

## Material: DIN 1.4501

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

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** DIN 1.4501 Seamless Steel Tubes for Pressure Purposes

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

**Grade Belongs to the Industry:** Steel, Sheet, Plate and Strip

| Chemical Composition |      |                 | Heat Treatment          |            |
|----------------------|------|-----------------|-------------------------|------------|
| Carbon               | C %  | 0.030 max.      | Solution Annealing      |            |
| Silicon              | Si % | 1.000 max.      |                         |            |
| Manganese            | Mn % | 1.000 max.      |                         |            |
| Phosphorus           | P %  | 0.035 max.      |                         |            |
| Sulphur              | S %  | 0.015 max.      |                         |            |
| Chromium             | Cr % | 24.000 - 26.000 |                         |            |
| Molybdenum           | Mo % | 3.000 - 4.000   |                         |            |
| Nickel               | Ni % | 6.000 - 8.000   |                         |            |
| Tungsten             | W %  | 0.500 - 1.000   |                         |            |
| Copper               | Cu % | 0.500 - 1.000   |                         |            |
| Nitrogen             | N %  | 0.200 - 0.300   | Mechanical Properties   |            |
| Iron                 | Fe % | Balance         |                         |            |
| -                    | -    | -               |                         |            |
| -                    | -    | -               |                         |            |
| -                    | -    | -               |                         |            |
| -                    | -    | -               |                         |            |
|                      |      |                 | Tensile Strength in Mpa | 730 - 1000 |
|                      |      |                 | Yield Strength in Mpa   | 515 min.   |
|                      |      |                 | Elongation in %         | 20 min.    |
|                      |      |                 | Reduction of Area in %  | -          |
|                      |      |                 | Hardness in HB          | 310 max.   |
|                      |      |                 | Impact in Joule         | 60 J @ RT  |

| Cross Reference Table |          |                |                               |
|-----------------------|----------|----------------|-------------------------------|
| Material              | Standard | Country        | Grade Belong to the Industry  |
| 10216-5 EN 1.4501     | BS       | British        | Tube                          |
| 1.4501                | EN       | European Union | Steel, Sheet, Plate and Strip |
| X2CrNiMoCuDIN25-7-4   | AFNOR NF | France         | Steel                         |
| X2CrNiMoCuDIN25-7-4   | DIN      | Germany        | Steel, Sheet, Strip and Plate |
| X2CrNiMoCuDIN25-7-4   | UNI      | Italy          | Steel, Bar and Rod            |
| X2CrNiMoCuDIN25-7-4   | EN       | European Union | Steel and Tube                |
| -                     | -        | -              | -                             |

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