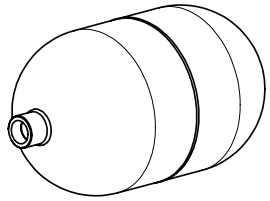
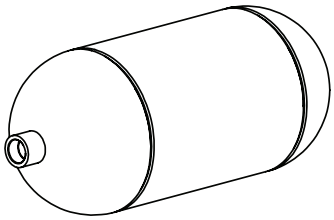
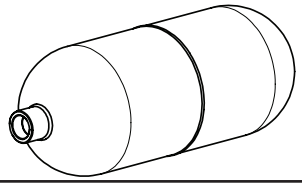
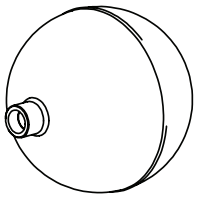
Floats for Trunnion Assemblies						
	Part Number	**Size**	**Material**	**Weight (oz)**	**Displacement in Water (oz)**	**Max. Working Pressure**
	4009S4	7in. x 12 in	304SS	100	214.9	600 psig
	4009S6	7in. x 12 in	316SS	100	214.9	600 psig
	7143S4	7in. x 16 in	304SS	100	305.6	275 psig
	5581S4	5 1/2in x 14in	304SS	63	166	350 psig
	7564S6	5 1/2in x 14in	316SS	63	166	350 psig
	2822S4	7 3/4in	304SS	53	141	250 psig

Float Arms for Trunnion Assemblies			
	4041	12 in.	All float arms are made of 3/4" NPT Schedule 40 ASTM A53.
	4041L14	14 in.	
	4041L16	16 in.	
	4041L18	18 in.	
	4041L24	24 in.	
	4041L31	31 in.	

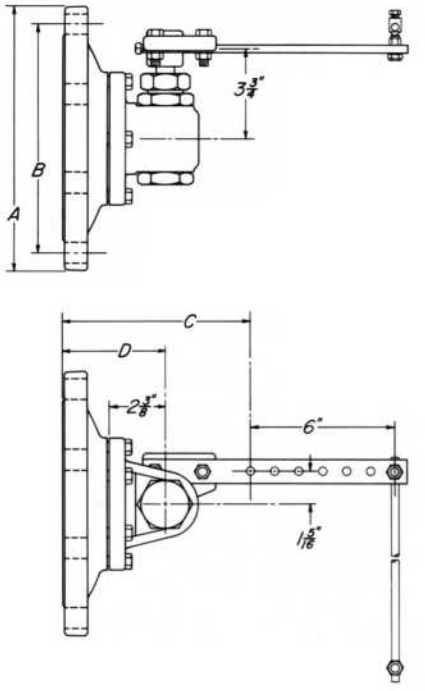
All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

Table 1 - Flow Coefficient(Cv) for Lever Operated Dump Valves												
Line Size	**Trim Size in. (mm)**	**Trim Type**	**Cf**	Valve Opening Percentage								
				10	20	30	40	50	60	70	80	90	100
LD - Diaphragm Balanced													
2"	**1 1/2 in (38mm)**	**Linear (Nominal)**	**0.79**	5.0	8.5	11.7	14.6	17.0	19.0	20.5	21.6	22.6	23.3
3"	**2 1/4 in (57 mm)**		**0.79**	6.7	11.1	15.6	20.3	24.8	29.2	33.4	37.2	40.7	43.8
4"	**3 in (76 mm)**		**0.79**	12.0	18.9	25.8	32.8	39.9	46.9	53.7	60.0	65.7	70.1
6"	**4.88 in (124 mm)**		**0.79**	14.2	21.0	31.6	61.2	98.3	139.0	179.7	217.6	250.2	277.0
LP - Piston Balanced Throttling													
2"	**1 1/2 in (38mm)**	**Linear (Nominal)**	**0.75**	3.5	5.0	7.4	9.6	11.8	13.9	16.2	18.4	20.4	22.7
	2 in (51 mm)		**0.75**	6.6	12.3	18.4	24.2	29.5	34.1	38.0	41.2	44.0	47.0
3"	**3 in (76 mm)**		**0.75**	12.7	18.7	29.0	41.0	52.9	63.4	71.9	78.4	83.7	89.0
LB - Piston Balanced													
2"	**2 in (51 mm)**	**Linear (Nominal)**	**0.79**	5.0	8.5	11.7	14.6	17.0	19.0	20.5	21.6	22.6	23.3
3"	**3 in (76 mm)**		**0.79**	6.7	11.1	15.6	20.3	24.8	29.2	33.4	37.2	40.7	43.8
4"	**4 in (76 mm)**		**0.79**	12.0	18.9	25.8	32.8	39.9	46.9	53.7	60.0	65.7	70.1

