

Valves for Polyethylene & Polypropylene Production

Critical Service Solutions

Polymers.

For over 30 years, ValvTechnologies has produced valves for polyethylene and polypropylene processing.

Our products have been at the forefront of the industry shift from soft-seated valves to the more reliable metal-seated valves. The reason for this is simple - our valves are designed and constructed to shear polymer, stroke smoothly and still seal bubble tight. Unlike valves with seats that can move or be destroyed by polymer, the ValvTechnologies' valves have a carbide-coated seat that is part of the body so solids and polymer cannot interfere with operation.

ValvTechnologies' experience in this industry includes numerous gas and catalyst feed, reactor block and emergency isolation valves. The reason for this success is that our valves have proven to close and seal bubble tight even when process conditions have allowed the valve to become filled with solid polymer. To enhance system reliability ValvTechnologies can provide complete purging to meet your specification needs.

Another area of expertise where ValvTechnologies' valves have proven superior is in high-cycle, product take-off service. The tungsten carbide surfaces have tremendous wear resistance, and cycle counts over 1,500,000 are common in polyethylene service. Special hardware and actuator mounting systems virtually eliminate stem leaks and uneven wear.

To "cut through" your polymer problems in valves, choose ValvTechnologies.

Some additional advantages of the ValvTechnologies' design over other designs for this service are:

High internal loading results in guaranteed zero-leakage performance in both high and low pressure differential. This provides safety during maintenance and operation. The use of castings for low-pressure valves allows for lower cost with no reduction in performance, safety, or operability.

Integral seat design prevents solids from interfering with valve operation. Solid tungsten carbide seating surfaces are available in high-wear and in very high-cycle applications.

Our patented HVOF RiTech® coating process for applying carbide to the balls and seats provides the best available technology for smooth, long-life coatings with a hardness of 68 - 72 RC. (six -10 times harder than Stellite® VI). This low-temperature application process allows for repeated thermal cycling of the valve without damage to the coatings.

Guaranteed zero-emission live-loaded stem packing prevents product loss and promotes environmental compliance. ValvTechnologies' reinforced actuator and gear mounting systems prevent leaks due to side-loading and 'aggressive' operators.

ValvTechnologies offers direct factory service and authorized repair centers worldwide.



RiTech® Coating Process

Case History.

Worldwide Polyethylene Producer

One of the world's largest producers of polyethylene has specified ValvTechnologies' valves for all critical isolation services where the possibility of polymer in the lines exists. These valves range from 20" in diameter down to 2" and are all designed to shear solid plugs of polymer. In eight separate installations, no valve problems have been reported after five years of service and numerous operations.

Gulf Coast Liquid — Phase Polyethylene Plant

Following a major failure of soft-seated reactor block valves in the late 1980's, this major producer of polyethylene began searching for metal-seated valves that would function and seal even during process excursions. ValvTechnologies was chosen due to the unique nature of our valves. Since that time, the 40 8", ANSI Class 600 valves have been used many times to allow safe unit shut-downs and change-outs of the PTO valves. During the time in service, any damage to the valves has been repairable and no new major parts have been required.

Gulf Coast Gas – Phase Polyethylene Plant

With PTO valves requiring maintenance every 100,000 cycles, this large polyethylene producer looked for easily maintainable valves that would allow longer runs between change-outs. After review of all of the available options, ValvTechnologies was chosen as the preferred supplier, and an improvement team consisting of plant and ValvTechnologies' personnel was assembled to address all valve issues. As a result, all of the existing soft-seated valves in the plant were replaced with ValvTechnologies' metal-seated product, and cycle counts were increased by a factor of 10. Cycle counts of 1,500,000 are common between routine service and re-testing.

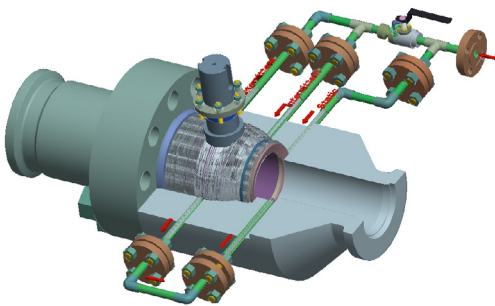
Typical applications:

- Reactor block valves
- Pump isolation valves
- Reactor vent valves
- PTO (high-cycle) valves
- Double-block-and-bleed valves
- High and low pressure drain valve
- Catalyst feed system

Features.

How does ValvTechnologies maintain its high quality standards?

ValvTechnologies uses positive material identification (PMI) to trace all materials used in every valve. Every ValvTechnologies' valve is tested for zero-leakage and certified in writing before it is shipped. Our research and development staff works with our customers to find new solutions to their valve problems. Every ValvTechnologies' valve is backed by our engineering and sales support staff, as well as our world-wide network of representatives.



Typical purging arrangement

Zero-leakage Valve Solutions.

Key Performance Features and Benefits

Features	Benefits
Integral seating - not body-to-seat joints	Assured repeatable bubble tight shut off - no leakage
Extremely hard (68 - 72 Rockwell 'C') polished RiTech® HVOF hard coating on ball and seat	Long service life even in severe applications
Split body valve design	Cost effective - reduces frequency/duration of downtime
Blow-out proof stem	Low pressure drop - High Cv - Straight through flow
Live-loaded Grafoil® stem packing of unique, exclusive design	Easy to service - minimum downtime/turnaround
Available in full port and reduced port	Dimensions to ANSI B16.10 - interchangeable with equivalent valves
Customer configurations adapted for slurry, catalyst, coking and other specialized services	Dimensions to ANSI B16.10 - interchangeable with equivalent valves

Worldwide Office Locations

Headquarters and Manufacturing
 ValvTechnologies, Inc.
 5904 Bingle Road
 Houston, Texas 77092 U.S.A.
 Telephone +1 713 860 0400
 Fax +1 713 860 0499
 info@valv.com

To locate a distributor or satellite office near you, visit us online at: www.valv.com.

To contact sales anywhere in the world, email sales@valv.com

Colombia
colombia@valv.com

Peru
peru@valv.com

Brazil
brazil@valv.com

United Kingdom
europe@valv.com

Middle East
middle.east@valv.com

India
india@valv.com

Japan
japan@valv.com

Korea
korea@valv.com

Spain
spain@valv.com

Australia
australia@valv.com

China
china@valv.com

Eastern Europe
poland@valv.com