



# INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS TYPE NO. 7 FLOAT VALVE

## APPLICATION/SERVICE:

The NO. 7 internally piloted valves are recommended where tight closing is essential. The NO. 7 is most commonly used to maintain a water level in a tank by means of the attached float linkage. By reversing the linkage, the NO. 7 may be set to either open or close on level rise. These valves are best suited for clean liquids not injurious to iron, brass or neoprene.

MAXIMUM PRESSURE & TEMPERATURE LIMITS		
Pipe Size	Pressure	Temperature
½" and ¾"	130 <sup>lb</sup> /in <sup>2</sup>	Standard neoprene disc is recommended for temps up to 125°F. Optional Teflon disc is available for temps from 125°F to 350°F
1"	100 <sup>lb</sup> /in <sup>2</sup>	
1¼"	80 <sup>lb</sup> /in <sup>2</sup>	
1½"	65 <sup>lb</sup> /in <sup>2</sup>	
2"	50 <sup>lb</sup> /in <sup>2</sup>	

## CONSTRUCTION FEATURES:

Valve sizes through 1½" are available only with threaded ends and an integral seat. These sizes are supplied standard with bronze body and trim. The 2" size is available in both threaded and flanged end connections with a replaceable seat. This 2" size is supplied standard with a cast iron body and bronze trim. Other materials are available (consult factory). All sizes of these valves are available in either a **Globe** (straight through) or **Angle** (side inlet-bottom discharge) configuration.

## INSTALLATION:

Thoroughly clean dirt, slag, etc. from both the valve body and inlet pipe. Install the NO. 7 float valve near the water level you wish to maintain with the valve stem in a vertical position; rotate the swivel guide yoke so that the float rests in calm water. Turbulence in the tank should be avoided, as it will proportionally decrease the working life of any moving parts. If turbulence exists, it may be necessary to extend the piping down from the discharge side to a point well below the lowest level of water maintained. Stilling wells may also be used to dampen the effects of turbulence on the float. It is recommended that you install both a strainer and a

shutoff valve on the inlet side of these valves. The strainer will keep debris from clogging the internal ports of these valves and the shutoff valve will allow for easy access to the valve should it need to be removed. The direction of flow through these valves should agree with the markings on the side of the valve body. These valves should be protected from freezing water both in the valve, and on the surface of the water.

## START UP:

Open the upstream shut off valve gradually to permit the tank to fill slowly and to also allow time for the necessary adjustment of the float rod and linkage to obtain the desired maximum water level; then open the shut off valve completely. Precisely adjust the water level by changing the floats position.

## TROUBLES AND REMEDIES:

**Problem:** Valve does not close tightly.

**Solution:** 1. Check the inlet pressure gauge. Do not exceed the maximum allowable inlet pressure shown. 2. Disassemble valve and clean the seat and disc. Check for wear and replace the valve disc if needed. 3. Check that the maximum temperature for disc material is not exceeded.

**Problem:** Valve sticks or leaks at stem.

**Solution:** Stem packing may be too tight. Repack and tighten the gland only finger tight.

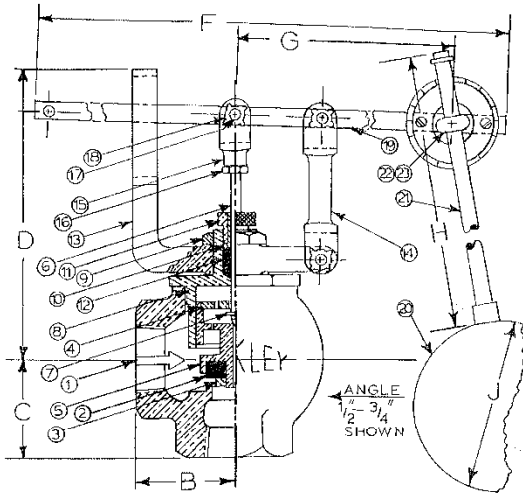
**Problem:** Valve closes suddenly or chatters.

**Solution:** 1. Check the size of the valve against the capacity (GPM) needed. **Do not use an oversized valve.** It is recommended that a valve have between 50% to 100% more capacity than the normal demand. 2. Weighting the float may slow the action.

