



## Material - EN 1.4436

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

Group - Ferrous Stainless Steel Alloys

Sub Group - EN 1.4436 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 %	0.050 max.	Solution Annealing	
Silicon	Si %	1.000 max.		
Manganese	Mn %	2.000 max.		
Phosphorus	P %	0.045 max.		
Sulphur	S %	0.030 max.		
Chromium	Cr %	16.500 - 18.500		
Nickel	Ni %	10.500 - 13.000		
Molybdenum	Mo %	2.500 - 3.000		
Nitrogen	N %	0.110 max.		
Iron	Fe %	Balance	<b>Mechanical Properties</b>	
-	-	-	Tensile Strength in Mpa	500 - 2100
-	-	-	Yield Strength in Mpa	190 min.
-	-	-	Elongation in %	20 min.
-	-	-	Reduction of Area in %	60 min.
-	-	-	Hardness in HB	215 max.
-	-	-	Impact in Joule	30 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
10216-5 EN 1.4436	BS	British	Tube
1.4436	DIN	Germany	Steel
X3CrNiMo17 13 3	UNI	Italy	Steel, Sheet, Plate and Strip
X3CrNiMo17 13 3	AFNOR NF	France	Steel
X3CrNiMo17 13 3	DIN	Germany	Sheet, Plate and Strip
316	SAE	USA	Steel, Wire, Bar, Shape and Forging
X2CrNiMo17 12 3	EN	European Union	Steel, Rod, Bar and Extrusion

**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.