

RITE® SERIES 212-312 SINGLE DOOR WAFER TYPE SWING CHECK VALVE INTEGRAL SOFT SEAT



OVERVIEW

The Rite® Series 212/312 wafer combination swing check valves are flow activated and Rite® sized. These valves are installed in fire protection systems in accordance with standards of the National Fire Protection Association.

SPECIFICATIONS

Size Range	NPS 2" to 12" 50mm to 300mm
Temperature Range	-40:250 °F (-40:121 °C)
Operating Pressure	Series 212: ASME (125) Series 312: DIN (PN10, 16)
Body Style	One-Piece Wafer Body Integral Type
Leakage Rate	Zero Leakage

APPLICATIONS

LISTED BY UNDERWRITERS LABORATORIES OF CANADA FOR USE IN:

- > Foam Extinguishing Systems NFPA No. 11
- > Installation of Sprinkler Systems NFPA No. 13
- > Standpipe and Hose Systems NFPA No. 14
- > Water Spray Systems for Fire Protection NFPA No. 15
- > Installation of Centrifugal Pumps NFPA No. 20
- > Water Tanks for Private

Fire Protection NFPA No. 22

- > Outside Protection NFPA No. 24

FIRE PROTECTION APPROVED FOR USE

- > Discharge Lines for Fire Pumps
- > Fire Protection Systems
- > Listed Under Check Valves Anti water-hammer Single Check Valves

DESIGN FEATURES

The Series 212/312 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 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.

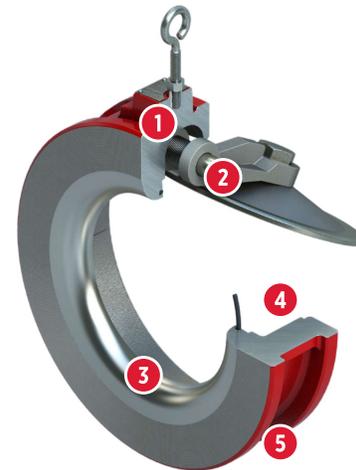


Figure 02: Integral Soft Seat Cutaway Rear View.



RITE® SERIES 212-312
SINGLE DOOR WAFER TYPE SWING CHECK VALVE
INTEGRAL SOFT SEAT



DESIGN STANDARDS

Valve Design	ASME B16.34
Testing Standard	ASME B16.34, API 598
Face-to-Face	Manufacturer Standard

CERTIFICATIONS AND APPROVALS

Certifications	CE/PED
	CRN
Approvals	FM
	ULC

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

MATERIAL OPTIONS¹

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

Body	Cast Iron (ASTM A126 CLB)
Hinge	Stainless Steel (ASTM A351 CF8M)
Seat (Integral)	Matches body material
Spring	Stainless Steel (ASTM A313 316) standard duty
Spacer	PTFE
Pin	Stainless Steel (ASTM A479 316)
Plug	Steel
Lock Nut	Steel Zinc Plated
Eye Bolt	Steel Zinc Plated
Nameplate	Stainless Steel (SS 316)
Disc	Stainless Steel (ASTM A351 CF8M)
Rivet	Steel Zinc Plated
O-Ring	BUNA-N
Disc Nut	Stainless Steel (ASTM F594 316)

Rite® Series Check Valve 212 Series part number: V02212
 (For 2", Class 125, Cast Iron ASTM A126 CLB Body, BUNA-N Seat, PTFE Spacer, Series 212)

Rite® Series Check Valve 312 Series part number: V02312
 (For 2", Class PN10/16, Cast Iron ASTM A126 CLB Body, BUNA-N Seat, PTFE Spacer, Series 312)

Note: ¹Dimensions available in ASME and DIN sizes.

Figure 03: Integral Soft Seat Exploded View.

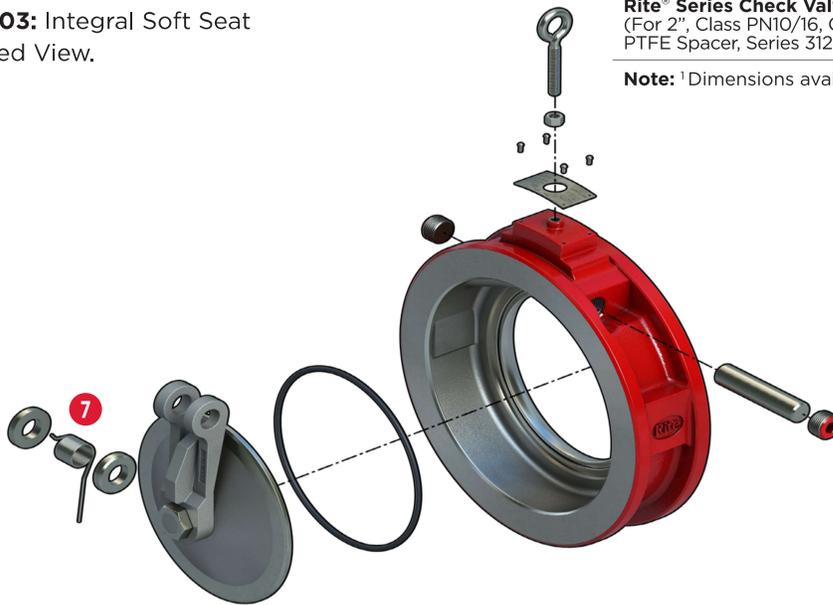


Figure 04: Integral Soft Seat In-Pipe View.

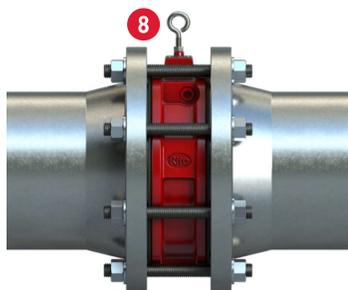


Figure 05: Integral Soft Seat Close-Up Cutaway Views.