## MAINTENANCE:

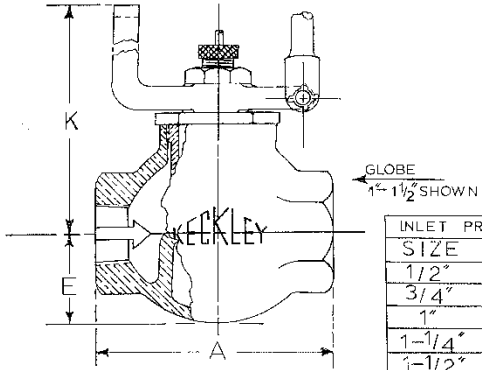
The operation and condition of the valve should be checked at regular intervals.

AL-73049



NO	PART NAME	1/2 TO 3/4"		1" TO 1 1/2"		NO	PART NAME	1/2 TO 3/4"		1" TO 1 1/2"	
		QU.	MAT'L	QU.	MAT'L			QU.	MAT'L	QU.	MAT'L
1	BODY	1	BRZ	1	BRZ	13	GUIDE YOKE	1	BRZ	1	BRZ
2	DISC	1	COMP	1	COMP	14	GUIDE ARM	1	BRZ	1	BRZ
3	DISC NUT	1	BRS	1	BRS	15	CLEVIS	1	BRZ	1	BRZ
4	LIFT NUT	1	BRS	-	-	16	CLEVIS LOCKNUT	1	BRS	1	BRS
5	INNER VALVE	1	BRZ	1	BRZ	17	PIVOT PINS	3	BRS	3	BRS
6	STEM	1	SST	1	SST	18	PIVOT PIN RETNR	3	STL	3	STL
7	STEM SNAPRING	1	SST	1	SST	19	LEVER ASSEM	1	STL	1	STL
8	BONNET	1	BRZ	1	BRZ	20	FLOAT	1	SS 304	1	SS 304
9	YOKE LOCKNUT	1	BRZ	1	BRZ	21	FLOAT ROD	1	BRS	1	BRS
10	PACKING GLAND	1	BRS	1	BRS	22	ROD RETAINER	1	STL	1	STL
11	PACKING NUT	1	BRS	1	BRS	23	RETAINER NUT	1	STL	1	STL
12	PACKING	AR	COMP	AR	COMP						

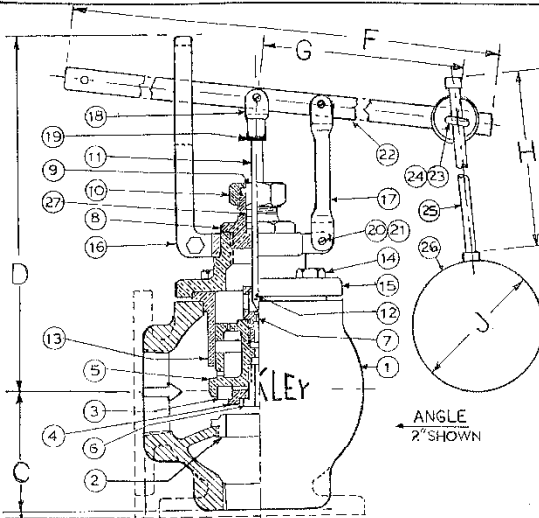
DIMENSIONS										
SIZE	A	B	C	D	E	F	G	H	J	K
1/2 - 3/4"	4 1/4	2	2	6 5/16	1 9/16	22	13 11/16	16	7	6 15/16
1"	5	2 1/16	2 1/16	6 5/8	1 7/8	22	13 11/16	16	7	7 3/8
1 1/4"	5 1/8	2 1/8	2 1/8	6 5/8	1 15/16	22	13 11/16	16	7	7 9/16
1 1/2"	5 1/4	2 1/2	2 1/2	6 7/8	2 1/8	22	13 11/16	16	7	7 13/16



INLET PRESSURES	
SIZE	MAX.
1/2"	130
3/4"	130
1"	100
1-1/4"	80
1-1/2"	65

REV. 5-17-94  
**O.C. KECKLEY COMPANY**  
 SKOKIE ILLINOIS AL73049  
 DIMENSIONAL ASSEMBLY SCALE: ~  
 1/2" - 1 1/2" \* 7 FLOAT VALVES DATE: 6-2-82  
 DR. BY: S

