CHEMLINE PLASTICS
SUPERIOR FLOW SOLUTIONS

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# Stem Extension and Pedestal Specification *(All rotary valves)*

## General:

All stem extensions shall be designed for removal from the valve stem while under non-flowing pressure, unless packing retaining plates are incorporated in the valve construction. Inner tubes shall be manufactured from in a steady rest and machined finished and faced. All welds shall be continuous and full penetration.

## Inner Torque Tube:

All inner torque tubes shall be designed for a maximum allowable torsional deflection of 0.50 degrees over the total required length. Both male and female hubs shall be 304 or 316 stainless steel, machined on the O.D., and with a spigot for insertion into the inner pipe a minimum of 25 mm (1 inch). All hubs shall be shouldered and fitted to the pipe prior to welding. Both male and female hubs shall be aligned to suit the valve and operator positions on the same axis. The female hub shall have its bore machined square on 3 sides to center it on, and long enough to engage with, the entire length of the valve stem minus enough tolerance to avoid rubbing on the valve topworks. The female hub shall have setscrews for positive attachment to the valve stem. Blind or capped hubs are not acceptable. Stem extensions shall be 304 or 316 stainless steel unless otherwise noted. All lengths exceeding 6 meters shall be made of multiple lengths coupled using a male and female hub on each length and assembled in the field. Extension sections shall be held together with setscrews.

## Outer Torque Tube:

All outer torque tubes shall be designed for a maximum allowable torsional deflection of 0.50 degrees over the total required length. Both mounting flanges shall be aligned to suit the valve and operator bolt patterns on the same axis. Both flanges shall be machined stepped to accommodate the pipe O.D. prior to welding. The upper mounting flange shall be designed to guide the inner male hub with a maximum clearance of 3.2mm (.125 inches). All outer housing flanges shall be machined faced after assembly. All lengths exceeding 6 meters shall be coupled using flanges at each length and bolted as an assembly in the field. The outer torque tube shall have sealing setscrews lined up with, and to allow access to, the inner torque tube setscrews for positive attachment to the valve stem.

## Stem extension Pedestals:

A pedestal shall support all stem extensions not using an outer torque tube, when going through a vault ceiling. All pedestals shall be designed to withstand the maximum output torque of the operator with a maximum torsional deflection of 0.50 degrees. Pedestals shall be 304 or 316 Stainless Steel. Pedestal bases shall be round flange-type and designed for a minimum of 4 mounting bolts. Mounting plate bolts

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shall be designed for one bolt to accommodate the total shear force based on the total torsional deflection at maximum output torque of the operator.