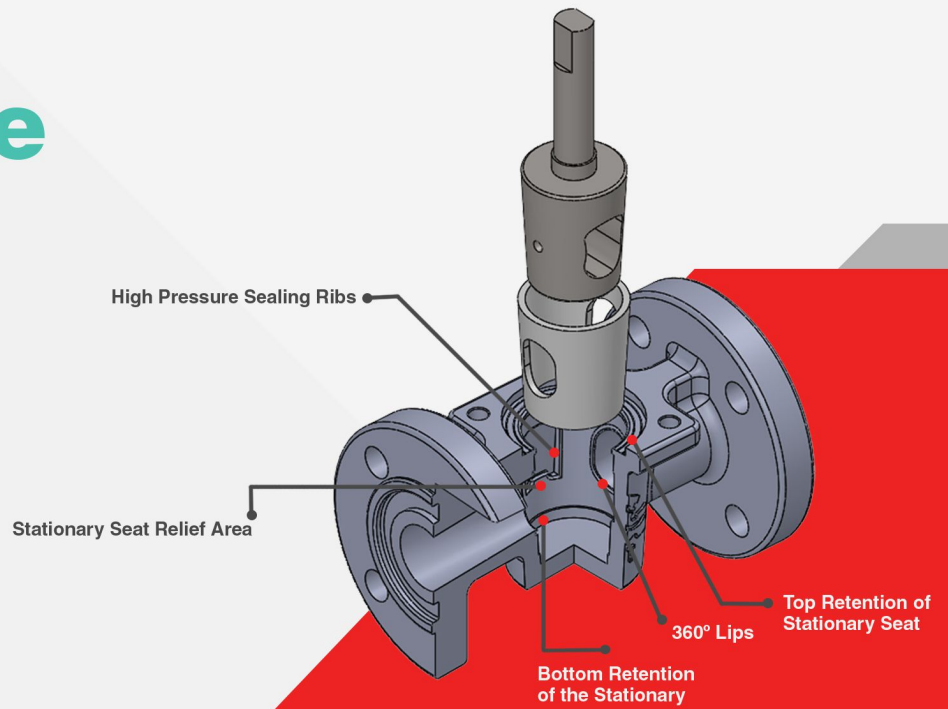




Plug Valve

1 " to 3 "

Class 150 & 300



Design more economical, flexible and compact fluid handling systems

Bi-directional flow, simple actuation, lightweight, compact design, and multiport configurations all facilitate improved system design.

Superior, longer-lasting in-line sealing.

The inert PTFE stationary seat (sleeve) completely surrounds the plug. The stationary seat provides a large, circumferential sealing to port. Open, closed, or rotating, the seal is surface from port assured. No ball or gate valve can match this sealing power.

Secure sealing with no cold-flow, deformation or rotation of the Stationary seat

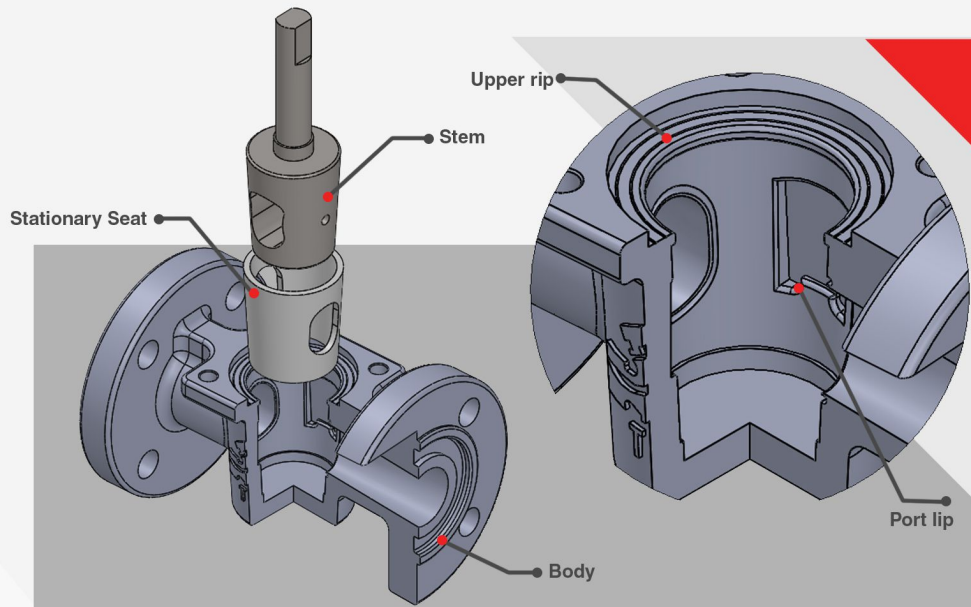
The stationary seat is securely nestled in the valve body. High pressure ribs, top and bottom retention, and 360° port lips all assure stationary seat containment.

