

# Material: DIN 1.8866

## Standard Specification for Flat Products for Pressure Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** DIN 1.8866 Flat Products for Pressure Purposes

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

**Grade Belongs to the Industry:** Steel

Chemical Composition			Heat Treatment	
Carbon	C %	0.160 max.	Annealing or Normalizing or Hardening + Tempering	
Silicon	Si %	0.400 max.		
Manganese	Mn %	1.500 max.		
Phosphorus	P %	0.025 max.		
Sulphur	S %	0.010 max.		
Chromium	Cr %	0.300 max.		
Nickel	Ni %	0.500 max.		
Molybdenum	Mo %	0.250 max.		
Vanadium	V %	0.060 max.		
Niobium	Nb %	0.050 max.		
Titanium	Ti %	0.030 max.	Mechanical Properties	
Nitrogen	N %	0.015 min.	Tensile Strength in Mpa	490 - 630
Copper	Cu %	0.300 max.	Yield Strength in Mpa	315 min.
Zirconium	Zr %	0.050 max.	Elongation in %	22 min.
Iron	Fe %	Balance	Reduction of Area in %	-
			Hardness in BHN	-
			Impact in Joule	40 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.8830	EN	European Union	Steel
4020	AISI	USA	Forging, Bar, Wire, and Shape
C450L0	AS	Australia	Steel
P355Q	AFNOR NF	France	Steel
P355QH	UNI	Italy	Steel
C450	AS	Australia	Steel
A732 6N	ASTM	USA	Casting

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