



## Material - UNS S21800

### Standard Specification for Austenitic Chromium Nickel Manganese Stainless Steel

Group - Ferrous Stainless Steel Alloys

Sub Group - UNS S21800 Austenitic Chromium Nickel Manganese 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 %	0.040 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
J92972	UNS	USA	Casting
SA-351 CF10SMnN	ASME	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

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto:marketing@gravitycastindia.com)**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.