



## Material - ASTM A 959 Type XM-33

**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-33 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 %	0.060 max.	Annealing or Hardening + Tempering	
Silicon	Si %	0.750 max.		
Manganese	Mn %	0.750 max.		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.020 max.		
Chromium	Cr %	25.000 - 27.000		
Molybdenum	Mo %	0.750 - 1.500		
Nickel	Ni %	0.500 max.	Mechanical Properties	
Nitrogen	N %	0.040 max.	Tensile Strength in Mpa	470 min.
Copper	Cu %	0.200 max.	Yield Strength in Mpa	310 min.
Titanium	Ti %	0.200 - 1.000	Elongation in %	11 min.
Iron	Fe %	Balance	Reduction of Area in %	-
-	-	-	Hardness in HB	241 max.
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S44626	ASTM	USA	Steel, Plate, Sheet and Strip
S44626	UNS	USA	Steel
XM-33	SAE	USA	Steel
A176 Type XM-33	ASTM	USA	Steel, Sheet, Plate and Strip
A268 TP XM-33	ASTM	USA	Steel and Tube
A731 Grade TP XM-33	ASTM	USA	Steel and Pipe
A791 Grade TP XM-33	ASTM	USA	Steel and Tube

**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)**

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