

LIQUID DUMP VALVES

PNEUMATIC OPERATED



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DIAPHRAGM BALANCED FAIL CLOSE: **04:10.1 - 04:10.4**
APPLICATIONS: Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators.
OPERATING PRESSURE RANGES: 5 psig to 250 psig

DIAPHRAGM BALANCED FAIL OPEN: **04:10.5 - 04:10.8**
APPLICATIONS: Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators.
OPERATING PRESSURE RANGES: 5 psig to 250 psig

PISTON BALANCED THROTTLING LOW PRESSURE HIGH VOLUME REVERSIBLE: **04:20.1 - 04:20.3**
APPLICATIONS: Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators. Designed for higher pressures or erosive service.
OPERATING PRESSURE RANGES: 10 psig to 500 psig

PISTON BALANCED THROTTLING FAIL CLOSE: **04:30.1 - 04:30.3**
APPLICATIONS: Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators. Designed for higher pressures or erosive service.
OPERATING PRESSURE RANGES: 10 psig to 500 psig

PISTON BALANCED THROTTLING FAIL OPEN: **04:30.5 - 04:30.7**
APPLICATIONS: Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators. Designed for higher pressures or erosive service.
OPERATING PRESSURE RANGES: 10 psig to 500 psig

FLOW COEFFICIENT **04:I**
VALVE DIMENSIONS **04:II**
SEALS **04:III**
MATERIAL SPECIFICATIONS **04:IV**

Throttling

LIQUID DUMP VALVES PNEUMATIC OPERATED



CODE BUILDER D SERIES

Series:

D = Dump Valve

Model:

PD = Pneumatic Operated Diaphragm Balanced

PP = Pneumatic Operated Piston Balanced Throttle 4" only

Line Size:

2 = 2 NPS

3 = 3 NPS

4 = 4 NPS

6 = 6 NPS (PD ONLY)

End Connection:

SA = FNPT (2 & 3 NPS only)

AR = 150RF

Body Type:

A = Angle

T = Thru

Shell Material:

D = Ductile Iron

Inner Valve Size:

F = Full Port

R = Reduced Port (PP only)

Actuator:

1 = Pneumatic Fail Close

4 = Pneumatic Fail Open

Service Type:

S = Standard

C = Corrosive

K = Corrosive with Coated Shell Components

D PD 2 SA A D F 1 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 04:10.1 - 04:10.7 & 04:30.1 - 04:40.7
for available options

Series:

D = Dump Valve

Model:

PH = Pneumatic Operated Piston Balanced High Volume

Line Size:

2 = 2 NPS

3 = 3 NPS

End Connection:

SA = FNPT (2 NPS only)

AR = 150RF

Body Type:

A = Angle

T = Thru

Shell Material:

D = Ductile Iron

Inner Valve Size:

F = Full Port

R = Reduced Port

Actuator:

0 = No Actuator

2 = 6 - 30 psi Spring Fail Close

5 = 6 - 30 psi Spring Fail Open

Service Type:

S = Standard

C = Corrosive

E = Erosive

D	PH	2	SA	A	D	F	1	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)
V = FKM Elastomers
X = Export (Hydrostatic test, MTR & 3.1)

Not all selections available on all products listed.
See product pages 04:20.1 - 04:20.3 for available options

NOTES:



Kimray is an ISO 9001- certified manufacturer.

APPLICATIONS:





Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators where a reduced signal pressure is available.

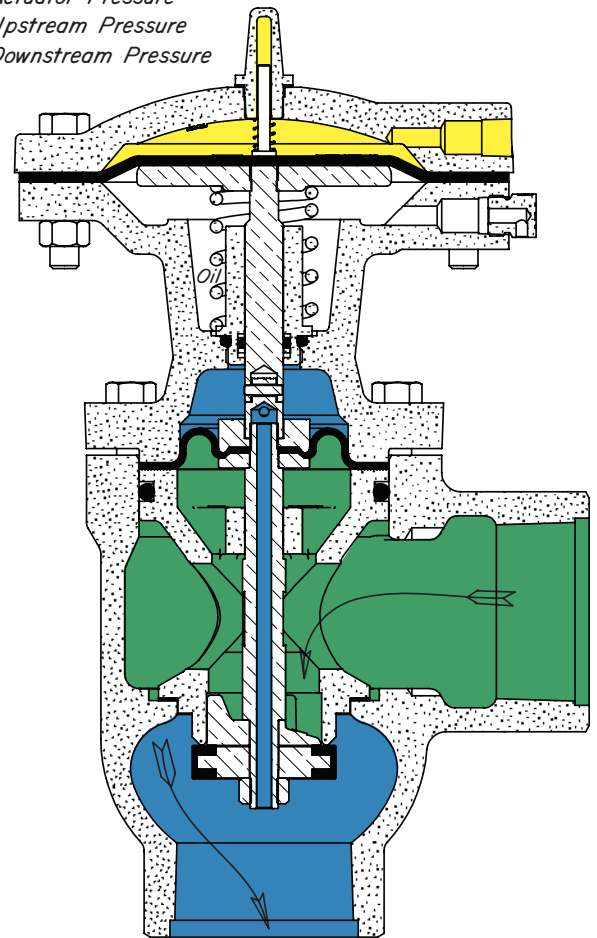
FEATURES:

- Diaphragm balanced single seat.
- 10 to 35 psig actuation pressure.
- Fail Close service.
- All internal parts can be removed with valve in-line
- Reinforced oil resistant synthetic rubber diaphragms & seats

CERTIFICATIONS:

Canadian Registration Number (CRN):
 0C15804.24567890NTY (Ductile)
 0C15621.24567890NTY (Steel)
 Kimray is an ISO 9001- certified manufacturer.

