



**GRAVITY CAST PVT. LTD.**  
GRAVITY GROUP OF COMPANIES

## Material - ASME SA-487 Grade 12B

Standard Specification for Low Alloy Steel and Martensitic Stainless Steel Castings Suitable for Pressure Containing Parts

Group - Ferrous Mild Steel Alloys

Sub Group - ASME SA-487 Grade 12B Low Alloy Steel and Martensitic Stainless Steel Castings Suitable for Pressure Containing Parts

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.050 - 0.200	Annealing or Normalising or Hardening + Tempering	
Silicon	Si %	0.600 max.		
Manganese	Mn %	0.500 - 0.800		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.045 max.		
Chromium	Cr %	0.500 - 0.800		
Nickel	Ni %	0.700 - 1.100		
Molybdenum	Mo %	0.900 - 1.200		
Vanadium	V %	0.030 max.		
Tungsten	W %	0.100 max.		
Copper	Cu %	0.500 max.	<b>Mechanical Properties</b> Tensile Strength in Mpa   725 - 895 Yield Strength in Mpa   585 min. Elongation in %   17 min. Reduction of Area in %   35 min. Hardness in BHN   - Impact in Joule   -	
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SA-487 Grade 12A	ASME	USA	Casting
J22000	UNS	USA	Casting
SA-217 Grade WC5	ASME	USA	Casting
A487 12B	ASTM	USA	Casting
A217 WC5	ASTM	USA	Casting
A487 12N	ASTM	USA	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](mailto: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.

**ONE STOP SOLUTION FOR METAL PARTS**