

PIPE & TUBE

Stainless Steel Catalogue



ASTRALLOY INDIA

NICKEL ALLOYS DUPLEX & STAINLESS STEEL

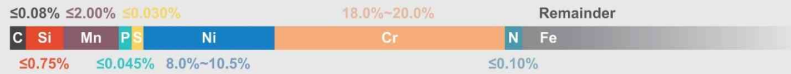


Seamless Pipe & Tube
Welded Pipe & Tube
Thick-walled Pipe & Tube
Capillary Tube
Sanitary Pipe & Tube
Square Pipe & Tube
Rectangle Pipe & Tube
Coil Tube

Main Grades of Stainless Steel Pipe & Tube

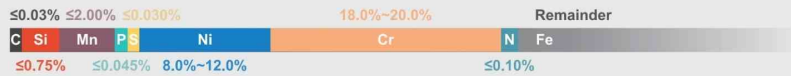
304

AISI304, SUS304, S30400, 1.4301



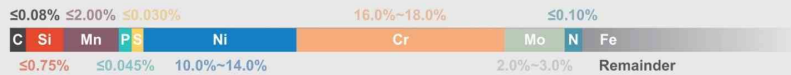
304L

AISI304L, SUS304L, S30403, 1.4306



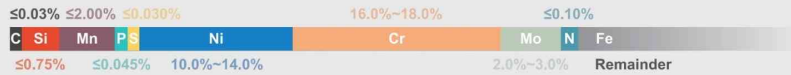
316

AISI316, SUS316, S31600, 1.4401



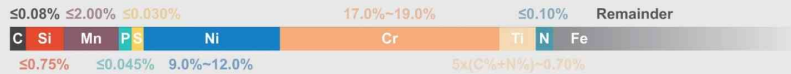
316L

AISI316L, SUS316L, S31603, 1.4404



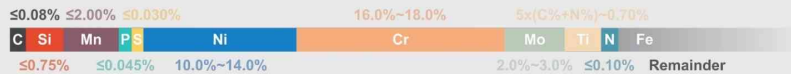
321

AISI321, SUS321, S32100, 1.4541



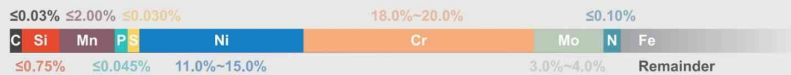
316Ti

AISI316Ti, SUS316Ti, S31635, 1.4571



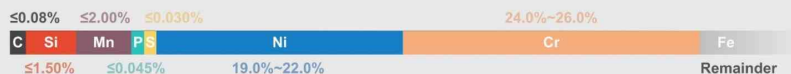
317L

AISI317L, SUS317L, S31726, 1.4438



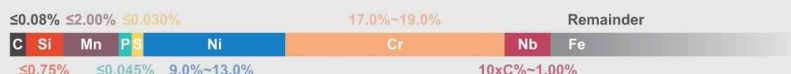
310S

AISI310S, SUS310S, S31008, 1.4845



347

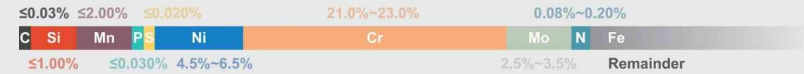
AISI347, SUS347, S34700, 1.4550



Main Grades of Stainless Steel Pipe & Tube

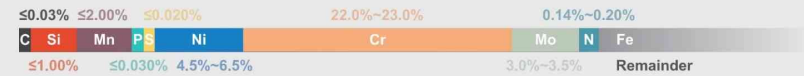
S31803

F51, SUS329J3L, 1.4462



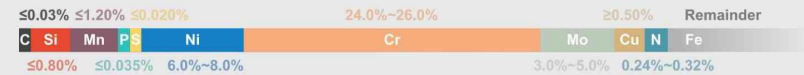
S32205

2205, SUS329J3L, F51, 1.4462



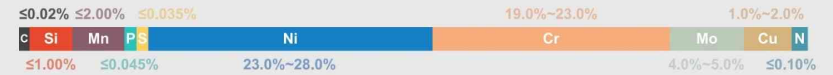
S32750

2507, NAS74N, F53, 1.4410



904L

AISI904L, SUS904L, N08904, 1.4539



254SMo

AISI254SMo, SUS254SMo, S31254, 1.4547



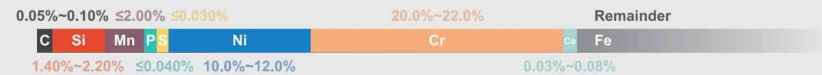
17-4PH

AISI630, SUS630, S17400, 1.4542



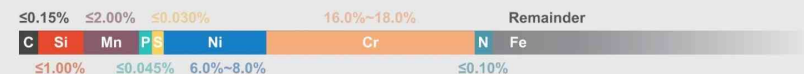
253MA

AISI253MA, SUS253MA, S30815, 1.4835



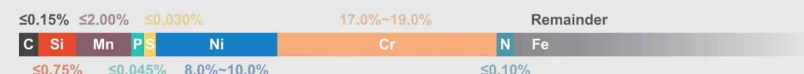
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AISI301, SUS301, S30100, 1.4319



302

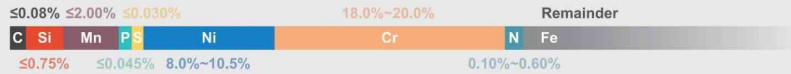
AISI302, SUS302, S30200, 1.4318



Main Grades of Stainless Steel Pipe & Tube

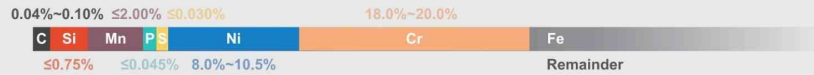
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AISI304N, SUS304N1, S30451, 1.4315



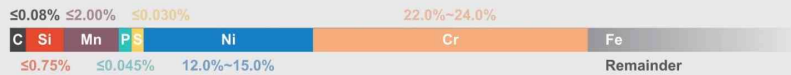
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AISI304H, SUS304, S30409, 1.4948



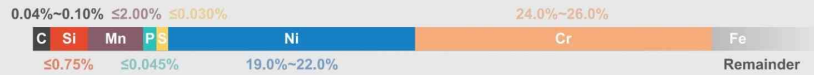
309S

AISI309S, SUS309S, S30908, 1.4833



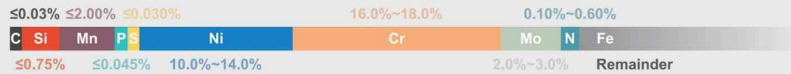
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AISI310H, SUS310H, S31009, 1.4845



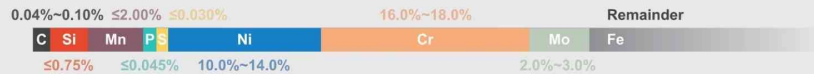
316LN

AISI316LN, SUS316LN1, S31653, 1.4429



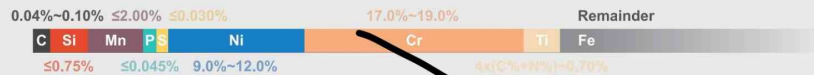
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AISI316H, SUS316H, S31609, 1.4436



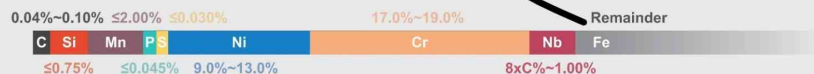
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AISI321H, SUS321H, S32109, 1.4541



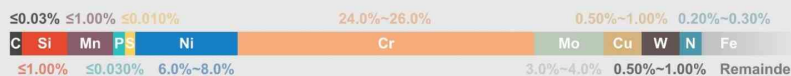
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AISI347H, SUS347H, S34709, 1.4912