-  Stem and Seat Assembly
-  Actuator Pressure
-  Upstream Pressure
-  Downstream Pressure



Standard Configuration Code †	Order Code	Line Size	Connection Type	Body Type	Max Δ P psig	Max. W.P. psig ††	Cv	Cf	
DPD2SAADF1S	EKI	2"	NPT	Angle	125	400	23.3	0.79	
DPD2SATDF1S	EXI			Thru					
DPD2ARADF1S	EKK		150RF	Angle					
DPD2ARTDF1S	EXK			Thru					
DPD3SAADF1S	EKO	3"	NPT	Angle		250	43.8		0.79
DPD3SATDF1S	EXO			Thru					
DPD3ARADF1S	EKQ		150RF	Angle					
DPD3ARTDF1S	EXQ			Thru					
DPD4ARADF1S	EKU	4"	150RF	Angle	277.0		70.1	0.79	
DPD4ARTDF1S	EXU			Thru					
DPD6ARADF1S	EKX	6"	150RF	Angle					
DPD6ARTDF1S	EXX			Thru					

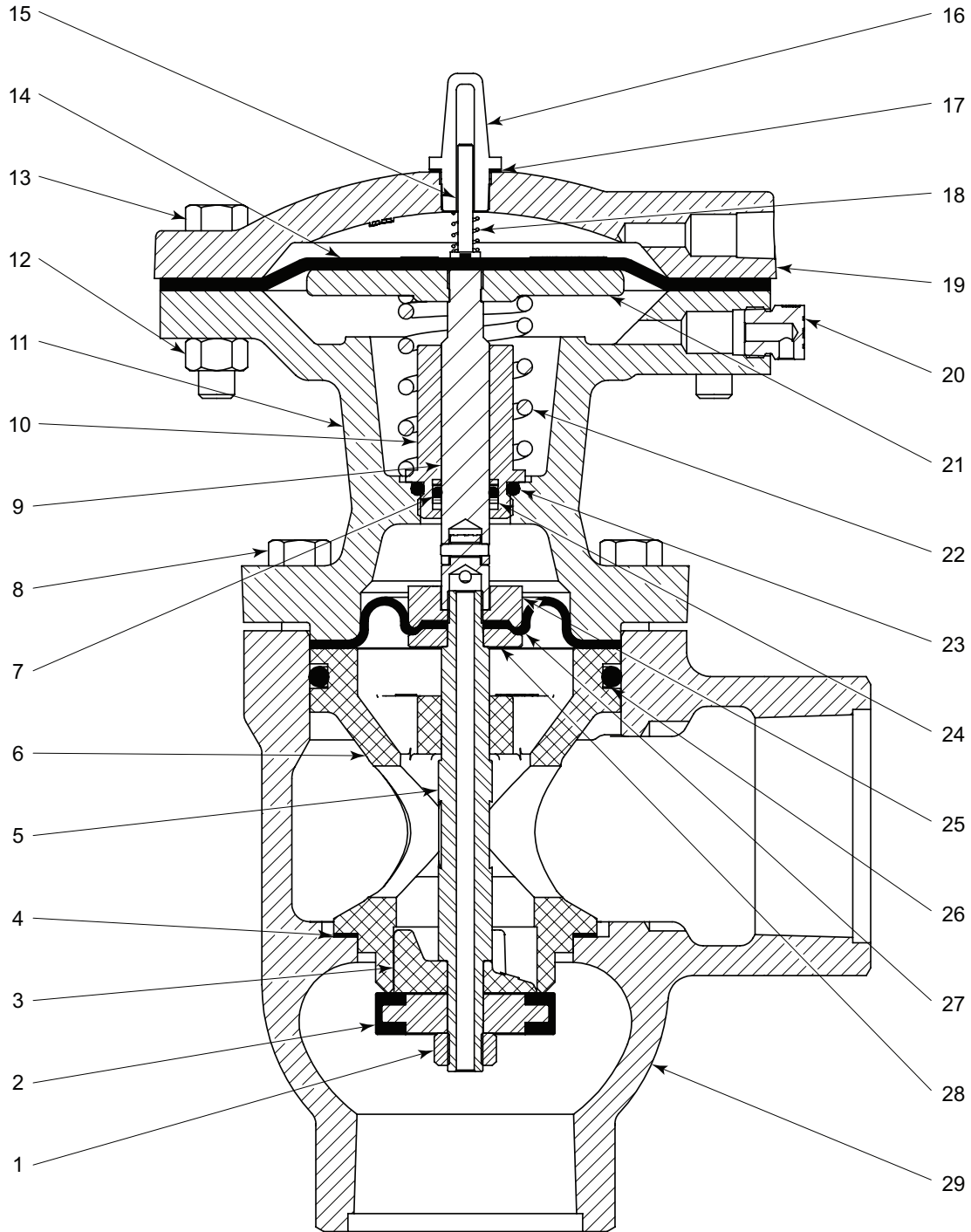
NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 04:1 - 04:III
 † For Corrosive service remove last "S" & replace with "C"
 † For KimCoat option remove last "S" & replace with "K"
 † For code builder see page 04:00.2
 †† Max W.P. values based on -20°F to 100°F.

