



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

## Material - ASTM A 176 S44700

**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 176 S44700 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, Sheet, Plate and Strip**

Chemical Composition			Heat Treatment	
Carbon	C %	0.010 max.	Annealing or Hardening + Tempering	
Silicon	Si %	0.200 max.		
Manganese	Mn %	0.300 max.		
Phosphorus	P %	0.025 max.		
Sulphur	S %	0.020 max.		
Chromium	Cr %	28.000 - 30.000		
Molybdenum	Mo %	3.500 - 4.200		
Nickel	Ni %	0.150 max.	<b>Mechanical Properties</b> Tensile Strength in Mpa      550 min. Yield Strength in Mpa      415 min. Elongation in %      20 min. Reduction of Area in %      - Hardness in HB      - Impact in Joule      -	
Nitrogen	N %	0.020 max.		
Copper	Cu %	0.150 max.		
C + N	C% + N%	0.025 max.		
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S44700	ASTM	USA	Steel, Plate, Sheet and Strip
S44700	UNS	USA	Steel
A276 S44700	ASTM	USA	Steel, Bar and Shapes
A479 S44700	ASTM	USA	Steel
A493 S44700	ASTM	USA	Steel, Wire, Rod and Forging
A580 S44700	ASTM	USA	Steel and Pipe
SA-276 S44700	ASME	USA	Steel, Bar and Shapes

**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**