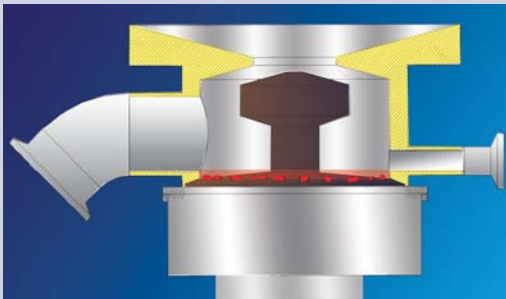


# SUMPFREE™ Radial Tank Bottom Valve

## The Problem



Other radial tank bottom valves have diaphragms that mount in the bottom wall creating a non-drainable quiet zone in the bottom of the valve. Material accumulates in the quiet zone, which is not easily washed out, posing a risk of carryover contamination.

## The Solution



When the SumpFree™ radial tank bottom valve is opened to drain the tank, material readily flows down and out, without hold-up or pooling.



When closed after use, the sloping bottom wall and pedestal-mounted diaphragm ensure complete, unassisted drainage.



During CIP/SIP all surfaces are readily accessible by cleaning solutions, and drain completely. Optional inlet offset can enhance internal vortex flow for greater scouring action.

The Pharmenta® SumpFree™ radial tank bottom valve features a patented, pedestal mounted diaphragm with face-down perimeter seal that eliminates bottom wall seams and pooling areas.

Material flows down and away from the diaphragm seal instead of settling on it, as is the case with other radial tank bottom valves.

The SumpFree™ radial tank bottom valve also has a solid, pitched

bottom wall for complete passive drainage. The optional inlet offsets can enhance internal vortex flow to maximize cleaning effectiveness.

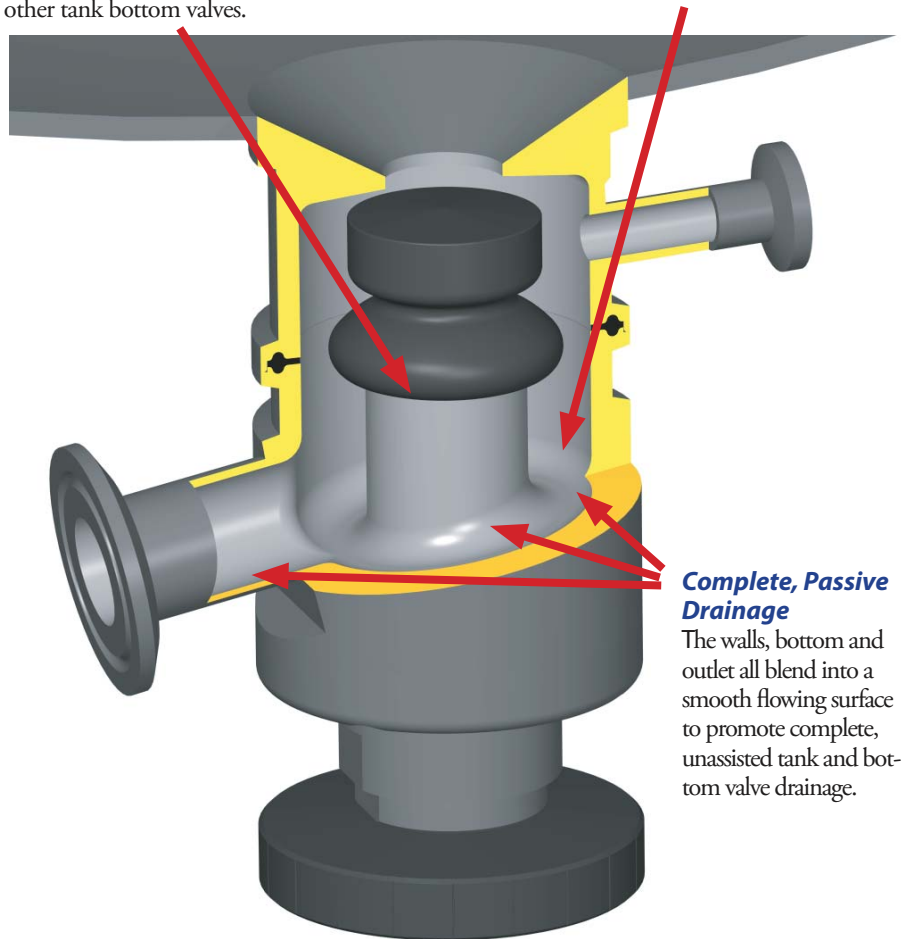
The SumpFree™ valve's patented combination of inverted perimeter seal and seamless sloping bottom wall make it the cleanest, most cost-effective valve to operate on the market today. The net result: fewer cleaning headaches for you, safer products for consumers.

