

# FORM TAPS

Material group	Approximate Rc	Approximate HB	Recommended SFM		
			HSS-E	HSS-E-PM	Solid carbide
Structural steels, free-cutting steels		<180	45-70	60-90	90-120
Unalloyed case hardened steels	<20	<230	40-65	55-80	75-100
Unalloyed heat-treatable steels	<25	<250	30-55	50-75	65-95
Structural steels, free-cutting steels	<20	<230	40-65	55-80	75-100
Case hardened steels, heat-treatable steels	<25	<250	30-55	50-75	65-95
Nitriding steels, spheroidal graphite iron	<30	<280	25-45	40-70	60-85
	<35	<320	20-35	35-60	50-75
	<38	<380	-	-	-
Stainless- and acid-resistant steels, sulphured		<180	40-50	45-60	50-70
austenitic	<25	<250	35-50	40-55	45-60
martensitic	<30	<280	25-40	35-50	40-55
	<35	<320	-	25-40	30-45
Alloyed case hardened steels	<25	<250	25-45	40-60	55-80
Alloyed heat-treatable steels	<30	<280	20-40	35-55	50-70
Alloyed tool steels	<35	<320	15-30	30-50	40-60
High speed tool steels	<38	<380	-	-	-
	<44	<415	-	-	-
	<60		-	-	-
Cast iron		<180	-	-	-
Spheroidal graphite iron	<25	<250	40-65	60-80	75-130
Malleable cast iron	<35	<320	40-65	60-80	75-130
Aluminium and Al-alloys	Silicon Content	Wrought Aluminum			
Al cast alloys	<10%	n/a	60-75	70-140	100-165
	>10%	n/a	-	-	-
Al wrought alloys	n/a	30-80	80-100	100-150	150-200
	n/a	75-150	80-100	100-150	150-200
Titanium and Ti-alloys		<320	7-26	7-26	20-35
		>320	-	-	-
Nickel and Ni-alloys		<320	7-26	7-26	20-35
		>320	-	-	-
Plastics			-	-	-
Magnesium-alloys			-	-	-
Brass, short-chipping		<180	35-50	50-65	75-100
long-chipping		<180	40-65	60-80	80-120