LIQUID DUMP VALVES PNEUMATIC OPERATED



DIAPHRAGM BALANCED FAIL CLOSE
MODEL PD PARTS DRAWING



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



LIQUID DUMP VALVES PNEUMATIC OPERATED

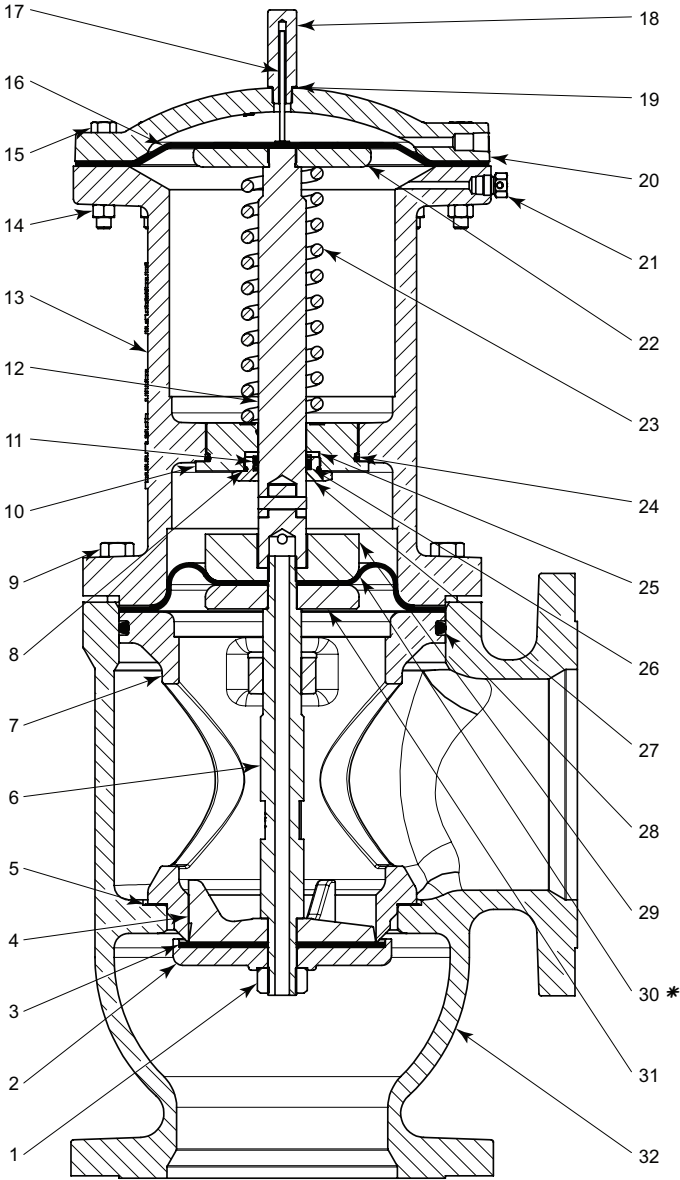
**DIAPHRAGM BALANCED FAIL CLOSE
MODEL PD PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NO.						
			STANDARD			CORROSIVE			
			2 INCH	3 INCH	4 INCH	2 INCH	3 INCH	4 INCH	
1	1	Lock Nut	◇ *	173	906		173SS6	906SS6	
2	1	Seat	◇ *	7498HSN	7499HSN	----	7498HSN	7499HSN	----
		Seat	◇ *	----	165HSN		----	165HSN	
		Seat Disc	◇	----	160		----	2494SS6	
3	1	Ratio Plug	◇	332DEL	333DEL	334	2976SS6	2977SS6	2978SS6
4	1	Gasket	◇ *	276	277	309	276	277	309
5	1	Stem	◇	326	327	328	326SS6	327SS6	328SS6
6	1	Cage	◇	304DEL	305DEL	306	2966SS6	2967SS6	2968SS6
		Gasket		----	----	----	7575	7576	920
7	1	O-Ring	*	154HSN	155HSN	155HSN	154HSN	155HSN	155HSN
8	(Qty)	Bolt		1672 x 6	1672 x 6	1672 x 8	1672 x 6	1672 x 6	1672 x 8
9	1	Stem Assembly		1469	1470		1469SS6	1470SS6	
10	1	Stem Guide		2463	2464		2463SS6	2464SS6	
11	1	Housing		1670	1467	1468	1670 ‡	1467 ‡	1468 ‡
12	(Qty)	Nut		241 x (8)	241 x (10)		241 x (8)	241 x (10)	
13	(Qty)	Bolt		236 x (8)	191 x (10)		236 x (8)	191 x (10)	
14	1	Diaphragm	*	6810	6811		6810	6811	
15	1	Travel Indicator Stem		1687	1733		1687	1733	
16	1	Travel Indicator Housing		1686			1686		
17	1	Gasket	*	1784			1784		
18	1	Spring		1936	551		1936	551	
19	1	Bonnet		1671	1867		1671 ‡	1867 ‡	
20	1	Breather Plug		147			147SS6		
21	1	Diaphragm Plate		133	134		133	134	
22	1	Spring		1678	2268		1678	2268	
23	1	O-Ring	*	1107HSN	639HSN	639HSN	1107HSN	639HSN	639HSN
24	2	Back Up	*	149T	150T		149T	150T	
25	1	Diaphragm Nut	◇	1471SS6	1472SS6	1473	1471SS6	1472SS6	1473SS6
26	1	O-Ring	◇ *	329HSN	330HSN	331	329HSN	330HSN	331
27	1	Diaphragm	◇ *	335	336	4700	335	336	4700
28	1	Plate	◇	323SS6	324SS6	325SS6	323SS6	324SS6	325SS6
29	1	Body	NPT Angle	1819	2379	----	1819 ‡	2379 ‡	----
			NPT Thru	3081	3086	----	3081 ‡	3086 ‡	----
			150RF Angle	2540	2382	2383	2540 ‡	2382 ‡	2383 ‡
			150RF Thru	3083	3087	3090	3083 ‡	3087 ‡	3090 ‡
2	1	Lifting Ring (not shown)		7559		7559			
				‡ Coated Parts available with "K" service type					
Cage Assemblies				CBH	CBI	CBJ	CBHS6	CBIS6	CBJS6
				◇ These parts are stocked as Cage Assemblies.					
Repair Kits				RFL-HSN	RFR-HSN	RFW-HSN	RFL-HSN	RFR-HSN	RFW-HSN
				* These parts are recommended spare parts and are stocked as repair kits.					

