

# RITE® SERIES PVC SINGLE DOOR FLANGED TYPE SWING CHECK VALVE INTEGRAL SOFT SEAT



## OVERVIEW

The Rite® Series PVC flanged combination swing check valves are flow activated and Rite® Sized. The Rite® Series Check Valve inlet ports and disc have been shape optimized to achieve a fully open position at low flow rates (3 ft/s on average).

## SPECIFICATIONS

<b>Size Range</b>	NPS 2" to 24"
<b>Temperature Range</b>	35:140 °F (1:60 °C)
<b>Operating Pressure</b>	ASME (125, 150) Equivalent
<b>Body Style</b>	One-Piece Flanged
<b>Leakage Rate</b>	Zero Leakage

## APPLICATIONS

- > Desalination
- > Saltwater
- > Marine life support

## MEDIA

- > Dry Chlorine (Gas or Liquid)
- > Hydrogen
- > Oxygen
- > Gases
- > Water

## DESIGN FEATURES

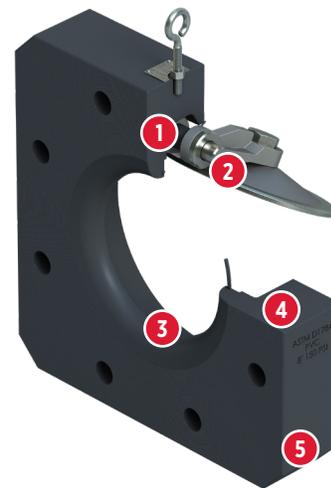
The Series PVC soft seated check valves offer:

### SINGLE DOOR DESIGN:

**Below numbered list can be referenced on various figures throughout document**

- 1 Combination design utilizing both gravity + spring makes the valve easy to open/close, reducing water hammer.
- 2 Limited movement of internal parts during operation extends service life.
- 3 Elliptical inlet shape designed to accelerate line media through the valve.
- 4 Optimal diameter for high flow capacity.
- 5 Short face to face reducing weight and space between the flanges.
- 6 Low cracking pressure design.
- 7 Quick response time (ideal for process lines with varying flows & control valves).
- 8 Cost & energy efficiency, requiring only one set of flange studs which span the valve, reducing in-service vibration.
- 9 A mechanically dynamic seal, contained in a specially designed groove.
- 10 Maintenance is simple as the o-ring is easily removed and replaced when worn.
- 11 As pressure is applied to the valve disc, the seal is compressed into the groove ensuring a consistent and uniform seal.
- 12 The load on the seal is controlled, reducing wear for longer life.

**Figure 01:** Integral Soft Seat Cutaway Front View.



**Figure 02:** Integral Soft Seat Cutaway Rear View.



**RITE® SERIES PVC  
SINGLE DOOR FLANGED TYPE SWING CHECK VALVE  
INTEGRAL SOFT SEAT**



**DESIGN STANDARDS**

<b>Valve Design</b>	Manufacturer's standard
<b>Accessories Available</b>	SA4A
<b>Testing Standard</b>	ASME (125, 150) Equivalent
<b>Face-to-Face</b>	Manufacturer's standard

Additional information is available in the Bray Rite® Ltd. Technical Sales Manual.

**MATERIAL OPTIONS<sup>1</sup>**

**Body Material determines whether design is integral type, or seat ring type. See below chart:**

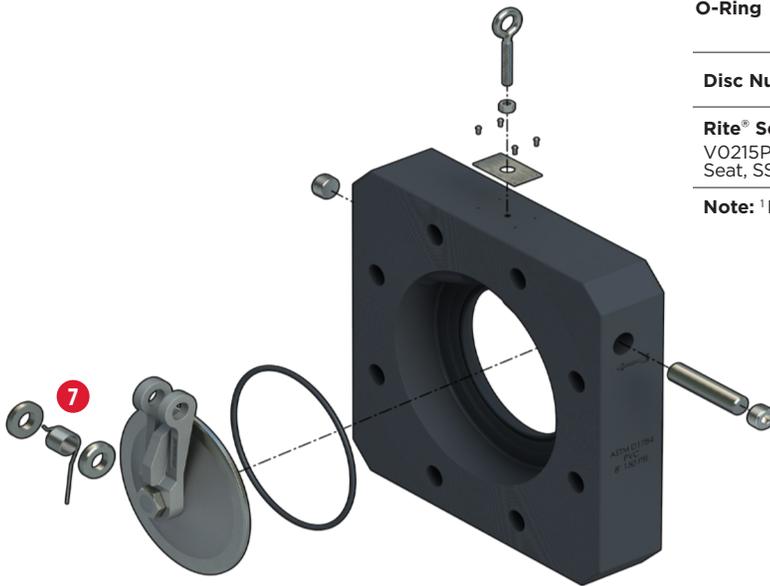
<b>Body</b>	PVC (ASTM D 1784)
<b>Hinge</b>	Stainless Steel (ASTM A351 CF8M), Titanium optional
<b>Seat (Integral)</b>	Matches body material
<b>Spring</b>	<b>Valve size: ≤12":</b> SS302/304, Stainless Steel (ASTM A313 316) standard duty <b>Valve size: ≥14"+:</b> Stainless Steel (ASTM A313 17-7 PH) <b>For All Valve Sizes:</b> Inconel (X750) on body materials higher grade than SS.
<b>Spacer</b>	Stainless Steel (ASTM A479 316), Titanium optional
<b>Pin</b>	Stainless Steel (ASTM A479 316), Titanium optional
<b>Plug</b>	Stainless Steel (SS 316) Titanium optional
<b>Lock Nut</b>	Steel Zinc Plated
<b>Eye Bolt</b>	Steel Zinc Plated
<b>Nameplate</b>	Stainless Steel (SS 316)
<b>Disc</b>	Stainless Steel (ASTM A351 CF8M), Titanium optional
<b>Rivet</b>	Steel Zinc Plated
<b>O-Ring</b>	BUNA-N, EPDM, FKM-A, HNBR, Neoprene
<b>Disc Nut</b>	Stainless Steel (ASTM F594 316) Titanium optional

**Rite® Series Check Valve seat ring type part number:**

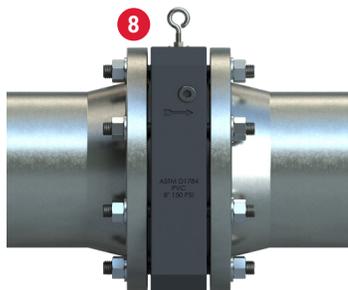
V0215PBZ (For 2", Class 150, PVC (ASTM D 1784) Body, BUNA-N Seat, SS Spacer, Series PVC)

**Note:** <sup>1</sup>Dimensions available in ASME sizes.

**Figure 03:** Integral Soft Seat Exploded View.



**Figure 04:** Integral Soft Seat In-Pipe View.



**Figure 05:** Integral Soft Seat Close-Up Cutaway Views.

