



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

## Material - ASME SA-182 Grade F 46

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 46 Forged or Rolled Alloy and Stainless 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 and Forging

Chemical Composition			Heat Treatment	
Carbon	C %	0.018 max.	Solution Annealing	
Manganese	Mn %	2.000 max.		
Phosphorus	P %	0.020 max.		
Sulphur	S %	0.020 max.		
Silicon	Si %	3.700 - 4.300		
Nickel	Ni %	14.000 - 15.500		
Chromium	Cr %	17.000 - 18.500		
Molybdenum	Mo %	0.200 max.		
Copper	Cu %	0.500 max.	Mechanical Properties	
Iron	Fe %	Balance	Tensile Strength in Mpa	540 min.
-	-	-	Yield Strength in Mpa	240 min.
-	-	-	Elongation in %	40 min.
-	-	-	Reduction of Area in %	50 min.
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
S30600	UNS	USA	Steel
A 167 S30600	ASTM	USA	Plate, Sheet and Strip
A 943 S30600	ASTM	USA	Steel and Pipe
A 269 S30600	ASTM	USA	Steel and Tubing
A 312 S30600	ASTM	USA	Steel and Pipe
A 358 S30600	ASTM	USA	Steel and Pipe
A 479 S30600	ASTM	USA	Steel and Bar

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**