LIQUID DUMP VALVES PNEUMATIC OPERATED



DIAPHRAGM BALANCED FAIL CLOSE MODEL PD PARTS DRAWING & LIST



ITEM	QTY.	DESCRIPTION	PART NO.		
			STANDARD 6 INCH	CORROSIVE 6 INCH	
1	1	Lock Nut	◇ *	175	175SS6
2	1	Seat Disc	◇	2349	3077SS6
3	1	Seat	◇ *	2356HSN	2356HSN
4	1	Ratio Plug	◇	2348	3072SS6
5	1	Gasket	◇ *	2354	2354
6	1	Stem	◇	2350SS6	2350SS6
7	1	Cage	◇	2345	3071SS6
		Gasket		----	920
8	1	O-Ring	*	4086	4086
9	8	Bolt		81	81
10	1	Stem Guide		4372	4372
11	1	O-Ring	*	157	157
12	1	Stem Assembly		2452PH	2452SS6
13	1	Housing		4370	4370 ‡
14	12	Nut		241	241
15	12	Bolt		193	193
16	1	Diaphragm	*	6812	6812
17	1	Travel Indicator Stem		2456	2456
18	1	Travel Indicator Housing		5159	5159
19	1	Gasket	*	1784	1784
20	1	Bonnet		2588	2588 ‡
21	1	Breather Plug		147	147SS6
22	1	Diaphragm Plate		2450	2450
23	1	Spring		2415	2415
24	1	O-Ring	*	4371	4371
25	1	Spacer		4571DS6	4571DS6
26	2	Back up	*	152T	152T
27	1	Stem Seal Retainer		4571ES6	4571ES6
28	1	O-Ring	◇ *	2353	2353
29	1	Diaphragm Nut	◇	2453	2453SS6
30	1	Diaphragm	◇ *	4315	4315
31	1	Plate	◇	2454	4045SS6
32	1	Body			
		150RF Angle		2344	2344 ‡
		150RF Thru		3091	3091 ‡
‡ Coated Parts available with "K" service type					
Cage Assemblies			CBK	CBKS6	
◇ These parts are stocked as Cage Assemblies.					
Repair Kits			RGB	RGB-HSN	
* These parts are recommended spare parts and are stocked as repair kits.					

