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**SPECIFICATIONS - DETAILED PROVISIONS**  
**Section 02725 - Installation of Copper Pipe and Tubing**

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**SECTION 02725  
INSTALLATION OF COPPER PIPE AND TUBING**

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

All copper tubing, exposed, buried, or in plastic conduit, shall conform to ASTM Specification B-88 and shall be Type K soft-annealed.

Fittings shall be solder type forged or wrought copper. Solder shall be ASTM B 32-70 alloy, Grade 5A.

Flange fitting connections up to 7/16" diameter may be used when approved by the Engineer. Such fittings shall be brass conforming to ANSI/ASME pressure rated pipe for maximum working pressure of 7,000 p.s.i.

Copper pipe connected to hydraulic cylinders, steel or iron valves, galvanized steel pipe, black steel pipe, stainless steel pipe, Venturi tubes, or other non-copper items shall be connected by means of dielectric insulating unions or fittings as manufactured by the Patrol Valve Company, Mueller Company, or equal.

When making connections to meters or other devices having female or male threaded fittings, special thread-to-tube adapters shall be used. Such adapters shall be equal to Crawford Fitting Company "Swagelok" brass tube fittings.

Copper pipe and tubing shall be manufactured by Anaconda, Phelps-Dodge or Revere.

**PART 2 - EXECUTION**

**2.01 EXECUTION**

All installations shall conform to the requirements of the Uniform Plumbing Code (latest edition). Copper tubing embedded in concrete shall be protected by double-coverage protective wrap with a minimum of 20 mil thickness material. In no case, shall piping be in direct contact with concrete or masonry walls or footings. Copper lines shall be neatly supported at such intervals as to prevent sagging. Tube shall be cut square with hacksaw or disc cutter and shall be reamed full size and burrs removed. If necessary, a sizing tool shall be used to correct any distortion. The outside surface of the end of the pipe and the inside surface of fittings shall be cleaned with steel wool until the metal is bright. Soldering flux shall be applied to the cleaned surfaces of pipe and fitting in a thin, uniform, complete coating. After the pipe has been inserted in the fitting as far as it will go, fitting shall be twisted on the pipe to help spread the flux uniformly. The fitting shall then be heated until it reaches the correct temperature to melt the solder.

**END OF SECTION 02725**

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