

## TELESCOPING VALVES

### Suggested Specifications

#### General

Telescoping Valves are primarily used for liquid level control or sludge removal. They are considered to be fully open when in their lowest elevation position. The valve (slip) tube travels inside a flanged ductile iron riser pipe as shown on the plan drawings. The riser pipe nominal size determines the valve (slip) tube diameter. Baffled, flared, funnel or v-notch tube tops shall be provided as indicated by the plan drawings. The flanged riser pipe is provided by others.

#### Tube

Stainless steel tubes shall be of schedule 40, type 304 or 316 pipe as per project specifications. Tube length shall be as shown on plan drawing, or be of such a length as to include both required valve travel and a minimum of 6" insert into riser pipe. Valve tubes shall be attached to the operating stem by means of a stainless steel lifting bail. Plastic valve (slip) tubes shall be of PVC pipe. Tube length shall be as shown on plan drawing, or be of such a length as to include both required valve travel and a minimum of 6" insert into riser pipe. Valve tubes shall be attached to the operating stem by means of a stainless steel lifting bail, and shall include either bushings or a stainless steel inner reinforcing ring, to prevent bolt hole elongation on the PVC tube.

#### Seal Assembly

A seal flange and retainer plate made of type 304 stainless steel (unless project specifications require other material) and two (2) Buna-N slip seal gaskets shall be provided by the valve manufacturer. The slip seal gasket ID shall be 1/8" smaller than slip tube OD. The seal flange and retainer plate shall be 1/4" thick; the slip seal gaskets 1/4" thick each. Slip seal gaskets shall be "dovetailed" in order to facilitate easy replacement in the field without disassembly of valve. The gaskets shall be sandwiched in between the seal flange and the retainer plate, which are to be bolted to the riser pipe flange. The gaskets, sealing flange and retainer plate are to be supplied with standard class 125# drilling pattern to match the riser pipe flange.

#### Lifting Bail

On stainless steel and PVC valve tubes, lifting bail shall be of stainless steel construction and be fastened to the valve tubes with stainless steel bolts. On stainless steel tubes, bail material shall be the same as the valve tube. On PVC tubes, bail material shall be 304 stainless steel unless otherwise required by the project specifications.

#### Operators (Rising Stem Valves)

Unless otherwise shown on the drawings, manual operators shall be either handwheel, gearbox or rack & pinion style. When specified, electric motor actuators shall be provided. Operators shall be mounted to a pedestal or offset pedestal as required. Pedestal shall be of cast 316 stainless steel or cast ductile iron epoxy coated. Fabricated pedestals are not acceptable. A threaded stainless steel operating stem shall be used to connect the operating mechanism to the valve tube lifting bail. On rising stem valves,

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the threaded segment shall engage the operating nut in the manual operator or electric motor actuator. On rotary operated valves, provisions shall be made to prevent rotation of the valve tube. Operators shall be supplied with clear plastic stem covers, vented cover cap and Mylar position indication tape.

### **Operators (Non-Rising Stem Valves)**

Unless otherwise shown on the drawings, manual operators shall be either handwheel or gearbox style. When specified, electric motor actuators shall be provided. Operators shall be mounted to a pedestal or offset pedestal as required. Pedestal shall be of cast 316 stainless steel or cast ductile iron epoxy coated, fabricated pedestals are not acceptable. A threaded stainless steel operating stem shall be used to connect the operating mechanism to the valve tube lifting bail. On non-rising stem valves, the threaded segment shall engage the operating nut in the torque tube segment of the operating stem assembly. On rotary operated valves, provisions shall be made to prevent rotation of the valve tube.

### **Stem Accessories**

Stem guides where required shall be of cast 316 stainless steel or cast ductile iron epoxy coated with bronze bushings. Stem guides shall be adjustable in two directions to assist in proper stem installation and alignment. Wall brackets for offset pedestals shall be of cast 316 stainless steel or cast ductile iron epoxy coated.

### **Manufacturer**

Telescoping Valves shall be as manufactured by Trumbull Manufacturing, Youngstown Ohio.