

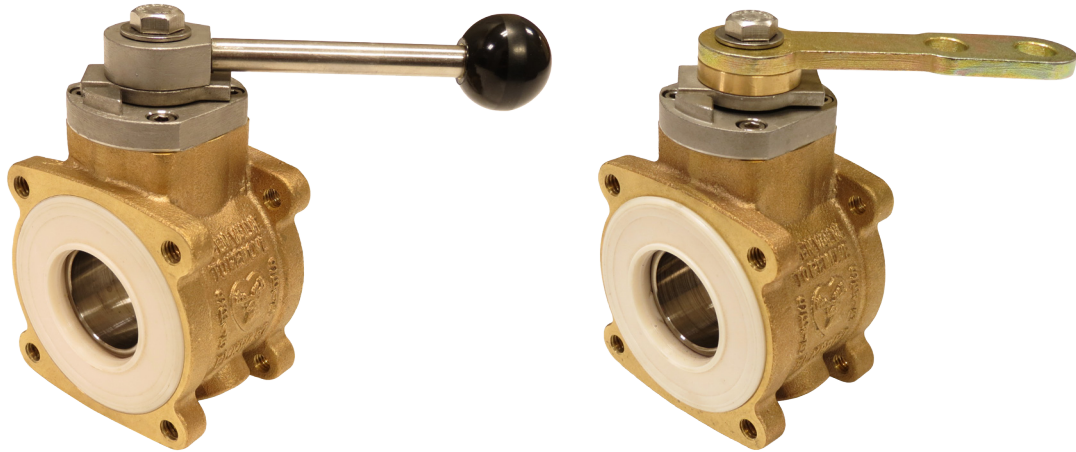
SINGLE BODY VALVE  TM
Valve Manual

ELKHART BRASS
Fire Fighting Equipment

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I. INTRODUCTION



Elkhart Brass Single Body apparatus valves are specially designed for reliability, ease of installation and ease of use.

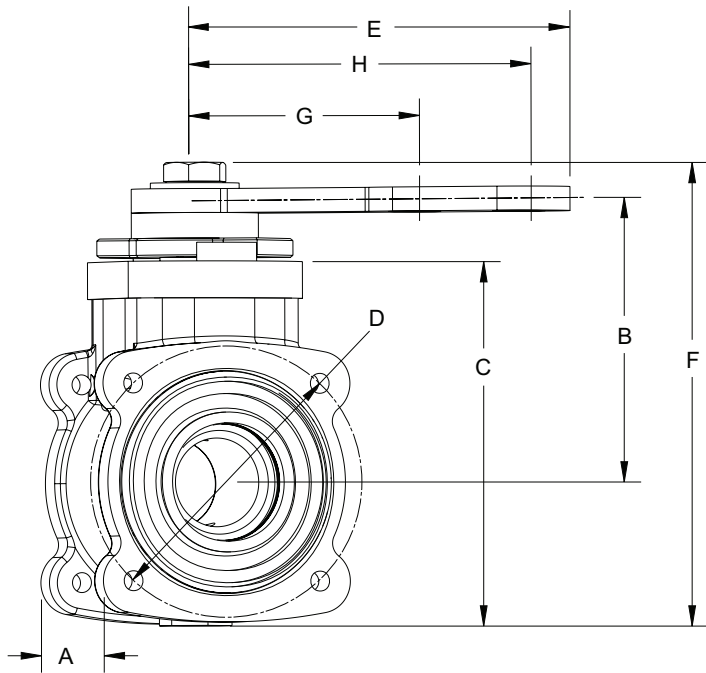
BALL VALVE

- Single Body Ball Valves are available in 1.0" (SB10) & 1.5" (SB15) body sizes with integral direct or remote actuators.
- The bodies are constructed of corrosion resistant brass, and the ball is constructed from durable stainless steel.
- Dual self-adjusting seats provide bidirectional sealing.
- Adapters (end caps) are constructed of brass and do not require O-rings that could cut or tear during servicing.
- Swing out construction allows for easy access to internal waterway.
- Handle position and direction of operation can be changed easily.

Single Body Valves meet or exceed NFPA 1901 Standards.

