

# Material: SAE XM-18

## 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:** SAE XM-18 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

Chemical Composition		
Carbon	C %	0.030 max.
Silicon	Si %	0.750 max.
Manganese	Mn %	7.500 - 9.000
Phosphorus	P %	0.045 max.
Sulphur	S %	0.030 max.
Chromium	Cr %	17.500 - 22.000
Molybdenum	Mo %	2.000 - 3.000
Nickel	Ni %	5.000 - 7.000
Nitrogen	N %	0.250 - 0.500
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment	
	Solution Annealing

Mechanical Properties	
Tensile Strength in Mpa	620 min.
Yield Strength in Mpa	345 min.
Elongation in %	40 min.
Reduction of Area in %	-
Hardness in BHN	241 max.
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S21600	ASTM	USA	Steel, Plate, Sheet and Strip
S21600	UNS	USA	Steel
XM-17	SAE	USA	Steel
A492 Type XM-17	ASTM	USA	Steel and Wire
A959 Type XM-17	ASTM	USA	Steel
A240 Type XM-18	ASTM	USA	Steel, Plate, Sheet and Strip
A959 Type XM-18	ASTM	USA	Steel

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Customer Care: +91-99090 45075 Email: [info@icastllp.com](mailto:info@icastllp.com)



+91-99090 45075



[info@icastllp.com](mailto:info@icastllp.com)



ICAST ALLOYS LLP, Plot 2527, Road H1, Kranti Gate, GIDC Metoda, Lodhika, Rajkot-360021, Gujarat, India