



ASTM A179

is the standard applicable to Seamless cold drawn low carbon steel heat ex-changer and condenser tubes.

ASTM A179 covers minimum-wall thickness, seamless cold-drawn low-carbon steel tubes for tubular heat-exchange, condensers, and similar heat transfer apparatus. Tubes shall be made by the seamless process and shall be cold drawn. Heat and product analysis shall be performed wherein steel materials shall conform to required chemical compositions of carbon, manganese, phosphorus, and sulfur. The steel materials shall also undergo hardness test, flattening test, flaring test,

ASTM A179 tubes Chemical Compositions (%)

| C | Si | Mn | P | S | Cr | Mo | Cu | Ni | V |
|-----------|----|-----------|--------|--------|----|----|----|----|---|
| 0.06-0.18 | / | 0.27-0.63 | ≤0.035 | ≤0.035 | / | / | / | / | / |

ASTM A179 tubes Mechanical Properties

| Yield Strength (Mpa) | Tensile Strength (Mpa) | Elongation (%) |
|----------------------|------------------------|----------------|
| ≥180 | ≥325 | ≥35 |

ASTM A179 is a brief summary of the referenced standard. It is informational only and not an official part of the standard; the full text of the standard itself must be referred to for its use and application. ASTM does not give any warranty express or implied or make any representation that the contents of this abstract are accurate, complete or up to date.

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Scope

1. ASTM A179 covers minimum-wall-thickness, seamless cold-drawn low-carbon steel tubes for tubular heat exchangers, condensers, and similar heat transfer apparatus.
2. ASTM A179 covers tubes 1/8 to 3 in. [3.2 to 76.2 mm], inclusive, in outside diameter.

Note 1 Tubing smaller in outside diameter and having a thinner wall than indicated in this specification is available. Mechanical property requirements do not apply to tubing smaller than 1/8 in. [3.2 mm] in outside diameter or with a wall thickness under 0.015 in. [0.4 mm].

- The values stated in either inch-pound units or SI units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with the specification. The inch-pound units shall apply unless the “M” designation of this specification is specified in the order.

Features:

ASTMA179/ASME SA179 standard is applicable for steel pipes together with outside diameter of 1/8in-3in. (32 mm to 76.2 mm). Our rolling technology has reached the international advanced spot. JST is able to manufacture cold drawn seamless steel tubes with uniform wall depth. Their tolerance is relatively smaller standard your own.

When seamless carbon steel pipes are during the last cold drawing procedure, they will enter micro oxidization and non-oxidation heat treatment furnace for thermal treatment (Temperature is 1200°F (650°C) if not more.). This makes the surface of cold drawn seamless steel tubes match the no oxide scale standards, and guarantees smooth surface and stable performance. JST adopts professional hardness testing equipment to find out the hardness of seamless carbon steel pipes. The Rockwell hardness value not able to exceed 72 HRB.

