GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-182 Grade F 51

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

Group - Ferrous Stainless Steel Alloys

Sub Group - ASME SA-182 Grade F 51 Forged or Rolled Alloy and Stainles Steel Pipe Flanges, Forged Fittings and Valves and Parts for Hogh-Temperature Service

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

Grade Belongs to the Industry - Pipe and Forging

Chemical Composition		
Carbon	C %	0.030 max.
Manganese	Mn %	2.000 max.
Phosphorus	P %	0.030 Max.
Sulphur	S %	0.020 max.
Silicon	Si %	1.000 max.
Nickel	Ni %	4.500 - 6.500
Chromium	Cr %	21.000 - 23.000
Molybdenum	Mo %	2.500 - 3.500
Nitrogen	N %	0.080 - 0.200
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Solution Annealing

Mechanical Properties	
Tensile Strength in Mpa	620 min.
Yield Strength in Mpa	450 min.
Elongation in %	25 min.
Reduction of Area in %	45 min.
Hardness in BHN	-
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
S31803	UNS	USA	Steel
A 240 S31803	ASTM	USA	Plate, Sheet and Strip
A 988 S31803	ASTM	USA	Steel
A 815 S31803	ASTM	USA	Steel and Pipe
A 790 S31803	ASTM	USA	Steel and Pipe
A 182 F 51	ASTM	USA	Steel and Pipe
A 789 S31803	ASTM	USA	Steel and Tubing

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.