	◐	●	●	●						◐	◐
		1.3 Carbon steel	≤250	≤850	◐	●	●	●						◐	◐
		1.4 Alloy steel	≤250	≤850		●	●	●							
		1.5 Alloy/heat treated steel	>250, ≤350	>850, ≤1200		◐	◐	◐							
		1.6 Alloy/heat treated steel	>350	>1200											
	H	1.7 Hardened steel to 45 HRC	≤400	≤1400											
		1.8 Hardened steel to 58 HRC	≤600	≤2200											
2. Stainless steel	M	2.1 Stainless steel, sulphuretted	≤250	≤850		●	●	●							
		2.2 Austentic	≤250	≤850		◐	◐	◐							
		2.3 Ferritic, ferritic & austentic, martensitic	≤300	≤1000						●					
3. Cast iron	K	3.1 Grey cast iron	≤150	≤500							●	●			
		3.2 Grey cast iron , heat treated	>150, ≤300	>500, ≤1000							◐	●			
		3.3 Vermicular cast iron	200-250	400-500											
		3.4 Spher. graph. cast iron	≤200	≤700	◐	●	●	●						◐	◐
		3.5 Spher. graph. cast iron, heat treated	>200, ≤300	>700, ≤1000		◐	◐	◐							
		3.6 Malleable iron	≤200	≤700	◐	●	●	●						◐	◐
		3.7 Malleable iron, heat treated	>200, ≤300	>700, <1000		◐	◐	◐							
4. Titanium	S	4.1 Pure titanium	≤200	≤700					●						
		4.2 Titanium alloys	≤270	≤900					●						
		4.3 Titanium alloys	>270, ≤300	>900, ≤1250					●						
5. Nickel		5.1 Pure nickel	≤150	≤500		●	●	●							◐
		5.2 Nickel alloys, heat resistant	<270	≤900						●					
		5.3 Nickel alloys, high heat resistance	>270, ≤350	>900, ≤1200						●					
6. Copper	N	6.1 Non-alloy copper	≤100	≤350	◐		◐	◐							◐
		6.2 short chip, brass, bronze, red brass	≤200	≤700							◐	●			
		6.3 long chip brass	≤200	≤700	◐		●	●							◐
		6.4 Cu-Al-Fe alloy (Ampco)	≤470	≤500											
7. Aluminium/ Magnesium		7.1 Alu, Mg non-alloy	≤100	≤350	◐		◐	◐						◐	◐
		7.2 Alu wrought alloy, breaking strain (A 5) <14 %	≤180	≤600	●		●	●						◐	●
		7.3 Alu wrought alloy, breaking strain (A 5) ≥14 %	≤180	≤600	◐		●	●						◐	◐
		7.4 Alu cast alloy, Si <10 %	<180	≤600	◐		●	●					◐		
		7.5 Alu cast alloy, Si ≥10 %	≤180	≤600	◐		◐	●					◐		
8. Plastics		8.1 Thermoplastics			◐		●	●							◐
		8.2 Thermosetting plastics									●	●			
		8.3 Fibre reinforced plastics									●	●			

● very good ◐ good

TAREX VAV	TAREX TiN	TAREX TiCN	TAREX OT TiN	TAREX AL	TINIC	FEDUC	SIREX SR IK	SIREX SR IK TiN	SIREX SR IK TiCN	TAREX IK	TAREX IK TiN	GG IK	GG IK TiN	SIREX	SIREX SR	GG	DOREX	SIREX XH
HSS-E	HSS-E	HSS-E	PM	HSS-E	PM	PM	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	solid carbide	solid carbide	solid carbide	solid carbide	solid carbide
vaporized	TiN	TiCN	TiN	uncoated	vaporized	vaporized	uncoated	TiN	TiCN	uncoated	TiN	nitrided	TiN	uncoated	uncoated	uncoated	uncoated	TiAlN
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● very good ◐ good