

# Material: AISI 5145

## Standard Specification for Steel Castings for General Engineering Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** AISI 5145 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		
Carbon	C %	0.430 - 0.480
Silicon	Si %	0.150 - 0.350
Manganese	Mn %	0.700 - 0.900
Phosphorus	P %	0.035 max.
Sulphur	S %	0.040 max.
Chromium	Cr %	0.700 - 0.900
Aluminium	Al %	0.020 min.
Copper	Cu %	0.350 max.
Molybdenum	Mo %	0.060 max.
Niobium	Nb %	0.015
Nickel	Ni %	0.250 max.
Vanadium	V %	0.020 min.
Iron	Fe %	Balance
-	-	-
-	-	-

Heat Treatment
As Cast or Annealing or Normalizing or Hardening and Tempering

Mechanical Properties	
Tensile Strength in Mpa	650 max.
Yield Strength in Mpa	-
Elongation in %	-
Reduction of Area in %	-
Hardness in BHN	-
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
BW2	BS	British	Casting
BW3	BS	British	Casting
BW4	BS	British	Casting
SKS 43	JIS	Japan	Casting
1.2833	DIN	Germany	Casting
5145	SAE	USA	Casting
A 29 5145	ASTM	USA	Casting

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