GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A182 F45

Standard Specification for Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service

Group - Ferrous Stainless Steel Alloys

Sub Group - ASTM A182 F45 Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries

Grade Belongs to the Industry - Pipe, Bars and Forging

Chemical Composition		
Carbon	C %	0.050 - 0.100
Manganese	Mn %	0.800 max.
Phosphorus	P %	0.040 max.
Sulphur	S %	0.030 max.
Silicon	Si %	1.400 - 2.000
Nickel	Ni %	10.000 - 12.000
Chromium	Cr %	20.000 - 22.000
Nitrogen	N %	0.140 - 0.200
Cerium	Ce %	0.030 - 0.080
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Solution Annealing

Mechanical Properties	
Tensile Strength in Mpa	600 min.
Yield Strength in Mpa	310 min.
Elongation in %	40 min.
Reduction of Area in %	50 min.
Hardness in HB	-
Impact in Joule	-

Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
S30815	UNS	USA	Steel
A 959 S30815	ASTM	USA	Steel
A 276 S30815	ASTM	USA	Bars and Shapes
A 240 S30815	ASTM	USA	Plate, Sheet and Strip
A 358 S30815	ASTM	USA	Steel and Pipe
A 943 S30815	ASTM	USA	Steel and Pipe
A 312 S30815	ASTM	USA	Steel and Pipe

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email 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.