GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - IS 7899 Grade 12 Class A

Standard Specification for Alloy Steel Castings Suitable For Pressure Service-Specification

Group - Ferrous Mild Steel Alloys
Sub Group - IS 7899 Grade 12 Class A Alloy Steel Castings Suitable For Pressure Service-Specification
Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries
Grade Belongs to the Industry - Casting

Chemical Composition		
Carbon	C %	0.150 max.
Silicon	Si %	0.650 max.
Manganese	Mn %	1.000 max.
Sulphur	S %	0.045 max.
Phosphorus	P %	0.040 max.
Chromium	Cr %	11.500 - 14.000
Nickel	Ni %	1.000 max.
Molybdenum	Mo %	0.150 - 1.000
Copper	Cu %	0.500 max.
Tungsten	W %	0.100 max.
Vanadium	V %	0.050 max.
Other	Ot %	0.500 max.
Iron	Fe %	Balance
-	-	-
-	-	-

Heat Treatment
Normalising or Quenching or Tempering

Mechanical Properties	
Tensile Strength in Mpa	620 - 795
Yield Strength in Mpa	450 min.
Elongation in %	17 min.
Reduction of Area in %	30 min.
Hardness in HB	-
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
J91151	UNS	USA	Steel and Casting
J91261	UNS	USA	Steel and Casting
A 511 MT403	ASTM	USA	Steel and Tubing
A 1028 Grade A	ASTM	USA	Steel and Bars
G 4316 SUS Y 410	JIS	Japan	Steel and Wire Rods
1449 410	AS	Australia	Steel Plate, Sheet and Strip
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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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