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

APPLICATIONS:

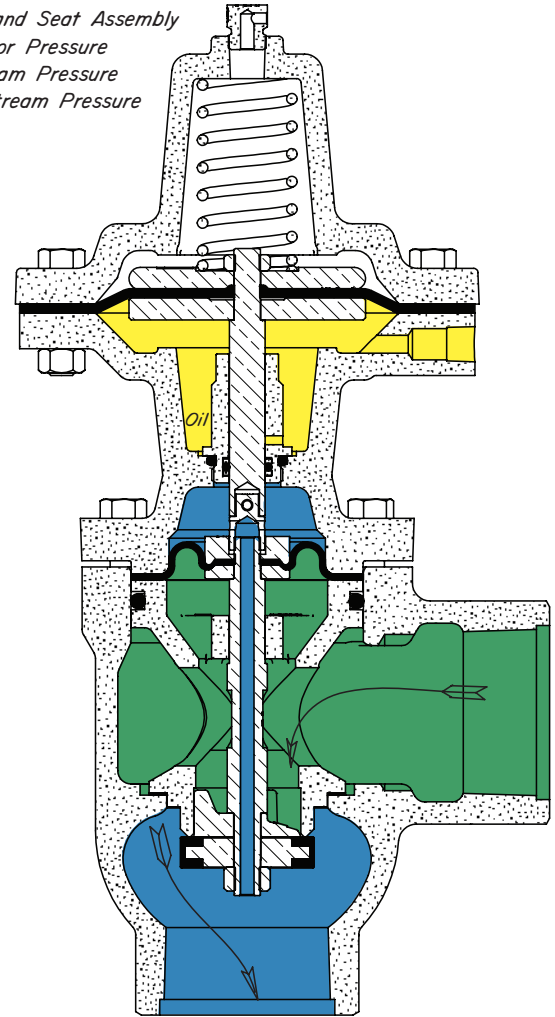
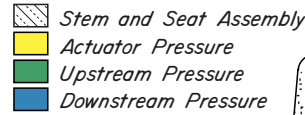
Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators where a reduced signal pressure is available.

FEATURES:

- Diaphragm balanced single seat.
- 10 to 35 psig diaphragm pressure.
- Fail Open service.
- All internal parts can be removed with valve in-line
- Reinforced oil resistant synthetic rubber diaphragms & seats

CERTIFICATIONS:

Canadian Registration Number (CRN):
 0C15804.24567890NTY (Ductile)
 0C15621.24567890NTY (Steel)
 Kimray is an ISO 9001- certified manufacturer.



Standard Configuration Code †	Order Code	Line Size	Connection Type	Body Type	Max Δ P psig	Max. W.P. psig ††	Cv	Cf	
DPD2SAADF4S	EKJ	2"	NPT	Angle	125	400	23.3	0.79	
DPD2SATDF4S	EXJ			Thru					
DPD2ARADF4S	EKL		150RF	Angle					
DPD2ARTDF4S	EXL			Thru					
DPD3SAADF4S	EKP	3"	NPT	Angle		250	43.8		70.1
DPD3SATDF4S	EXP			Thru					
DPD3ARADF4S	EKR		150RF	Angle					
DPD3ARTDF4S	EXR			Thru					
DPD4ARADF4S	EKW	4"	150RF	Angle	70.1	70.1	70.1		
DPD4ARTDF4S	EXW			Thru					

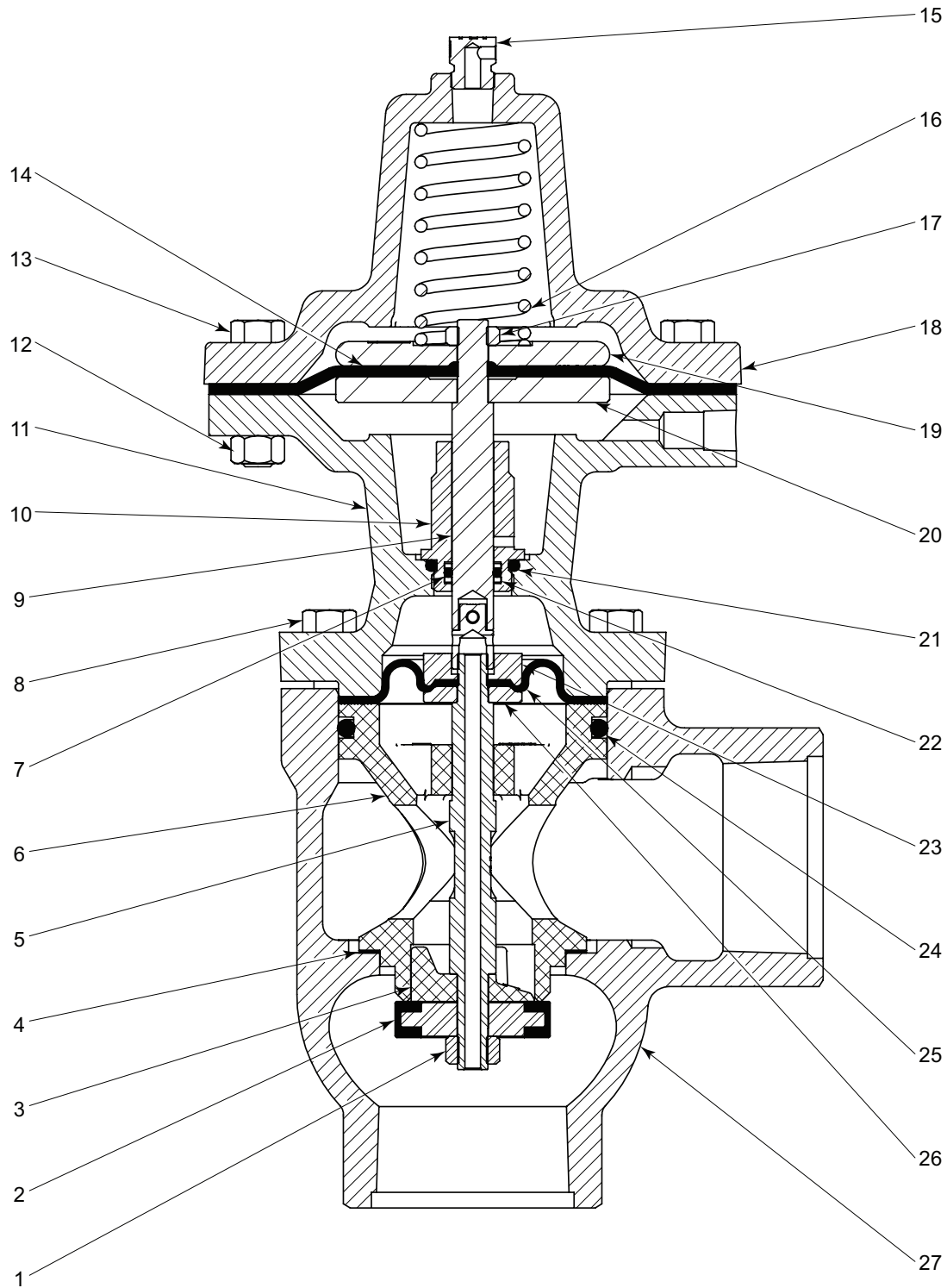
NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 04:1 - 04:111
 † For Corrosive service remove last "S" & replace with "C"
 † For KimCoat option remove last "S" & replace with "K"
 † For code builder see page 04:00.2
 †† Max W.P. values based on -20°F to 100°F.