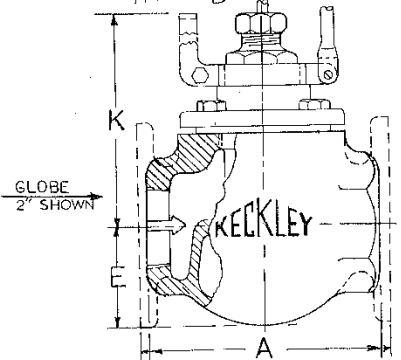
AL65032



NO	PART NAME	2"		NO	PART NAME	2"	
		QU.	MAT'L			QU.	MAT'L
1	BODY	1	C.I.	15	TOP CAP	1	C.I.
2	SEAT	1	BRZ	16	YOKE	1	BRZ.
3	DISC	1	COMP.	17	ARM	1	BRZ.
4	DISC PLATE	1	BRZ.	18	CLEVIS	1	BRZ.
5	INNER VALVE	1	BRZ.	19	CL. LOCK WASH.	1	STL
6	DISC SCREW	1	BRS	20	PIVOT SCR'S	3	ST'L.
7	PORT STUD	1	BRZ.	21	PIVOT NUTS	3	BRS
8	BONNET	1	BRZ.	22	LEVER	1	ST'L.
9	GLAND	1	BRS	23	RETAINER	1	ST'L.
10	PACK'G NUT	1	BRZ.	24	RETAIN'R NUT	1	ST'L.
11	STEM	1	S.S.	25	FLOAT ROD	1	BRS
12	LIFT PIN	1	S.S.	26	FLOAT	1	SS304
13	CYLINDER	1	BRZ.	27	PACKING	AR	TFL.
14	HEX CAP SCR.	4	STL				

DIMENSIONS													
SIZE	A		B		C		D	E	F	G	H	J	K
	SCR	FLG 125*	SCR	FLG 125*	SCR	FLG 125*							
2"	7 5/8	8 1/4	3 7/16	4 1/8	3 7/16	4 1/8	10 1/16	2 7/8	29	17 3/8	16	7	1 1/4

MAXIMUM OPERATING PRESSURE: 50\*  
 MAXIMUM TEMPERATURE WITH STD. VALVE DISC: 125°F  
 HIGHER TEMPERATURE DISC AVAILABLE



**O.C. KECKLEY COMPANY**  
 SKOKIE ILLINOIS AL65032  
 DIMENSIONAL ASSEMBLY SCALE: ~  
 2" \* 7 FLOAT VALVES DATE: 8-21-81  
 DR. BY: [Signature]



# INSTALLATION OPERATING AND MAINTENANCE INSTRUCTIONS

## TYPE #77 FLOAT VALVE

### APPLICATION:

The No.77 internally piloted valves are recommended where tight closing is essential. Each of these valves is available in either a **GLOBE** (straight through) or **Angle** (bottom inlet-side discharge) configuration. The No.77 is most commonly used to maintain a water level in a tank by means of the attached float linkage. These valves are best suited for clean liquids not injurious to neoprene, leather or brass.

### PRESSURE AND TEMPERATURE LIMITS:

MAXIMUM PRESSURE & TEMPERATURE RATING		
Body Type	Pressure	Temperature
Cast Iron or Bronze (NPT)	250 #/in <sup>2</sup>	125 ° F
Cast Iron (Std. Flange)	200 #/in <sup>2</sup>	125 ° F
Cast Iron (Ex. Heavy Flange)	250 #/in <sup>2</sup>	125 ° F

\*optional high temperature teflon valve disc and cup are available for temperatures up to 350°F.

