

APPLICATIONS:




As oil or water dump valves on separators, treaters, knock-outs, and other similar liquid accumulators. Designed for high pressure erosive service.

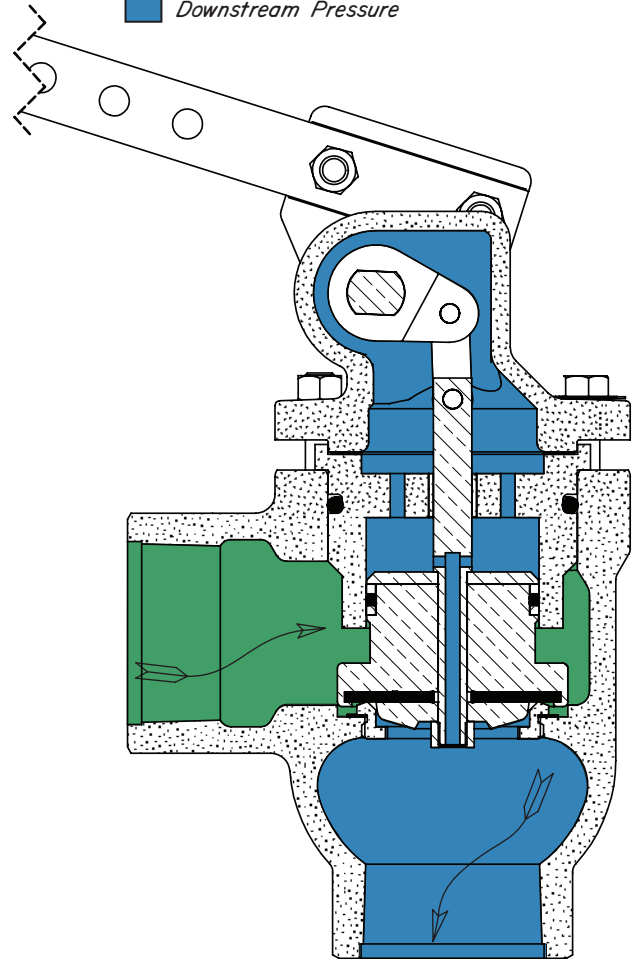
FEATURES:

- Class VI shut off
- Teflon packed, rotary stuffing box
- All internal parts can easily be removed with valve in line

CERTIFICATIONS:

Canadian Registration Number (CRN):
0C16234.24567890NTY (Ductile)
Kimray is an ISO 9001- certified manufacturer

-  Stem and Seat Assembly
-  Separator Fluid pressure
-  Downstream Pressure



Standard Configuration Code †	Order Code	Line Size	Connection Type	Body Type	Inner Valve Size	Max Δ P psig	Max. W.P. psig ††	Cv	Cf
DLP2SAADFLS	CAZ	2"	NPT	Angle	2"	250	500	47.0	0.75
DLP2SATDFLS	CXA5				1 1/2"			22.7	
DLP2ARADFLS	CGU			Thru	2"			47.0	
DLP2ARADFLS	CAK			Angle	2"			250	
DLP3SAADFLS	CVA	3"	NPT	Angle	3"	250	500	89.0	
DLP3ARADFLS	CVB							150RF	

NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 03:1 - 03:VI

† For Corrosive service remove last "S" & replace with "C"

