

COPPER TUBE FEDERAL & ASTM SPECIFICATIONS.

WROT PRESSURE SOLDER-JOINT FITTINGS — To ANSI B16.22

CAST PRESSURE SOLDER-JOINT FITTINGS — To ANSI B16.18

CAST BRONZE FLARED TUBE FITTINGS — To ANSI B18.26

COPPER TUBE — TYPES K, L & M — To ANSI H23.1, ASTM B88 and WWT-799
REFRIGERATION

FLARE-TYPE FITTINGS — To ANSI B70.1 and SAE J513

STREAMLINE COPPER REFRIGERATION SERVICE TUBE — To ANSI H23.5, ASTM
B280, and WWT- 775

NITROGENIZED ACR HARD DRAWN COPPER TUBE — To ANSI H23.1 Type L, and
ASTM B88 Type L, in accordance with ASTM B280

OXYGEN SERVICE TUBE — To ANSI H23. 1 Types K and L and ASTM B88, Types K and L
— hard drawn lengths only — in accordance to CDA cleanliness specifications and NFPA 56F,
Seamless Copper Tube cleaned for Oxygen Gas Service

WROT DWV SOLDER-JOINT FITTINGS — To ANSI B16.29

CAST DWV SOLDER-JOINT FITTINGS — To ANSI B16.23

COPPER TUBE — TYPE DWV — To ANSI H23.6 and ASTM B306

COPPER PIPE — To ASTM B42

RED BRASS PIPE — To ASTM B43

COPPER TUBE FEDERAL & ASTM SPECIFICATIONS.

Product Certification

Products which meet the following specifications:

MSS	SP104	Wrought Copper LW Solder Joint Pressure Fittings
ANSI	B16.29-1990	Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV
ANSI	B16.18-1984	Cast Copper Alloy Solder Joint Pressure Fittings
ANSI	B16.15-1978	Cast Bronze Threaded Fittings
ANSI	B16.26-1983	Cast Copper Alloy Fittings for Flared Copper Tube
ANSI	B16.23-1984	Cast Copper Alloy Solder Joint Drainage Fittings - DWV
ANSI	B16.24-1979	Cast Copper Alloy Solder Joint Drainage Fittings - DWV

WROT copper solder joint fittings also are manufactured to comply with the material, performance and installation/joining dimensions of ANSI B16.22.

The materials used to manufacture these fittings are also in compliance with the following specifications;

Tubular Wrought Copper:

- ASTM B75 Alloy C12200. Standard Specification for Seamless Copper Tube. or

Products Made From Sheet;

ASTM B152 Alloy C11000, Standard Specification for Copper Sheet Strip, Plate and Rolled Bar.

Cast Products:

ASTM B584 Alloy C84400, Standard Specification for Copper Alloy Sand Castings for General Applications.

Federal Specification WW-U-516 for Type III, Class A and Class B Copper Alloy Unions.

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- B-42 This specification covers seamless copper pipe in all standard pipe sizes, both regular and extra—strong, suitable for use in plumbing, boiler feed lines, and for similar purposes.
- B-43 This specification covers seamless red brass (Copper Alloy UNS No. C23000) pipe in all standard pipe sizes, both regular and extra—strong, suitable for use in plumbing, boiler feed lines, and for similar purposes.
- B-68 This specification covers annealed seamless copper tube suitable for use in refrigerators, oil lines, gasoline lines, etc., where tube absolutely free from scale end dirt is required.
- B-75 This specification covers seamless copper, round and rectangular, including square tube suitable for general engineering purposes.
- B-88 This specification covers seamless copper water tube suitable for general plumbing, and similar applications for the conveyance of fluids, and commonly used with solder, flared, or compression type fittings.
- B-111 This specification covers seamless tube and ferrule stock of copper and various copper alloys up to 2 in. (50.8mm), inc., in diameter, for Use in surface condensers, evaporators, and heat exchangers.
- B-135 This specification covers seamless round and rectangular including square copper alloy tube in straight lengths.
- B-251 This specification covers a group of general requirements common to several wrought product specifications. Unless otherwise specified in the purchase order, or in an individual specification, these general requirements shall apply to copper and copper-alloy tube supplied under specifications B 68, B 75, B135, and B466
- B-280 This specification covers seamless copper tube for air conditioning and refrigeration service and intended for use in the field for connection, repairs, and alterations.
- B-302 This specification covers threadless, seamless, deoxidized copper pipe (TP) in straight lengths, for piping systems that are assembled with brazed-joint pipe fittings.
- B-306 This specification covers seamless copper drainage tube (DWV) intended for use with soldered fittings for sanitary drainage, such as soil, waste, and vent piping.

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Product	Temper	Lengths	Color Code	Uses	Specifications
Copper Water Tube Type K (heavy wall)	Hard Soft	10 ft. straight 20 ft. straight 20ft. straight 40 ft. coils (2") 60 ft. coils (1/4" thru 1 1/2") 100 ft. coils (1/4" thru 1 1/4")	Green	Underground services*; general plumbing and heating purposes; gas, steam and oil lines; severe service conditions. *soft recommended	Federal-WW-T-799 ASTM- B.88 Underwriters' Approved 1/4" thru 2"
Copper Water Tube, Type L Type ACR (hard only) (medium wall)	Hard Soft	10 ft. straight 20 ft. straight 20ft. straight 30ft. coils (1/4" thru 1 1/2") 40 ft. coils (2") 60 ft. coils (1/4" thru 1 1/2") 100 ft. coils (1/4" thru 1 1/4")	Blue	General plumbing and heating purposes. Interior gas, steam and oil lines: panel heating. Type ACR for air conditioning and refrigeration uses.	Federal- WW-T-799 ASTM – B-88 U.L. Approved Fire Service Systems 1/2" –8" incl.
Copper Water Tube Type M (light wall)	Hard	10 ft. straight 20 ft. straight	Red	General plumbing and heating purposes; drainage waste, vent and other light pressure uses.	Federal- WW-T-799 ASTM B-88
Copper Drainage Tube	Hard	10 ft. straight 20 ft. straight	Yellow	Drainage, waste, vents, soil and other non- pressure applications (above ground use only).	ASTM B-306
Copper Pipe (regular or extra heavy)	Hard	10 ft. straight 20 ft. straight	Black	General plumbing and heating purposes; gas, steam and oil lines: severe service conditions including high pressure industrial applications	Navy – 44P2 Federal – WW-P- 377 ASTM- B-42
Copper Threadless Pipe	Hard	20 ft. straight	Gray	General plumbing and heating purposes	ASTM – B-302 Federal- WW-T-775
Copper Refrigeration Tube	Soft	50 ft. coils 100 ft. coils	Crimson	Manufacture, installation and maintenance of refrigeration equipment	ASTM B-280 Federal – WW-T- 775
Special Dimensional Tube	As specified	As specified		Special industrial applications. Composition and dimensions to fit individual requirement.	ASTM B-68 ASTM B-75