



What are 1.4404 Stainless Steels?

1.4404 is the low carbon grade of 1.4401 Steel. It shows good acid resistance. It is not susceptible to carbide precipitation at the grain boundary and therefore it is unaffected from sensitization. It is mostly used in welded parts of a greater thickness of over 0.2 inches. The austenitic microstructure also provides these stainless grades robust toughness, at lower temperatures as low as absolute zero (-273 degree Celsius).

1.4404, is also known as 316L stainless steel, has a lower carbon content in it as compared with its family grade 1.4401 steel. Although 1.4404 has a lower carbon content, it is very much alike to 1.4401 in most of the commercial and industrial applications. Importantly the cost of both the related grades are also nearly the same, and both last long, with incredible properties of corrosion resistant, and a great choice for stress centric usages. 1.4404, in contrast, is a great choice for consumption where a lot of welding is required as 1.4404 is less prone to weld decay.

Is 1.4404 Stainless Steel Magnetic?

It is an austenite material and thus non-martensitic stainless steel. It is nonmagnetic in its properties.

Dimensional Characteristics of 1.4404 Material

There are no specified dimensional ranges because this grade is available in various forms. If we go in listing each form it will be inappropriate. It is to the manufacturer's what are their limitations for dimensional ranges of different forms. Buyers are recommended to inquire the dimensional requirements with manufacturers, so they can review capacity limitations and then they can commit.

A stockist is selling this type in following forms and dimensions:

Material Form	Min Diameter (mm)	Max Diameter (mm)
Round	2	250



1.4404 Material - Low Carbon Austenite Stainless Steel

Material Form	Min Size (mm)	Max Size (mm)
Hexagonal	8	70
Flat	Min Thickness: 5mm Max Thickness: 20mm	Min Width: 20mm Max Width: 100mm
Square	12×12 mm ²	150×150 mm ²

Available Forms in Market

Following are the available forms of 1.4404 Stainless Steels:

Containers
Wire
L shape
Sheets & plates
Forged Items
Tubing & pipes
Bars
Round Rods
Squares
Flat sheets
Flanges
Fastening components
Assembled parts



The Chemical Composition of 1.4404 Stainless Steel

Chemical alloying compositions are explicated below

Maximum percentage of Carbon (C) is 0.03

Maximum percentage of Manganese (Mn) is 2.0

Maximum percentage of Phosphorus (P) is 0.045

Maximum percentage of Sulphur (S) is 0.03

Percentage of Molybdenum is indicated between 2.0 to 2.5

Maximum percentage of Silicon (Si) is 1.0



1.4404 Material - Low Carbon Austenite Stainless Steel

Maximum percentage of Nickel (Ni) is 13.5 and minimum is 10.5

Maximum percentage of Chromium (Cr) is 18.5 whereas the minimum percentage of Chromium is 16.5

Rest is the base metal i.e. iron (Fe).

1.4404 stainless steel have acid resistant properties alongwith outstanding welding qualities. Type 1.4404 stainless steel is used in automotive, ship building industry, chemical, pharmaceutical industry, food industry and oil and gas industry.

Mechanical Properties for Bars and Sections

Minimum Tensile strength is around 500 Mpa as in EN 10088-3 source.

Minimum Yield strength is 170Mpa (in EN 10088-3 technical source)

Maximum Hardness in HB (in EN 10088-3) is around 215.

Elongation is 40% in 2" in the standard.

Type 1.4404 also can be welded for thicker gauges.

Equivalent Materials of 1.4404 Stainless Steel

The equivalent materials for 1.4404 Stainless Steels specified in other recognized standards are as follows:

In JIS standard, the equivalent material is SUS 316L.

In American standard, the equivalent material is 316L type steel.

In UNS standard, the equivalent material is S31603 type steel industrial



APPLICATIONS OF 1.4404 MATERIAL

Variety of industrial and household applications consume this material, some of the applications are as follows:

Pipes and containers in the Oil and Gas Industry
Equipment in the food industry
Equipment in the Sewage Plants
Equipment in the Chemical and Pharma Industry
Surgical Speculas & medical implants
Tubes of Heat Exchangers
Feed water tubes and duct works

Material Trading

Purchase Material

Do you want to buy 1.4404 stainless steel?

We can help you with buying this grade of stainless steel. You can send your inquiry by using our GDPR Compliant Order Inquiry Form.

Sell Material

Do you want to become our premium supplier of 1.4404 stainless steel?

We can help you find customers looking for the subject stainless steel, you can provide us your quotations for this stainless steel by using our GDPR compliant Online Quotation Form.

Note: Mechanical and chemical properties given in values are indicative and for information purpose only. Some of the given information can be outdated. There are also minor possibilities for inaccuracies in the text due to human error. For inaccuracies & outdated text you can Complaint Us.