

304 / 304L Stainless Steel Seamless Pipe



304 / 304L stainless steel seamless pipe is widely used in industrial piping systems that require good corrosion resistance, reliable mechanical properties, and clean surface quality. As an austenitic stainless steel product, it offers excellent formability, weldability, and toughness in a wide range of applications.

304 stainless steel seamless pipe is suitable for general-purpose service in chemical processing, water treatment, food processing, construction, and mechanical systems. 304L stainless steel seamless pipe has a lower carbon content, which improves weldability and reduces the risk of intergranular corrosion after welding.

Our 304 / 304L seamless stainless steel pipes can be supplied in various sizes, standards, and delivery conditions according to project requirements.

Specification of 304 / 304L Stainless Steel Seamless Pipe:

Product Name	304 / 304L Stainless Steel Seamless Pipe
Material Grade	304, 304L
UNS Number	S30400, S30403
Steel Type	Austenitic Stainless Steel
Product Form	Seamless Pipe
Manufacturing Process	Cold Drawn / Cold Rolled / Hot Finished
Standards	ASTM A312, ASTM A213, ASTM A269, ASME SA312, EN 10216-5

Outside Diameter	6 mm – 630 mm
Wall Thickness	0.5 mm – 40 mm
Length	Random Length / Fixed Length / Customized Length
Size Type	Metric Size / Inch Size
Pipe Schedule	SCH 5, SCH 10, SCH 40, SCH 80, SCH 160, XXS
Surface Finish	Annealed & Pickled (AP), Bright Annealed (BA), Polished
End Finish	Plain End / Beveled End / Customized
Heat Treatment	Solution Annealed
Tolerance	According to ASTM / EN standards
Testing	Chemical Analysis, Mechanical Test, Hydrostatic Test, UT, ET, PMI, Dimensional Inspection, Surface Inspection
Certificates	MTC EN 10204 3.1 / 3.2 / PMI Report / Third-Party Inspection Report
Packing	Bundles, Wooden Cases, End Caps, Waterproof Packing, Seaworthy Export Packing
Applications	Water Treatment, Food Processing, Chemical Equipment, Structural Use, General Industrial Piping

Chemical Composition of 304 / 304L Stainless Steel Seamless Pipe

Grade	C	Mn	Si	P	S	Cr	Ni	N
304	≤0.08	≤2.00	≤0.75	≤0.045	≤0.030	18.00–20.00	8.00–10.50	≤0.10
304L	≤0.03	≤2.00	≤0.75	≤0.045	≤0.030	18.00–20.00	8.00–12.00	≤0.10

Mechanical Properties of 304 / 304L Stainless Steel Seamless Pipe

Grade	Tensile Strength	Yield Strength	Elongation	Hardness
304	≥515 MPa	≥205 MPa	≥35%	≤92 HRB
304L	≥485 MPa	≥170 MPa	≥35%	≤92 HRB

Standards of 304 / 304L Stainless Steel Seamless Pipe:

304 / 304L stainless steel seamless pipe can be supplied according to a variety of international standards, depending on the application, pressure requirement, and end-use industry. Common standards include ASTM, ASME, and EN specifications for seamless stainless steel pipe and tube.

ASTM A312 / ASME SA312 – Seamless, welded, and heavily cold worked austenitic stainless steel pipes for high-temperature and general corrosive service

ASTM A213 / ASME SA213 – Seamless ferritic and austenitic alloy steel boiler, superheater, and heat-exchanger tubes

ASTM A269 – Seamless and welded austenitic stainless steel tubing for general service

ASTM A249 – Welded austenitic steel boiler, superheater, heat-exchanger, and condenser tubes

EN 10216-5 – Seamless steel tubes for pressure purposes, stainless steel technical delivery conditions

ASTM A511 – Seamless stainless steel mechanical tubing

JIS G3459 – Stainless steel pipes for ordinary piping

DIN / ISO standards – Available according to specific project requirements

UNS S30400 – 304 stainless steel

UNS S30403 – 304L stainless steel

EN 1.4301 – 304 stainless steel

EN 1.4307 – 304L stainless steel

Advantages of 304 / 304L Stainless Steel Seamless Pipe:

Good general corrosion resistance

Excellent formability and weldability

Smooth and clean internal and external surface

Good toughness at low temperatures
 Suitable for a wide range of industrial applications
 304L offers lower carbon content for improved welding performance

Comparison of 304 and 304L Stainless Steel Seamless Pipe:

Item	304 Stainless Steel Seamless Pipe	304L Stainless Steel Seamless Pipe
Carbon Content	Higher	Lower
Weldability	Good	Better
Intergranular Corrosion Resistance	Standard	Better after welding
Typical Use	General industrial service	Welded systems and corrosive service
Common Application	Equipment, piping, structural use	Process piping, welded pipelines

Inspection & Test of 304 / 304L Stainless Steel Seamless Pipe:

304 / 304L stainless steel seamless pipe is inspected and tested to ensure compliance with relevant standards and customer requirements. Common inspection and test items include:



- Visual inspection
- Dimensional inspection
- Chemical composition analysis
- Mechanical property test
- Hydrostatic test
- Ultrasonic or eddy current test
- PMI (Positive Material Identification), if required
- Intergranular corrosion test, if required

Applications of 304 / 304L Stainless Steel Seamless Pipe:

304 / 304L stainless steel seamless pipe is commonly used in:



Chemical Industry Pipeline



Construction and Structural Engineering



Energy-Industry



Marine



Ocean Platform



Oil and Gas Industry

- General industrial piping
- Water treatment systems
- Food processing equipment
- Beverage processing lines
- Chemical transfer systems
- Heat exchangers
- Architectural and structural applications
- Pharmaceutical equipment
- Low-corrosion fluid pipelines

Package of 304 / 304L Stainless Steel Seamless Pipe:

304 / 304L stainless steel seamless pipe is usually packed in bundles, wooden cases, or seaworthy export packing to ensure safe transportation and storage. Both ends can be protected with plastic caps, and the pipes are wrapped with woven bags, plastic film, or waterproof materials if required. Packing methods can also be customized according to customer requirements.

