GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-336 Grade F12

Standard Specification for Alloy Steel Forgings for Pressure and High-Temperature Parts

Group - Ferrous Mild Steel Alloys
Sub Group - ASME SA-336 Grade F12 Alloy Steel Forgings for Pressure and High-Temperature Parts
Application - Intended for Valve, Pump, General Engineering, Automotive and other Industries
Grade Belongs to the Industry - Forgings

Chemical Composition		
Carbon	C %	0.100 - 0.200
Manganese	Mn %	0.300 - 0.800
Phosphorus	P %	0.025 max.
Sulphur	S %	0.025 max.
Silicon	Si %	0.100 - 0.600
Chromium	Cr %	0.800 - 1.100
Molybdenum	Mo %	0.450 - 0.650
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Annealing or Normalising & Tempering or Quenching & Tempering

Mechanical Properties	
Tensile Strength in Mpa	485 - 660
Yield Strength in Mpa	275 min.
Elongation in %	20 min.
Reduction of Area in %	40 min.
Hardness in HB	-
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K11564	UNS	USA	Steel and Pipe
2604-1 F32	ISO	International	Steel
G 3203 SFVA F 12	JIS	Japan	Steel and Forging
G 3462 STBA 20	JIS	Japan	Steel and Tubing
A 182 F 12	ASTM	USA	Steel and Pipe
A 336 Grade F12	ASTM	USA	Steel
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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