VULCAN
Engineering Steels

M1030 BRIGHT CARBON STEEL BAR

M1030 is a low carbon mild steel. This bar is supplied in cold drawn or Turned and Polished condition, and has reasonable weldability, good machinability, medium strength and good ductility.
M1030 is used across all industrial sectors where higher strength than M1020 is required. In a bright finish it is ideally suited for CNC machining, and machining components where much of the length does not require machining.

Stocked Sizes - Round Metric - 10 mm – 100 mm Ø
Round Imperial - 5/16'' – 4'' Ø
(Larger & smaller sizes available on request)

Closest Related Specifications	
Australia	AS 1443 – 2004 M1030
Japan	JIS G4051 S30C
USA	AISI C1030 ASTM A29 – 91 1030 SAE 1030 UNS G10300

Chemical Composition		
	Min. %	**Max %**
Carbon	0.25	0.35
Silicon		0.35
Manganese	0.30	0.90
Phosphorous		0.05
Sulphur		0.05

Typical Mechanical Properties – Cold Drawn & Turned and Polished (For Guidance Only)				
	Up to 16mm	17-38mm	39-63mm	Turned & Polished (All Sizes)
Tensile Strength (Mpa)	560-850	540-740	520-710	500-630
Yield Strength (Mpa)	440-670	430-600	410-570	250-350
Elongation in 50mm (%)	10	11	12	20
Hardness (Brinell BHN)	170-245	160-215	155-210	150-190

Standard Bright Tolerance (h11) in mm								
3-6mm	+6-10mm	+10-18mm	+18-30mm	+30-50mm	+50-80mm	+80-120mm	+120-180mm	+180-250mm
+0/-0.075	+0/-0.09	+0/-0.11	+0/-0.13	+0/-0.16	+0/-0.19	+0/-0.22	+0/-0.25	+0/-0.29mm

Annealing
Heat to 850-900 Deg C. Hold until temperature is uniform throughout the section and allow to cool in furnace.
Normalizing
Heat to 870- 920 Deg C. Hold until temperature is uniform through the section, soak for 10-15 minutes per 25mm of cross section, and allow to cool in still air.
Stress Relieving
Heat to 600-700 Deg C. Hold until temperature is uniform throughout the section, soak for 1 hour per 25mm of section, and cool in still air

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