

300M ALLOY STEEL

300M is a low alloy, vacuum melted, steel of very high strength. Essentially it is a modified AISI 4340 steel with silicon, vanadium and slightly greater carbon and molybdenum content than 4340. 300M alloy steel (AMS 6257, AMS 6417, AMS 6419) has a very good combination of strength (1900-2100 MPA after final heat treatment), toughness, fatigue strength and good ductility. 300M is a through hardening alloy.

Specific Gravity										
7.83 g/cm3										
Typical Applications						Related Specifications				
Aircraft Landing Gear						AMS 6257				
Driveshafts						AMS 6417				
High Strength bolts						AMS 6419				
Gears						BS S155				
						BMS 7-26				
						MTL 1201				
						MIL S 8844				
Chemical Composition (Wt %)										
	C	Si	Mn	P	S	S+P	Cr	Mo	Ni	V
Min	0.39	1.5	0.6	–	–	–	0.7	0.3	1.65	0.05
Max	0.44	1.8	0.9	0.015	0.015	0.025	0.95	0.45	2	0.10
Typical Mechanical Properties										
				0.2% Proof Stress	Tensile Strength		Elongation		Reduction of area	
				MPA	MPA		%		%	
				Min	Min	Max	Min		Min	
Longitudinal				1550	1900	2100	8		30	

Transverse	1550	1900	2100	5	20
Hardness after Heat Treatment					
534 – 601 HB					
52 – 55 HRC					

* This data has been supplied in good faith and is indicative only. It has been provided for general information purposes only and is not to be relied upon in place of the full specification. Mechanical properties can vary considerably with different supply conditions such as heat treatment or temper and product dimensions.

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