



**GRAVITY CAST PVT. LTD.**  
**GRAVITY GROUP OF COMPANIES**

## Material - UNS S44500

**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 - UNS 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 %	0.020 max.	Annealing or Hardening + Tempering	
Silicon	Si %	1.000 max.		
Manganese	Mn %	1.000 max.		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.012 max.		
Chromium	Cr %	19.000 - 21.000		
Nickel	Ni %	0.600 max.		
Nitrogen	N %	0.030 max.		
Copper	Cu %	0.300 - 0.600		
Niobium	Nb %	10 (C+N) = 0.600		
Iron	Fe %	Balance	<b>Mechanical Properties</b>	
-	-	-	Tensile Strength in Mpa	427 min.
-	-	-	Yield Strength in Mpa	205 min.
-	-	-	Elongation in %	22 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S44500	ASTM	USA	Steel, Plate, Sheet and Strip
A959 S44500	ASTM	USA	Steel
SA-240 UNS S44500	ASME	USA	Steel, Sheet, Plate and Strip
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

**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.

**ONE STOP SOLUTION FOR METAL PARTS**