

# Material: SAE 17-4PH

## Standard Specification for Special Purpose Alloys

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** SAE 17-4PH Special Purpose Alloys

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

**Grade Belongs to the Industry:** Steel

Chemical Composition		
Carbon	C %	0.040 max.
Silicon	Si %	1.000 max.
Manganese	Mn %	1.000 max.
Chromium	Cr %	15.000 - 17.500
Nickel	Ni %	3.000 - 5.000
Niobium	Nb %	0.450 max.
Copper	Cu %	3.000 - 5.000
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Normalizing or Annealing or Hardening + Tempering

Mechanical Properties	
Tensile Strength in Mpa	861.8 - 1552
Yield Strength in Mpa	620.5 - 1206.6
Elongation in %	3 - 16
Reduction of Area in %	12 min.
Hardness in HB	269 - 510
Impact in Joule	25 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SA747 CB7Cu-1	ASME	USA	Casting
J92180	UNS	USA	Casting
Z 7 CNU 17-04	AFNOR NF	France	Steel
5622	AMS	USA	Bar, Wire, Tube and Forging
X 5 CrNiCuNb 16-4	DIN	Germany	Steel
X 5 CrNiCuNb 16-4	EN	European Union	Forging
A747 Grade CB7Cu-1(H900)	ASTM	USA	Casting

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