

# Material: ASTM A240 UNS S31254

## 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:** ASTM A240 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			Heat Treatment			
Carbon	C %	0.020 max.	Solution Annealing			
Silicon	Si %	0.800 max.				
Manganese	Mn %	1.000 max.				
Phosphorus	P %	0.030 max.				
Sulphur	S %	0.010 max.				
Chromium	Cr %	19.500 - 20.500				
Nickel	Ni %	17.500 - 18.500				
Molybdenum	Mo %	6.000 - 6.500				
Nitrogen	N %	0.180 - 0.220				
Copper	Cu %	0.500 - 1.000				
Iron	Fe %	Balance	<b>Mechanical Properties</b>			
-	-	-			Tensile Strength in Mpa	690 min.
-	-	-			Yield Strength in Mpa	310 min.
-	-	-			Elongation in %	35 min.
-	-	-			Reduction of Area in %	-
-	-	-			Hardness in BHN	223 max.
-	-	-	Impact in Joule	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A743 CK3MCuN	ASTM	USA	Casting
SA-351 CKMCuN	ASME	USA	Casting
Z 4 CND 19.13 M	AFNOR NF	France	Casting
317 C 12	BS	British	Casting
422940	CSN	Czech Republic	Casting
J92810	UNS	USA	Casting
J93254	UNS	USA	Casting

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