S32760

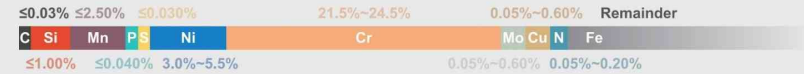
F55, 1.4501



Main Grades of Stainless Steel Pipe & Tube

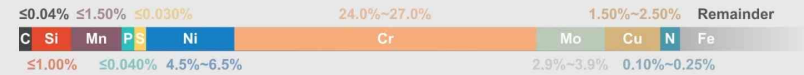
S32304

2304, DP11, 1.4362



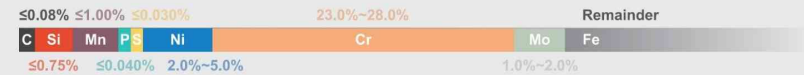
S32550

255, SUS329J4L, QSA2505, 1.4507



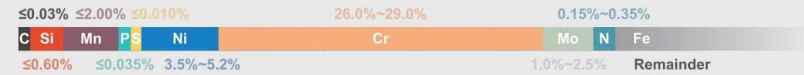
S32900

329, SUS329J1, 1.4477



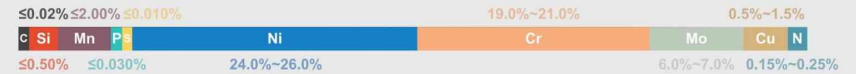
S32950

F52



926

AISI926, SUS926, N08926, 1.4529



654SMo

AISI654SMo, SUS654SMo, S32654, 1.4652



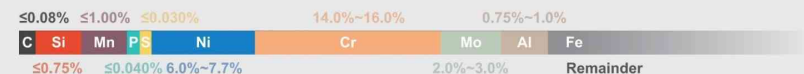
17-7PH

AISI631, SUS631, S17700, 1.4568



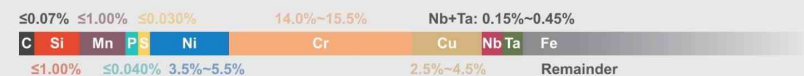
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AISI630, SUS630, S15700, 1.4542



15-5PH

S15500

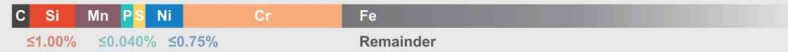


Main Grades of Stainless Steel Pipe & Tube

410

AISI410, SUS410, S41000, 1.4006

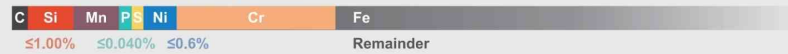
0.08%~0.15% ≤1.00% ≤0.030% 11.5%~13.5%



410S

AISI410S, SUS410S, S41008, 1.4000

≤0.08% ≤1.00% ≤0.030% 11.5%~13.5%



420

AISI420, SUS420J1, SUS420J2, 1.4021, 1.4028, S42000

≥0.15% ≤1.00% ≤0.030% Remainder



420F

AISI420F, SUS420F, S42020, 1.4029

0.30%~0.40% ≤1.50% 0.20%~0.34% 12.5%~14.0% Remainder



431

AISI431, SUS431, S43100, 1.4057

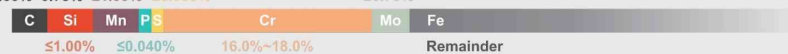
≤0.20% ≤1.00% ≤0.030% 15.0%~17.0%



440A

AISI440A, SUS440A, S44002

0.60%~0.75% ≤1.00% ≤0.030% ≤0.75%



440B

AISI440B, SUS440B, S44003, 1.4112

0.75%~0.95% ≤1.00% ≤0.030% ≤0.75%



440C

AISI440C, SUS440C, S44004, 1.4125

0.95%~1.20% ≤1.00% ≤0.030% ≤0.75%



409(L)

AISI409, AISI409L, SUH409, SUH409L, S40900, 1.4512

≤0.03% ≤1.00% ≤0.020% 10.5%~11.7% ≤0.50% Remainder

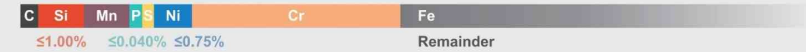


Main Grades of Stainless Steel Pipe & Tube

430

AISI430, SUS430, S43000, 1.4016

≤0.12% ≤1.00% ≤0.030% 16.0%~18.0%



434

AISI434, SUS434, S43400, 1.4113

≤0.12% ≤1.00% ≤0.030% 0.75%~1.25%



436

AISI436, SUS436, S43600, 1.4536

≤0.12% ≤1.00% ≤0.030% 0.75%~1.25% Remainder



439

AISI439, SUS430LX, S43035, 1.4510

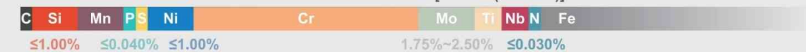
≤0.03% ≤1.00% ≤0.030% 17.0%~19.0% Remainder



444

AISI444, SUS444, S44400, 1.4521

≤0.25% ≤1.00% ≤0.030% 17.5%~19.5% Ti+Nb: [0.20+4x(C%+N%)]~0.80% Remainder





**Seamless
Pipe&Tube**



Specifications

- Outer Diameter: $\Phi 4$ - $\Phi 1219$ mm (Minimum - Maximum)
- Wall Thickness: 0.5-100mm (Minimum – Maximum)
- Length: 24000mm (Maximum)
- *Customized size needs to be confirmed with us

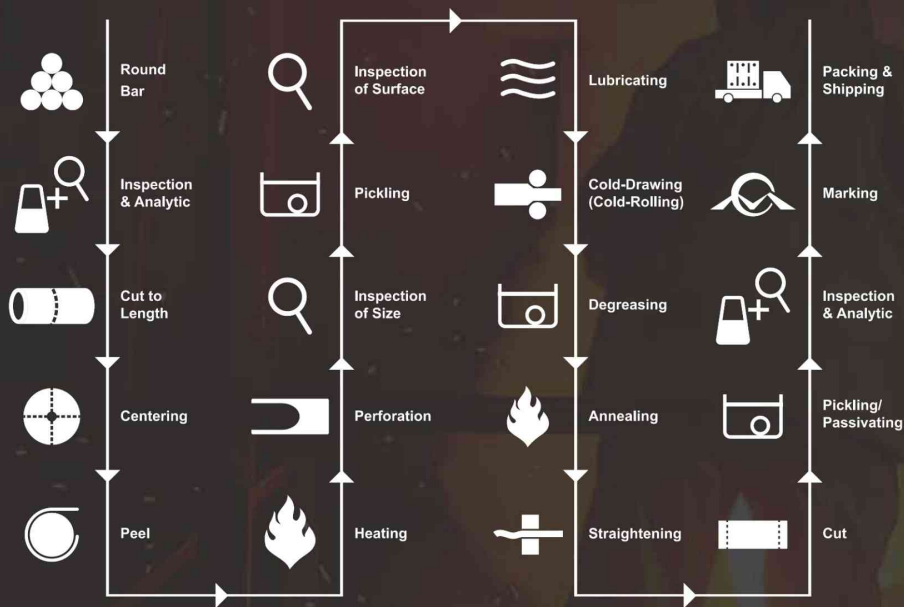
Standards

- American Standard: ASTM A312, ASME SA269, ASTM A269, ASME SA213, ASTM A213, ASTM A511, ASTM A789, ASTM A790
- Germany Standard: DIN2462.1-1981, DIN17456-85, DIN17458-85
- Japanese Standard: JIS G3463-2006, JIS G3459-2012
- Russian Standard: GOST 9941-81
- GB Standard: GB14975, GB14976, GB95, GB13296, GB5310, GB9948, GB/T12771

Applications

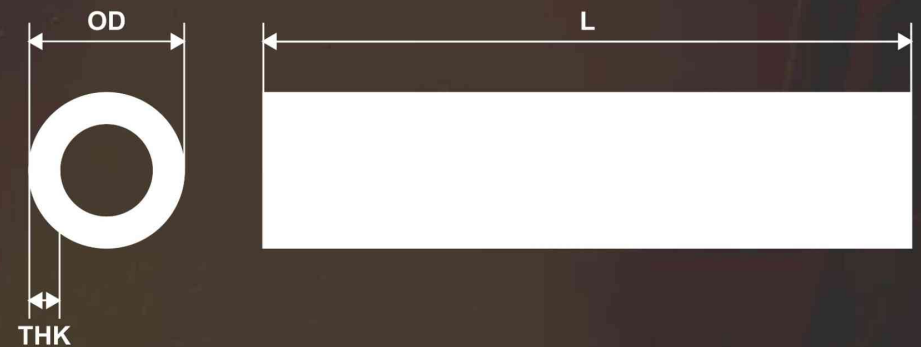
Home appliances, electric appliances, construction materials, medical equipment, auto parts, petroleum, chemical application, agricultural irrigation, edible oil refinery factories, paper plants, shipyard, nuclear power plant etc.

