GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - IS 7899 Grade 9 Class D

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

Group - Ferrous Mild Steel Alloys
Sub Group - IS 7899 Grade 9 Class D 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 %	0.050 - 0.330
Silicon	Si %	0.800 max.
Manganese	Mn %	0.600 - 1.000
Sulphur	S %	0.045 max.
Phosphorus	P %	0.040 max.
Chromium	Cr %	0.750 - 1.100
Molybdenum	Mo %	0.150 - 0.300
Copper	Cu %	0.500 max.
Nickel	Ni %	0.500 max.
Tungsten	W %	0.100 max.
Vanadium	V %	0.030 max.
Other	Ot %	1.000 max.
Iron	Fe %	Balance
-	-	-
-	-	-

Heat Treatment
Quenching or Tempering

Mechanical Properties	
Tensile Strength in Mpa	690 min.
Yield Strength in Mpa	515 min.
Elongation in %	16 min.
Reduction of Area in %	35 min.
Hardness in HB	235 max.
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
J13345	UNS	USA	Steel and Casting
SA-487 Grade 9A	ASME	USA	Steel and Casting
SA-487 Grade 9B	ASME	USA	Steel and Casting
SA-487 Grade 9C	ASME	USA	Steel and Casting
SA-487 Grade 9D	ASME	USA	Steel and Casting
SA-487 Grade 9E	ASME	USA	Steel and Casting
A 487 Grade 9	ASTM	USA	Steel and Casting

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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