

AISI 4145H Modified, API Spec. 7-1, NS-1, DS-1

Hot rolled or forged, solid or bored round bars, quenched and tempered to API Spec.7-1, NS-1 and DS-1 specifications.

CHEMICAL ANALYSIS (WEIGHT %)

OD Range		C	Si	Mn	P	S	Cr	Mo	Ni	Cu
Up to 10" inclusive	Min.	0.42	0.20	0.85	-	-	0.90	0.15	-	-
	Max.	0.49	0.35	1.10	0.025	0.025	1.20	0.35	0.25	0.35
Over 10"	Min.	0.42	0.20	1.00	-	-	1.00	0.25	-	-
	Max.	0.49	0.35	1.50	0.025	0.025	1.30	0.35	0.50	0.35

MECHANICAL PROPERTIES

Mechanical properties meet API Spec 7-1, NS-1 and DS-1. Tensile and impact properties are determined by specimen tests conforming to ASTM A370 requirements. Tests specimens are obtained from the end of the bar. Specimens are machined so that the centre point of the gauge area is located a minimum of 4" (100 mm) from the end of the bar. The tensile and impact specimens are oriented longitudinally, with the centerline of the specimen located 1" (25.4 mm) from the outside surface. Impact specimens are radially notched.

Tensile Test, ASTM A370, Longitudinal, room temperature, at 1 in. below the surface, per batch						
OD Range	Tensile Strength (UTS)		Yield Strength (YS) at 0.2% offs		Elongation on 2"	Reduction of Area
	Min. psi	Min.MPa	Min. psi	Min.MPa		
Up to 7" exclusive	140 000	965	120 000	827	14	45
7" and over	140 000	965	120 000	827	14	45

* Nota: NS-1 and DS-1 properties and certification are provided on request. Please specify your needs in your enquiry.