

SPECIAL APPLICATION RITE SERIES SA1 EXTERNAL LEVER, SPRING, AND WEIGHT CHECK VALVE ACCESSORY



OVERVIEW

The Bray Series SA1 check valve accessory uses the combination of a weight and spring to add cracking pressure & closing force to the disc. This is used for applications needing flexibility to decrease/increase closing time, & which may include solid handling applications.

SPECIFICATIONS

Size Range	NPS 2" to 12" 50mm to 300mm
Temperature Range	Pending Model Selected
Operating Pressure	Pending Model Selected
Body Style	Flanged, or Wafer Type Valves
Compatibility	Bray 205, 210, or 211 Series
Leakage Rate	API 598

APPLICATIONS

- > Fast Closures
- > Industrial Waste
- > Sewage Treatment
- > Solids handling
- > Wastewater

MEDIA

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

DESIGN FEATURES

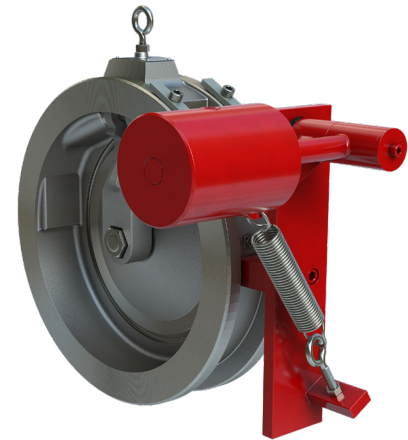
The Bray Series SA1 **check valve accessory** offers single door check valve design modification to alter flow conditions:

APPLICATION:

The purpose of equipping a standard Bray/Rite Single Door Wafer or Flanged Type Swing Check Valve with an external lever with spring & weight, is to provide an external control, which is field adjustable, in applications such as: multiple pumping installations terminating in common headers where transient forces are difficult to ascertain and control. Other applications include those that require fast closure such as solids handling, & wastewater. The basic principle is to start closing the valve as soon as the flow starts to decrease. With the external spring it is possible to close the valve before the flow reverses. This reduces or eliminates water-hammer and the associated problems.

GENERAL DESCRIPTION:

A Model SA1 is a basic Bray/Rite Check Valve which has been converted, featuring a positive hexagon drive at the Disc/Hinge/Shaft mounting. The blowout proof Shaft extends through the Body and is supported by a Bracket arrangement. A stainless steel Bushing supports the Shaft in the Body, and a Ball Bearing supports the Shaft in the Bracket. O-Rings seal the Shaft and the Body. A Spring mounted between the Bracket and the Shaft provides for the adjustment and rapid closure. The Spring and Weight are attached to the Shaft with hexagon drive bushings. The Disc is supplied with a non-rotating feature to prevent it from "Spinning" and creating excessive wear at the Disc/Hinge connection.



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MATERIAL OPTIONS¹

Body	ASTM A 216 WCB*
Hinge	ASTM A351-CF8M
Seat (optional)	ASTM A240-304
Spacer	ASTM A479-316
Shaft	F316 under 4", and ASTM A564-630 (17-4 PH) above 4"
Plug	Steel (or as per body)
Lock Nut	Steel Zinc Plated
Eye Bolt	Steel Zinc Plated
Name Plate	SS316
Disc	ASTM A351-CF8M
Rivet	Steel Zinc Plated
O-Ring (optional)	Buna / EPDM / Teflon / TES / Viton
Disc Nut	Stainless Steel
Seal Bushing	ASTM A479-316
O-Ring	Buna / EPDM / Teflon / TES / Viton
O-Ring	Buna / EPDM / Teflon / TES / Viton
Spring Adaptor	Steel
Weight Lever	Steel

Retaining Plate	Steel
Socket Head Screw	Steel Zinc Plated
Bracket	Steel
Socket Head Screw	Steel Zinc Plated
Dowel Pin	Steel Zinc Plated
Ball Bearing	Steel
Round Head Screw	Steel Zinc Plated
Nut	Steel Zinc Plated
Spring	ASTM A313 302/304 (Optional ASTM A313 316, 17-7 PH Stainless Steel, Inconel X 750)
Weight	Steel
Socket Head Screw	Steel Zinc Plated

Note: ¹ Materials available in ASME and EN grades.
 * Other materials available: A126 CLB, A395, A351-CF8M, Monel, Alloy 20, Hastelloy, 254SMO, Titanium.
 All external components can be offered in SS where required.
 * Previous Models before July 2024 onward may have included slightly different material configurations/parts callout lists.