

## Material: ASTM A240 UNS S44627

### 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 %	0.010 max.	Annealing or Hardening + Tempering	
Silicon	Si %	0.400 max.		
Manganese	Mn %	0.400 max.		
Phosphorus	P %	0.020 max.		
Sulphur	S %	0.020 max.		
Chromium	Cr %	25.000 - 27.500		
Nickel	Ni %	0.500 max.		
Molybdenum	Mo %	0.750 - 1.500		
Nitrogen	N %	0.015 max.		
Copper	Cu %	0.200 max.		
Niobium	Nb %	0.050 - 0.200		
Ni + Cu	Ni % + Cu %	0.500 max.		
Iron	Fe %	Balance		
-	-	-		
-	-	-		

  

Mechanical Properties	
Tensile Strength in Mpa	450 min.
Yield Strength in Mpa	275 min.
Elongation in %	22 min.
Reduction of Area in %	-
Hardness in BHN	187 max.
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
S44627	UNS	USA	Steel
XM-27	SAE	USA	Steel
STS XM-27	KS	Korea	Steel, Sheet, Plate and Strip
SUS SM-27	JIS	Japan	Steel and Bar
A276 XM-27	ASTM	USA	Steel, Bar and Shape
A314 XM-27	ASTM	USA	Steel, Bar, Rolling and Forging
A182 F XM-27Cb	ASTM	USA	Steel, Pipe and Forging

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