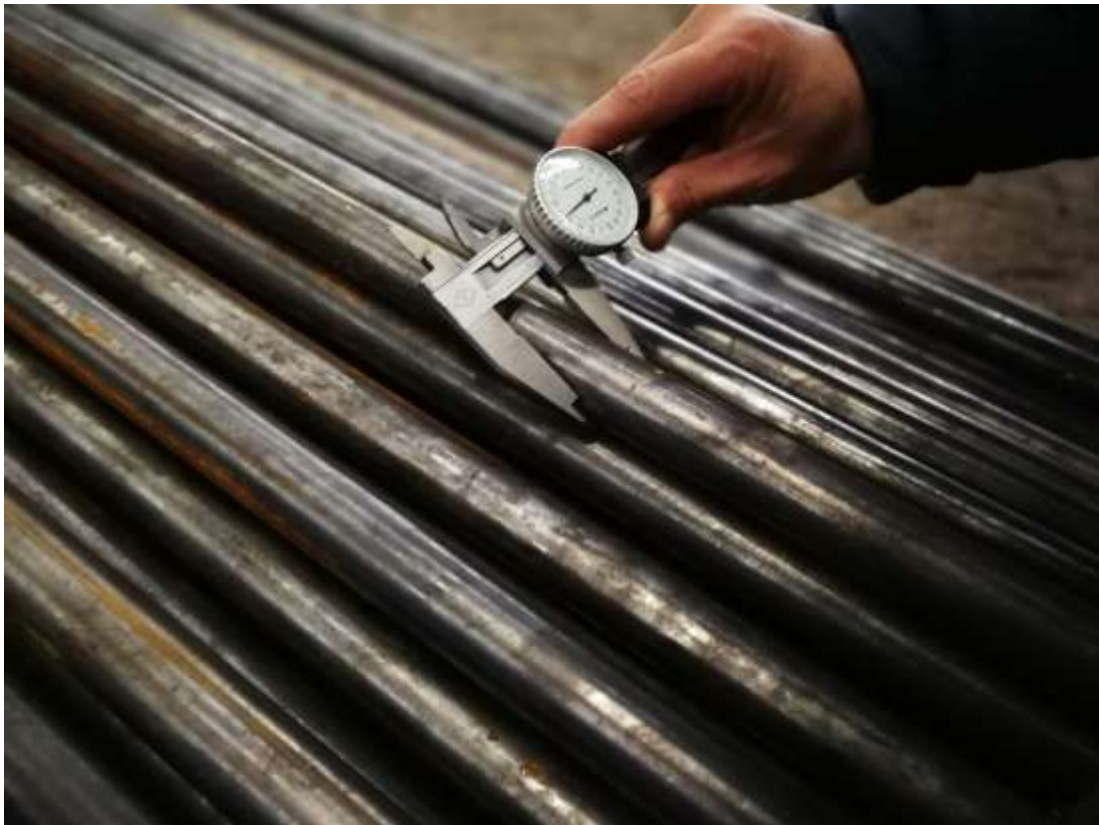
Top rated program customers' requirements, we can analyze the cold drawn seamless steel tube advertise its chemical composition meet standards. We choose one from 250 pipes or select one in a furnace to investigate. If the product analysis fails, then choose another two seamless carbon steel pipes. All elements of two steel pipes tend to be in accordance with standards, and then these pipes can be delivered.

SA-450/SA-450M

| OD In (mm) | + | - | WT In(mm) | + | - |
|---------------------|------|------|--------------|-----|---|
| <1(25.4) | 0.1 | 0.1 | ≤1.1/2(38.1) | 20% | 0 |
| 11.1/2(25.438.1) | 0.15 | 0.15 | >1.1/2(38.1) | 22% | 0 |
| >1.1/2<2(38.150.8) | 0.2 | 0.2 | | | |
| 2<2.1/2(50.863.5) | 0.25 | 0.25 | | | |
| 2.1/2<3(63.576.2) | 0.3 | 0.3 | | | |
| 34(76.2101.6) | 0.38 | 0.38 | | | |
| >47.1/2(101.6190.5) | 0.38 | 0.64 | | | |
| >7.1/29(190.5228.6) | 0.38 | 1.14 | | | |



Marking



Size measurement



Application:

ASTM A179 / ASME SA179 Heat Exchanger And Condenser Tubes are widely used in industries such as petroleum, chemical, medical, food, light industry, machinery, instrument, include industrial pipeline and mechanical structure parts, etc.