**Note:** Absolute minimum inlet pressure is 5 PSI on sizes from 2" to 6", and 10 PSI on 8" and 10"

### INSTALLATION:

Thoroughly clean dirt, slag, etc. from both the valve body and inlet pipe. Install the No.77 float valve near the water level you wish to maintain with the valve stem in a vertical position; rotate the swivel guide yoke so that the float rests in calm water. Turbulence in the tank should be avoided as it will proportionally decrease the working life of any moving parts. If turbulence exists, it may be necessary to extend the piping down from the discharge side to appoint well below the lowest level of water maintained. Stilling wells may also be used to dampen the effects of turbulence on the float. It is recommended that you install both a strainer and a shut-off valve on the inlet side of these valves. The strainer will keep debris from clogging the internal ports of these valves and the shut-off valve will allow for easy access to the valve should it need to be removed. The direction of flow through these valves should agree with the markings on the side of the valve body. These valves should be protected from freezing water both in the valve and on the surface of the water.

### START-UP:

Open the upstream shut-off valve gradually to permit the tank to fill slowly and to also allow time for the necessary adjustment of the float rod and linkage to obtain the desired maximum water level; then open the shut-off valve completely. Precisely adjust the water level by changing the floats position.

### TROUBLES AND REMEDIES:

**Problem:** Valve does not close tightly

**Solution:** 1. Check and make sure that the minimum inlet pressure is met. 2. Disassemble valve and clean all inside surfaces including the disc and leather cup. Check for wear (replace worn parts as necessary). 3. Check that the maximum temperature for disc material is not exceeded.

**Problem:** Valve sticks or leaks at stem

**Solution:** Stem packing may be too tight. Repack and tighten the gland only finger tight.

**Problem:** Valve closes suddenly or chatters

**Solution:** 1. Check the size of the valve against the capacity (GPM) needed. Do not use an oversized valve. It is recommended that a valve have only between 50% to 100% more capacity than the normal demand. 2. Weighting the float may slow the action.

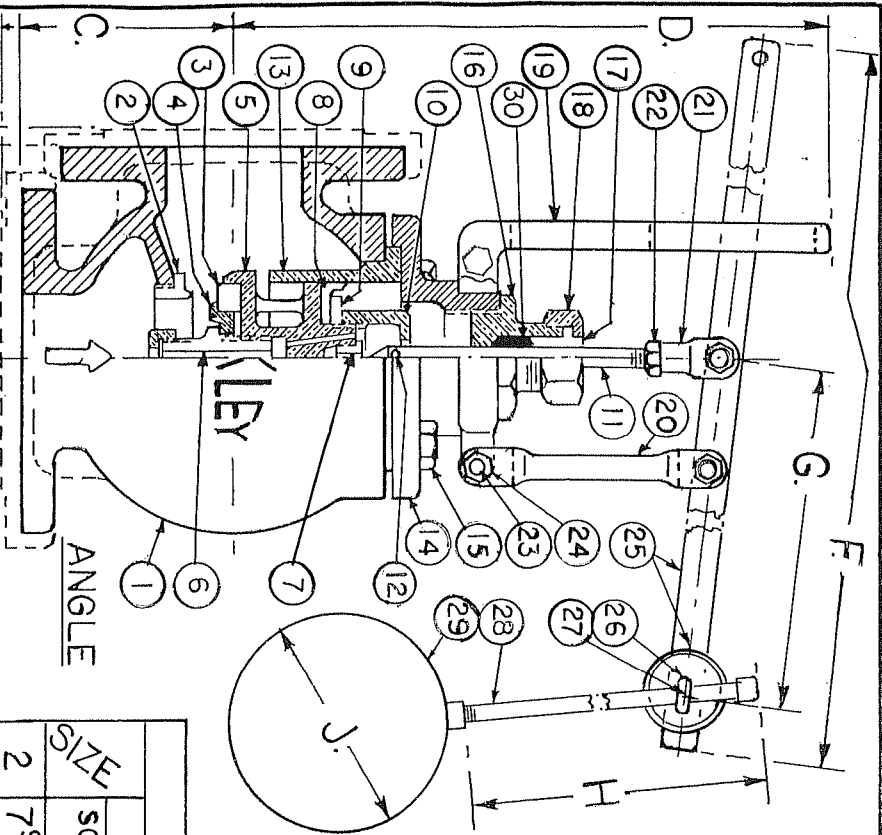
### Maintenance:

The operation and condition of the valve should be checked at regular intervals.

