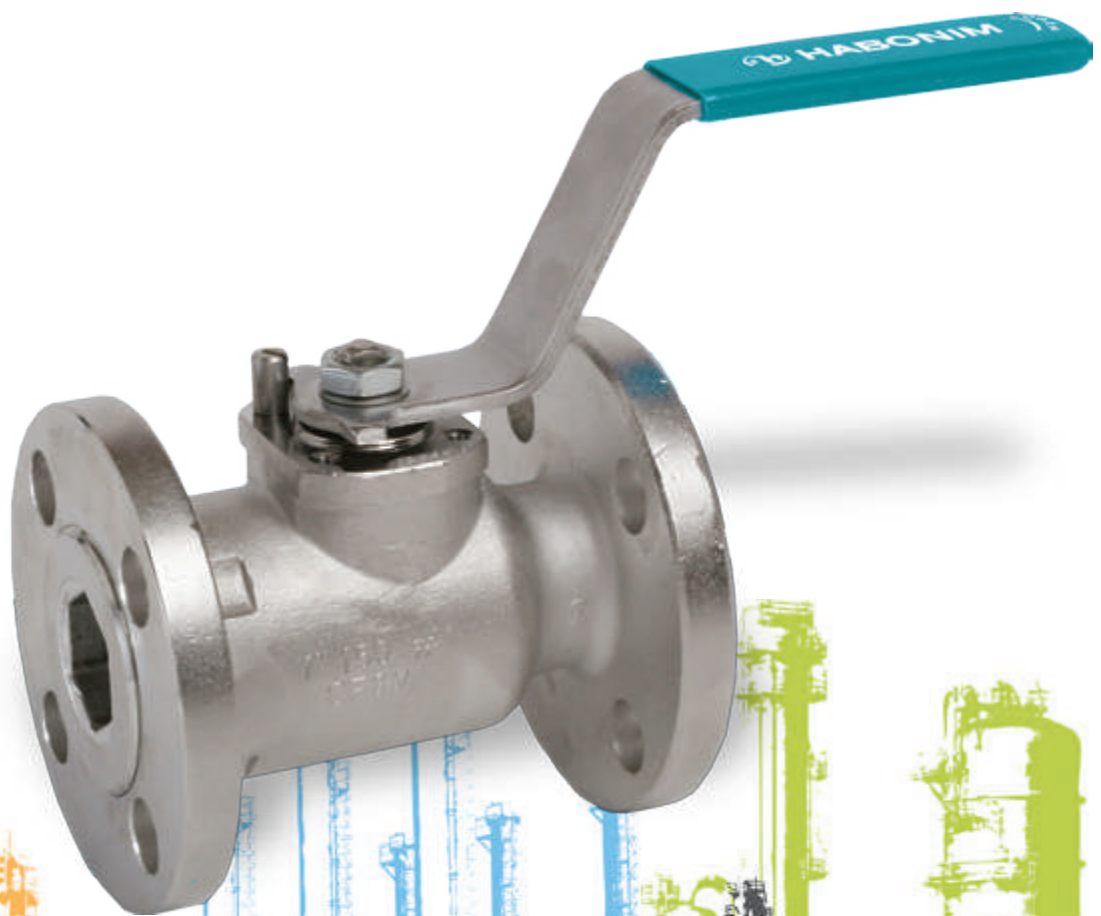


# HermetiX™ Fire safe for the BioPharm industry

Non-graphite fire safe valve



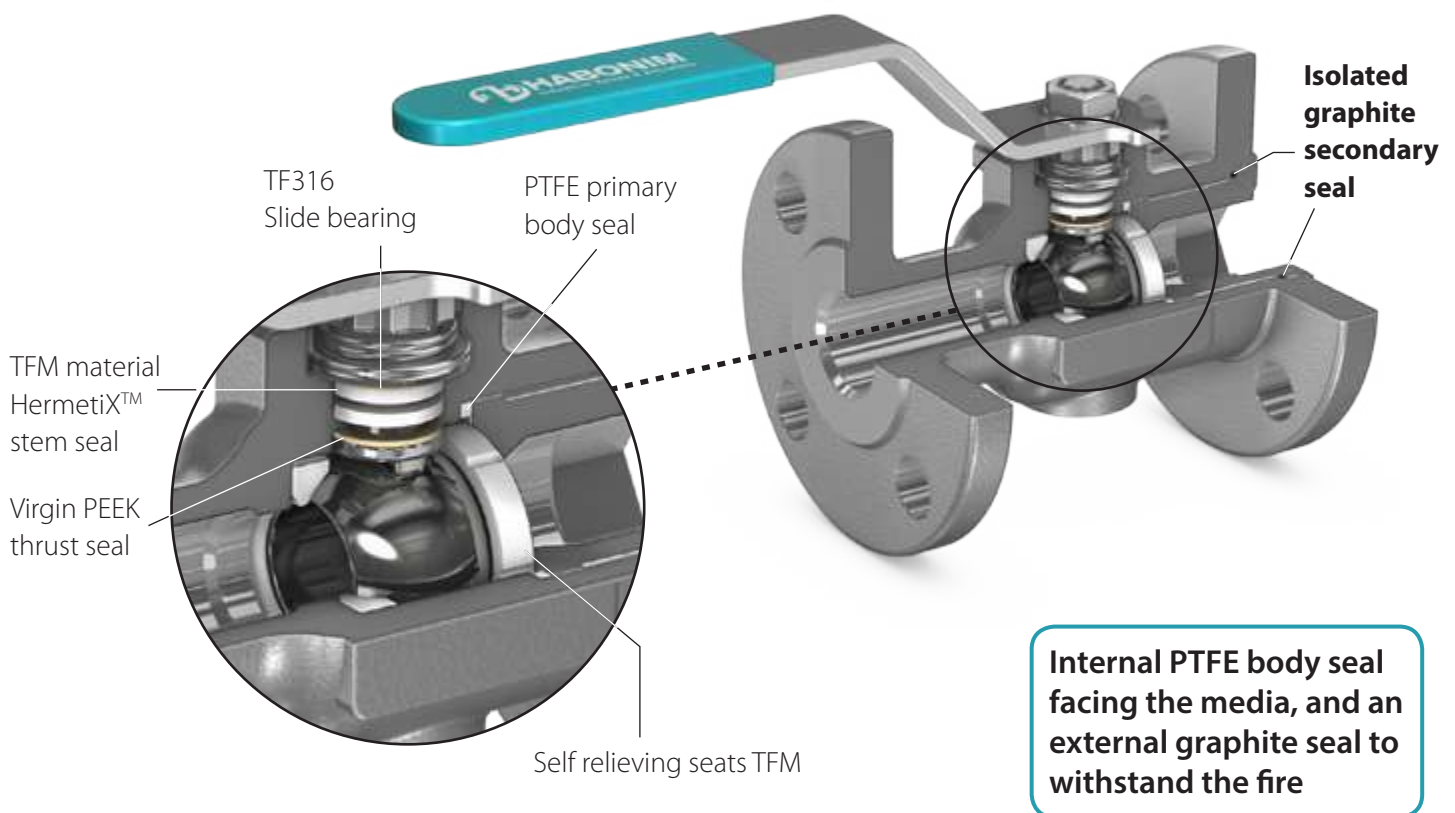
# BioPharm HermetiX™ fire safe valve

The inherent conflict for the BioPharm industry begins when defining the piping equipment to fulfill engineering specifications. On the one side, there is a mandatory demand for fire safe certified valves in an Ex-proof zone, which dictates graphite material as the traditional solution for stem and body seals. Then there is the counter mandatory demand for FDA approved materials in contact with the media, accompanied by strict cleanliness demands for parts used in high purity processes.

Habonim's response to this challenge is a premium line of products based on the HermetiX™ fire safe technology. This unique fire safe valve design includes a non-graphite HermetiX™ stem seal consisting of a virgin PEEK thrust bearing and anti-abrasion ring, and a stem seal made of TFM material. Both virgin PEEK and TFM are FDA approved. A double body seal set is comprised of an internal PTFE body seal facing the media, and an external graphite seal to withstand the fire. This configuration effectively isolates the graphite seal in a dry cavity, preventing it from coming in contact with the media, ensuring a high level of purity for the valuable media.

