



Size and number of springs to be determined by application. Springs may be mounted on the left or right hand side. Right hand mounting is shown. If not specified on order, right hand mounting will be supplied.

	VALVE SIZE								
	2"	2.5"	3"	4"	5"	6"	8"	10"	12"
<b>A</b>	1.75	1.88	2.00	2.25	2.50	2.75	2.88	3.13	3.38
<b>B (125/150)</b>	4.13	4.88	5.38	6.88	7.75	8.75	11.00	13.38	16.13
<b>B (300)</b>	4.38	5.13	5.88	7.13	8.50	9.88	12.13	14.25	16.63

Item	Description	Material
1	Body	ASTM 216-WCB
2	Hinge	ASTM A351-CF8M
3	Seat	ASTM A351-CF8
6	Spacer	ASTM A479-316
7	Shaft	ASTM A564-630
8	Plug	Steel
9	Lock Nut	Steel Zinc Plated
10	Eye Bolt	Steel Zinc Plated
11	Name Plate	Aluminium
12	Disc	ASTM A351-CF8M
13	Rivet	Steel Cad. Plated
14	O-Ring	Buna, Viton, Teflon
15	Disc Nut	Stainless Steel

Item	Description	Material
19	Seal Bushing	ASTM A479-316
20	O-Ring	Buna, Viton, Teflon
21	O-Ring	Buna, Viton, Teflon
22	Spring Adaptor	Steel
24	Retaining Plate	Steel
25	SHCS	Steel
26	Bracket	Steel
27	SHCS	Steel
28	Dowel Pin	Steel
29	Ball Bearing	Steel
31	Eye Bolt	Steel Zinc Plated
32	Nut	Steel Zinc Plated
33	Spring	Stainless Steel

Other materials available: A395, A351-CF8M, Monel, Alloy 20, Hastelloy, 254SMO, Titanium.



**1) APPLICATION / PURPOSE OF MODEL SA-01 VALVES**

The purpose of equipping a standard Check Rite Valve with external springs 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 the flow reverses. This reduces or eliminates waterhammer and the associated problems.

**2) GENERAL DESCRIPTION**

A Model SA-01 is a basic Check Rite Valve which has been converted, featuring a positive hexagon drive at the Hinge/Disc (2-12) - Shaft (7) mounting.

The blowout proof Shaft (7) extends through the Body (1) and is supported by a Bracket arrangement (26).

A stainless steel bushing (19) supports the Shaft (7) in the Body (1), and a ball bearing (29) supports the Shaft (7) in the Bracket (26).

O-Rings (20, 21) seal the Shaft (7) and the Body (1).

A Spring (33) mounted between the Bracket (26) and the Shaft (7) provides for adjustment and rapid closure. The spring is attached to the shaft with a hexagon drive bushing.

The Disc (12) is supplied with a non-rotating feature to prevent it from "Spinning" and creating excessive wear at the Hinge-Disc connection.

**3) ADJUSTMENT OF VALVE**

Valves of this sort are usually designed for a specific application. The size and number of springs are determined by flow rates and the required response of the valve. The limited adjustment of the spring is designed to suit most applications. A field setting by a qualified mechanic will usually meet the expectation.

To reduce valve closing time, the spring (33) can be tightened.

To increase the valve closing time, the spring (33) can be loosened. Make sure that there is preload on the Spring to ensure that the valve is closed when there is no flow.