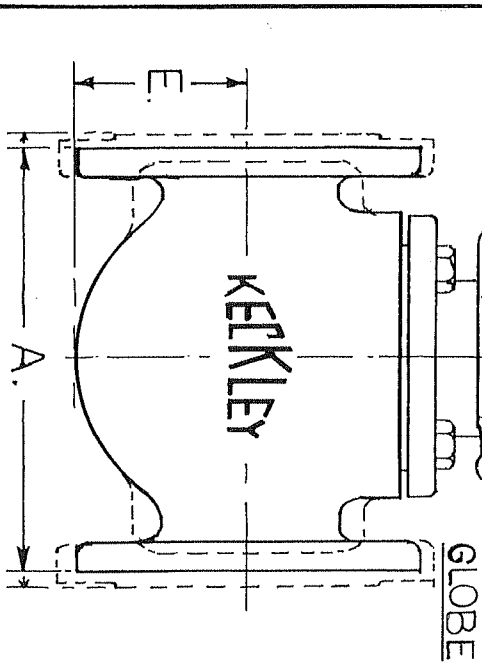
**NOTES:**

\* DENOTES ON 5" TO 10" ONLY.  
 \*\* DENOTES ON 5" TO 10" MAT'L IS BRZ.  
 \*\*\* DENOTES ON 5" TO 10" MAT'L IS IRON.

**AL65031**



NOTE:  
 \*77 ANGLE  
 FLOAT VALVES  
 HAVE THE INLET  
 AT BOTTOM.



Nº	PART NAME	QU.	MAT'L	Nº	PART NAME	QU.	MAT'L
1	BODY	1	C.I.	16	BONNET	1	BRZ
2	SEAT	1	BRZ	17	GLAND	1	BRZ
3	DISC	1	COMP.	18	PACKING NUT	1	BRZ
4	DISC PLATE	1	BRZ	19	GUIDE YOKE w/SCR.	1	BRZ
5	INNER VALVE	1	BRZ	20	GUIDE ARM	1	BRZ
6	DISC PLT SCR. AS'BLY	1	BRS	21	CLEVIS	1	BRZ
7	PORT STUD	1	S.S.	22	CLEVIS LOCKNUT	1	BRS
8	LEATHER CUP	1	LTHR	23	PIVOT SCREWS	3	STL
9	LTHR CUP PLATE *	1	BRZ	24	PIVOT SCR. NUTS	3	BRS
10	LTHR CUP LOCKNUT	1	BRZ	25	LEVER w/ ROSETTE	1	STL
11	STEM	1	SS	26	RETAINER	1	STL ***
12	ROLL PIN	1	SS	27	RET'RNUT	1	BRS
13	CYLINDER	1	BRZ	28	FLOAT ROD	1	BRS ***
14	TOP CAP	1	C.I.	29	FLOAT	1	STL CPL'D
15	HEX HD CAP SCR'S	A.R.	STL	30	PACKING	1	AR. TFL.

**DIMENSIONS.**

SIZE	A		B		C		D	E	F	G	H	J
	SCR	FLG # 125	FLG # 250	SCR	FLG # 125	FLG # 250						
2	7 9/16	8 1/4	8 3/4	3 7/16	4 1/8	4 3/8	10 1/8	3	29	17 3/8	16	7
2 1/2	8 3/4	9 1/2	10 1/8	3 15/16	4 3/4	5 1/16	10 1/2	3 3/8	29	17 3/8	18	8
3	9 3/4	10 1/2	11 1/4	4 1/2	5 1/4	5 5/8	10 7/8	3 7/8	29	17 3/8	18	8
4	—	12 1/4	12 7/8	—	6 1/8	6 7/16	11 3/8	4 3/4	29	17 3/8	18	8
5	—	14 1/2	15 3/8	—	7 1/4	7 11/16	14 1/4	5 15/16	33 3/8	20 1/2	24	10
6	—	16 1/4	17 1/8	—	8 1/8	8 9/16	15 1/2	6 15/16	33 3/8	20 1/2	24	10
8	—	19 1/8	20 1/8	—	9 1/8	9 5/8	20 3/4	8 1/4	41	28	30	10
10	—	20 1/8	21 1/2	—	—	—	35	9 1/2	60	41	30	12