### Face-down Perimeter Seal

Diaphragm seal is folded under and anchored on top of a pedestal, eliminating the face-up seal and associated welling area found in other tank bottom valves.

### Single Piece Sloping Bottom

No seals, seams or crevices where material can be trapped, causing risk of carryover contamination.



### Complete, Passive Drainage

The walls, bottom and outlet all blend into a smooth flowing surface to promote complete, unassisted tank and bottom valve drainage.

# SUMPFRE™ Radial Tank Bottom Valve

## Features/Advantages/Benefits

Feature	Advantage	Benefit
Patented diaphragm perimeter seal is folded under and anchored on top of a pedestal.	Eliminates the difficult-to-drain, difficult-to-flush and difficult-to-clean bottom well area found in all other diaphragm tank bottom valves, and created as a result of mounting the diaphragm in valve's bottom wall.	Maximizes cleanability-in-place and minimizes the need for manual cleaning interventions.
Bottom half of valve is a single piece of stainless steel, free of seams and seal joints.	Eliminates bottom wall crevices and seal seams that are places where material tends to build-up and cause carry-over contamination.	Minimizes your worry over batch-to-batch cross contamination.
Entire bottom wall is machined into a continuously declining seamless surface.	Built-in positive drain slope promotes complete, unassisted tank and bottom valve drainage.	Save time and money by minimizing or eliminating the need for manual blowdowns, bottom valve flushing or manual cleaning intervention episodes.
Sidewalls can be equipped with satellite valves.	Eliminate valve body deadspace by mounting cleaning and sterilizing flow control valves directly to the tank bottom valve.	Less deadspace means a cleaner operating process and more reliable process quality.
Directed CIP/SIP flow-through valve.	Creates Vortex™ directed flow patterns of cleaning and sterilizing media through the valve chamber.	Scours internal surfaces, enhancing effectiveness of in-place cleaning and steam sterilizing agents. Clean even the most stubborn surface adherent materials reliably and automatically (without manual intervention)

*“No bottom crevices.  
No bottom seams.  
No pooling areas. Just  
one smooth, downward  
sloping solid bottom  
wall for complete pas-  
sive drainage. Simple...  
but effective.”*



## Typical Applications

- ◆ Fermenters/Bioreactors
- ◆ Sterile holding tanks
- ◆ General purpose storage tanks
- ◆ WFI systems (storage tanks, point-of-use sites)

## Industries

- ◆ Pharmaceutical/Biotechnology
- ◆ Food and Beverage
- ◆ Chemical

## Size Range

- ◆ 1 inch (25mm)
- ◆ 1.5 inch (38mm)
- ◆ 2 inch (51mm)
- ◆ Other sizes to follow

## Actuator Options

- ◆ Manual handwheel (with visual position indicator)
- ◆ Pneumatic (with position switch option)

## FDA Compliant Diaphragm Materials

- ◆ EPDM
- ◆ Silicon
- ◆ Viton®

## Body Material

### Standard:

- ◆ 316L stainless steel

### Available:

- ◆ AL6N Hasteloy
- ◆ 304 stainless steel

## Surface Finishes

- ◆ < 32 Ra
- ◆ < 15 Ra
- ◆ Electropolish
- ◆ Custom



212 Carnegie Center  
Suite 206  
Princeton, NJ 08540  
Ph: (888) 765-7838  
(609) 919-6370  
Fx: (609) 452-7127  
www.pharmenta.com