

## SECTION 1409

### TAPPING SLEEVE AND VALVE

#### 1409.0100 GENERAL

**1409.0101 Description of Work.** The work under this section shall consist of furnishing all labor, materials and equipment required for the installation of tapping sleeves and valves in accordance with the plans and requirements of these specifications.

**1409.0103 Submittals.** Tapping sleeves and valves and the materials used in their manufacture shall comply with the Standard in Appendix B and appear on the Approved Materials List in Appendix A.

**1409.0104 Delivery, Storage and Handling.** Tapping sleeves and valves shall be delivered to the site, stored and handled in accordance with the manufacturer's instructions except as modified by the plans, special specifications or as directed by the Engineer.

#### 1409.0200 PRODUCTS

##### 1409.0201 Materials

(A) **Pressure Class.** Design pressure for tapping valves shall be 200 PSI for diameters up to 12 inch and 150 PSI for valves 16 inches diameter and larger. Valves for operating pressures other than the above shall be as specified on the plans or in the special specifications. Tapping sleeve shall be rated for a minimum working pressure of 150 psi.

(B) **Tapping Sleeves and Valves.** Tapping valves shall be identical in construction to resilient-seated gate valves as specified in Section 1410. Tapping valves shall have ends and seat rings of sufficient size to permit the use of full size cutters.

Tapping sleeves are considered an integral part of a tapping valve assembly with openings identical to those of the valve.

Tapping sleeves shall be cast iron, ductile iron, or stainless steel.

All tapping sleeves shall be factory lined and coated with a corrosion resistant epoxy in accordance with ANSI/AWWA C550. Tapping sleeves shall be provided with a neoprene gasket and stainless steel bolts.

Size on size taps may be made no closer than 30" from a joint. All other taps must be minimum distance of 18" from a joint.

## SECTION 1409

### 1409.0300 EXECUTION

#### 1409.0301 Installation

(A) **General.** Tapping sleeves and valves shall be installed in accordance with manufacturers recommendations.

All fittings, valves, flexible couplings, and repair clamps shall be encased with a 10 mil polyethylene in accordance with AWWA C-105 Method C.

(B) **Workmanship.** All personnel of the contractor or his/her subcontractor shall be skilled and knowledgeable with regard to the installation procedures for the tapping sleeves and valves as well as all incidental appurtenances being installed.

(C) **Valves.** Prior to installation in the trench, valves 16" and larger shall be fully opened and closed to check the action. A record shall be made of the number of turns required to fully open or close the valve. This record shall be included on the as-built plans. The inside of the valve shall be thoroughly cleaned and the valve installed.

(D) **Tapping Valves.** Tapping sleeves and tapping equipment shall be supported independently from the pipe during tapping operations.

(E) **Thrust Restraint.** Thrust restraint for tapping sleeves and valves shall be in accordance with the requirements of Section 1406, the plans, and/or the special specifications.

(F) **Testing.** Air testing is not allowed. All tapping sleeves shall be hydrostatically tested for fifteen minutes to the working pressure of the main being tapped. Any visible leaks or pressure drops constitute failure.