**INLET PRESSURE.**

SIZE	MAX.	SIZE	MAX.
2"	250	5"	250
2 1/2"	250	6"	250
3"	250	8"	250
4"	250	10"	250

NOTE: ABSOLUTE MINIMUM INLET PRESSURE IS 5" ON 2" TO 6" AND 10" ON 8" TO 10"

**O.C. KECKLEY COMPANY**  
 SKOKIE ILLINOIS

**DRAWING Nº**  
**AL65031**

**DIMENSIONAL ASSEMBLY**

REV. 5-17-94  
 DATE 12-16-80  
 DR. BY *[Signature]*



# INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

## TYPE NO. 27 FLOAT VALVE & NO. 62 LEVER VALVE

### APPLICATION/SERVICE:

The NO. 27 and NO. 62 double seated valves are recommended for continuous service applications where a tight closing is **not** essential. The NO. 27 is most commonly used to maintain a water level in a tank by means of the attached float linkage. The NO.62 lever valve is designed to control the flow of liquid by an external power source. By reversing the linkage, both the NO. 27 and NO. 62 may be set to either open or close on level rise.

MAXIMUM PRESSURE & TEMPERATURE LIMITS			
Pipe Size	Pressure	Pipe Size	Pressure
1/2" to 1"	150 #/in <sup>2</sup>	4"	35 #/in <sup>2</sup>
1 1/4"	120 #/in <sup>2</sup>	5"	30 #/in <sup>2</sup>
1 1/2"	100 #/in <sup>2</sup>	6"	25 #/in <sup>2</sup>
2"	75 #/in <sup>2</sup>	8"	20 #/in <sup>2</sup>
2-1/2"	60 #/in <sup>2</sup>	10"	15 #/in <sup>2</sup>
3"	50 #/in <sup>2</sup>	12"	12 #/in <sup>2</sup>

Maximum Temperature is 406°F for all sizes

### CONSTRUCTION FEATURES:

In sizes 1 1/2" and smaller these valves have bronze bodies with integral seats are available with threaded ends only. In sizes 2" and larger, the standard bodies are cast iron with removable bronze seats. Threaded connections are available in sizes up to 3" and flanged connections are available in sizes 2" and larger. Other materials are available (consult factory). All sizes of these valves are available in either a **Globe** (straight through) or **Angle** (side inlet-bottom discharge) configuration.

### INSTALLATION:

Thoroughly clean dirt, slag, etc. from both the valve body and inlet pipe. Install the NO. 27 float valve near the water level you wish to maintain with the valve stem in a vertical position; rotate the swivel guide yoke so that the float rests in calm water. Turbulence in the tank should be avoided, as it will proportionally decrease the working life of any moving parts. If turbulence exists, it may be necessary to extend the piping down from the discharge side to a point well below the lowest level of

water maintained. Stilling wells may also be used to dampen the effects of turbulence on the float. Install the NO. 62 lever valve wherever desired and arrange it to be operated by the NO. 20 float box, NO. 20M float mechanism, by hand or by another suitable means. It is recommended that you install both a strainer and a shut-off valve on the inlet side of these valves. The strainer will keep debris from clogging these valves and the shutoff valve will allow for easy access to the valve should it need to be removed. The direction of flow through these valves should agree with the markings on the side of the valve body. These valves should be protected from freezing water both in the valve, and on the surface of the water.

### START UP:

Open the upstream shut off valve gradually to permit the tank to fill slowly and to also allow time for the necessary adjustment of the float rod and linkage to obtain the desired maximum water level; then open the shut off valve completely. Precisely adjust the water level by changing the floats position.

### TROUBLES AND REMEDIES:

**Problem:** Valve leaks more than allowable.

**Solution:** 1. Check the inlet pressure gauge. Do not exceed the maximum allowable inlet pressure shown. 2. Disassemble valve and clean the seating surfaces. Check for wear and replace components as needed.

**Problem:** Valve sticks or leaks at stem.

**Solution:** Stem packing may be too tight. Repack and tighten the gland only finger tight.

**Problem:** Valve closes suddenly or chatters.

**Solution:** 1. Check the size of the valve against the capacity (GPM) needed. **Do not use an oversized valve.** It is recommended that a valve have between 50% to 100% more capacity than the normal demand. 2. Weighting the float may slow the action.

