



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

## Material - ASME SA-182 Grade F 20

**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 20 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 %	0.070 max.		
Manganese	Mn %	2.000 max.		
Phosphorus	P %	0.045 max.		
Sulphur	S %	0.035 max.		
Silicon	Si %	1.000 max.		
Nickel	Ni %	32.000 - 38.000		
Chromium	Cr %	19.000 - 21.000		
Molybdenum	Mo %	2.000 - 3.000		
Niobium	Nb %	0.008 - 1.000		
Copper	Cu %	3.000 - 4.000		
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

  

Mechanical Properties	
Tensile Strength in Mpa	550 min.
Yield Strength in Mpa	240 min.
Elongation in %	30 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
N08022	UNS	USA	Steel
A 240 N08020	ASTM	USA	Plate, Sheet and Strip
A 182 F 20	ASTM	USA	Steel and Pipe
A 358 N08020	ASTM	USA	Steel and Pipe
A 959 N08020	ASTM	USA	Steel
NiCr20CuMo	DIN	Germany	Steel
17744 2.4660	DIN	Germany	Steel

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**