FULLY LINED VALVES IN WATER DEMINERALIZER AND DEIONIZATION SYSTEMS

Application Description:

The process industries that must take out minerals and unwanted ions of reactive chemicals. Usually, these water treatment units use specialty resins as the agents for the removal of these minerals and ions. After a period of use, these resins must be "regenerated". This process requires the use of acids and then base chemicals (both of which are corrosive).

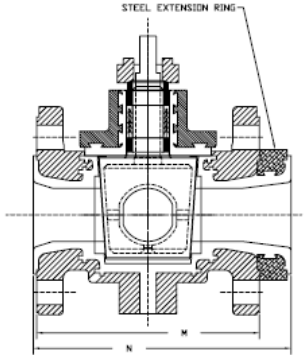
Issues with Application:

- Diaphragm valves typically used fail with use and they do not give tight shut on a consistent basis.
- Automation of these valves is more complex and less reliable than the standard quarter turn automation that can be furnished with ChemValve.
- Diaphragm valves typically have a face-to-face dimension that is not the same as the standard 150# ANSI.

ChemValve Solutions:

- We have developed the ability to extend our face-to-face dimensions by adding a machined steel spacer at the flange end of the valve, before molding.
- The valve body is then molded with the result being a valve that has the diaphragm valve face-to-face dimension, but does not have an added leak path or joint.
- The body molding is continuous to include the added extension piece.
- In pipelines where control valves are used, ChemValve can supply the v-port seats needed to improve throttling control.

Example Extended Face to Face Solutions:



VALVE SIZE	M	N
1"	4 13/16"	5 3/4"
1 1/2"	6 3/8"	6 7/8"
2"	6 13/16"	7 7/8"

Special grooved and molded rings allow face to face of standard valve to be extended to replace a variety of longer pattern valves with no break in the liner.