GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A182 F12 Class1

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

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A182 F12 Class1 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 - 0.150
Manganese	Mn %	0.300 - 0.600
Phosphorus	P %	0.045 max.
Sulphur	S %	0.045 max.
Silicon	Si %	0.500 max.
Chromium	Cr %	0.800 - 1.250
Molybdenum	Mo %	0.440 - 0.650
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Annealing or Normalizing & Tempering

Mechanical Properties	
Tensile Strength in Mpa	415 min.
Yield Strength in Mpa	220 min.
Elongation in %	20 min.
Reduction of Area in %	45 min.
Hardness in HB	121 - 174
Impact in Joule	-

Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
9329-2 8 CrMo 4-5	ISO	International	Steel and Tubing
G 3462 STBA 22	JIS	Japan	Steel and Tubing
G 3458 STPA 22	JIS	Japan	Steel and Pipe
G 3467 STFA 22	JIS	Japan	Steel and Tubing
A 213 Grade T12	ASTM	USA	Steel and Tubing
A 369 Grade FP12	ASTM	USA	Forging and Pipe
A 335 Grade P12	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

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