

# Material: ASME SA-276 S20161

## Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** ASME SA-276 S20161 Chromium and Chromium-Nickel Stainless Steel for Pressure Vessels and for General Applications

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries

**Grade Belongs to the Industry:** Steel, Bar and Shapes

Chemical Composition		
Carbon	C %	0.150 max.
Silicon	Si %	3.000 - 4.000
Manganese	Mn %	4.000 - 6.000
Phosphorus	P %	0.045 max.
Sulphur	S %	0.040 max.
Chromium	Cr %	15.000 - 18.000
Nickel	Ni %	4.000 - 6000
Nitrogen	N %	0.080 - 0.200
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment	
	Solution Annealing

Mechanical Properties	
Tensile Strength in Mpa	860 min.
Yield Strength in Mpa	345 min.
Elongation in %	40 min.
Reduction of Area in %	40 min.
Hardness in HB	255 max.
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S20161	ASTM	USA	Steel, Plate, Sheet and Strip
S20161	UNS	USA	Steel
A276 S20161	ASTM	USA	Steel, Bar and Shapes
A479 S20161	ASTM	USA	Steel and Bar
A959 S20161	ASTM	USA	Steel
SA-240 UNS S20161	ASME	USA	Steel
SA-479 UNS S20161	ASME	USA	Steel and Bar

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