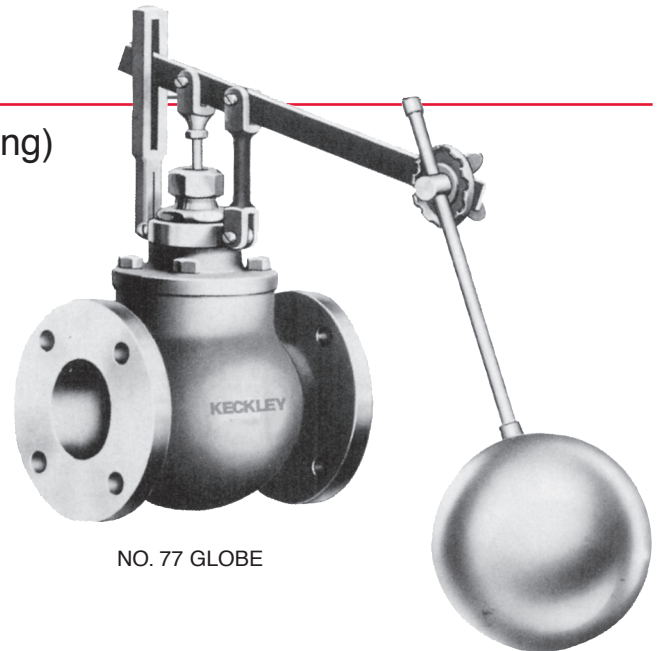


## FLOAT VALVE NO. 7 FLOAT VALVE NO. 77

Single Seated, Dead End Service (tight closing)  
Globe or Angle

BRONZE ● CAST IRON ● STAINLESS STEEL BODY



NO. 77 GLOBE

**Application/Service:** The No. 7 and 77 pilot controlled float valves are recommended when tight closing is essential. They are commonly used to maintain a water level in an open tank. They are best suited for clean liquids not injurious to neoprene, leather or brass parts. Standard design temperature is 125°F. For higher temperatures up to 350°F, the neoprene disc in the No. 7 or neoprene disc and leather cup in the No. 77 are replaced by teflon parts.

**Construction:** Referring to the sectional views on page 8, the inner valve consists of a hollow bronze piston, somewhat larger in diameter than the seat bore, and carrying the disc holder. The composition disc may be replaced when worn. The soft disc will accommodate itself to grit and wear and still close tight where a metal to metal construction would leak.

The piston slides in a stationary bronze cylinder attached to the cover or body. The pilot port is opened and closed by the end of the stem which is moved by the lever. A pin through the stem at its lower end permits the inner valve to be lifted by the stem.

The guide yoke, with the lever and float, can be turned and secured at any angle. The angle and length of float rod can be adjusted at the rosette.

**Operation:** In the No. 7 valve, made in sizes 2 inches and smaller, water from the inlet enters the space above the piston through a small hole in the piston head. While the pilot port is open, this water escapes freely through the hollow valve post to the outlet. The excess pressure under the piston, in relation to the pressure above it, and the weight of the float hold the valve open.

On closing the pilot port, the water pressure above the piston quickly rises to equal and balance the inlet pressure under the piston. Thereupon the inlet pressure above the disc holder closes the valve. No leather cup is required.

The disc closes in the direction of the flow through the No. 7 valve. In the larger valves and for the higher pressures, the "pull" of the water in passing through the valve seat may cause the valve to close suddenly from a nearly closed position. For

this reason, this valve is not made in sizes above 2 inches.

In the No. 77 valve, made in sizes 2 inches and larger, the inlet pressure is under the disc. Water enters the chamber above the piston through the strainer and the central and diagonal passages. If the pilot port is open, this water escapes freely to the valve outlet, so that the inlet pressure under the disc opens the valve. When the pilot port is closed, the water pressure above the piston quickly rises to equal the inlet pressure under the disc and, due to the larger piston area, the inner valve is moved toward the seat.

The disc closes against the inlet pressure and sudden closing cannot occur in the No. 77. However, this valve requires the piston to be fitted with a leather cup, the friction of which may cause sluggishness on low inlet pressures.

Maximum inlet pressures for both the No. 7 and No. 77 are shown in the table on the next page.

# LEVER VALVE NO. 73 LEVER VALVE NO. 773

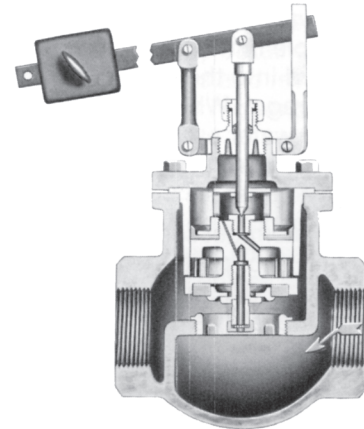
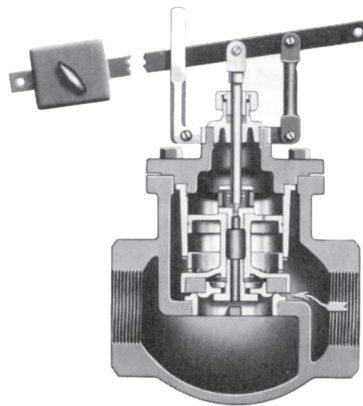
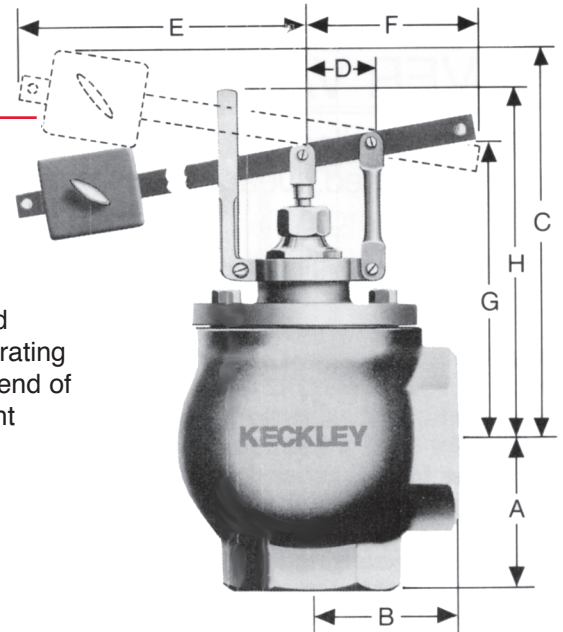
Internal Pilot Control, Single Seated,  
Dead End Service, Globe or Angle  
BRONZE • CAST IRON • STAINLESS STEEL BODY

