

# Material: BS 420 S 45

## Standard Specification for Stainless and Heat Resisting Steels

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** BS 420 S 45 Stainless and Heat Resisting Steels

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

**Grade Belongs to the Industry:** Bar, Wire, Shapes and Forging

Chemical Composition		
Carbon	C %	0.280 - 0.360
Silicon	Si %	0.800 max.
Manganese	Mn %	1.000 max.
Phosphorus	P %	0.040 max.
Sulphur	S %	0.030 max.
Chromium	Cr %	12.000 - 14.000
Nickel	Ni %	1.000 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Annealing or Hardening + Tempering

Mechanical Properties	
Tensile Strength in Mpa	850 max.
Yield Strength in Mpa	-
Elongation in %	-
Reduction of Area in %	-
Hardness in HV	260 max.
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.4028	EN	European Union	Forging
SUS 420J2	JIS	Japan	Forging
30CH13	GOST	Russia	Bar, Wire, Shapes and Forging
2304	SS	Sweden	Bar, Wire, Shapes and Forging
X 30Cr13	UNI	Italy	Bar, Wire, Shapes and Forging
420	AISI	USA	Bar, Wire, Shapes and Forging
A743 CA20	ASTM	USA	Casting

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