II. COMPONENT IDENTIFICATION

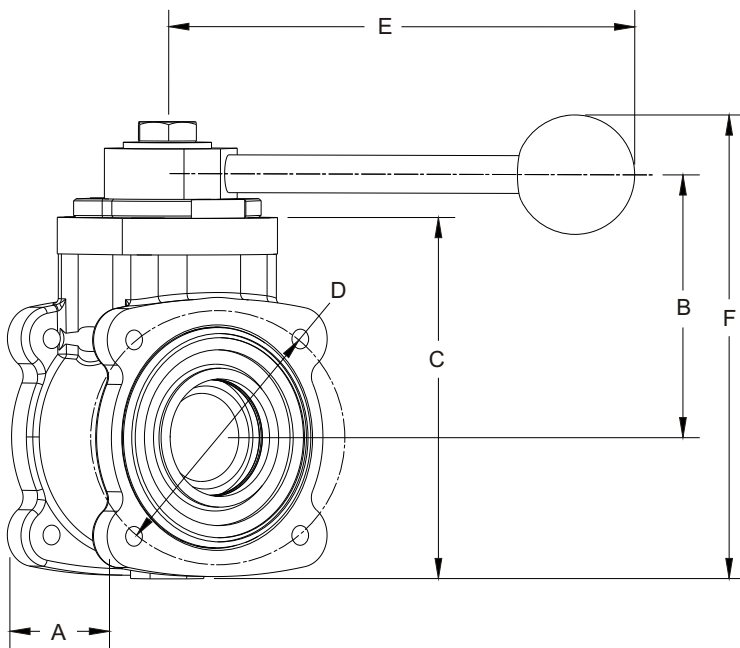
1a. Remote Handle (R1)



Size	1.0"	1.5"
Materials	Body - Brass Ball - Stainless Steel Seat - Plastic	
Ball Type	Round	
Max Pressure	600 psi	
C _v Value	81	206
Elkhart Model	SB10	SB15
Akron Model	8810	8815
Actuator Type	Remote Handle	
Actuator Style	Short	
Locking	Non-Locking	
Handle Travel	90°	
Elkhart Model	R1	
Akron Model	R-1	

ELKHART #	SIZE	A	B	C	D	E	F	G	H
SB10	1	1 7/8	2 25/32	3 19/32	2 3/4	4 1/16	4 9/16	2 13/32	3 9/16
SB15	1 1/2	2 1/4	3 1/8	4 9/32	3 1/2	4 1/16	5 9/32	2 13/32	3 9/16

1b. Direct Handle (TS)



Size	1.0"	1.5"
Materials	Body - Brass Ball - Stainless Steel Seat - Plastic	
Ball Type	Round	
Max Pressure	600 psi	
C _v Value	81	206
Elkhart Model	SB10	SB15
Akron Model	8810	8815
Actuator Type	Direct Handle	
Actuator Style	Short	
Locking	Locking	
Handle Travel	105°	
Elkhart Model	TS	
Akron Model	TS	

ELKHART #	SIZE	A	B	C	D	E	F
SB10	1	1 7/8	2 5/8	3 19/32	2 3/4	4 3/4	4 5/8
SB15	1 1/2	2 1/4	2 31/32	4 9/32	3 1/2	4 3/4	5 5/16

2. Adapters

The screenshot shows the 'Unibody Valve Configurator' window. At the top, it has a title bar with 'Unibody Valve Configurator' and standard window controls. Below the title bar is a menu bar with 'File' and 'Help'. The main header area features the 'Unibody Valve' logo and 'By Elkhart Brass' text. To the right of the header are 'Show' and 'StartOver' buttons, and a note: 'Fill in single or multiple entries, then click "Show" to lookup valve combinations.' Below the header is a tabbed interface with three tabs: 'Lookup by Features', 'Lookup by Number', and 'Unibody Valve Accessories'. The 'Lookup by Features' tab is active. The main content area is divided into two columns of dropdown menus. The left column is titled 'Inlet Adapter' and includes: Valve Type, Valve Size, Type, Gender, Size, Pump Bolt Pattern, Pump Bolt Centers, Drain Tap, Pressure Tap, Flow Sensor Port, Check Valve, Offset/ Angle/ Droop, and Strainer. The right column is titled 'Outlet Adapter' and includes: Actuator Type, Actuator Style, Actuator Slow Close, Type, Gender, Size, Pump Bolt Pattern, Pump Bolt Centers, Drain Tap, Pressure Tap, Flow Sensor Port, Check Valve, Offset/ Angle/ Droop, and Strainer.

For complete adapter availability, download the Unibody Valve Configurator from the Elkhart Brass website at www.elkhartbrass.com.

