

# Stainless Steel 303

Stainless steel 303 is well suited for a wide range of applications due to its excellent machinability and outstanding uniformity. SS 303 was designed to exhibit improved machinability while maintaining high corrosion and oxidation resistance. It is a non-magnetic austenitic stainless steel which does not harden with heat treatment.

## Applications

Common applications consist of medical instruments, machine parts, screws, nuts and bolts, bushings, fasteners, fittings, gears, shafts, valve components, food production components, and parts exposed to chemicals, and vacuum and pressure vessels.

## Key Product Benefits

- Corrosion and Oxidation Resistance
- Machinability and Weldability
- Ductility
- Low Cost

## Properties

Property	Value (Imperial)	Value (Metric)
Yield Strength	30-40 ksi	207-276 MPa
Tensile Strength	75-90 ksi	517-621 MPa
Elongation in 2 in.	35-50%	35-50%
Reduction in Area	50-60%	50-60%
Brinell Hardness	228	228
Density	0.290 lb/in <sup>3</sup>	8.03 g/cm <sup>3</sup>
Melting Point	2,552°F	1,400°C
Thermal Conductivity @ 100°C (212°F)	113.2 BTU-in/hr/ft <sup>2</sup> /°F	16.4 W/m-K
Electrical Resistivity @ 20°C (68°F)	28.3 microhm-in	72.0 microhm-cm