## Non-graphite stem seal

The non-graphite stem seal is suitable for use in flammable applications in the BioPharm, pharmaceutical, and chemical industries. It eliminates a possible source of contamination from the presence of graphite in the stem seal. In this instance, the HermetiX™ stem seal is made solely from FDA approved materials, thus avoiding possible rejection due to batch contamination.



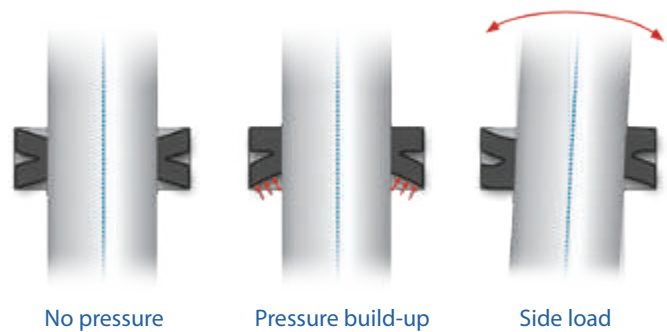
## HermetiX™ fire safe BioPharm valve series features

- Prevents media contamination from graphite particles
- FDA approved polymer materials
- Ensures uninterrupted production
- Fugitive emission certified to ISO 15848-1
- Fire safe certified to API 607 and ISO 10497
- Cleaned assembled and packed for oxygen service
- Minimizes shutdowns for maintenance up to 500,000 cycles
- Increases site safety
- Self-relieving seats (SRS) as standard
- Habonim design Patent No. D598,988



## HermetiX™ superior stem seal

The patented HermetiX™ stem seal is named for its distinctive “X”-shaped design. The flexible “X” shape creates a dynamic sealing arrangement so that in the event of pressure buildup or side load, the HermetiX™ dynamically adjusts to prevent fugitive emissions. This results in a superior stem seal design compared with the conventional flat stem seals currently available on the market.



## BioPharm HermetiX™ fire safe stem seal holds up in fire test

During the fire test, pressure pushes the valve stem upwards, causing a metal-to-metal seal between the stem fire lip and the valve body. After cooling down, holding the stem aligned becomes crucial in order to allow valve rotation to the open position and a successful final shell test. Traditional graphite based sealing components function only as a base to hold the stem parts aligned. Habonim's unique graphite-free stem seal components, allow the stem to stay aligned and operable after cooling, even after the polymer materials have melted. A double body seal set comprised of an internal PTFE body seal facing the media, and an external graphite seal to withstand the fire. In case of fire, the internal PTFE seal will melt allowing the graphite to seal the valve and prevent bursting.



## Certifications and standards of compliance

**ISO 15848-1** Industrial valves - Measurement, test and qualification procedures for fugitive emissions.

Part 1: Classification system and qualification procedures for type testing of valves

**API 607 / ISO 10497** Testing of valves fire type testing requirements and a fire type-test method for confirming the pressure containing capability of a valve under pressure during and after the fire test

**ANSI B16.34** Design standard - Valves Flanged, Threaded and Welding End

**Cleaning standard** - PRAXAIR GS-42 standard class 4 Commercial cleaning  
Linde standard LS 141-74 part 2 Cleanliness - class S4

**Habonim's unique graphite-free stem seal components, allow the stem to stay aligned and operable after cooling, even after the polymer materials have melted**

## Biopharm HermetiX™ fire safe valve series



**Three piece**  
F47G series



**Three-piece, tube port**  
F48G series



**Flanged, #150/#300**  
F31G/F32G series



**Flanged, full port #150/#300**  
F73G/F74G series

**Flanged, full port PN16/PN40**  
F77G/F78G series

## HermetiX™ color code



HermetiX™



HermetiX™ Fire safe



Biopharm HermetiX™ Fire safe



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