

# Material: UNS J02003

## Standard Specification for Carbon Steel Casting

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** UNS J02003 Carbon Steel Casting

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

**Grade Belongs to the Industry:** Casting

Chemical Composition		
Carbon	C %	0.180 - 0.230
Silicon	Si %	0.300 - 0.600
Manganese	Mn %	0.400 - 0.800
Phosphorus	P %	0.040 max.
Sulphur	S %	0.400 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
As- Cast or Normalizing or Annealing or Hardening + Tempering

Mechanical Properties	
Tensile Strength in Mpa	450 min.
Yield Strength in Mpa	240 min.
Elongation in %	24 min.
Reduction of Area in %	35 min.
Hardness in BHN	-
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A915 Grade SC 1020	ASTM	USA	Bar, War, Tube and Forging
1020.0000	AISI	USA	Bar, War, Tube and Forging
1020.0000	SAE	USA	Bar, War, Tube and Forging
1020.0000	AS	Australia	Bar, War, Tube and Forging
1020.0000	AMS	USA	Bar, War, Tube and Forging
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