

# Material: STAS 20 VNIMoCr 120

## Standard Specification for Heat Resisting Steels

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** STAS 20 VNIMoCr 120 Heat Resisting Steels

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

**Grade Belongs to the Industry:** Casting

Chemical Composition		
Carbon	C %	0.170 - 0.230
Silicon	Si %	0.100 - 0.500
Manganese	Mn %	1.200 max.
Phosphorus	P %	0.035 max.
Sulphur	S %	0.035 max.
Chromium	Cr %	10.000 - 12.500
Nickel	Ni %	0.300 - 0.800
Molybdenum	Mo %	0.800 - 1.200
Vanadium	V %	0.250 - 0.350
Copper	Cu %	0.300 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Annealing or Hardening + Tempering

Mechanical Properties	
Tensile Strength in Mpa	-
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
1.4935	DIN	Germany	Casting
SUH 616	JIS	Japan	Bar and Wire
422	AISI	USA	Bar, Wire, Shapes and Forging
S 42100	UNS	USA	Casting
X 20 CrMoWV 12-1	DIN	Germany	Casting
A176 Type 422	ASTM	USA	Plate, Sheet and Strip
A743 CA28MWV	ASTM	USA	Casting

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