















Tool Selection Guide

Thread forming

				HSS-E Tools				
Material	Material groups	Hardness (HB)	Code	MOREX TiN	MOREX IK TiN	MOREX N TiN	MOREX N IKS TiN	
			Cutting material	HSS-E	HSS-E	HSS-E	HSS-E	
			Surface	TiN	TiN	TiN	TiN	
			Blind bore	●	●	●	●	
			Through hole			●	●	
			Chapter	9	9	9	9	
			Strength (N/mm ²)					
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	FM	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	S	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	S	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	N	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	S	8.1 Thermoplastics						
		8.2 Thermosetting plastics						
		8.3 Fibre reinforced plastics						

● very good ◐ good

Solid carbide tools						HSS-E with carbide strips			
MOREX IK	MOREX IK TiN	MOREX N IK	MOREX N IK TiN	MOREX N IKS	MOREX N IKS TiN	MOREX HML IK	MOREX N HML IK	MOREX HML IK TiN	MOREX N HML IKS TiN
solid carbide	solid carbide	solid carbide	solid carbide	solid carbide	solid carbide	carbide strips	carbide strips	carbide strips	carbide strips
uncoated	TiN	uncoated	TiN	uncoated	TiN	uncoated	uncoated	TiN	TiN
●	●	●	●	●	●	●	●	●	●
		●	●	●	●		●		●
9		9		9	9	9			
									
	●		●		●			●	●
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●	●	●	●	●	●	●	●	●	●

● very good ○ good