Manufacturing Process



Manufacturing Process

Drawing & Formula



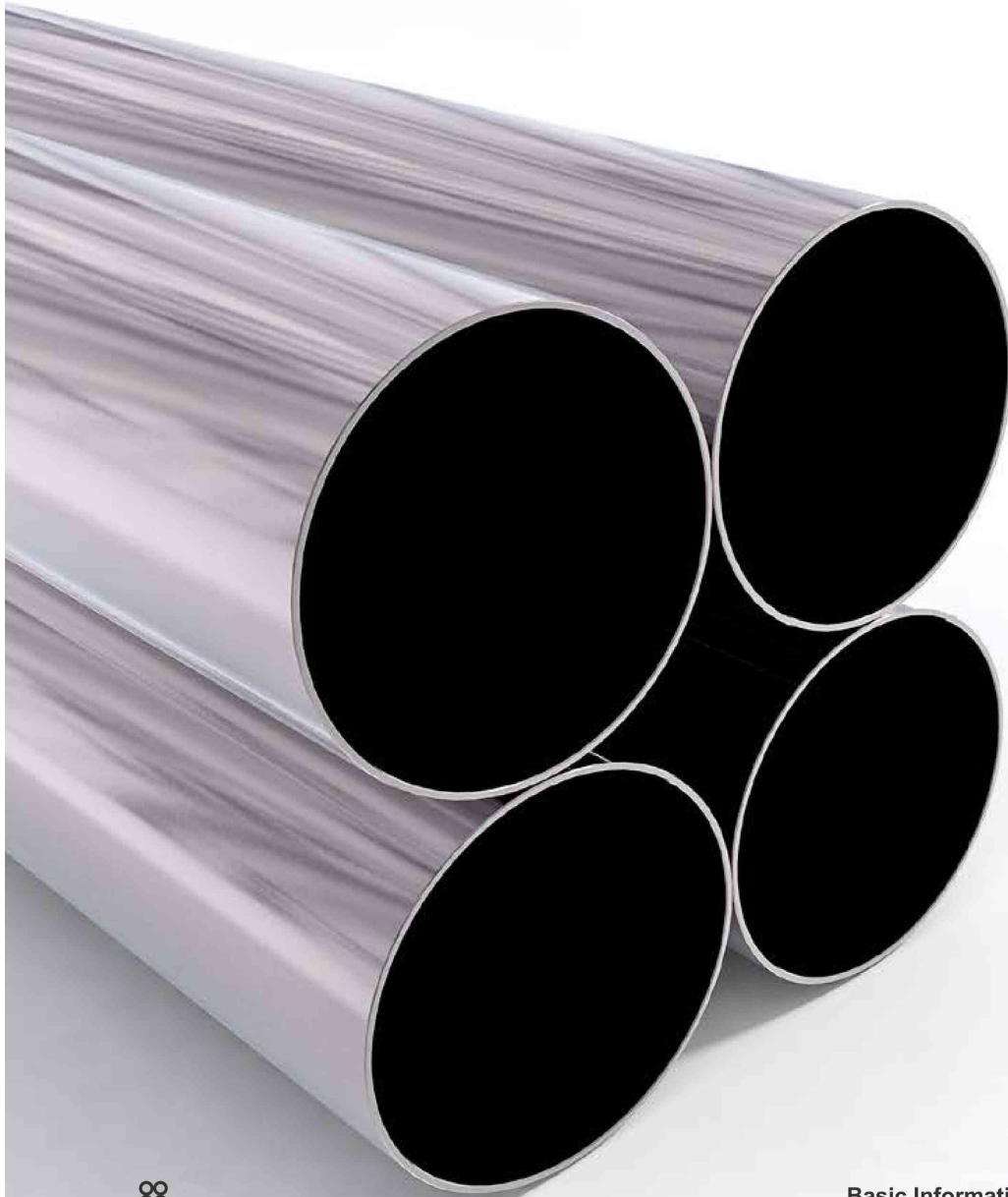
Formula:

$$m = (OD - THK) \times THK \text{ (mm)} \times L \text{ (m)} \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507
 OD = Outer diameter, THK = Wall Thickness, L = Length

Drawing & Formula





Specifications

- Outer Diameter: $\Phi 6$ - $\Phi 2800$ mm (Minimum - Maximum)
- Wall Thickness: 0.3-45mm (Minimum – Maximum)
- Length: 18000mm (Maximum)
- *Customized size needs to be confirmed with us

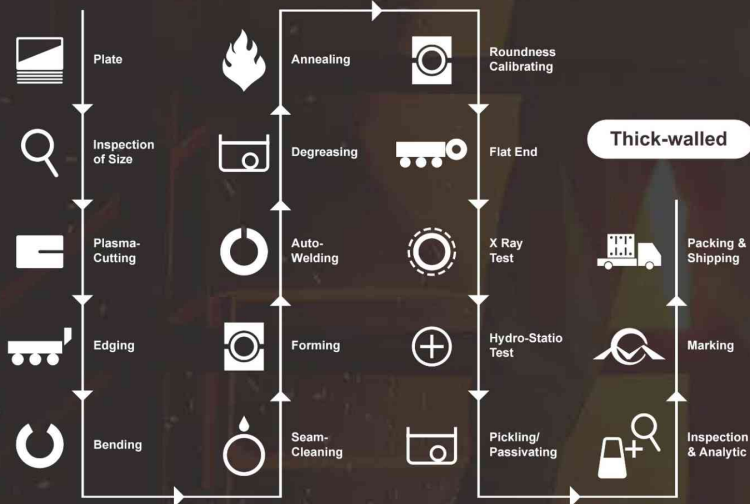
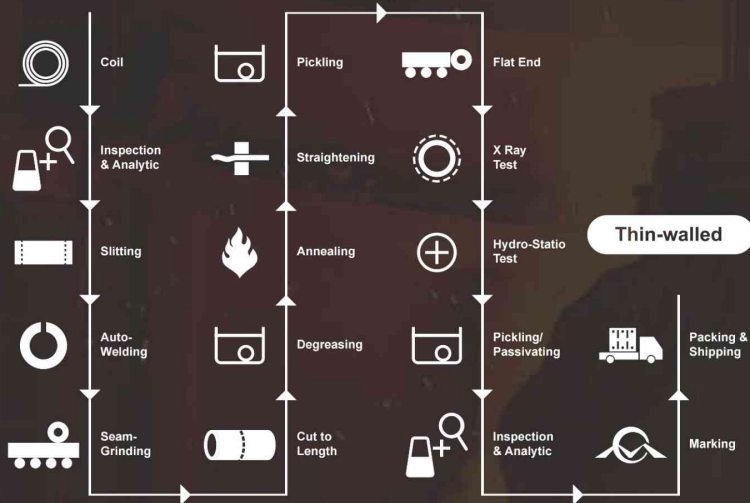
Standards

- American Standard: ASTM A312, ASTM A358, ASTM A249, ASTM A269, ASTM A554, ASTM A790
- European Standard: DIN 17457
- Japanese Standard: JIS G3459
- GB Standard: GB/T12770-2002, GB/T12771-2008

Applications

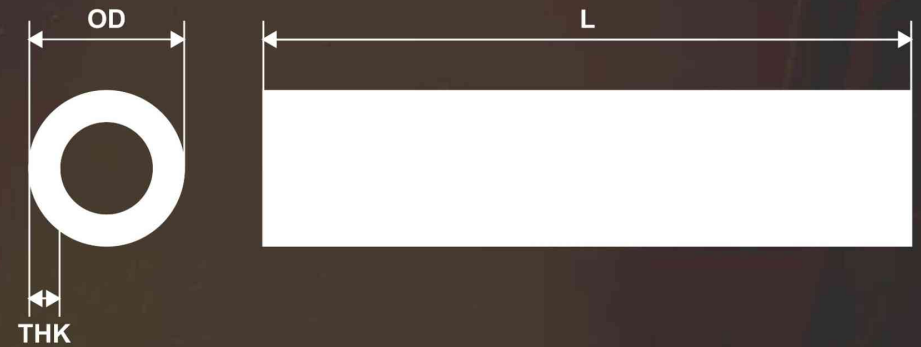
Industrial application such as petroleum, chemical, paper plant, sewage system, energy, dyeing workshop, mechanical and structural application, boiler heat exchange and others.

