

Pharmenta®

SumpFre™ Radial Tank Outlet Valve

Cleaner. Faster. Safer.



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

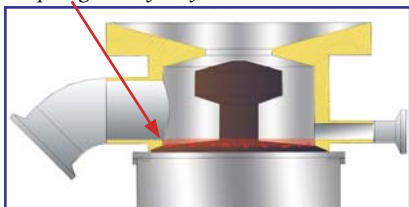


When closed after use, the sloping bottom wall and pedestal mounted diaphragm ensure complete, unassisted drainage.



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.

Other radial tank outlet 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: Superior Technology for Cleaner, Safer Processes

The Pharmenta® SumpFre™ radial tank outlet valve features solid, pitched bottom wall for complete passive drainage. The SumpFre™ radial tank outlet valve also has a patented, pedestal mounted diaphragm with face-down perimeter seal that permits the elimination of 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 outlet valves.

The SumpFre™ valve's patented combination of seamless sloping bottom wall and inverted perimeter seal diaphragm 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.

Best Flow Rates in the Industry

The SumpFre™ valve's unique design also makes it the fastest draining valve in the industry, with flow rates from twenty to forty percent higher (depending on size) than the published rates for other radial tank outlet valves. Higher flow rates translate into faster drainage and direct savings in time and money.

The Most Flexible Design Available

The advantages of the SumpFre™ valve design go beyond the original goal of providing the cleanest, safest tank outlet valve on the market. The SumpFre™ valve features a patented two part design that concentrates the "business" portion of the valve in the valve base, making it possible to provide, interchangeable flanges and valve bases optimized for different applications. For example, the SumpFre™ valve is the only radial tank outlet valve to offer a "wide-open" weld flange that eliminates the quiet-zone typically found at the bottom of a tank, making it ideal for cell culture applications.

Face-down Perimeter Seal

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

Optional CIP/SIP Port

Can be positioned in valve top or base.

Single Piece Sloping Bottom

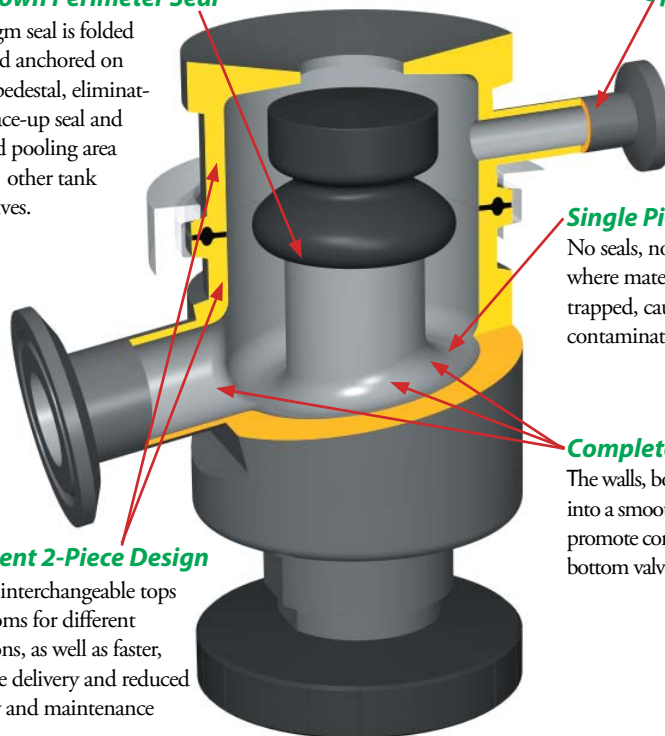
No seals, no seams, no crevices where material can be held up and trapped, causing risk of carryover contamination.

Complete, Passive Drainage

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

Intelligent 2-Piece Design

Supports interchangeable tops and bottoms for different applications, as well as faster, worry-free delivery and reduced inventory and maintenance costs.



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1-888-765-7838 or 609-919-6370

Maximize Peace of Mind

Not only does the SumpFre™ valve feature the cleanest, most flexible design available, but it also provides features for your peace of mind. For example, process engineers fitting out facilities in remote locations can purchase an extra valve base that can be kept on hand and switched in a matter of seconds should the need arise, without cutting, welding or recertification. And the valve base can be removed from the tank to prevent damage to the valve or tank during shipment.



Interchangeable Tops for Different Applications

Many options including (from left to right) point-of-use, shallow weld flange (optimized for cell culture applications), clamp-on flange and standard weld flange.

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



Features	Advantages	Benefits
Patented high flow designs.	Highest flow rates of any tank outlet valve in the industry. More efficient, faster draining design requires less time and less cleaning and rinsing solutions for complete cleaning.	Translates directly into savings in time and money.
Patented face-down diaphragm perimeter seal is folded under and securely anchored on top of a pedestal.	Eliminates the undrainable, difficult to flush and clean bottom well area found around the diaphragm seat of all other tank bottom valves.	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.

Typical Applications

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

Industries

- Pharmaceutical/Biotech
- Food and Beverage
- Chemical

Size Range

- 1/2 inch
- 3/4 inch
- 1 inch
- 1.5 inch
- 2 inch
- 3 inch

Actuator Options

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

FDA Compliant Diaphragm Materials

- EPDM
- Silicon
- Viton®
- Others available

Body Material

- 316L stainless steel
- Others available

Surface Finishes

- 32 Ra or better
- 25 Ra or better
- 15 Ra or better
- Electropolish
- Custom



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