



STAINLESS VALVE CO.

Stargate-O-Port-Valve®

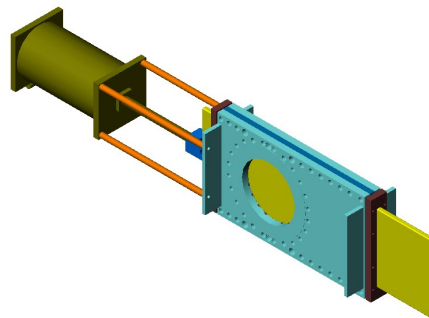
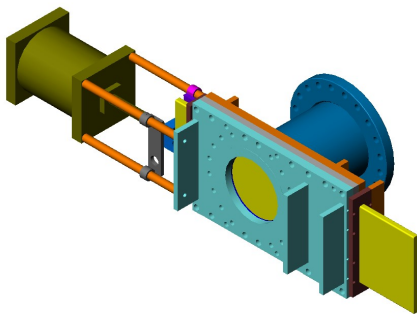
Purified Terephthalic Acid Production

Challenges for Valves

A particular challenge in the manufacture of PTA is the handling of process gases. These may consist of O₂, H₂, N₂, traces of Acetic acid and bromides. The latter are very corrosive materials for 300 series stainless steel. It is necessary to use commercially pure titanium (Grade 2) in these applications. Typically the valves are laid out for temperatures up to 450 deg F and pressure ratings of 300#. These applications tend to require large bore valves. Ball valves have been used historically but these can be very expensive especially if they are specified in commercially pure titanium. The Stargate-O-Port-Valve® has unique design characteristics that make it a better alternative to ball valves from a performance and price standpoint.

The original Stargate-O-Port-Valve® were installed in 2000 and have been in continuous service since then. The valves' have provided reliable service and tight shutoff as per operational requirement.

Below are some examples of valves used in this application.

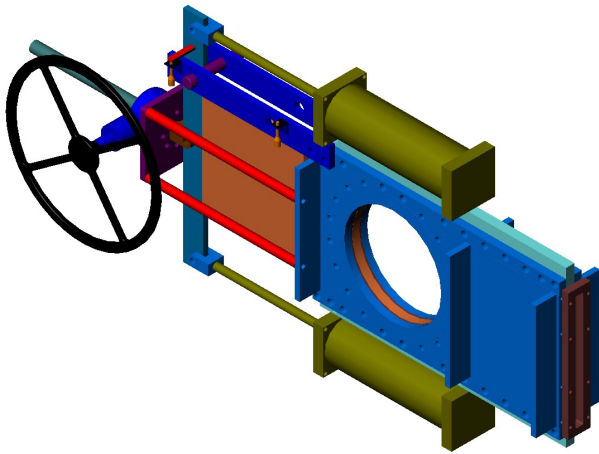


*14" 300# Stargate-O-Port-Valve®, Ti Gr.2, asymmetric 18" 300# Stargate-O-Port-Valve®, Ti Gr. 2, short takeout
(same takeout as a ball valve)*



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The Stargate-O-Port-Valve® is also used in other areas of PTA manufacture where the reliable operation and tight shutoff is absolutely critical. In these applications SS316L is a suitable material of construction but the valve must be able to handle solids in the line while the valve is actuating. The Stargate-O-Port-Valve® is better suited for this type of process condition than a ball valve. The level of customization allowed by a Stargate-O-Port-Valve® also gives the ability to have manual override in case plant air supply or electrical signal is lost.



20" 150# Stargate-O-Port-Valve® in 316, pneumatically actuated with manual override operator for handling of crude terephthalic acid powder

The Stargate-O-Port valve is well suited for the most critical and demanding operations in a PTA plant whether it is solids, liquids, or gas process streams. We invite your inquiries with any questions you may have with respect to the Stargate-O-Port valve in the PTA service.

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Page 2

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Our company is certified ISO9001:2008 / Certificate No.: CERT-0090755