LIQUID DUMP VALVES PNEUMATIC OPERATED



DIAPHRAGM BALANCED FAIL OPEN
MODEL PD PARTS DRAWING



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



LIQUID DUMP VALVES PNEUMATIC OPERATED

**DIAPHRAGM BALANCED FAIL OPEN
MODEL PD PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NO.								
			STANDARD			CORROSIVE					
			2 INCH	3 INCH	4 INCH	2 INCH	3 INCH	4 INCH			
1	1	Lock Nut	◇ *	173	906		173SS6	174SS6			
2	1	Seat	◇ *	7498HSN	7499HSN	----	7498HSN	7499HSN	----		
		Seat	◇ *	----	165HSN		----	165HSN			
		Seat Disc	◇	----	160		----	2494SS6			
3	1	Ratio Plug	◇	332DEL	333DEL	334	2976SS6	2977SS6	2978SS6		
4	1	Gasket	◇ *	276	277	309	276	277	309		
5	1	Stem	◇	326	327	328	326SS6	327SS6	328SS6		
6	1	Cage	◇	304DEL	305DEL	306	2966SS6	2967SS6	2968SS6		
		Gasket		----	----	----	7575	7576	920		
7	1	O-Ring	*	154HSN	155HSN	155HSN	154HSN	155HSN	155HSN		
8	(Qty)	Bolt		1672 x (6)	1672 x (6)	1672 x (8)	1672 x (6)	1672 x (6)	1672 x (8)		
9	1	Stem Assembly		1474	1475		1474SS6	1475SS6			
10	1	Stem Guide		2463	2464		2463SS6	2464SS6			
11	1	Housing		1670	1467	1468	1670 ‡	1467 ‡	1468 ‡		
12	(Qty)	Nut		241 x (8)	241 x (10)		241 x (8)	241 x (10)			
13	(Qty)	Bolt		430 x (8)	191 x (10)		430 x (8)	191 x (10)			
14	1	Diaphragm	*	7053	743		7053	743			
15	1	Breather Plug		147			147SS6				
16	1	Spring		723	724		723	724			
17	1	Lock nut	*	173	1478		173SS6	1478SS6			
18	1	Bonnet		1665	1655		1665 ‡	1655 ‡			
19	1	Upper Diaph. Plate		732	1476		732	1476			
20	1	Lower Diaph. Plate		737	738		737	738			
21	1	O-Ring	*	1107HSN	639HSN	639HSN	1107HSN	639HSN	639HSN		
22	2	Back up	*	149T	150T		149T	150T			
23	1	Diaphragm Nut	◇	1471SS6	1472SS6	1473	1471SS6	1472SS6	1473		
24	1	O-Ring	◇ *	329HSN	330HSN	331	329HSN	330HSN	331		
25	1	Diaphragm	◇ *	335	336	4700	335	336	4700		
26	1	Plate	◇	323SS6	324SS6	325SS6	323SS6	324SS6	325SS6		
27	1	Body	Screwed Angle	1819	2379	----	1819 ‡	2379 ‡	----		
			Screwed Thru	3081	3086	----	3081 ‡	3086 ‡	----		
			Flanged Angle	2540	2382	2383	2540 ‡	2382 ‡	2383 ‡		
			Flanged Thru	3083	3087	3090	3083 ‡	3087 ‡	3090 ‡		
	2	Lifting Ring (not shown)		7559		7559					
						‡ Coated Parts available with "K" service type					
Cage Assemblies				CBH	CBI	CBJ	CBHS6	CBIS6	CBJS6		
						◇ These parts are stocked as Cage Assemblies.					
Repair Kits				RFM	RFSHSN	RFX	RFM	RFSHSN	RFX		
						* These parts are recommended spare parts and are stocked as repair kits.					

