

# Material: UNS J92972

## Standard Specification for Cast Chromium Manganese Nickel Silicon Nitrogen Stainless Steel

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** UNS J92972 Cast Chromium Manganese Nickel Silicon Nitrogen Stainless Steel

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

**Grade Belongs to the Industry:** Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.100 max.	Solution Annealing	
Silicon	Si %	3.500 - 4.500		
Manganese	Mn %	7.000 - 9.000		
Phosphorus	P %	0.060 max.		
Sulphur	S %	0.030 max.		
Chromium	Cr %	16.000 - 18.000		
Nickel	Ni %	8.000 - 9.000		
Nitrogen	N %	0.080 - 0.180		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	585 min.
-	-	-	Yield Strength in Mpa	295 min.
-	-	-	Elongation in %	30 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A743 CF10MnN	ASTM	USA	Casting
SA-351 CF10SMnN	ASME	USA	Casting
S21800	UNS	USA	Casting
5848	AMS	USA	Bar, Wire, Extrusions, Tube, Ring and Forging
SA-276 S21800	ASME	USA	Bar and Shapes
A580 S21800	ASTM	USA	Wire
A351 CF10SMnN	ASTM	USA	Casting

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