No seizing. No sticking

As the plug rotates, the 360° port lips provide a self-cleaning action to remove scaling and adhering media.

No cavities. No contamination

There are no body cavities where flow media can accumulate and contaminate future processing. This cavity-free design also prevents sticking.

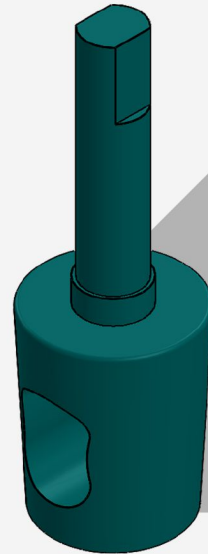


Construction of Sleeved Plug Valves

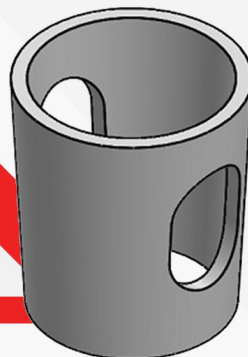
Basic structure is stem, stationary seat and body. Stationary seat is inserted and encaged inside the body. Tapered stem is inserted onto the stationary seat. The stationary seat is acting as a soft seat. And completely surrounds stem creating areal sealing surfaces. Also not permitting any deadspace in the flow path. Stem is rotating 90 degree. When it is aligned with the body port, flow is open. When the stem is rotated so that stem port is perpendicular to the body port the flow is blocked. The media kept in the stem while at closed position, will be contained in the stem port only, and when the valve is open again, the flow will flush the out.

PTFE is an plastic material, even though they are high grade engineering material. All plastics are subject to cold flow, at higher temperature volume increase,escape to the low pressure area and don't get back to its original position even after removal of temperature, pressure. But, if they get confined they would not cold flow. Upper boundary and lower boundary, and 360 port lips. Recessed wall is acting as absorption of inflated volume of PTFE when volume is increased due to temperature. The vertical, upper horizontal, and lower horizontal pressure ribs are provided to provide pressure seal lines along stem any time. True circularity of body center bore is very important for firm sealing. Ribs and lips must be truly circular and concentrically defined as cast state.

- Stem is tapered.
- Monolithic design.
- Wedge action.
- Lowering 1 mm will result in side pressure vectors.
- Adjustable.
- Solid not unstable as pressure dependent.
- Materials can be upgraded for the stem alone to be better resistive than the body corrosion rate.



- ▶ Stationary seat is also tapered to accepted the configure of plug. They are snugly fit into the void space created by upper, lower and metal port lips.
- ▶ The PTFE materials are rigid enough, resilient enough, elasticenough.
- ▶ Corrosion resistant.





Cv factors for valve sizing Class 150 & Class 300

SIZE	1/2	3/4	1	1 1/2	2	3
CV FACTOR	9	9	43	89	172	294

Eliminate unscheduled downtime and maintenance plus get greatly extended service life.

