GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-508 Grade 3 Class 1

Standard Specification for Quenched and Tempered Vacuum-Treated Carbon and Alloy Steel Forgings for Pressure Vessels

Group - Ferrous Mild Steel Alloys

Sub Group - ASME SA-508 Grade 3 Class 1 Quenched and Tempered Vacuum-Treated Carbon and Alloy Steel Forgings for Pressure Vessels

Application - Intended for Valve, Pump, General Engineering, Automotive and other Industries

Grade Belongs to the Industry - Forging

Chemical Composition		
Carbon	C %	0.250 max.
Manganese	Mn %	1.200 - 1.500
Phosphorus	P %	0.025 max.
Sulphur	S %	0.025 max.
Silicon	Si %	0.150 - 0.400
Nickel	Ni %	0.400 - 1.000
Chromium	Cr %	0.250 max.
Molybdenum	Mo %	0.450 - 0.600
Vanadium	V %	0.050 max.
Niobium	Nb %	0.010 max.
Copper	Cu %	0.200 max.
Calcium	Ca %	0.015 max.
Boron	B %	0.003 max.
Titanium	Ti %	0.015 max.
Aluminium	Al %	0.025 max.

Chemical Composition		
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
Heat Treatment		
Annealing or Quenching & Tempering		
Mechanical Properties		
Tensile Strength in Mpa	550 - 725	
Yield Strength in Mpa	345 min.	
Elongation in %	18 min.	
Reduction of Area in %	38 min.	
Hardness in HB	-	
Impact in Joule	41 @ RT	

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K12042	UNS	USA	Steel
G 3204 SFVQ 1A	JIS	Japan	Steel and Forging
SA-508 Class 3a	ASME	USA	Steel and Forging
SA-541 Class 3	ASME	USA	Steel and Forging
A 508 Grade 3 Class 2	ASTM	USA	Steel and Forging
A 541 Grade 3 Class 1	ASTM	USA	Steel and Forging
A 541 Grade 3 Class 2	ASTM	USA	Steel and Forging

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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