

# Material: ASTM A356 1

## Standard Specification for Steel Castings, Carbon, Low Alloy, and Stainless Steel, Heavy-Walled for Steam Turbines

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A356 / A356M Carbon, Low Alloy, and Stainless Steel, Heavy-Walled for Steam Turbines

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

**Grade Belongs to the Industry:** Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.350 max.	Normalising or Annealing or Hardening + Tempering	
Silicon	Si %	0.600 max.		
Manganese	Mn %	0.700 max.		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.030 max.		
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
			Mechanical Properties	
			Tensile Strength in Mpa	485 min.
			Yield Strength in Mpa	250 min.
			Elongation in %	20 min.
			Reduction of Area in %	35 min.
			Hardness in BHN	-
			Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
J03502	UNS	USA	Casting
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	Centrifugal Casting

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