GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-508 Grade 3V

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 3V 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 %	0.100 - 0.150
Manganese	Mn %	0.300 - 0.600
Phosphorus	P %	0.020 max.
Sulphur	S %	0.020 max.
Silicon	Si %	0.100 max.
Chromium	Cr %	2.800 - 3.300
Molybdenum	Mo %	0.900 - 1.100
Vanadium	V %	0.200 - 0.300
Niobium	Nb %	0.010 max.
Copper	Cu %	0.250 max.
Calcium	Ca %	0.015 max.
Boron	B %	0.001 - 0.003
Titanium	Ti %	0.015 - 0.035
Aluminium	Al %	0.025 max.
Iron	Fe %	Balance

Heat Treatment
Annealing or Quenching & Tempering

Mechanical Properties	
Tensile Strength in Mpa	585 - 760
Yield Strength in Mpa	415 min.
Elongation in %	18 min.
Reduction of Area in %	45 min.
Hardness in HB	-
Impact in Joule	54 @ -18°C

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K31830	UNS	USA	Steel
A 542 Type C Class 4a	ASTM	USA	Steel and Plates
A 182 F 3V	ASTM	USA	Steel and Pipe
A 542 Type C Class 4	ASTM	USA	Steel and Plates
A 542 Type C Class 2	ASTM	USA	Steel and Plates
A 542 Type C Class 3	ASTM	USA	Steel and Plates
A 508 Grade 3V	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

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.