Manufacturing Process



Manufacturing Process

Drawing & Formula



Formula:

$$m = (OD - THK) \times THK \text{ (mm)} \times L \text{ (m)} \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507
 OD = Outer diameter, THK = Wall Thickness, L = Length

Drawing & Formula



**Thick-walled
Pipe&Tube**



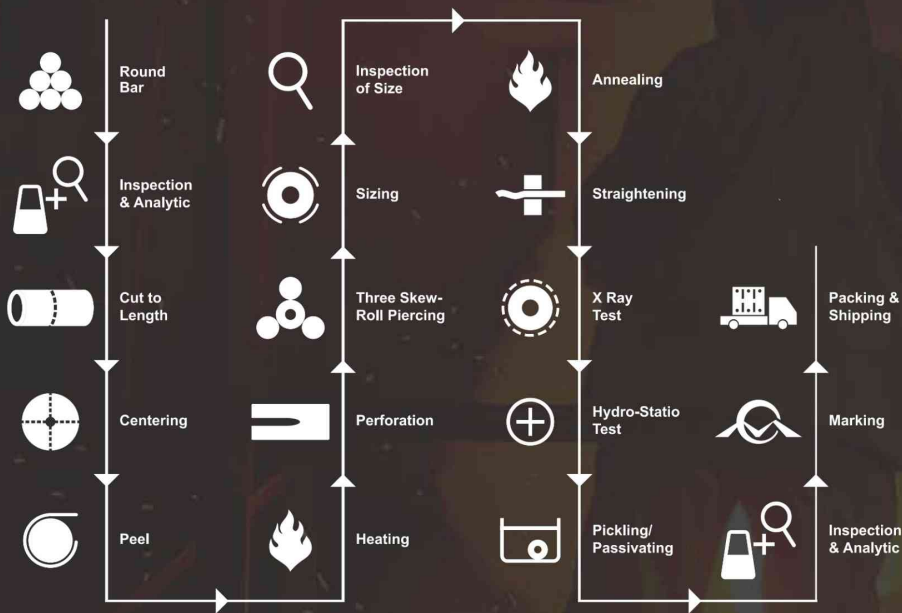
Specifications

- Outer Diameter: $\Phi 10$ - $\Phi 1219$ mm (Minimum - Maximum)
- Wall Thickness: SCH80S, SCH120, SCH160, XXS
- *Customized size needs to be confirmed with us

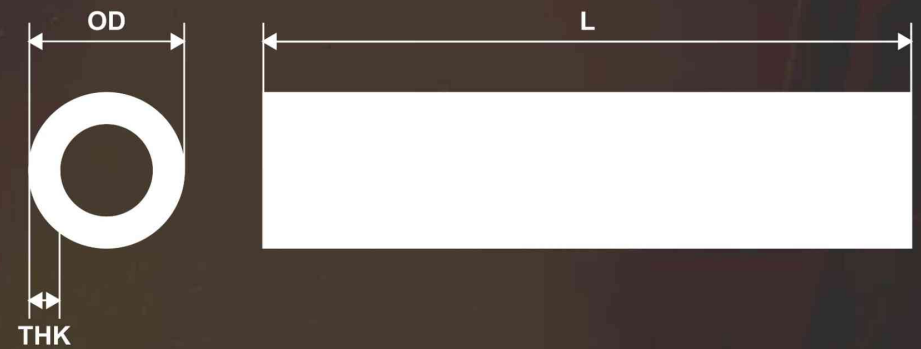
Standards

- American Standard: ASTM A312, ASME SA269, ASTM A269, ASME SA213, ASTM A213, ASTM A511, ASTM A789, ASTM A790, ASTM A376
- Germany Standard: DIN2462.1-1981, DIN17456-85, DIN17458-85
- European Standard: EN10216-5, EN10216-2
- Japanese Standard: JIS G3463-2006, JIS G3459-2012
- Russian Standard: GOST 9941-81
- GB Standard: GB14975, GB14976, GB95, GB13296, GB5310, GB9948, GB/T12771

Manufacturing Process



Drawing & Formula



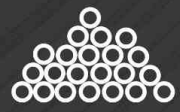
Formula:

$$m = (OD - THK) \times THK \text{ (mm)} \times L \text{ (m)} \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507

OD = Outer diameter, THK = Wall Thickness, L = Length





Capillary
Tube



Specifications

- Outer Diameter: $\Phi 0.4$ - $\Phi 16.0$ mm (Minimum - Maximum)
- Wall Thickness: 0.1-2.0mm (Minimum – Maximum)
- Length: 18000mm (Maximum)
- *Customized size needs to be confirmed with us

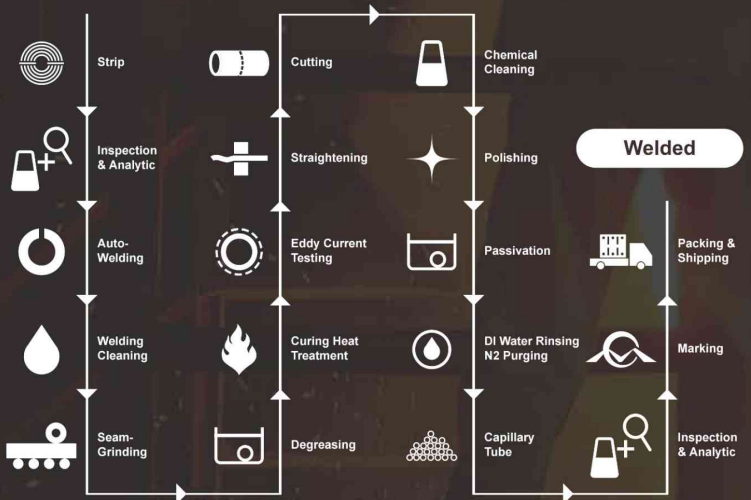
Standards

- American Standard: ASTM A312, ASTM A358, ASTM A249, ASTM A269, ASTM A554, ASTM A790
- European Standard: DIN 17457
- Japanese Standard: JIS G3459
- GB Standard: GB/T12770-2002, GB/T12771-2008

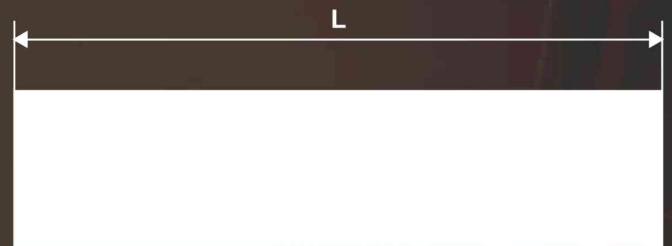
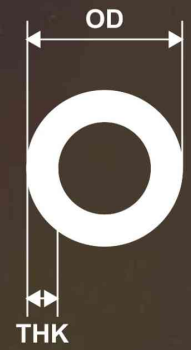
Features

Fine softness, anti-corrosion, heat resistance, durability, good tensile properties, waterproofing, and good electromagnetic shielding properties.

