

# ASTM A312 TP310S Seamless Stainless Steel Pipe, SA 312 TP310S pipe

We are the professional exporter and supplier of ASTM A312 TP310S Seamless Stainless Steel Pipe, SA 312 TP310S pipe, ASTM A312 TP310S Seamless Stainless Steel Pipe,

ASTM A312 TP310S pipe is a high temperature service austenitic stainless steel. It is a highly alloyed material that is used to prevent oxidation and corrosion. This is achieved by the chromium and nickel components in the composition. The TP310S has lower carbon content at 0.08% max where the 310 has 0.24% max of carbon. The material is used for high temperature services with 1150 degrees Celsius at continuous services and at 1035 degrees Celsius with intermittent services.

It has corrosion resistance and high forming abilities. So the product could be made in different forms and types such as pipes, tubes and in square, round, honed tubes and in hydraulic setups. The oxidation resistance is maintained even at 1150 degrees given that sulfur gases are not emitted by the system. It is also used for flanges and other pipe fitting production. There are different pressure classes ranging from 150 to PN64 and more.

The TP310S Pipe material also has high minimum yield strength of 205MPa and minimum tensile strength of 525MPa. This allows the materials to be used under high pressure as well. The combination of all these properties make the material be used in burners, annealing covers, retorts, combustion chambers, lead pots and in radiant tubes under those respective harsh conditions.

## [ASTM A 312](#)

Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipe

Mechanical Property of ASTM A312 TP310S Pipe.

SUS	Tensile Strength minimum (MPa)	Yield Strength 0.2% Proof minimum (MPa)	Elongation minimum (% in 50mm)	Hardness	
				Rockwell B (HR B) maximum	Brinell (HB) maximum
310S	515	205	40	95	217

SA312 TP310S Pipe Chemical Composition

ASTM A312		Si	P	C	Mn	S	Cr	Mo	Ni	N
310s	min.	–	–	–	–	–	24.0	–	19.0	–
	max.	1.50	0.045	0.25	2.0	0.030	26.0	–	22.0	–

### Equivalent Grades for Stainless Steel 310S Pipe and Tube

Grade	UNS No	Old British BS	European EN	Euronorm No	Name	Swedish SS	Japanese JIS
310S	S31008	310S16	–	1.4845	X8CrNi25-21	2361	SUS 310S

### Why chose ASTM A312 TP310S PIPES?

1. **High-Temperature Resistance:** ASTM A312 TP310S is engineered to withstand elevated temperatures, making it ideal for applications in heat treatment furnaces, thermal processing units, and other high-temperature environments.
2. **Excellent Corrosion Resistance:** With its high chromium and nickel content, TP310S exhibits superior resistance to corrosion, including oxidation, sulfidation, and carburization, ensuring reliability in aggressive chemical and atmospheric conditions.
3. **Austenitic Structure:** The austenitic structure of TP310S provides excellent toughness and ductility, enabling it to withstand thermal cycling and mechanical stresses encountered in high-temperature service.

### ASTM A312 TP310S PIPES Applications:

**Refinery and Petrochemical:** TP310S pipes are widely used in refinery and petrochemical applications, including process piping, heat exchangers, and reactors, where resistance to high temperatures and corrosive environments is critical.

**Power Generation:** In power generation plants, TP310S pipes find application in boiler tubes, superheaters, and reheaters, providing reliable performance under extreme heat and pressure conditions.

**Heat Treatment:** TP310S pipes are favored in heat treatment furnaces and thermal processing units due to their ability to maintain mechanical properties at elevated temperatures, ensuring consistent heat treatment processes.

**Chemical Processing:** Industries such as chemical processing and pharmaceuticals utilize TP310S pipes for handling corrosive fluids and chemicals at high temperatures, where reliability and durability are paramount.



ASTM A312 TP310S STAINLESS STEEL PIPE

OD:NB 1/8" - 24",

Wall:SCH 10S , SCH40S, SCH80S, XXS

Length:6M / 20 FT

310S STAINLESS STEEL PIPE, SEAMLESS PIPES ASTM A312 TP310S, ASME B36.19M

- LENGTH: 6METERS FIXED LENGTH OR BY ORDER
- ANNEALING AND PICKLING
- ENDS: PLAIN ENDS, BEVELED ENDS

- TOLERANCE OF THICKNESS: +10%/-5%
- PACKING: ENDS WITH PLASTIC CAPS, THEN BUNDLES OR WOODEN CASES
- MARKING: LOGO,SMLS,ASTM A312 TP310S 1/2" SCH10 6METERS LOT NO.(\*\*) ET/UT