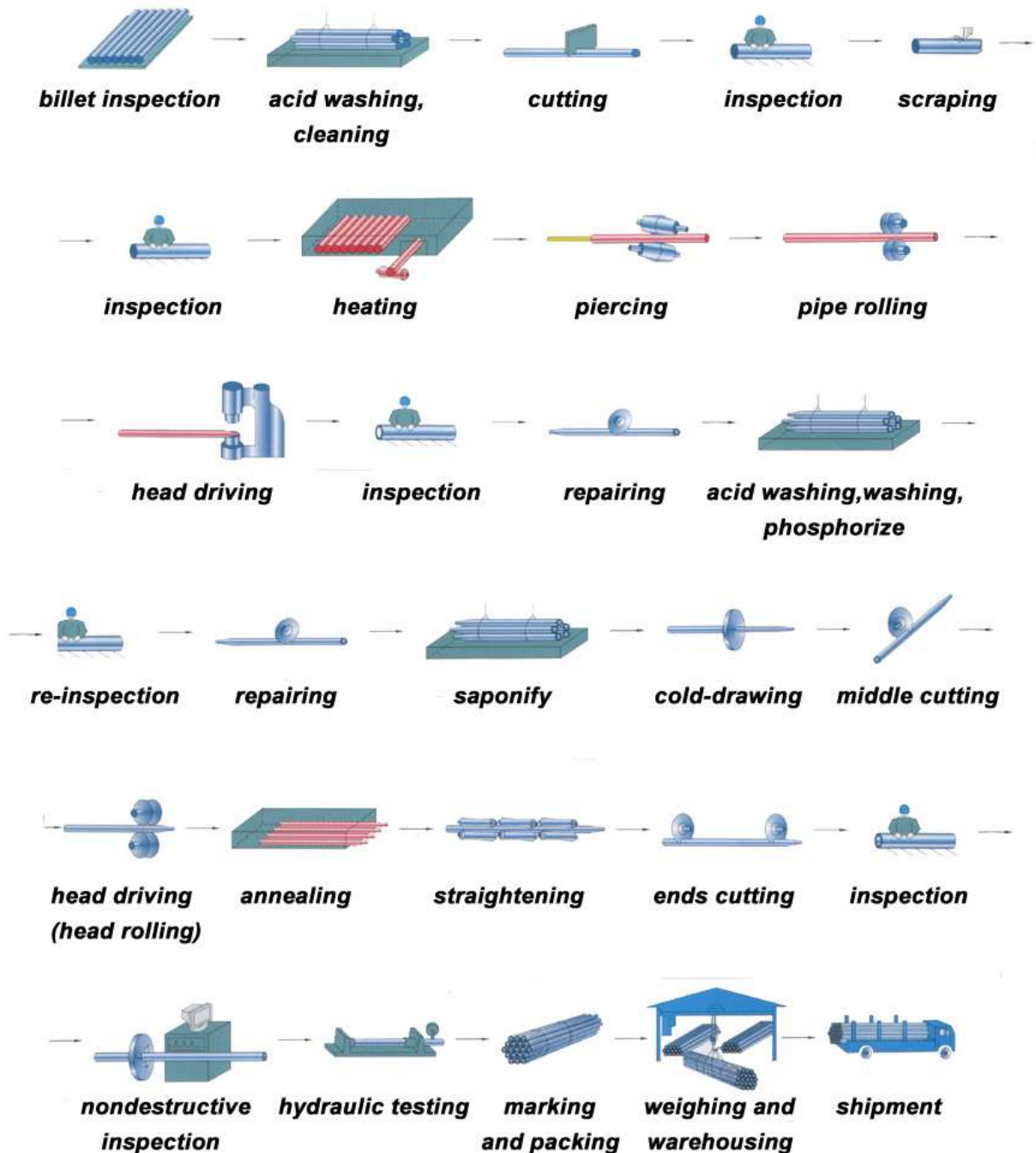
- Pharmaceutical Equipment
- Chemical Equipment
- Sea Water Equipment
- Heat Exchangers
- Condensers
- Pulp and Paper Industry
- Off-Shore Oil Drilling Companies
- Power Generation
- Petrochemicals
- Gas Processing
- Specialty Chemicals
- Pharmaceuticals

Note:

- Mill test certificates will be issued according to EN10204.3
- All tubes shall be supplied as per applicable ASTM Specification.
- The tubes Shall be Seamless and the testing shall be as per A 450 / A450M.

Cold drawn seamless steel tube process

Sunny Steel can supply ASTM A179 steel tube from stock or from reputed steel mills. We also offer steel fabrication service where steel plates can go through processing's like cutting, welding, bending, machining, pre-coating, pre-lined, beveling, or as you require.









U bend tubes



Fin tubes