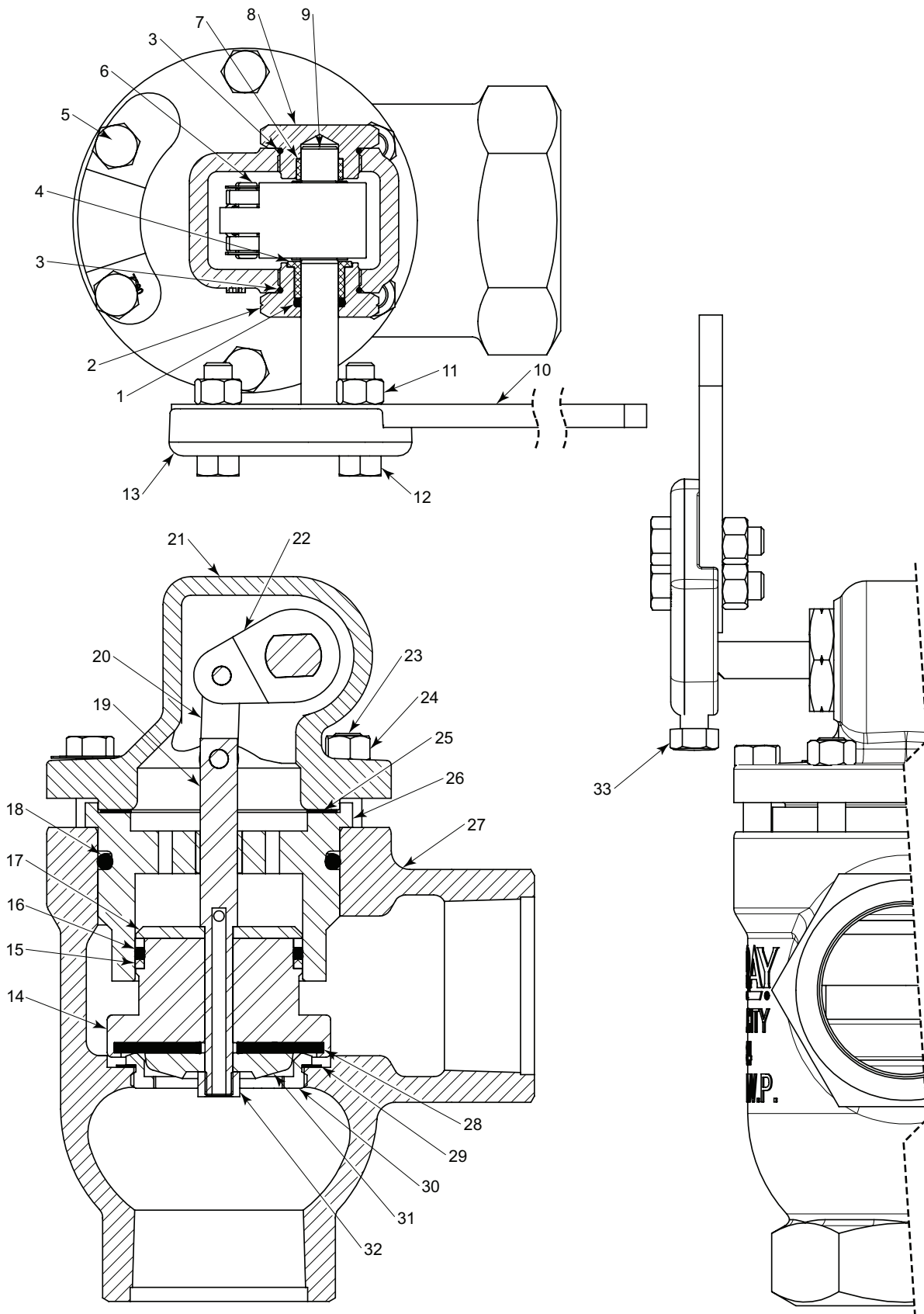
† For code builder see page 03:00.2

†† Max W.P. values based on -20°F to 100°F.

