



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

## Material - UNS J13002

### Standard Specification for Alloy Steel Casting

Group - Ferrous Mild Steel Alloys

Sub Group - UNS J13002 Alloy Steel Casting

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment			
Carbon	C %	0.300 max.	Annealing or Normalising or Hardening + Tempering			
Silicon	Si %	0.800 max.				
Manganese	Mn %	1.000 max.				
Phosphorus	P %	0.040 max.				
Sulphur	S %	0.045 max.				
Chromium	Cr %	0.350 max.				
Nickel	Ni %	0.500 max.				
Molybdenum	Mo %	0.250 max.				
Copper	Cu %	0.500 max.				
Vanadium	V %	0.040 - 0.120				
Iron	Fe %	Balance	<th colspan="2">Mechanical Properties</th>		Mechanical Properties	
-	-	-	Tensile Strength in Mpa	585 - 760		
-	-	-	Yield Strength in Mpa	380 min.		
-	-	-	Elongation in %	22 min.		
-	-	-	Reduction of Area in %	40 min.		
-	-	-	Hardness in BHN	-		
-	-	-	Impact in Joule	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SA 216 WCB	ASME	USA	Casting
A757 A1Q	ASTM	USA	Casting
J03002	UNS	USA	Casting
1.0619	DIN	Germany	Casting
1.0619	EN	European Union	Casting
A660 WCB	ASTM	USA	Fusion Welding, Bending and Forming
SA 660 WCB	ASME	USA	Centrifugal 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**