Manufacturing Process



Drawing & Formula



Formula:

$$m = (OD - THK) \times THK \text{ (mm)} \times L \text{ (m)} \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507
 OD = Outer diameter, THK = Wall Thickness, L = Length



**Sanitary
Pipe&Tube**



Specifications

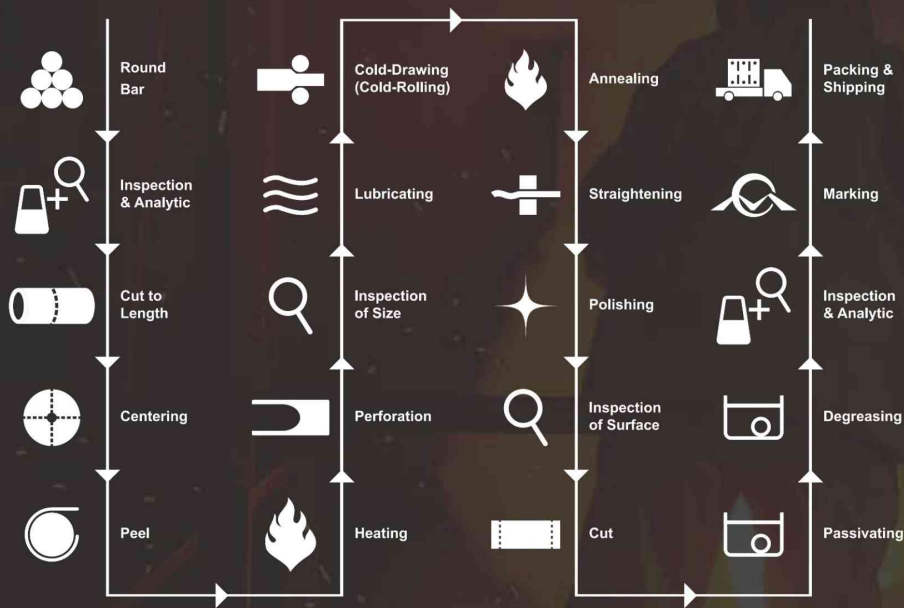
- 1) S.S. Welded Sanitary Pipe:
Outer Diameter: $\Phi 8$ - $\Phi 850$ mm (Minimum - Maximum)
Wall Thickness: 1-6mm (Minimum – Maximum)
- 2) S.S. Seamless Sanitary Pipe:
Outer Diameter: $\Phi 6$ - $\Phi 219$ mm (Minimum - Maximum)
Wall Thickness: 1-6mm (Minimum – Maximum)
- *Customized size needs to be confirmed with us

Standards

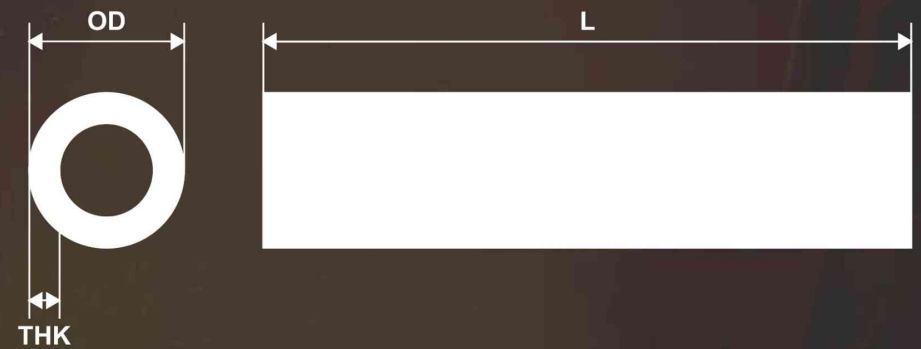
- American Standard: ASTM A312, ASME SA269, ASTM A269, ASME SA213, ASTM A213, ASTM A511, ASTM A789, ASTM A790, ASTM A376, ASME SA335, SB161, SB163, SB338, SB667/668
- Germany Standard: DIN2462.1-1981, DIN17456-85, DIN17458-85
- European Standard: EN10216-5, EN10216-2
- Japanese Standard: JIS G3463-2006, JIS G3459-2012
- Russian Standard: GOST 9941-81
- GB Standard: GB14975, GB14976, GB95, GB13296, GB5310, GB9948, GB/T12771



Manufacturing Process



Drawing & Formula



Formula:

$$m = (OD - THK) \times THK \text{ (mm)} \times L \text{ (m)} \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507
 OD = Outer diameter, THK = Wall Thickness, L = Length





**Square
Pipe&Tube**



Specifications

- Side Length: 4×4-300×300mm (Minimum - Maximum)
- Wall Thickness: 0.25-8.0mm (Minimum – Maximum)
- Length: 18000mm (Maximum)
- *Customized size needs to be confirmed with us

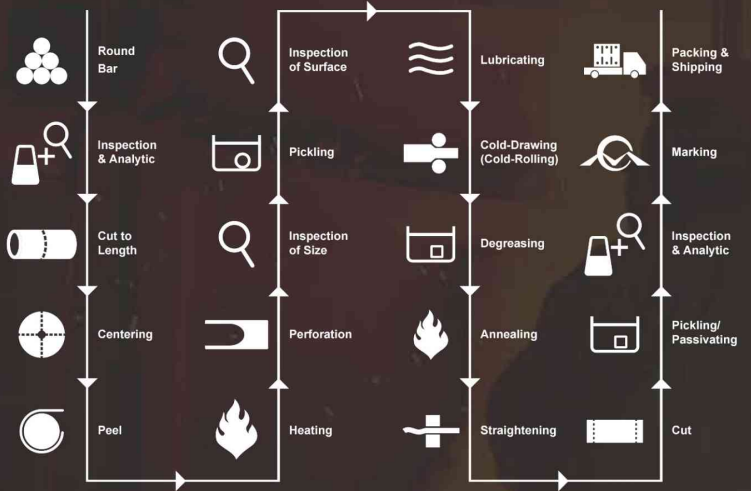
Standards

- American Standard: ASTM A312, ASTM A358, ASTM A249, ASTM A269, ASTM A554, ASTM A790
- European Standard: DIN 17457
- Japanese Standard: JIS G3459
- GB Standard: GB/T12770-2002, GB/T12771-2008

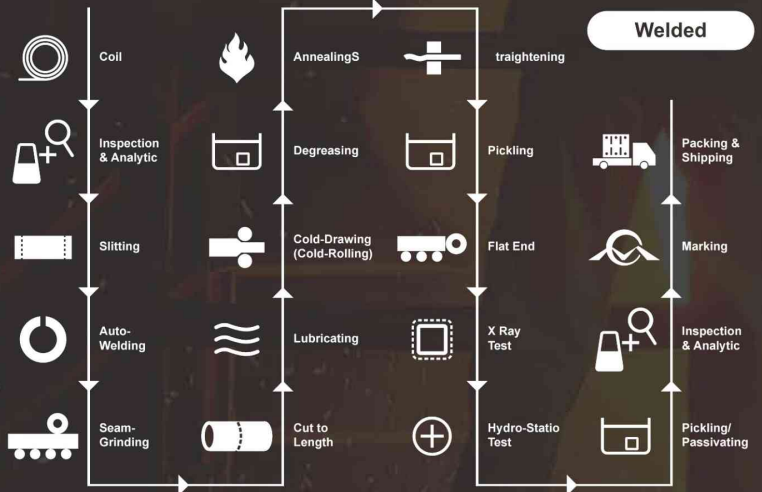


Manufacturing Process

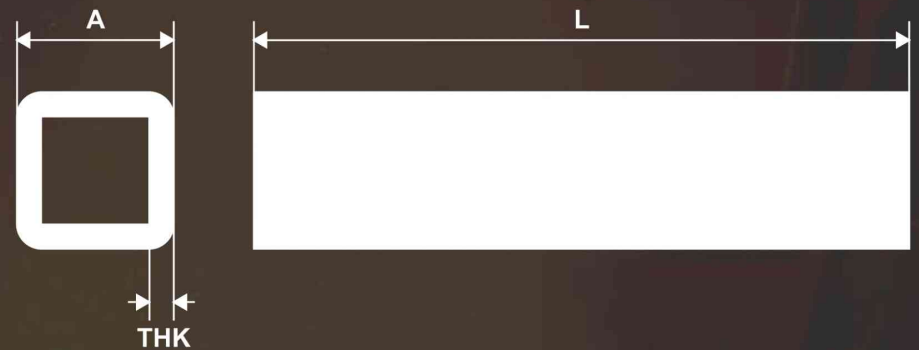
Seamless



Welded



Drawing & Formula



Formula:

$$m = (A \times 4/3.14 - THK) \times THK \times L (m) \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507
 A = Side Width, THK = Wall Thickness, L = Length





**Rectangle
Pipe&Tube**



Specifications

- Side Length: 4×6-200×400 (Minimum - Maximum)
- Wall Thickness: 0.25-8.0mm (Minimum – Maximum)
- Length: 18000mm (Maximum)
- *Customized size needs to be confirmed with us

