

**TECHNICAL DATA SHEET**

**ASTM A193 GR.B8S & B8SA - UNS S21800 (1C, 1D)**

**CHEMICAL COMPOSITION**

Elements	C %	Mn %	P %	S %	Si %	Cr %	Mo %	Ni %	Nb%	V%	N%
Min		7.00			3.50	16.00	-	8.00	-	-	0.08
Max	0.10	9.00	0.060	0.030	4.50	18.00	-	9.00	-	-	0.18

**MECHANICAL PROPERTIES (METRIC PRODUCT)**

GRADE	DIAMETER (mm)	TENSILE STRENGTH MPa (Min)	YIELD STRENGTH 0.2% Mpa (Min)	ELONGATION IN % (Min)	REDUCTION AREA% (Min)	HARDNESS HRC/HBW/HRB	HT Tempering Temp °c (Min)
B8S CL.1C & 1D	All Diameters	655	345	35	55	271 HBW or 28 HRC	Carbide Solution Treated
B8SA CL.1C	All Diameters	655	345	35	55	271 HBW or 28 HRC	Carbide Solution Treated in the Finish Condition

**MECHANICAL PROPERTIES (INCH PRODUCT)**

GRADE	DIAMETER (mm)	TENSILE STRENGTH Ksi (Min)	YIELD STRENGTH 0.2% Ksi (Min)	ELONGATION IN % (Min)	REDUCTION AREA% (Min)	HARDNESS HRC/HBW/HRB	HT Tempering Temp °c (Min)
B8S CL.1C & 1D	All Diameters	95	50	35	55	271 HBW or 28 HRC	Carbide Solution Treated
B8SA CL.1C	All Diameters	95	50	35	55	271 HBW or 28 HRC	Carbide Solution Treated in the Finish Condition

**NOTE:**

Material Spec : ASTM A193 GR.B8S & B8SA

Dimension STD : As per approved DRG.

Heat Treatment type : Carbide Solution Treated / Carbide Solution Treated in the Finish Condition

Prepared by:

Approved by: