

# Material: BS 3100 Grade A1

## Standard Specification for Steel Castings for General Engineering Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** BS 3100 Grade A1 Steel Castings for General Engineering Purposes

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

**Grade Belongs to the Industry:** Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.250 max.	As Cast or Annealing or Normalizing or Hardening and Tempering	
Silicon	Si %	0.600 max.		
Manganese	Mn %	0.900 max.		
Phosphorus	P %	0.050 max.		
Sulphur	S %	0.050 max.		
Chromium	Cr %	0.300 max.		
Molybdenum	Mo %	0.150 max.		
Nickel	Ni %	0.400 max.		
Copper	Cu %	0.300 max.		
Other	Ot %	0.800 max.		
Iron	Fe %	Balance	<b>Mechanical Properties</b> Tensile Strength in Mpa 430 min. Yield Strength in Mpa 230 min. Elongation in % 22 min. Reduction of Area in % - Hardness in BHN - Impact in Joule 27 J @ RT	
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-	-	-		
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-	-	-		
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A 216 WCB	ASTM	USA	Casting
SA 216 WCB	ASTM	USA	Casting
A660 Grade WCB	ASTM	USA	Casting
A757 A1Q	ASTM	USA	Casting
J03002	UNS	USA	Casting
1.0619	WN	Germany	Casting
1.0619	EN	European Union	Casting

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