

6. 230M07 (EN1A)

Low Carbon Free-Cutting Steel

Material description:

A low carbon steel designed for high speed machining for multi turned parts. Controlled analysis to ensure consistent quality and maximum tool life. Swarf will form in small chips to prevent machine blockage.

Chemical Composition

	C	Si	Mn	P	S
Min %			0.90		0.25
Max %	0.15	0.05	1.30	0.090	0.35

Mechanical Properties Typical (minimums unless stated, from normalised test piece)

Hot Rolled & Cold Drawn	UTS (N/mm ²)	Yield (N/mm ²)	Elongation (%)	Hardness HB
≥ 6mm ≤ 13mm	480 Min	400 Min	6	
> 13mm ≤ 16mm	460 Min	380 Min	7	
> 16mm ≤ 40mm	430 Min	340 Min	8	
> 40mm ≤ 63mm	390 Min	280 Min	9	
> 63mm ≤ 76mm	370 Min	240 Min	10	

Hot Rolled & Turned	UTS (N/mm ²)	Yield (N/mm ²)	Elongation (%)	Hardness HB
6mm < 100mm	360 Min	215 Min	22 Min	103 Min

Size Range: Rounds 5mm to 200mm
Hexagons 10mm to 90mm
Squares 5mm to 100mm

Supply Condition: Bright Drawn or Turned dependant on size

Alternative specifications: 11SMn30, SAE1214, SAE1213