



HENAN SHENG HE PIPE INDUSTRY CO., LTD

WEB: [WWW.SHPIPEINDUSTRY.COM](http://WWW.SHPIPEINDUSTRY.COM)

TEL/WHATSAPP: 0086 - 18837185745

## **Stainless Steel 304/304L/304H**

Henan Sheng He Pipe Industry Co., Ltd., have an experience spanning for over ten years, producing and supplying best-in-class products, minimize cost by getting manufacturing processes under one roof and delivering consignments on a daily basis only because of a diligent and dedicated team. We are manufacturers, suppliers and exporters of Stainless Steel 304/304L/304H material.

### **UNS - S30400 / S30409 / S30403**

Stainless Steel Grade 304 is the standard 18/8 (18% chrome, 8% nickel) austenitic stainless steel. It is a non-magnetic alloy in the annealed condition, however, becomes magnetic as it is cold worked. It is the most ordinarily utilized of all stainless grades. T304 can be effortlessly welded and is the preferred for many deep drawn, spun or formed parts due to its high ductility. Stainless Steel Grade 304L has oxidation resistance to a maximum temperature of 1650°F (899°C) continuous without considerable scaling. The maximum temperature for intermittent presentation is 1500°F (816°C). Since 304L is an additional low-carbon variety of 304 it can frequently be utilized in the “as-welded” condition (without annealing), even in severe corrosive conditions, except for applications indicating stress relief. 304L has good welding qualities and can be welded by all standard strategy; however, consideration should be paid to maintain a strategic distance from weld “hot cracking”. To relieve stress during severe forming or spinning welding may be followed by annealing.

Stainless Steel Grade 304H includes a high carbon content making the steel more suitable for utilization in applications where high temperatures are available. The benefit of this grade is that it is an austenitic chromium-nickel steel alloy as well as the greater carbon content distribute to increased tensile and yield strength. The material is recommended for utilizing in ASME pressure vessels in working service above 525° C because of the grade's heat resistant properties.

### **Characteristics**

- Forming and welding properties
- Corrosion / oxidation resistance thanks to the chromium content
- Deep drawing quality
- Excellent toughness, even down to cryogenic temperatures which are defined as very low temperatures



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- Low temperature properties responding well to hardening by cold working
- Ease of cleaning, ease of fabrication, beauty of appearance
- Excellent combination of strength and fabricability.

## Applications

- Air Bag Sensors
- Clamps
- Bellows
- Flexible Hoses
- Hinges
- Cryogenic Components
- Surgical Instruments
- Pressure Vessels
- Oil Well Filter Screen
- Hypodermic Needles
- Medical Parts
- Tubing

## Sheng He Pipe Industry offers Stainless Steel 304/304L/304H in a variety of forms, including:

- Pipe & Welded pipe
- Pipe fittings
- Seamless tube & Welded tube
- Flanges
- Bar
- Sheet
- Wire
- Plate
- Forgings
- Weld Rod

## ASTM Specifications

Pipe / Tube (SMLS)	Sheet / Plate	Bar	Forging	Fitting
A 213	A 240, A 666	A 276	A 182	A403



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## Chemical Composition %

Grade	C	N	Si	P	S	Cr	Mn	Ni	Fe
304	0.08 max	0.10 max	0.75 max	0.045 max	0.030 max	18.0 - 20.0	2.0 max	8.0 - 10.5	Remai nder
304L	0.03 max	0.10 max	0.75 max	0.045 max	0.030 max	18.0 - 20.0	2.0 max	8.0 - 12.0	Remai nder
304H	0.04 - 0.10	0.10 max	0.75 max	0.045 max	0.030 max	18.0 - 20.0	2.0 max	8.0 - 10.5	Remai nder

## Mechanical Properties

Grade	Tensile Strength (ksi)	0.2% Yield Strength (ksi)	Elongation% in 2 inches
304	75	30	40
304L	70	25	40
304H	75	30	40

## Physical Properties

	Units	Temperature in °C
Density	8.03 g/cm <sup>3</sup>	Room
304	0.12 Kcal/kg.C	22°
304L	1399 - 1454 °C	-
304H	193 KN/mm <sup>2</sup>	22°
Electrical Resistivity	72 μΩ.cm	Room
Coefficient of Expansion	16.9 μm/m °C	20 - 100°
Thermal Conductivity	16.2 W/m -°K	20°