### MAINTENANCE:

The operation and condition of the valve should be checked at regular intervals.

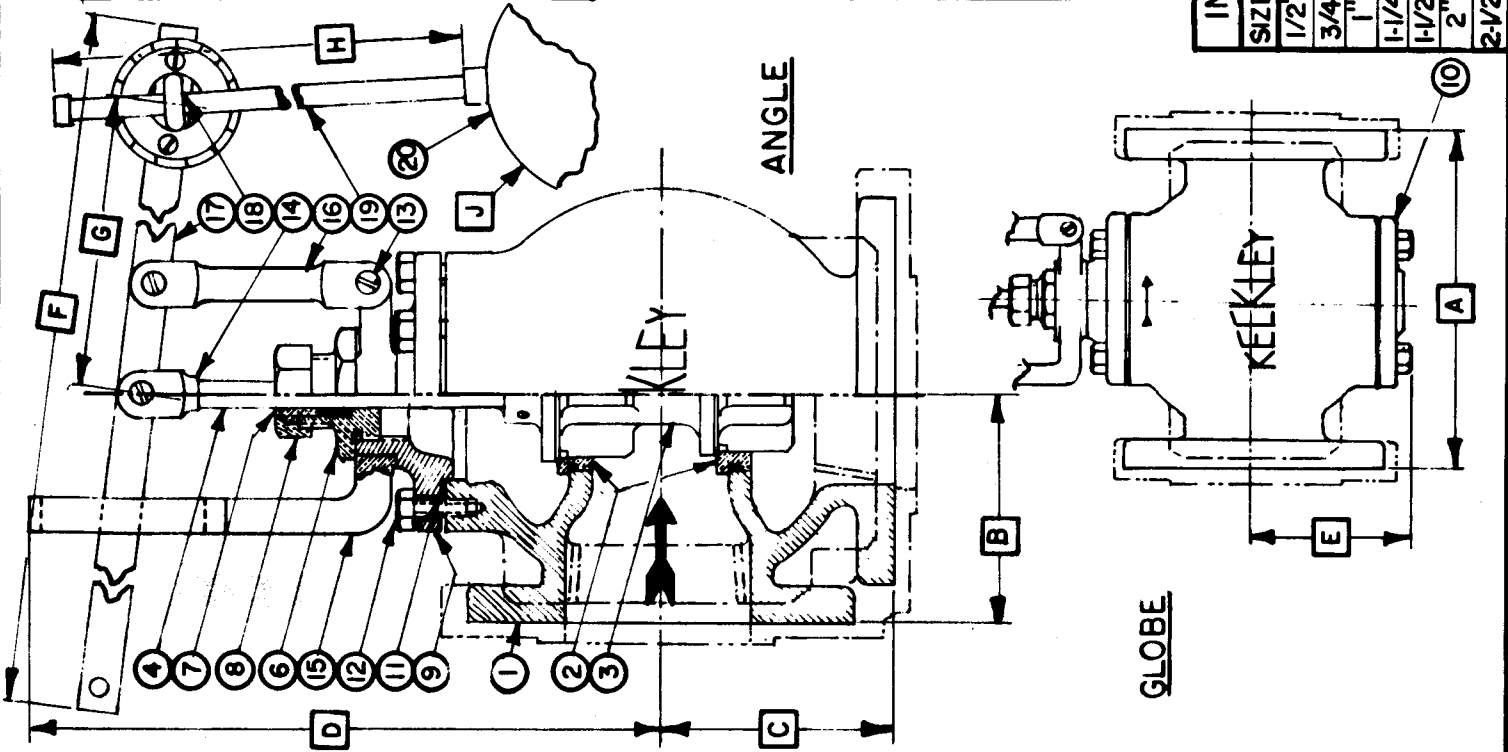
NOTES: \* DENOTES SEATS INTEGRAL WITH BODY.  
 \*\* DENOTES ON 2 1/2" & 4" GLOBE ONLY.  
 \*\*\* DENOTES NOT USED ON 1/2" TO 1-1/2".

