



## Material - ISO X 10 CrMoVNb 9-1

### Standard Specification for Seamless Steel Tubes for Pressure Purposes

Group - Ferrous Stainless Steel Alloys

Sub Group - ISO X 10 CrMoVNb 9-1 Seamless Steel Tubes 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 %	0.080 - 0.120	Normalising + Tempering	
Silicon	Si %	0.200 - 0.500		
Manganese	Mn %	0.300 - 0.600		
Phosphorus	P %	0.020 max.		
Sulphur	S %	0.005 max.		
Chromium	Cr %	8.000 - 9.500		
Molybdenum	Mo %	0.850 - 1.050		
Nickel	Ni %	0.300 max.		
Vanadium	V %	0.180 - 0.250		
Aluminium	Al %	0.040 max.		
Nitrogen	N %	0.030 - 0.070	Mechanical Properties	
Niobium	Nb %	0.060 - 0.100	Tensile Strength in Mpa	520 - 770
Iron	Fe %	Balance	Yield Strength in Mpa	415 min.
-	-	-	Elongation in %	16 min.
-	-	-	Reduction of Area in %	-
			Hardness in BHN	-
			Impact in Joule	27 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.4903	EN	European Union	Steel and Tube
1.4903	DIN	Germany	Steel
1.4903	DIN	Germany	Steel
J84090	UNS	USA	Casting
X10CrMoVNb9-1	DIN	Germany	Steel and Tube
91	BS	British	Steel and Tube
TU Z 10 CDVNb 09 01	AFNOR NF	France	Steel and Tube

**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)**

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