

ASTM A178 Welded Steel Boiler and Superheater Tube

ASTM A178/A178M, ASME SA178/SA178M is the standard applicable to electric-resistance-welded carbon steel and carbon manganese steel boiler and superheater tubes



ASTM A178 Welded Carbon Steel Pipes

ASTM A178 Standard covers minimum-wall-thickness, electric-resistance-welded tubes made of carbon steel and carbon-manganese steel intended for use as boiler tubes, boiler flues, superheater flues, and safe ends.

SA178 tubing sizes and thicknesses usually furnished to this specification are 1/2 to 5 in. [12.7 to 127 mm] in outside diameter and 0.035 to 0.360 in. [0.9 to 9.1 mm], inclusive, in minimum wall thickness. Tubing having other dimensions may be furnished, provided such tubes comply with all other requirements of this specification.



Applications:

ASTM A178 tubes are a kind of frequently-used tubes in our life, they are mainly used in manufacturing heating pipelines, containers, coal-saving devices, superheaters, arch superheated tube, airway tube etc.

Quick Detail:

Standard: ASTM A178, ASME SA178

Grade: Grade A, Grade C, Grade D

Technique: Electric-Resistance-Welded

Delivery Condition: Annealed, Normalized, Tempered, Heat Treatment, BK, BKS, BKW, NBK, GBK

Section Shape: Round

Surface Treatment: Varnish

Size: (mm)

OD: 12.7mm to 127mm

Wall thickness: 1.5mm to 6.0mm

Length: 6m-25m

Ends: Plain ends or bevel ends

Test and other terms:

1. Hydrostatic or Nondestructive Electric Test
2. Heat Treatment: according to Standard
3. Surface Condition: According to Standard.
4. Grain Size: According to standard
5. Sampling: flattening, flaring, grain size, Marking



Chemical compositions (%)

Element	Grade A,	Grade C,	Grade D
	Low-Carbon Steel	Medium-Carbon Steel	Carbon-Manganese Steel
Carbon	0.06-0.18	0.35max	0.27max
Manganese	0.27-0.63	0.08max	1.00-1.50
Phosphorus, max	0.035	0.035	0.03
Sulfur, max	0.035	0.035	0.015
Silicon	0.01 min

A178 Mechanical Properties

	Grade A	Grade C	Grade D
Tensile strength, min, ksi [MPa]	47[325]	60[415]	70[485]
Yield strength, min, ksi [MPa]	26[180]	37[255]	40[275]
Elongation in 2 in. or 50mm, min, %	35	30	30
For longitudinal strip tests a deduction for	1.50A	1.50A	1.50A
Each 1/32-in[0.8mm] decrease in wall thickness below 5/16in. [8mm]			
From the basic minimum elongation of the following percentage points shall be made			

Outside Diameter and Wall thickness Tolerance:

Outside Diameter tolerance		Wall thickness tolerance	
OD < 50	±0.05mm	S < 4mm	±12.5%
OD > 50	±1%	4--20mm	+15/-12.5%
		S≥20mm	±12.5%

Note:

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



- Application: apply to the heat exchangers, condensers and heat transfer equipment and similar pipe.

Packing:

- Packed in wooden box or bundles protected with plastic paper, and suitably protected for seaworthy delivery or as requested.
- The Product marking shall include the ASTM A178 or ASME SA178, size, heat no., Lot No. and Manufacture name or logo.



SA178 Tube Inspection



SA178 Tubes Plain End



ASTM A178 Tube Package

Read more information of this products

- [ASTM A178 Welded steel pipe](#)

Related products

● Carbon steel

- [ASTM A179 / ASME SA179 Seamless tubes](#)
- [ASTM A192 / ASME SA192 Seamless boiler tubes](#)
- [ASTM A210 / ASME SA210 GRADE A1 Seamless tubes](#)
- [ASTM A210 / ASME SA210 GRADE C Seamless tubes](#)

● Alloy steel

- [ASTM A213 T11 T12 T22 Seamless alloy tubes](#)
- [ASTM A 213/A 213M T2, T5, T5b, T9, T91 Seamless Alloy Steel tubes](#)
- [ASTM A335 P1, P2, P5, P9 Seamless alloy pipes](#)
- [ASTM A335 P11, P12, P22, P91 seamless alloy pipes](#)
- [ASTM A209 ASME SA209 T1 tubes](#)

● Stainless steel and Duplex

- [ASTM A269 Stainless Steel Tubes](#)
- [ASTM A213 Stainless Steel Tubes](#)
- [ASTM A249 Stainless Steel Tubes](#)

- [ASTM A270 Sanitary Stainless Tubing](#)
- [ASTM A312 Stainless Steel Pipes](#)
- [ASTM A789 Duplex Stainless Tubing](#)
- **Copper and Brass**
- [ASTM B111 Copper and Brass Tubes](#)

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- [Seamless carbon steel tubes](#)
- [Cold drawn precision steel tubes](#)
- [Seamless alloy steel tubes](#)
- [Copper alloy seamless tubes](#)
- [Titanium and titanium alloy tubes](#)
- [Stainless steel tubes](#)
- [U bent heat exchanger tubes](#)
- [Fin tubes](#)
- [Bearing steel tubes](#)



About CTS TUBES

CTS TUBES provide a wide range of steel products as Steel Pipes, Seamless Tube and Seamless Pipes, Alloy Pipes, Pipe Fittings, Stainless Steel Pipe, Copper Tube and Titanium Alloy Tube used in the industry, construction etc. We are looking forward to getting in contact by phone or email and we hope that you enjoy our website. More than ten years of profound knowledge turn CTS TUBES to your partner as trading house for tubes, fittings and stainless steel. The name CTS TUBES stands for certified quality, because of that, all products of our wide range consist to demanding norms and the highest standards. CTS TUBES also stands for know-how, effective service, and best solutions for your profit. Our qualified team in our export department in China is always at your disposal and ready to help you. Get in touch if you are interested in our products or cooperation.



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Professional Pipeline Supplier

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