III. GENERAL WARNINGS AND CAUTIONS



Important:

Before installing and operating this equipment, read and study this manual thoroughly. Proper installation is essential to safe operation. In addition, the following points should be adhered to in order to assure the safety of equipment and personnel.

- All personnel who may be expected to operate this equipment must be thoroughly trained in its safe and proper use.
- Become thoroughly familiar with the hydraulic characteristics of this equipment.
- Always open and close valves slowly to avoid water hammer.
- Keep fingers and hands clear of moving parts.
- Do not use lubrication on the valve ball or seats.
- Do not wrench on the valve body or the opposite adapters.
- Clear debris from waterway before the valve is installed.
- Foreign materials such as metal chips could jeopardize the sealing capability of the valve. Any drilled holes required in the plumbing should be added, and the chips removed from the waterway, prior to installation of the valve.
- Do not exceed rated operating pressure for any valve as listed in Table 1.

	Model Number	Rated Operating Pressure (psi)	C _v Value
Ball Valves	SB10	600 psi	81
	SB15	600 psi	206

Table 1 – Pressure

IV. QUICK INSTALLATION GUIDE

1. Adapters to Valve Body

- A) Move valve to close position. See Figure 1.

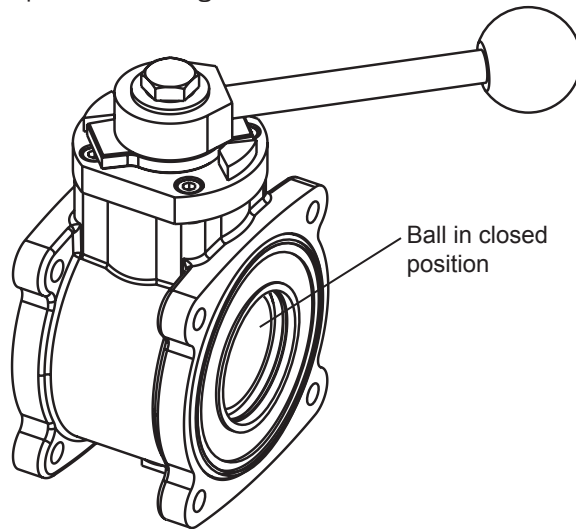


Figure 1

- B) Tighten the four adapter bolts in an X pattern (see Figure 2) by first tightening all bolts to 1/2 their torque specs, and then tightening them to their full torque spec. This will help prevent misalignment. See Table 2 for adapter bolt sizes and torque requirements.