**AL 65012**  
 DRAWING NO.

NO.	PART NAME	1/2" TO 1-1/2"		2" TO 12"	
		QU.	MAT'L	QU.	MAT'L
1	BODY	1	BRZ.	1	C.I.
2	SEATS	—	*	2	BRZ.
3	MAIN VALVE	1	BRZ.	1	BRZ.
4	STEM	1	BRS.	1	BRS.
5		—	***	—	—
6	PACK'G BOX	—	***	1	BRZ.
7	GLAND	1	BRS.	1	BRS.
8	PACK'G NUT	1	BRS.	1	BRZ.
9	TOP CAP	1	BRZ.	1	C.I.
10	BOTTOM CAP	—	***	—	**
NO.	PART NAME	1/2" TO 1-1/2"		2" TO 12"	
11	GASKET	—	***	1	—
12	CAP SCREWS	—	***	AR	STL.
13	PIVOT SCR'S	3	STL.	3	STL.
14	CLEVIS	1	BRZ.	1	BRZ.
15	GUIDE YOKE	1	BRZ.	1	BRZ.
16	GUIDE ARM	1	BRZ.	1	BRZ.
17	LEVER	1	STL.	1	STL.
18	RETAINER	1	STL.	1	STL.
19	FLOAT ROD	1	BRS.	1	BRS.
20	FLOAT	1-7" DIA. 304 S.S.		1-10-12" DIA. C.P. STL	

**DIMENSIONS**

SIZE	A			B			C			D	E	F	G	H	J
	SCR.	FLG.	125* 250*	SCR.	FLG.	125* 250*	SCR.	FLG.	125* 250*						
1/2 & 3/4	4 1/4	—	—	2	—	—	—	—	—	6 1/2	1 1/2	22	13 1/2	16	7
1	4 3/4	—	—	2 1/2	—	—	—	—	—	6 3/4	1 3/4	22	13 3/4	16	7
1-1/4	4 1/2	—	—	2 1/4	—	—	—	—	—	6 1/2	1 1/2	22	13 1/2	16	7
1-1/2	4 1/2	—	—	2 1/4	—	—	—	—	—	6 1/2	1 1/2	22	13 1/2	16	7
2	6 1/4	7	3 1/4	3 1/4	3 1/4	3 1/4	4 1/4	4 1/4	4 1/4	10 1/4	2 1/4	29	17 1/4	16	7
2-1/2	7 3/4	8 1/4	3 3/4	4 1/4	4 1/4	4 1/4	5 1/4	5 1/4	5 1/4	11 1/4	4 1/4	29	17 1/4	18	8
3	9 1/4	9 1/4	4 1/4	4 1/4	4 1/4	4 1/4	5 1/4	5 1/4	5 1/4	11 1/4	5 1/4	29	17 1/4	18	8
4	—	10 1/4	11 1/4	—	5 1/4	5 1/4	—	—	—	12 1/4	5 1/4	29	17 1/4	18	8
5	—	12 1/2	12 1/2	—	6 1/4	6 1/4	7 1/4	7 1/4	7 1/4	15 1/4	6 1/4	33 1/4	20 1/4	24	10
6	—	13 1/4	13 1/4	—	6 1/2	6 1/2	8 1/4	8 1/4	8 1/4	16 1/4	7 1/4	33 1/4	20 1/4	24	10
8	—	16 1/4	17 1/4	—	8 1/4	8 1/4	8 1/4	8 1/4	8 1/4	21 1/4	8 1/4	41	28	30	10
10	—	20 1/4	21 1/4	—	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4	22 1/4	9 1/4	60	41	30	12
12	—	22 1/4	24 1/4	—	11 1/4	11 1/4	12 1/4	12 1/4	12 1/4	24 1/4	11 1/4	60	41	30	12



INLET PRESSURES	
SIZE	MAXIMUM SIZE
1/2"	150
3/4"	150
1"	150
1-1/4"	120
1-1/2"	100
2"	75
2-1/2"	60

**O. C. KECKLEY COMPANY**

DRAWING NO. **AL 65012**

PART NO. \_\_\_\_\_

DIMENSIONAL ASSEMBLY

1/2" - 12" #27 FLOAT VALVES

SCALE: \_\_\_\_\_

DATE: 3-25-65

DR. BY: *J. M. ...*

REV. 5-17-94

MAT'L: \_\_\_\_\_