Features

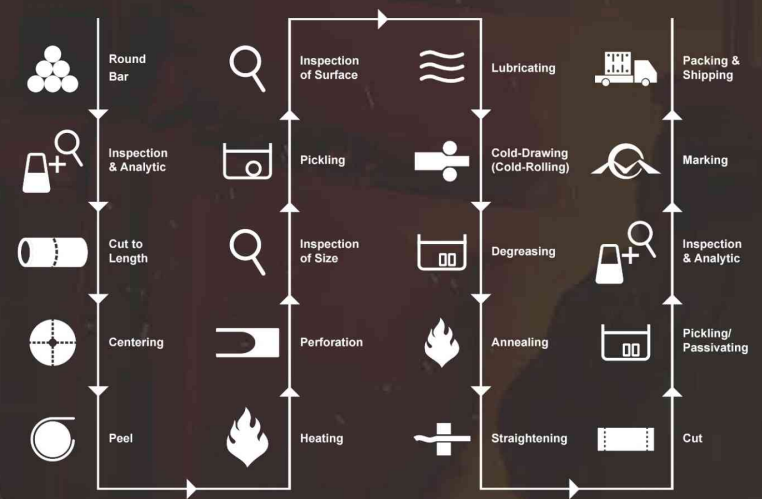
Anti-corrosion (the degree is susceptible to the alloys contained), heat-resistance, good cold and hot working properties, good toughness, good comprehensive performances and wide application

Standards

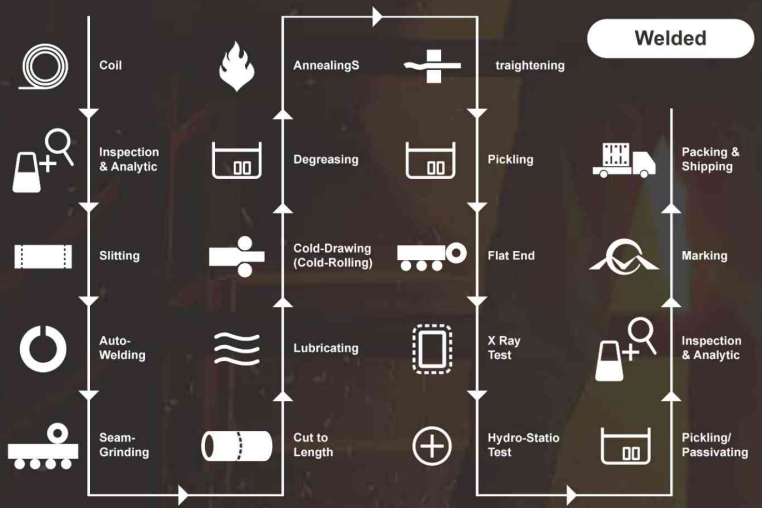
- American Standard: ASTM A312, ASTM A358, ASTM A249, ASTM A269, ASTM A554, ASTM A790
- European Standard: DIN 17457
- Japanese Standard: JIS G3459
- GB Standard: GB/T12770-2002, GB/T12771-2008

Manufacturing Process

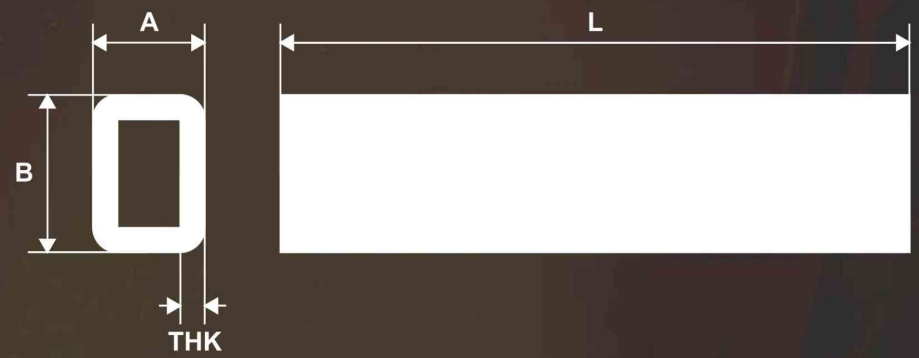
Seamless



Welded



Drawing & Formula



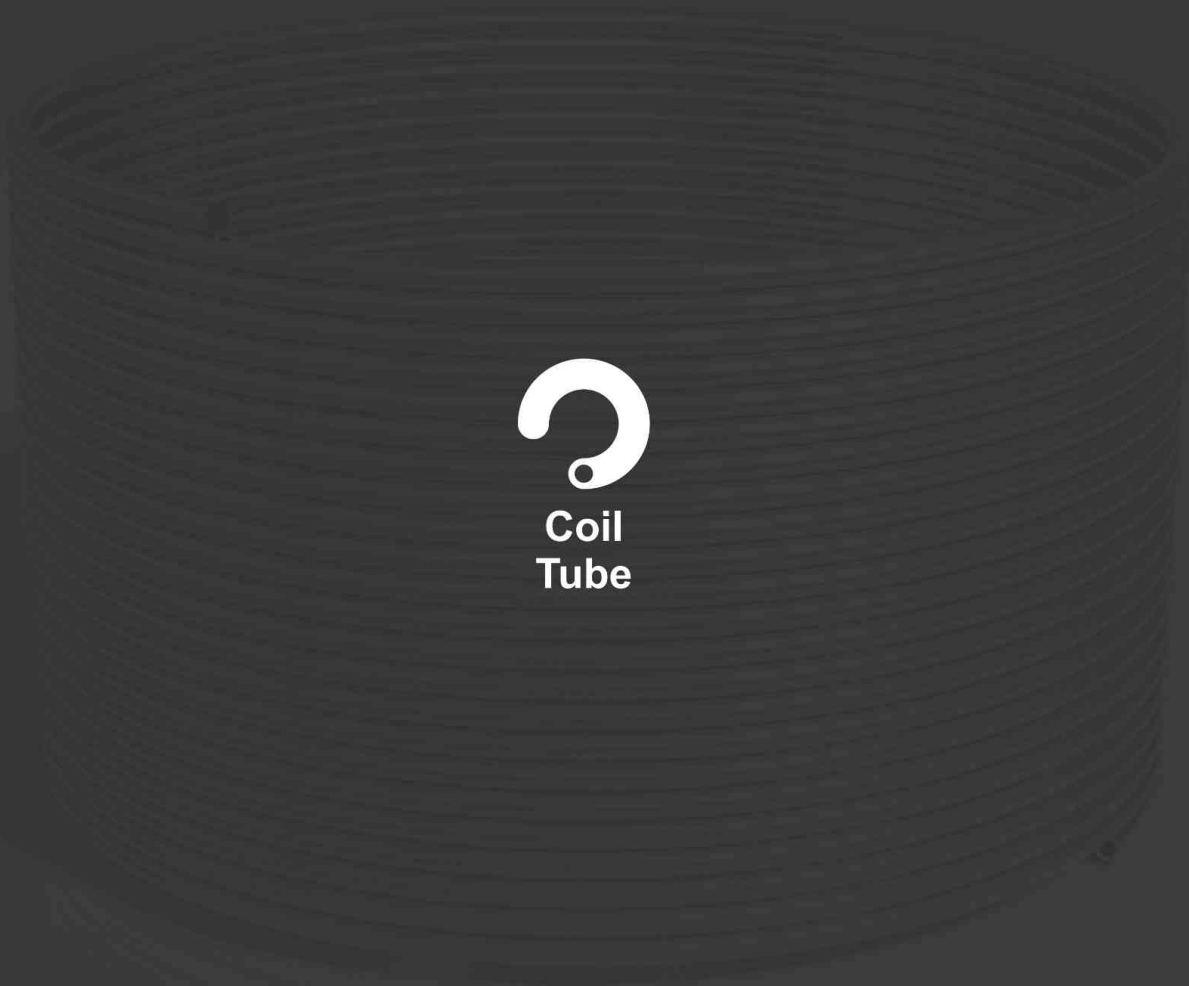
Formula:

$$m = [(A + B) \times 2 / 3.14 - THK] \times THK \text{ (mm)} \times L \text{ (m)} \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507

A = Side Width, B = Edge Length, THK = Wall Thickness, L = Length





**Coil
Tube**



Specifications

- Dimension:
Outside diameter range from 0.4 to 16mm
Wall thickness range from 0.1 to 2.11mm
Length: 150m, 1500m, 1800m, or customized
- Classification of Stainless Steel Tube Coil/Coil
Tubing:
 1. Flange heating tubes
 2. O type
 3. I type
 4. W type
 5. U type
- *Customized size needs to be confirmed with us

