GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - IS 3038 Grade 1

Standard Specification for Martensitic Stainless Steel and Alloy Steel Castings for Pressure Containing Parts Suitable for High Temperature Service

Group - Ferrous Mild Steel Alloys

Sub Group - IS 3038 Grade 1 Martensitic Stainless Steel and Alloy Steel Castings for Pressure Containing Parts Suitable for High Temperature Service

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

Grade Belongs to the Industry - Casting

Chemical Composition		
Carbon	C %	0.180 - 0.250
Silicon	Si %	0.600 max.
Manganese	Mn %	1.200 - 1.600
Sulphur	S %	0.045 max.
Phosphorus	P %	0.040 max.
Chromium	Cr %	0.350 max.
Nickel	Ni %	0.500 max.
Molybdenum	Mo %	0.150 max.
Vanadium	V %	0.050 max.
Copper	Cu %	0.500 max.
Tungsten	W %	0.100 max.
Zirconium	Zr %	0.035 max.
Titanium	Ti %	0.035 max.
Other	Ot %	1.000 max.
Iron	Fe %	Balance

Heat Treatment
As-Cast or Normalizing + Tempering

Mechanical Properties	
Tensile Strength in Mpa	540 min.
Yield Strength in Mpa	320 min.
Elongation in %	16 min.
Reduction of Area in %	-
Hardness in HV	-
Impact in Joule	20 @ RT

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K11801	UNS	USA	Steel
A 541 Grade 1A	ASTM	USA	Steel and Forging
9327-4 PL 35	ISO	International	Bars and Forging
10225 S 355 G 14	EN	European Union	Steel
10225 1.1184	EN	European Union	Steel
10225 S 355 G 15	EN	European Union	Steel
A 36-212 PF 28	AFNOR NF	France	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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