NOTES:



Kimray is an ISO 9001- certified manufacturer.

APPLICATIONS:






This valve operates in conjunction with a pneumatic liquid level controller for discharge of liquid from separators, treaters, knockouts and other similar liquid accumulators in erosive or standard applications. It can also be used in back pressure or pressure reducing applications when paired with pressure pilots.

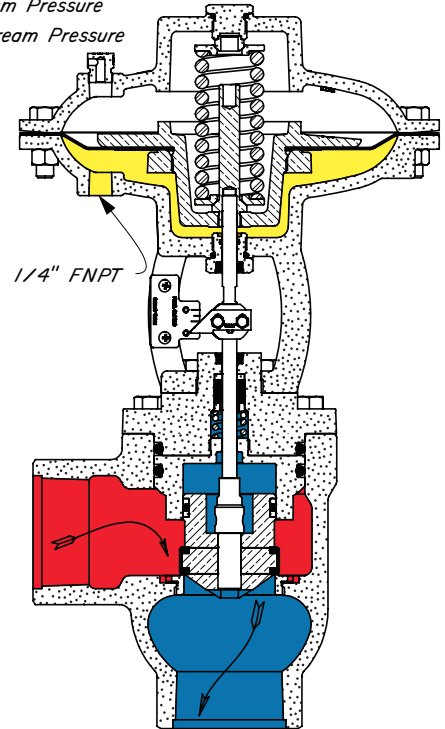
FEATURES:

- Soft seat
- Bubble tight shut-off at full range of pressure
- Piston balanced seat assembly
- Full line size & reduced orifice available
- Trim contoured for throttle or on/off service and specifically designed for erosive applications
- Field-reversible actuator: standard is fail closed, with easy reversibility to fail open

CERTIFICATIONS:

Canadian Registration Number (CRN):
0C22175.234567890NTY
Kimray is an ISO 9001- certified manufacturer.

-  Control Valve Diaphragm Assembly
-  Control Valve Seat Assembly
-  Control Valve Diaphragm Pressure
-  Upstream Pressure
-  Downstream Pressure



Standard Configuration Code †	Order Code	Line Size	Connection Type	Body Type	Inner Valve	Actuator W.P. psig ††	Max Δ P psig	Max. W.P. psig ††	Cv	Cf					
DPH2SAADF2S	MYA	2"	FNPT	Angle	2.0"	6 - 30	500 †††	500	53.6	0.75					
DPH2SAADR2S	MYA5				1.5"						250	29.0			
DPH2ARADF2S	MYB				2.0"								150RF	53.6	
DPH2ARADR2S	MYB5				1.5"										29.0
DPH2SATDF2S	MYC		FNPT	Thru	2.0"		500 †††	500					53.6		
DPH2SATDR2S	MYC5				1.5"						250	29.0			
DPH2ARTDF2S	MYD				2.0"									150RF	53.6
DPH2ARTDR2S	MYD5				1.5"										
DPH3SAADF2S	MYE	3"	FNPT	Angle	3.0"	6 - 30	500 †††	500	109						
DPH3SAADR2S	MYE5				2.0"					250	72.2				
DPH3ARADF2S	MYF				3.0"							150RF	109		
DPH3ARADR2S	MYF5				2.0"									72.2	
DPH3SATDF2S	MYG		FNPT	Thru	3.0"		500 †††	500				109			
DPH3SATDR2S	MYG5				2.0"					250	72.2				
DPH3ARTDF2S	MYH				3.0"								150RF	109	
DPH3ARTDR2S	MYH5				2.0"										72.2

NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 04:I - 04:III

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

† For Erosive option remove last "S" & replace with "E"

† For KimCoat option remove last "S" & replace with "K"

