

## Stainless Steel 304 /UNS S30400/ 1.4301

## Stainless Steel 304L/UNS S30403/1.4303

SS304 is the most common stainless steel. It is an austenitic stainless steel, which has a maximum carbon of 0.08%, while SS304L with carbon maximum 0.03%. SS304 /304L is used for a variety of household and industrial applications such as screws, machinery parts, car headers, and food-handling equipment.

### Chemical Composition, %

Element	304	304L
Carbon	0.07	0.03 max
Chromium	17.5-19.5	17.5-19.5
Nickel	8.0-10.5	8.0-12.0
Manganese	2.00	2.00
Silicon	0.75	0.75
Nitrogen	0.10	0.10
Phosphorus	0.045	0.045
Sulfur	0.030	0.030

### Mechanical Properties

Property	304	304L
Yield Strength, min. (ksi)	30	25
Tensile Strength, min. (ksi)	75	70
Elongation, min. (%)	40	40
Hardness, max. (Rb)	92	92

### Physical properties

Property	304/304L Data
Density, lb/in <sup>3</sup>	0.285
Modulus of Elasticity, psi	28 x 10 <sup>6</sup>
Coefficient of Thermal Expansion, 68-212°F, /°F	9.2 x 10 <sup>-6</sup>
Thermal Conductivity, Btu/ft hr °F	9.4
Specific Heat, Btu/lb °F	0.12
Electrical Resistivity, Microhm-in	28.3

### ASTM SPECIFICATION

Pipe, SMLS & Welded	Tube, SMLS & Welded	Pipe, Seamless	Sheet/Plate	Bar /Rod	Forging /Flange	BW Fittings
ASTM A312	ASTM A269	ASTM A213	ASTM A240	ASTM A276/A479	ASTM A182	ASTM A403