LIQUID DUMP VALVES LEVER OPERATED



PISTON BALANCED THROTTLING MODEL LP PARTS DRAWING

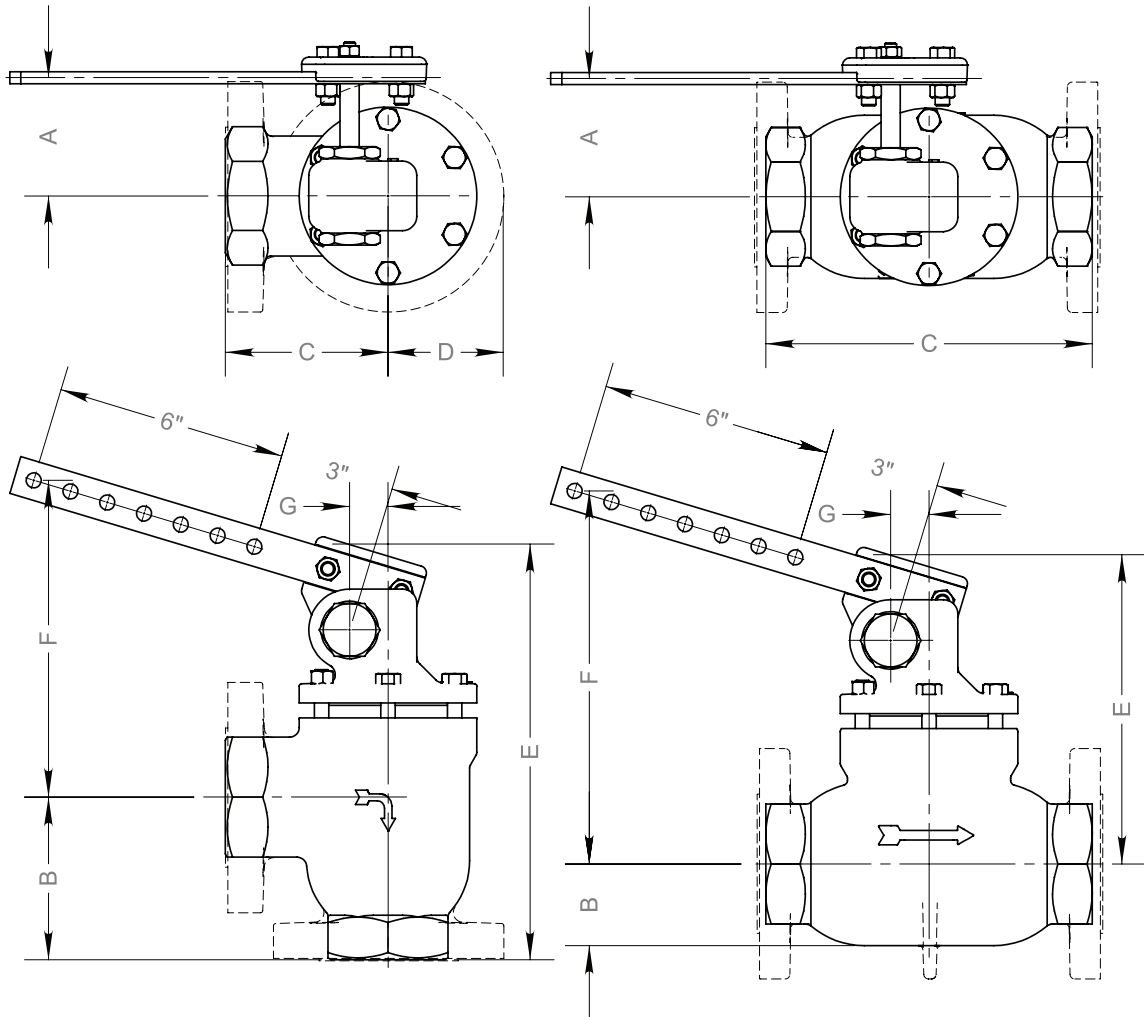


All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NO.				
			STANDARD		CORROSIVE		
			2 INCH	3 INCH	2 INCH only		
1	1	O-Ring	* 154HSNPS	491HSNPS	154HSNPS		
2	1	Stuffing Box	7661	7593	7661S6		
3	2	O-Ring	* 2131HSN	5226HSN	2131HSN		
4	1	Bushing	* 7660	7592	7660		
5	(Qty)	Bolt	833 (4)	833 (5)	833 (4)		
6	2	Link Pin w/ Snap Ring (kit includes Snap Rings only)	◇ *	316	317	316SS6	
7	1	Packing	* 7662	355	7662		
8	1	Trunnion Plug	7522	7523	7522S6		
9	1	Shaft	Old Style	7404	7408	7404S6	
			New Style	7609	7610	7609S6	
10	1	Lever Bar	Standard	340		340	
			Optional	16 inches	340L16		340L16
				20 inches	340L20		340L20
				24 inches	340L24		340L24
				30 inches	340L30		340L30
				36 inches	340L36		340L36
11	2	Bolt	247		247		
12	2	Nut	241		241		
13	1	Lever Hub	7600	7601	7600		
14	1	Piston	Full Port ◇	6787S6	7138	6787S6	
			Reduced ◇	7557	----	7557S6	
15	2	Back Up	Full Port ◇ *	1458	772	1458	
			Reduced ◇ *	7558	----	7558	
16	1	O-Ring	Full Port ◇ *	774QHSN	329HSN	774QHSN	
			Reduced ◇ *	808HSN	----	808HSN	
17	1	Seal Retainer	Full Port ◇	5205	5206SS6	5205SS6	
			Reduced ◇	----		----	
18	1	O-Ring	◇ *	329HSN	330HSN	329HSN	
19	1	Stem	◇	7589	7887	7589SS6	
20	2	Link	◇	318SS6	319SS6	318SS6	
21	1	Bonnet		7164	296	7164 ‡	
22	1	Trunnion Hub	Old Style ◇	7403	7407	7403S6	
			New Style	7613S6	7614S6	7613S6	
23	(Qty)	Stud	◇	5108 (2)	5108 (1)	5108	
24	2	Nut		5109 (2)	5109 (1)	5109	
25	(Qty)	Gasket	◇ *	5199	5223	5199	
26	1	Cylinder	Full Port ◇	6785	7137	6785	
			Reduced ◇	7556	----	7556	
27	1	Body					