**Application/Service:** These single seated, internal pilot type lever valves are adapted for operation by an enclosed float (page 10) or by hand, solenoid, diaphragm motor, or other means, wherever a tight-closing, quick-acting, easily operated valve is required.

**Operation:** The lever valves on this page have the same internal construction and operate in the same manner as the float valves described on pages 7 and 8. They are also adapted to the same pressure and temperature conditions as the corresponding float valves.

**Materials:** No. 73 valve in sizes 1½ inch and smaller have bronze bodies and integral seats, screwed ends only. The 2 inch No. 73 and all sizes of the No. 773 have cast iron bodies, with renewable seats, screwed or flanged ends in sizes 2 inch to 3 inch inclusive, flanged ends only above 3 inch. All sizes of both valves have bronze trim and renewable composition discs.

They are suitable for water and other ordinary liquids. The operating rod may be attached to either end of the lever with the counterweight located as required.



The No. 73 Single Seated Lever Valve is the same as No. 7, shown and described on pages 7 and 8, minus float, float rod and rosette, and plus a counterweight.

The No. 773 Single Seated Lever Valve is the same as No. 77, shown and described on pages 7 and 8, minus float, float rod and rosette, and plus a counterweight.

## NOS. 73 and 773—DIMENSIONS—WEIGHTS (approximate)

Size Inches	A or B—Inches Angle Pattern			Face to Face—Inches Globe Pattern			Angle Pattern— Inches						Shipping Weight—Lbs. Globe Pattern			Capacity Factor Page 11	Max.** Inlet Pressure	
	Std. Scr.	Std. Flg.	Ex. Hvy. Flg.	Std. Scr.	Std. Flg.	Ex. Hvy. Flg.	C	D	E	F	G	H	Std. Scr.	Std. Flg.	Ex. Hvy. Flg.			
NO. 73	½ & ¾	2	—	—	4¼	—	—	7½ <sub>16</sub>	1½ <sub>16</sub>	11¾	6¾ <sub>16</sub>	5¾ <sub>16</sub>	6¾ <sub>16</sub>	10	—	—	.17	130
	1	2½ <sub>16</sub>	—	—	5	—	—	8¼	1½ <sub>16</sub>	11¾	6¾ <sub>16</sub>	5½	6¾ <sub>16</sub>	12	—	—	.35	100
	1¼	2½	—	—	5½	—	—	8¼	1½ <sub>16</sub>	11¾	6¾ <sub>16</sub>	5½	6¾ <sub>16</sub>	13	—	—	.50	80
	1½	2½	—	—	5½	—	—	8½	1½ <sub>16</sub>	11¾	6¾ <sub>16</sub>	5¾	6¾ <sub>16</sub>	14	—	—	.80	65
	2	3¾ <sub>16</sub>	4¾	4¾	7¾ <sub>16</sub>	8¾	8¾	12	1½ <sub>16</sub>	15¾	6¾ <sub>16</sub>	8	10½	30	48	56	1.6	50
NO. 773	2	3¾ <sub>16</sub>	4¾	4¾	7¾ <sub>16</sub>	8¾	8¾	12	1½ <sub>16</sub>	15¾	6¾ <sub>16</sub>	8	10½	34	48	56	1.6	250
	2½	3¾ <sub>16</sub>	4¾	5½ <sub>16</sub>	8¾	9½	10½	12¾	1½ <sub>16</sub>	15¾	6¾ <sub>16</sub>	8½	10½	53	65	72	2.5	250
	3	4½	5¼	5¾	9¾	10½	11¼	12¾	1½ <sub>16</sub>	15¾	6¾ <sub>16</sub>	9¾	11¼	73	105	110	3.5	250
	4	4¾	6¾	6¾ <sub>16</sub>	—	12¼	12¾	13¼	1½ <sub>16</sub>	15¾	6¾ <sub>16</sub>	9¾	11½	—	135	140	6.5	250
	5	—	7¼	7¼ <sub>16</sub>	—	14½	15¾	18¾	2½	16¾	8¼	11¼	14¼	—	170	195	10.0	250
	6	—	8¾	8¾ <sub>16</sub>	—	16¼	17¾	20¾	2½	16¾	8¼	12¾	15¾	—	230	240	14.0	250
	8	—	9¾	9¾	—	19¼	20¾	23	3	19	13	16¼	21	—	395	445	26.0	250
	10	—	—	—	—	20¾	21½	40	5	41	13½	29	35	—	650	700	41.0	250
	*The absolute minimum operating pressure for the #77 Float Valve is 5 psi for sizes 2" through 6" and 10 psi for sizes 8" and 10".																	
	The neck of the globe body is slightly longer than the neck of the angle body. Therefore dimensions G, H, and C are slightly greater than those shown above. Certified Dimensional Sheets Available.																	