Valve	Size	Torque
SB10	1/4 - 20	60-70 in-lbs
SB15	5/16 - 18	100-115 in-lbs

Table 2 – Size & Torque

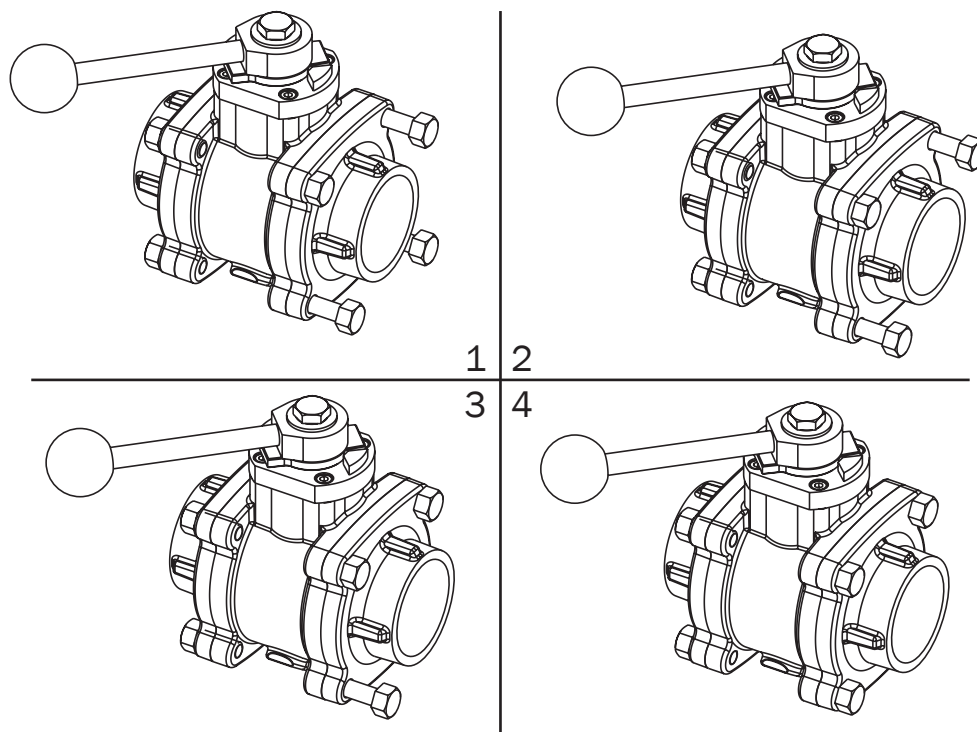


Figure 2

2. Handle Position

The remote and direct handle actuators may easily have the handles repositioned in 45° increments. The following details the handle reposition procedure.

A) Remote and Direct Handle Positioning

1. Remove the 3/16 - 16" bolt and washer that locks the handle in position.

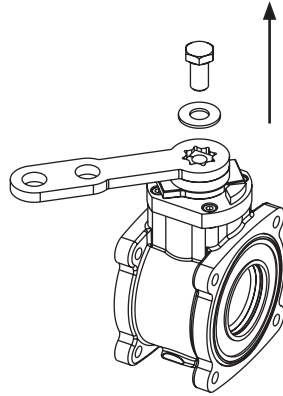


Figure 3

2. Remove the handle completely from the shaft and rotate to the desired location in 45° increments. Remove and rotate the stop plate 90° to reverse valve ball rotation.

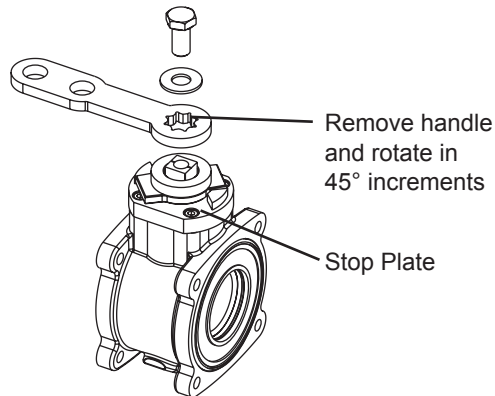


Figure 4

3. Place handle back on actuator shaft in new location and reattach washer and 3/8 - 16" bolt. Use Loctite #242 thread locker or equivalent.

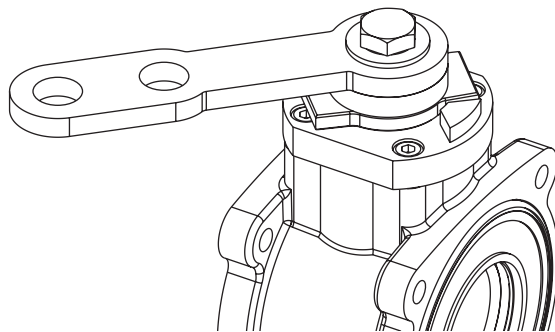


Figure 5

V. MAINTENANCE

1. Ball Valve Seal Kits

The Single Body Valve body assemblies require very little maintenance. If it does become necessary to service a ball valve body, seal kits are available to provide all O-rings and seats required in the valve assembly.

Additional kits are available that also include the valve ball in the case of severe waterway debris damage.

Part Number	Description	Valve Size
65499000	Seal Kit	SB10
65982000	Seal Kit with Stainless Steel Ball	SB10
65983000	Seal Kit	SB15
65984000	Seal Kit with Stainless Steel Ball	SB15

Table 3

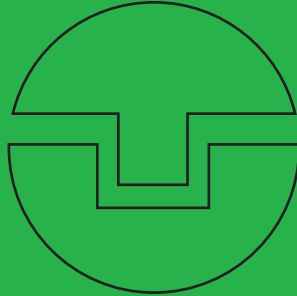
Swing out instructions for accessing internal waterway.

1. Remove three of the end-cap bolts on each side of the valve away from the desired swing-out direction.
2. Loosen the remaining two bolts (one on each side of the valve).
3. Rotate the valve out from the end caps pivoting on the remaining two end cap bolts.
4. After servicing the valve, ensure the two seats are secured in the valve body. Ensure the valve ball is in the closed position, and rotate the valve back in line with the end caps.
5. Replace all the end cap bolts and tighten in an X pattern to the torque specified in Table 2 (page 8).

Do not lubricate the valve ball or seats.



Handwriting practice lines consisting of 28 horizontal black lines spaced evenly down the page.



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