



## Material - ASTM A 959 Type 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 - ASTM A 959 Type 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			Heat Treatment	
Carbon	C %	0.030 max.	Solution Annealing	
Silicon	Si %	1.000 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		
-	-	-	<b>Mechanical Properties</b> 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
XM-18	SAE	USA	Steel

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto:marketing@gravitycastindia.com)**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.