Kimray flow equations conform to ANSI/ISA - 75.01.01-2002
Kimray inherent flow characteristics conform to ANSI/ISA 75.11.01 -1985

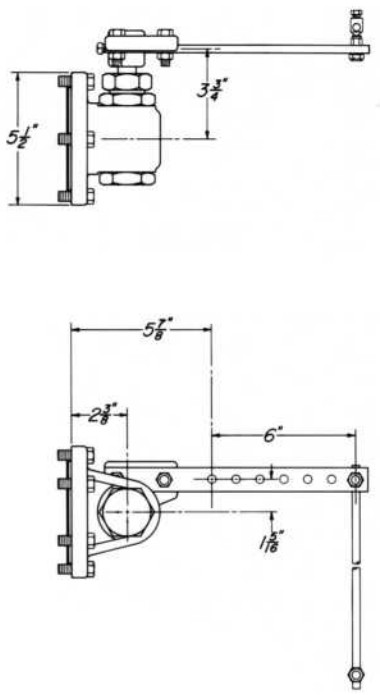
DIMENSIONS
TRUNNION ASSEBNLY

612, 812 & 1012 TO-D

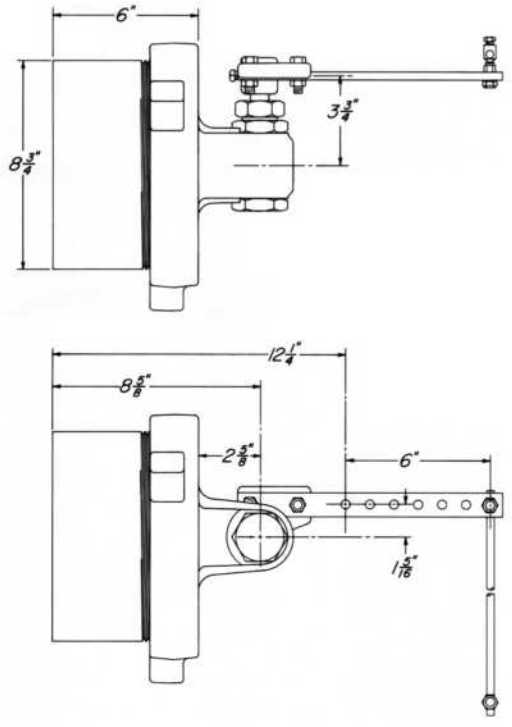


SIZE	NUMBER	A	B	C	D	No. SIZE OF BOLTS
6	612 TO	11 in	9 1/2 in	7 1/4 in	4 1/4 in	8 3/4 x 3 1/2
8	812 TO	13 1/2 in	11 3/4 in	7 1/4 in	4 1/4 in	8 3/4 x 3 1/2
10	6 1/8 in	16 in	14 1/4 in	7 1/2 in	4 1/2 in	12 7/8 x 3 1/2
All dimensions are in inches.						

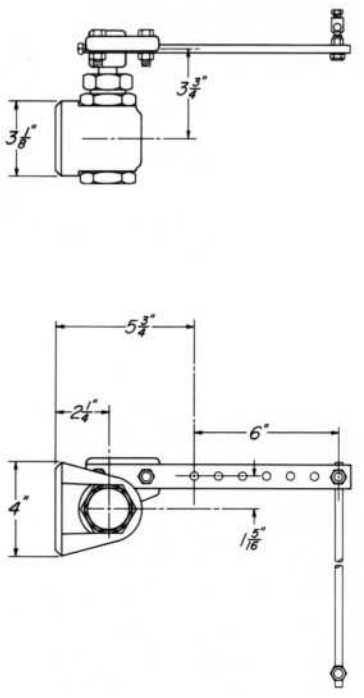
25 TOB



HUTA



50 TOB-S



All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

Table 2 - Seal Options Dump Valves		
Part	**Standard Material**	**Optional Material**
O-rings	HSN	FKM
Diaphragm	HSN	FKM
Seat	HSN	FKM

Table 3 - Seal Options Trunnion Assemblies		
Part	**Standard Material**	**Optional Material**
O-rings	HSN	FKM

