

## **SECTION 15130**

### **PIPING SPECIALTIES** **(Owner Furnished)**

#### **PART 1: GENERAL**

##### **1.01 RELATED WORK SPECIFIED ELSEWHERE**

See Specification Section 15000 - Piping - General Provisions. See Detail Drawings included in the Contract Documents for installation details for piping specialties.

#### **PART 2: PRODUCTS**

##### **2.01 MATERIALS FURNISHED BY OWNER**

Owner will furnish and Contractor shall install the piping specialties included in Section 01000.1.03 and Section 01011 Specifications Special Conditions. Piping specialties in general may include:

- A. Clear polyethylene encasement
- B. Valve boxes
- C. Gate valves and butterfly valves (see also specification 15150 and 15155 respectively)
- D. Tapping valves and tapping sleeves (see also specification 15170)
- E. Air release valves (see also specification 15190)
- F. Air blow off (see also specification 15190)
- G. Corporation and curb stops (see also specification 15200)
- H. Test/tracer wire boxes
- I. Water line, valve, blowoff marker posts

#### **PART 3: EXECUTION**

##### **3.01 INSTALLATION**

Install "piping specialties" in accordance with the general provisions provided in Specification Section 15000 and the following:

- A. Polyethylene Encasement
  - 1. Encase piping in polyethylene to prevent contact with surrounding backfill and bedding material in all areas shown on the plans or designated by the Engineer. Polyethylene shall be clear and 12 mils.
  - 2. Install the polyethylene material in accordance with AWWA Standard C105. Polyethylene shall fit snugly and not tightly stretched. All holes or tears shall be repaired with tape approved for this purpose. Large holes or tears shall be repaired by taping another piece of

polyethylene over the hole. Tape or plastic tie straps at joint overlaps and at every 3 foot interval.

3. Dig bell holes and slide polywrap over the adjacent pipe and provide a minimum of 1 foot of overlap. Tightly secure bottom of polywrap using two to three passes of polyethylene tape on the pipe to polywrap connection and the overlap polywrap to polywrap connection.
4. Where polyethylene wrapped pipe being installed connects to a pipe that is not wrapped (including existing pipe), extend the wrap a minimum of 3 feet onto the previously uncovered pipe. This includes service lines which may be wrapped in polyethylene or dielectric tape.
5. Exposure of wrapped pipe to sunlight should be kept to a minimum. Pipe can be stored with the polywrap on the pipe for a maximum of 14 days.
6. At no time shall the polywrapped pipe be subjected to a point load during handling, temporary storage, or installation. The polywrap must be moved away from the timbers or hoisting device while on the pipe to prevent point loads and resulting pin holes.
7. Direct service taps for polyethylene encased pipe shall follow the procedure described in AWWA Standard C600. Access to the main for tapping through polyethylene is accomplished by making two to three passes of polyethylene tape around the pipe and over the polywrap. The tap is to be made directly through the tape and polywrap.
8. Tape shall be polyethylene compatible adhesive and a minimum of 1.5" wide. Shall be Scotchwrap #50, Fulton #355, or Polyken #900.

B. Valve Boxes

Valve boxes shall be supported so that no load can be transmitted from the valve box to the valve. See Detail Drawing 0201-0601-SD59. Install a self-centering alignment ring at the operating nut American Flow Control, or equal or otherwise make sure that the bottom of the box is centered over the operating and runs perpendicular to the horizontal.

1. Butterfly Valves and Gate Valves

Install the valves in strict accordance with the requirements of Specification Section 15000. Set valves at the required locations with joints centered, spigots home and valve stems plumb unless otherwise directed by the Engineer.

## 2. Tapping Sleeves and Valves

Install the valves in strict accordance with the requirements of Specification Section 15000. After installation of the tapping sleeve and valve assembly but prior to making the tap the assembly shall be pressure tested hydrostatically in accordance with Specification Section 15030. The test shall be made with the valve open using a tapped mechanical joint cap. No leakage is acceptable. The test pressure shall be maintained for 15 minutes minimum.

### C. Air Release Valve Assemblies

See Detail Drawings for a typical air release valve assembly.

### D. Air Blow-off

See Detail Drawings for air blow-off details.

### E. Corporations and Curb Stops

Service line piping shall be compatible with corporation and curbs stops provided with appropriate protection between dissimilar materials and a minimum of interconnecting fittings

### F. Test/Tracer Wire Boxes

Boxes shall placed at areas designated in the plans and shall be flush with existing grade unless otherwise noted.

### G. Marker Posts

Install Marker Posts using equipment designed for its installation per manufacturer guidelines and place at locations noted in the drawings.

### H. Exposed Metal Treatment

After field installation, all steel surfaces shall receive a petrolatum wax tape coating in accordance with AWWA Standard C217. Suppliers include, but are not limited to, Tapecoat® Envirotape® and Denso Densyl Tape. Surface preparation and tape installation shall be in accordance with ASTM C217 and the manufacturer's recommendations. Subject to approval by the ENGINEER, an alternative corrosion protection for exposed buried metal is an aerosol applied rubberized coating. The material shall be rapid dry and specifically designed for corrosion protection. 3M Rubberized Underseal Undercoating 08883 or any equivalent rubberized-bitumen based spray-on undercoating may be used. Follow manufacturer's recommendations for storage and application.

**END OF SECTION**