

# Material: AS 301

## 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:** AS 301 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, Plate, Sheet and Strip

Chemical Composition		
Carbon	C %	0.150 max.
Silicon	Si %	0.750 max.
Manganese	Mn %	2.000 max.
Phosphorus	P %	0.045 max.
Sulphur	S %	0.030 max.
Chromium	Cr %	16.000 - 18.000
Molybdenum	Mo %	0.350 max.
Nickel	Ni %	6.000 - 8.000
Copper	Cu %	0.350 max.
Nitrogen	N %	0.100 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Solution Annealing

Mechanical Properties	
Tensile Strength in Mpa	520 min.
Yield Strength in Mpa	205 min.
Elongation in %	8 min.
Reduction of Area in %	-
Hardness in HB	219 max.
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S30100	ASTM	USA	Steel, Plate, Sheet and Strip
301	AISI	USA	Steel, Sheet, Bar and Strip
301	SAE	USA	Steel
301 S 21	BS	British	Steel, Plate, Sheet and Strip
STS 301	KS	Korea	Steel, Plate, Sheet and Strip
S30100	UNS	USA	Steel
S30103	UNS	USA	Steel

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