



GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-182 Grade F 12 Class 2

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

Group - Ferrous Mild Steel Alloys

Sub Group - ASME SA-182 Grade F 12 Class 2 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 %	0.100 - 0.200	Annealing or Normalising & Tempering	
Manganese	Mn %	0.300 - 0.800		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.040 max.		
Silicon	Si %	0.100 - 0.600		
Chromium	Cr %	0.800 - 1.250		
Molybdenum	Mo %	0.440 - 0.650		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	485 min.
-	-	-	Yield Strength in Mpa	275 min.
-	-	-	Elongation in %	20 min.
-	-	-	Reduction of Area in %	30 min.
-	-	-	Hardness in BHN	143 - 207
-	-	-	Impact in Joule	-

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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
K11564	UNS	USA	Steel
16 CrMo4-4	DIN	Germany	Steel
1.7337	DIN	Germany	Steel
7660 B 18 CrMo 4 5 KW	UNI	Italy	Steel and Forging
A 336 Grade F12	ASTM	USA	Steel and Forging
A 387 Grade F12	ASTM	USA	Steel and Plates
SA-387 Grade 12	ASME	USA	Steel and Plates

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

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ONE STOP SOLUTION FOR METAL PARTS