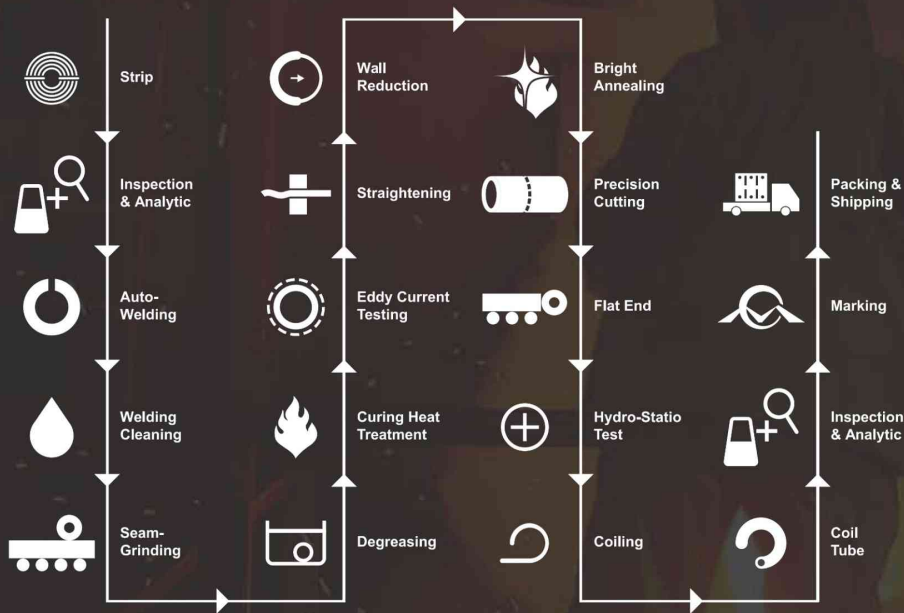
Features

Stainless steel coil tube boasts many good features as below: 1) resistance to high-temperature steam, impingement corrosion and ammonia corrosion; 2) anti-scaling, hardness to get stained, corrosion resistance to oxidation; 3) long service life, reduced maintenance time, cost saving; 4) excellent tabulation, readiness for tube change, safety and reliability; 5) uniform tube wall, 30%-50% less than the wall thickness of copper tube, superior overall thermal conductivity coefficient; 6) ideal heat exchange product for upgrading old sets and manufacturing new equipment.

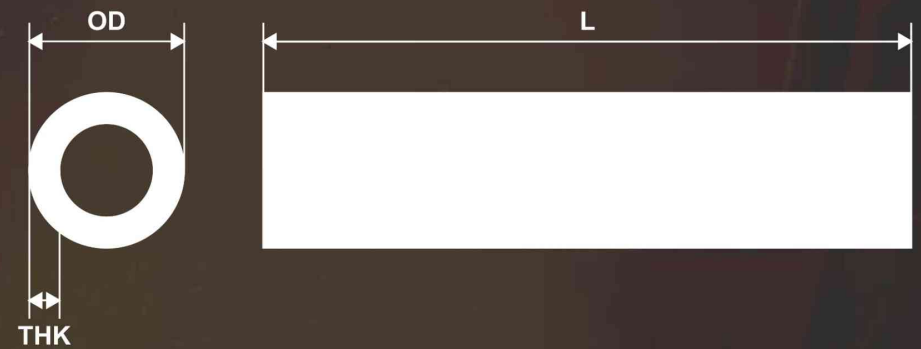
Standards

ASTM A269, A249, JIS G4305, GB/T 12770-2002/GB/T12771-2002, EN10216-5

Manufacturing Process



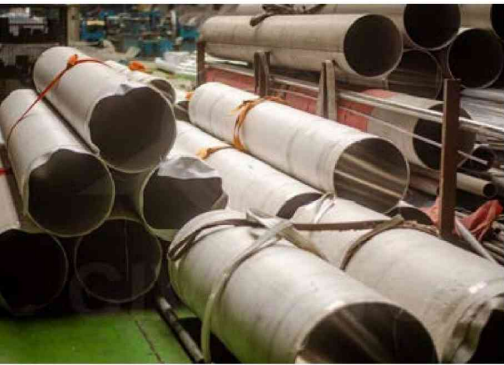
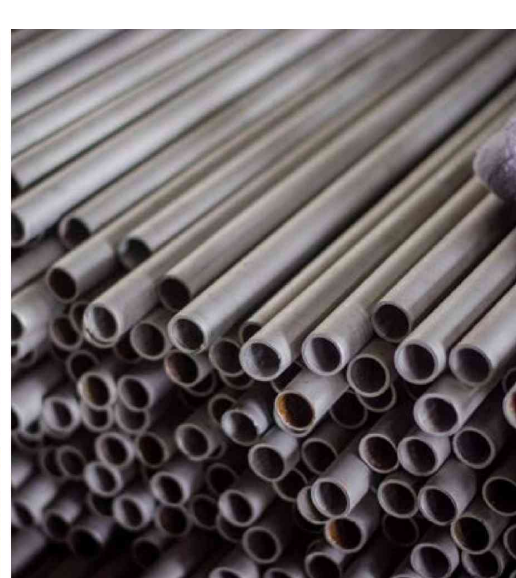
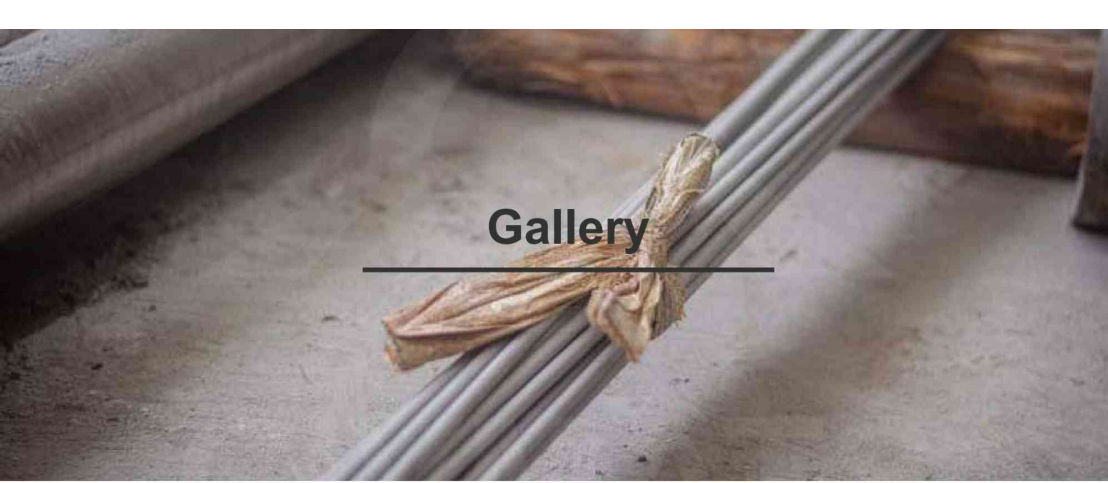
Drawing & Formula