Table 4 - Seal Specifications			
		HIGHLY SATURATED NITRILE	**FKM**
	Kimray Suffix	HSN	V
Resistance	**Abrasion**	G-E	G
	Acid	G-E	G-E
	Chemical	F	E
	Cold	G	P
	Flame	P	E
	Heat	E	E
	Oil	E	E
	Ozone	G	G-E
	Set	G	G-E
	Tear	F	F
	Water/Steam	E	P
	Weather	G	E
	CO2	G	G
	H2S	F	P
	Methanol	E	P
Properties	**Dynamic**	G	G
	Electrical	F	F
	Impermeability	G	G
	Tensile Strength	G-E	G
	Temp. Range	-20° to +300°F	-15° to +400°F
		-29° to +149°C	-26° to +204°C
RATINGS: P-POOR, F-FAIR, G-GOOD, E-EXCELLENT			

Table 5 - Material Options Diaphragm Balanced Dump Valves		
Part Description	**Standard Material**	**Corrosive Material**
Body	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Ratio Plug	2 & 3 inch Delrin (ASTM D4181), 4 & 6 inch Ductile (ASTM A395)	316SS (ASTM A351)
Cage	2 & 3 inch Delrin (ASTM D4181), 4 & 6 inch Ductile (ASTM A395)	316SS (ASTM A351)
Stuffing Box	2 & 3 inch 303SS (ASTM A582), 4 & 6 inch Brass (ASTM B-16)	316SS (ASTM A479)
Bonnet	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Seat Disc	4 & 6 inch Ductile (ASTM A395)	4 inch 316SS (ASTM A351)
Stem	2, 3 & 4 inch 303SS (ASTM A582), 6 inch 316SS (ASTM A213)	316SS (ASTM A351)

Table 6 - Material Options Piston Balanced Throttling Dump Valves		
Part Description	**Standard Material**	**Corrosive Material**
Body	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Ratio Plug Full Port	2 inch 316 Powder Metal (ASTM 316-N1-25), 3 inch Powder Metal (F-008)	316 Powder Metal (ASTM 316-N1-25)
Stuffing Box	303SS (ASTM A582)	316SS (ASTM A479)
Bonnet	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Stem	303SS (ASTM A582)	316SS (ASTM A484)
Piston	2 inch 316SS (ASTM A484) , 2 inch reduced & 3 inch 303SS (ASTM A582)	316SS (ASTM A484)
Cylinder	303SS (ASTM A582)	316SS (ASTM A484)

Table 7 - Material Options Piston Balanced Dump Valves		
Part Description	**Standard Material**	**Corrosive Material**
Body	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Ratio Plug	2 & 3 inch Delrin (ASTM D4181), 4 inch Ductile (ASTM A395)	316SS (ASTM A351)
Cage	Ductile (ASTM A395)	316SS (ASTM A351)
Stuffing Box	2 & 3 inch 303SS (ASTM A582), 4 inch Brass (ASTM B-16)	316SS (ASTM A479)
Bonnet	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Seat Disc	4 inch Ductile (ASTM A395)	4 inch 316SS (ASTM A351)
Stem	303SS (ASTM A582)	316SS (ASTM A479)
Piston	316SS (ASTM A351)	316SS (ASTM A351)
Cylinder	2 & 3 inch 303SS (ASTM A582), 4 inch 316SS (ASTM A351)	316SS (ASTM A249)

Table 8 - Material Options Trunnion Assemblies		
Part Description	**Standard Material**	**Corrosive Material**
Bonnet	Ductile (ASTM A395)	
Plate	Steel SA515 Grade 70 Plate	
Stuffing Box	Brass B-16 C-36000 HO2	316SS (ASTM A479)
Union Nut	Ductile (ASTM A395)	
Weld Neck	Schedule 100 Pipe ASTM A-106 grade C	

KIMRAY INC.®

CODE BUILDER
D SERIES

Series:
D = Dump Valve

Model:
LD = Lever Operated Diaphragm Balanced
LP = Lever Operated Piston Balanced Throttle (2 & 3 inch only)
LB = Lever Operated Piston Balanced

Line Size:
2 = 2 NPS
3 = 3 NPS
4 = 4 NPS
6 = 6 NPS

End Connection:
SA = FNPT (2 & 3 NPS only)
AR = 150RF

Body Type:
A = Angle
T = Thru

Shell Material:
D = Ductile Iron
E = Ductile Iron w/Coating

Inner Valve Size:
F = Full Port
R = Reduced Port (LP only)

Actuator:
L = Lever Operated

Service Type:
S = Standard
C = Corrosive

D	LD	2	SA	A	D	F	L	S	

Options: Additional cost and lead times will apply
If multiple options required input in sequential order
Leave blank if no options required

1 = NACE Certification (Corrosive Option Only)
2 = Hydrostatic Test Certification
3 = MTR (Shell Components)
H = HSN Elastomers
V = FKM Elastomers
X = Export (Hydrostatic test, MTR & 3.1)

Not all selections available on all products listed.
See product pages 03:10.1 - 03:20.7 for available options