

SPECIAL APPLICATION RITE SERIES SA40A
EXTERNAL COMPRESSION SPRING & WEIGHT
CHECK VALVE ACCESSORY



OVERVIEW

The Bray Series SA40A check valve with compression spring & weight accessory is designed to apply additional cracking pressure and weight to the disc. This model is suitable for applications requiring flexibility to decrease/increase closing time while protecting the spring from atmospheric conditions.

SPECIFICATIONS

Size Range	NPS 14" to 54"
	350mm to 1350mm
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

- > Industrial waste
- > Sewage treatment
- > Solid handling

MEDIA

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

DESIGN FEATURES

The Bray Series SA40A 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 compression spring and weight is to provide 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. The basic principle is to start closing the valve as soon as the flow starts to decrease. With external springs it is possible to close the valve before flow reverses. This reduces or eliminates water-hammer and the associated problems.

GENERAL DESCRIPTION:

A Model SA-40 is a basic Bray/Rite Single Door Wafer or Flanged Type Swing Check Valve which has been converted, featuring a positive hexagon drive at the Disc/Hinge/Shaft mounting. The basic valve has a Disc/Hinge assembly connected to a positive hexagonal drive shaft, which extends through the body. The shaft is supported by the body at one end, by a bushing in the body and by a ball bearing in the bracket. Four O-Rings seal the shaft and the body. Ball Bearing are used in the Bracket to provide support and to reduce friction. A Compression Spring is mounted between the Bracket and the Shaft provide for adjustment and rapid closure. The Disc is supplied with a non-rotating feature to prevent it from "Spinning" and creating excessive wear at the Disc/Hinge connection. The external spring is enclosed in a canister which acts as guard against contact from foreign objects.



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MATERIAL OPTIONS¹

Body	ASTM A216 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	Steel
Seat Retaining Screws (Optional)	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
Spring	Steel (ASTM A228)
Weight	Steel
Socket Head Screw	Steel Zinc Plated
Cotter Pin	Steel (ASTM A228)
Socket Head Screw	Steel Zinc Plated
Flanged Lock Nut	Steel Zinc Plated
Rod	Steel
Rod Clevis	Steel
Guiding Bushing	Steel
Needle Bearing	Steel
Threaded Bushing	Steel
Spacer	Teflon
Spring Chamber	Steel
Cotter Pin	Steel
Rod Eye	Steel
Headless Liner	Bronze
Grease Fitting	Alemite
Cam Bearing	Steel

Notes: 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 may have included slightly different material configurations/parts callout lists.