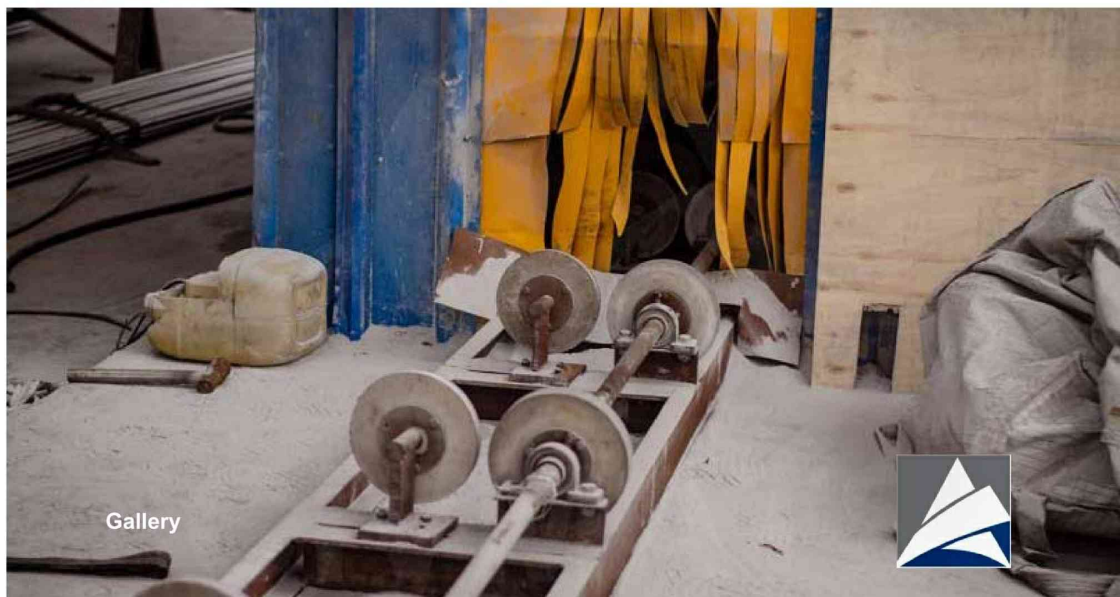
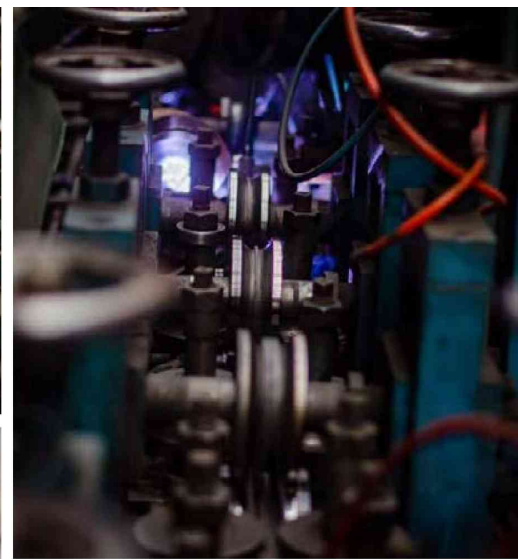
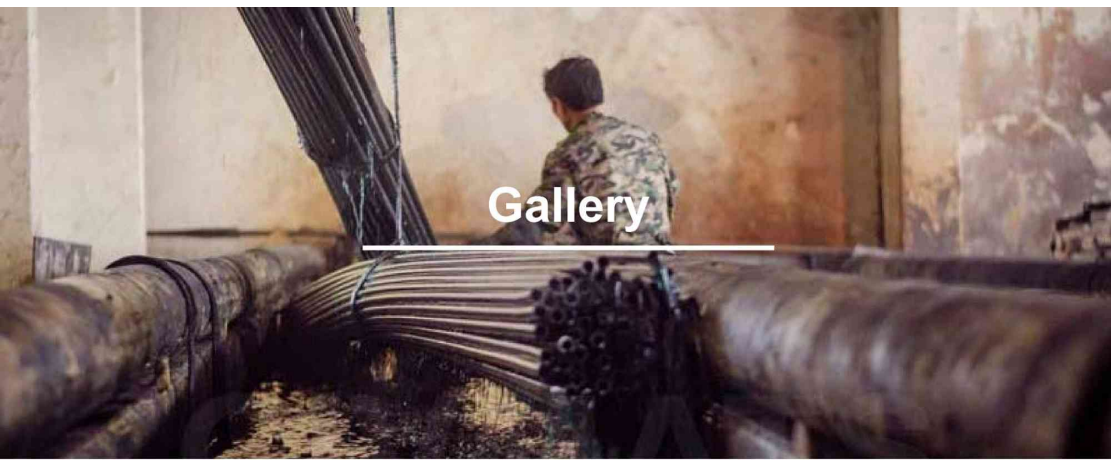


Formula:

$$m = (OD - THK) \times THK \text{ (mm)} \times L \text{ (m)} \times 0.02491$$

* For 316, 316L, 310S, 309S, etc., ratio=0.02507
 OD = Outer diameter, THK = Wall Thickness, L = Length





FAQ

Q: Can you process SS seamless pipes into polished finish?

A: Yes, for stainless steel seamless pipe, polished finish is also available, like simple rough polishing. For precise polishing, we can polish the pipes to # 240 and # 320 as per your demand. Stainless steel sanitary seamless pipe is such an example. By default, SS seamless pipe features pickled finish as many of our photos illustrate.

Q: What is the standard length? Can I have the tubes/pipes cut into the length I want?

A: Our standard length of SS pipe is 5.8m or 6meter for most overseas orders. We can also make the pipe length as long as 12 or 13 meters for your reference.

Yes, we can cut pipes into the length you want, but this can incur extra cost. In case of order, please also indicate the cutting method you prefer. We have laser cutting, plasma cutting and water-jet cutting for your options.

Q: Do you also have SS pipe fittings?

A: Yes, we have, like elbows, flanges, reducers, etc. For detailed information, please kindly refer to our product.

Q: Where's your main market?

A: South America, South-East Asia, Middle-East, Europe and so on.

Q: What's your package for SS pipe?

A: By default, our package is thick woven plastic bag, but we also provide wooden case or dedicated package as per your requirement. You can also refer to our pictures for better understanding.

Q: How long is your delivery time of SS welded tube?

Normally, it takes two weeks for us to complete production of SS welded tube for order quantity less than two containers, but the delivery time might also be influenced by other factors such as special grade, special size, large quantity of the product itself, or some force majeure.

Q: What's the finish of your stainless steel square pipe?

A: For industrial application, the finish of our stainless steel square pipe is No.1 or pickled finish. We can also do polished SS square pipe, like 320#, 400# for your specific requirement.

Q: Do you have seamless stainless steel rectangle pipe?

A: Yes, we have. Our stainless steel rectangle pipe is available in both processes: welded or seamless for your specific requirement.

FAQ

Q: What's your SS coiled tubing process?

A: Either of the two: 1)TIG welded and cold drawn 2)Seamless and cold drawn.

Q: What's the difference between stainless steel sanitary tube and stainless steel industrial tube?

A: Stainless steel sanitary tube is either SS seamless tube or SS welded tube in terms of process. SS sanitary tubes are usually required to get polished both inside and outside so that the inside pipe wall will be smooth enough to prevent water pollution caused by accumulated residuals. Sanitary stainless steel tubes are the ideal pipe material for city water supply system, desalination, gas transportation and the like.

In contrast, industrial stainless steel tubes are pickled and passivated both inside and outside, possessing good features like reliability, security, and economy. Industrial SS tubes, used as underground pipes and long-distance pipelines, feature light weight, high strength, corrosion resistance and long service life.

Q: What's the standard package for your SS sanitary tube?

A: Each stainless steel sanitary tube will be packaged in waterproof plastic bag individually with pipe caps assembled at both ends, and then bundled together to be further protected with woven plastic bag. As per your request, we can also provide wooden case package or other customized package.

Q: What standard do you follow for the thick-walled SS pipes?

A: The common standard for stainless steel thick-walled pipe or stainless steel hollow bar we follow is ASTM A511. Unlike fluid-carrying seamless tubes, these SS thick-walled pipes are for use in mechanical applications or as hollow bar for use in the production of hollow components such as, but not limited to nozzles, reducers, and couplings by machining where corrosion-resistant or high-temperature strength is needed.

Q: How many delivery states do you have for SS capillary tubes?

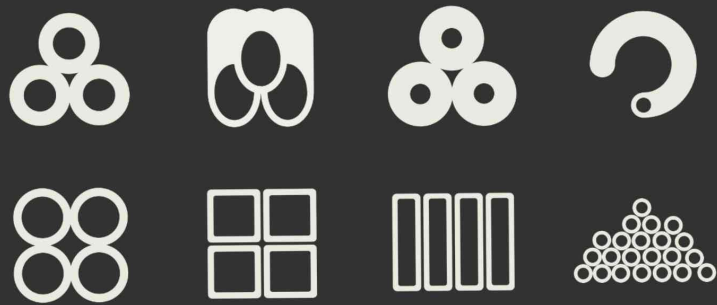
A: We have 4 delivery states for your choice: Annealed and pickled (AP), Mechanically Polished (MP), Bright Annealed (BA) and Electro-polished (EP).

Q: What's your standard package for EP tubes?

A: For our EP grade stainless steel tubes, both ends of the finished tubes are protected with PA film and rubber tube caps. Anti-static bags are also used to further protect these tubes. At last, they will be placed into the wooden case.

Q: Which capillary tubes are the most popular?

A: BA grade and EP grade 316L capillary tubes are the most popular tubes at home and abroad. The most applied standard is ASTM A269 for your reference.



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