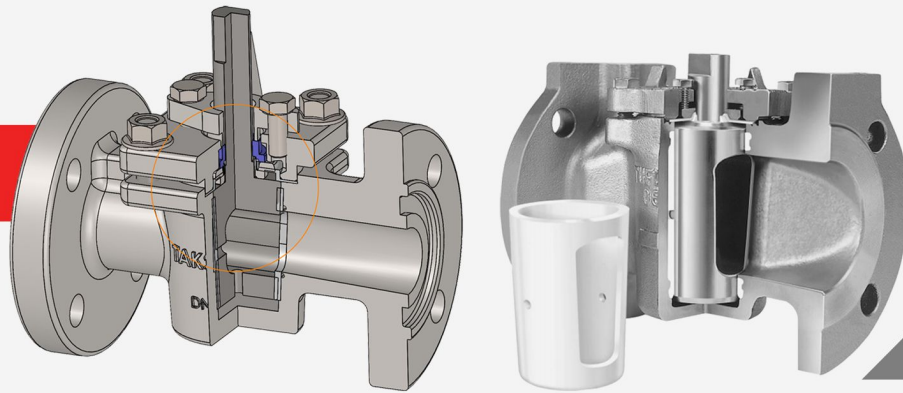
- Many processors experience dramatic cost reductions when they switch from ball and gate valves
- Two independent sealing systems provide double protection against atmospheric leakage
- Trouble-free sealing is provided by the large, full-circumferential PTFE stationary seat. No ball or gate valve can match this sealing capacity.
- The PTFE stationary seat has a low coefficient of friction. It acts as a lubricant. Ease of operation is assured, even when the valve is left open or closed for extended periods
- Standard cost and greatly extended service life assure exceptionally low, long-term cost-of-ownership
- A simple turn of the top adjustment bolts keeps the stationary seat sealing tightly and the valve in service far



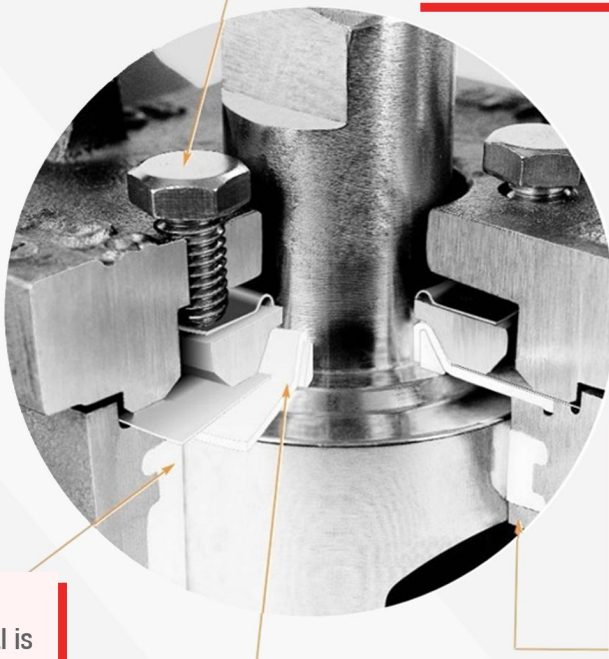


The TTI Stationary seat plug valve pays for itself many times over with more up-time and greatly extended service life

There's a fully adjustable in-line seal and dual stem seal



Bolts in the top cover provide quick and easy adjustment. Adjust out in-line leakage between shutdowns. Adjust out potential stem leakage



Stem Seal 1.
The primary stem seal is around the circumference of the plug. Flow media is prevented from reaching

Stem Seal 2.
The secondary backup seal system provides a wide comprehensive backup seal along the top edge of the plug and the stem.

360° lips.
Port defining lips were developed and patented by TTI. The lips surround the ports. The lips improve valve performance and extend service life by:

- Preventing stationary seat cold flow and deformation.
- Eliminating stationary seat rotation.
- Breaking up and removing adhering, scaly deposits from the outer surface of the plug as it rotates.