		NPT Angle		6786	7139	6786 ‡	
		NPT Thru		7163	----	7163 ‡	
		Flanged Angle		7655	7319	7655	
28	1	Seat	Full Port ◇ *	311HSN	165HSN	311HSN	
			Reduced ◇ *	7498HSN	----	7498HSN	
29	1	Gasket	◇ *	276	277	276	
30	1	Removable Seat	Full Port ◇	6789	7140	6789	
			Reduced ◇	7554	----	7554	
31	1	Ratio Plug	Full Port ◇	177SS6	178	177SS6	
			Reduced ◇	7553	----	7553S6	
32	1	Lock Nut	◇ *	173SS6	906	173SS6	
33	1	Set Screw		7608		7608	
34	2	Lifting Ring (not shown)		----	7559	----	
				‡ Coated Parts available with "E" shell material			
Plug Assemblies		Full Port	CLC	CLD	CLCS6		
		Reduced	CLC5	----	CLC5S6		
				◇ These parts are stocked as Plug Assemblies.			
Repair Kits		Full Port	RUV	RVU	RUV		
		Reduced	RXH	----	RXH		
* These parts are recommended spare parts and are stocked as repair kits.							

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



LINE SIZE	MATERIAL	BODY TYPE & END CONNECTION	A	B	C	D	E	F	G
2 in	DUCTILE	NPT / ANGLE	3 3/4 in	4 1/4 in	4 1/4 in	2 5/16 in	11 in	7 15/16 in	1 in
		NPT / THRU	3 11/16 in	2 1/8 in	8 1/2 in	2 5/16 in	8 3/16 in	9 3/8 in	1 in
		FLANGED / ANGLE	3 11/16 in	4 1/4 in	4 1/4 in	3 in	8 3/16 in	9 3/8 in	1 in
3 in	DUCTILE	NPT / ANGLE	3 3/4 in	6 1/8 in	5 1/2 in	3 1/16 in	14 1/16 in	10 1/4 in	1 3/8 in
		FLANGED / ANGLE	3 3/4 in	5 1/2 in	5 1/2 in	3 3/4 in	13 3/16 in	10 1/4 in	1 3/8 in

FLANGE DIMENSIONS ARE ANSI 125/150 STANDARD.

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	

LIQUID DUMP VALVES LEVER OPERATED



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

LP Model: Corrosive is only available in 2"

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