

Quality	F9								
According to Standard	ASTM A 182/A 182M - 10a								
Number	-								
Comparable Standards	EN	W.N.	BS						
	1.7386	-	-						
Chemical Analysis	C %	Mn %	Si %	P%	Cr %	Ni %	Mo %	S%	Other Elements
	0.15	0.30 to 0.60	0.50 to 1.00	0.030	8.0 to 10.0	-	0.90 to 1.10	0.030	-
Hot Work and Heat Treatment Temperatures									
Grade	Heat Treat Type	Austenitizing/Solubilizing Temperature, Minimum or Range, °F [°C] ^A		Cooling Media	Quenching Cool Below °F [°C]	Tempering Temperature, Minimum or Range, °F [°C]			
Low Alloy Steels									
F 9	anneal	1750 [955]		furnace cool	-	-			
	normalize and temper	1750 [955]		air cool	-	1250 [670]			
Mechanical Properties at Room Temperature									
Grade Symbol	Tensile Strength, min, ksi [Mpa]	Yield Strength, min, ksi [Mpa]	Elongation in 2 in, [50 mm] of 4D, min, %		Reduction of Area, min, %	Brinell Hardness Number, HBW			
F9	85 [585]	50 [380]	20		40	179 - 217			