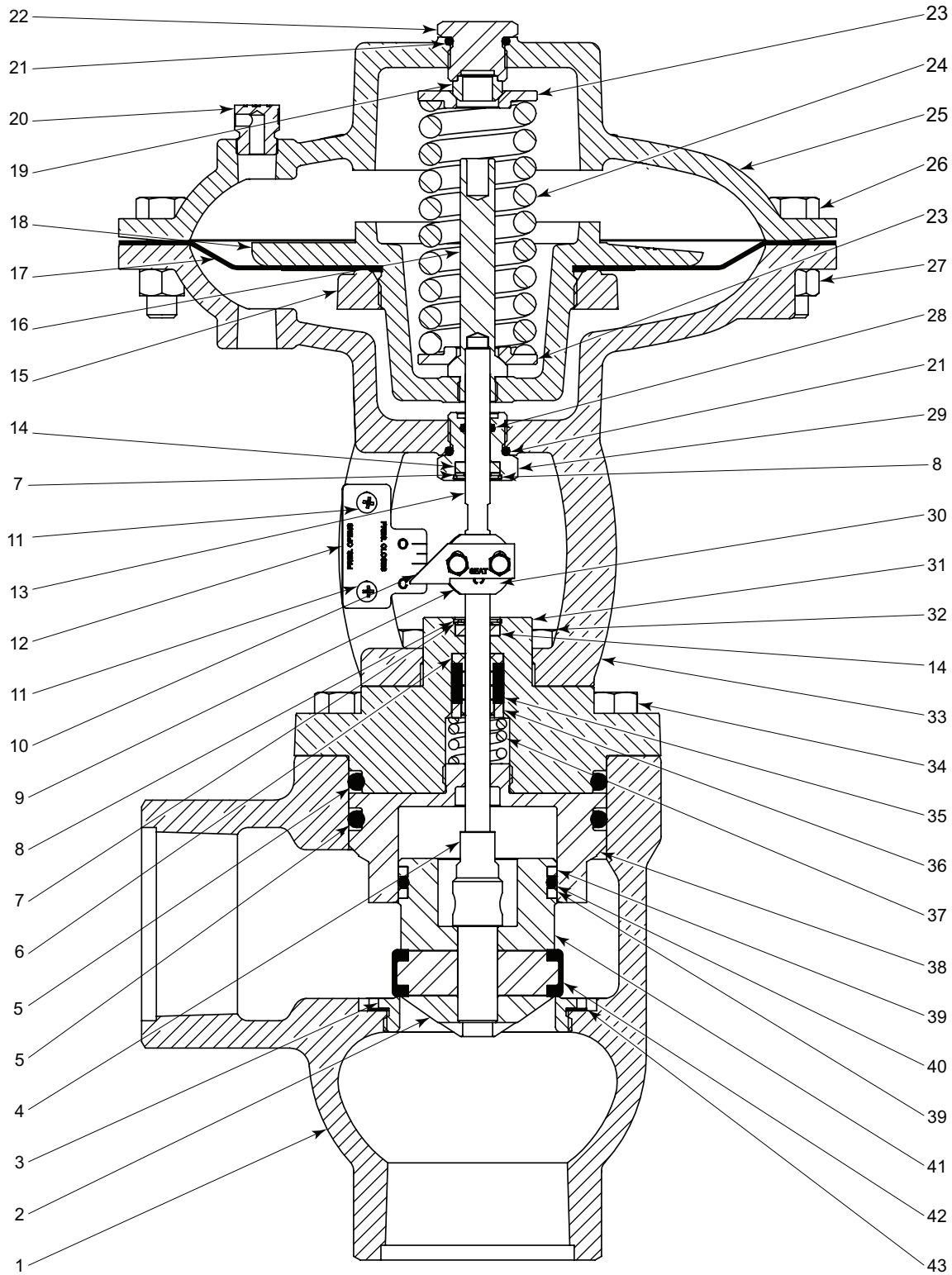
† For code builder see page 04:00.2

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

††† Pressure drops above 250 psig could cause fluid hammer, potentially leading to premature wear.

LIQUID DUMP VALVES PNEUMATIC OPERATED

PISTON BALANCED THROTTLING LOW PRESSURE HIGH VOLUME
MODEL PP PARTS DRAWING



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LIQUID DUMP VALVES PNEUMATIC OPERATED

**PISTON BALANCED THROTTLING LOW PRESSURE HIGH VOLUME
MODEL PP PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NO.						
			STANDARD		CORROSIVE		EROSIVE		
			2 INCH	3 INCH	2 INCH	3 INCH	2 INCH	3 INCH	
1	1	Body	NPT Angle	6786	7139	6786	7139	6786	7139
			150RF Angle	7655	7319	7655	7319	7655	7319
			NPT Thru	7163	7693	7163	7693	7163	7693
			150RF Thru	7694	7695	7694	7695	7694	7695
2	1	Ratio Plug Δ◇	Full Port	7625	7647S3	7625S6	7647S6	7625D2	7647D2
			Reduced Port	7644S3	7625	7644S6	7625S6	7644D2	7625D2
3	1	Removable Seat Δ◇	Full Port	7630	7653S3	7630S6	7653S6	7630D2	7653D2
			Reduced Port	7554	7654S3	7554S6	7654S6	7554	7654D2
4	1	Stem Δ◇	Full Port	7628PH	7646PH	7628S6	7646S6	7628PH	7646PH
			Reduced Port	7643PH	7649PH	7643S6	7649S6	7643PH	7649PH
5	2	O-Ring (only 1 in conv. kit) Δ*	329HSN	330HSN	329HSN	330HSN	329HSN	330HSN	
6	1	Packing Sleeve *	485	534	485	534	485	534	
7	2	Retainer *	486	528	486	528	486	528	
8	2	Snap Ring *	938	940	938	940	938	940	
9	1	Coupling Block	1659	511	1659	511	1659	511	
10	1	Travel Indicator	1659A	535	1659A	535	1659A	535	
	2	Screw	7617	512	7617	512	7617	512	
11	2	Screw	7534		7534		7534		
12	1	Indicator Scale	488	536	488	536	488	536	
13	1	Upper Stem	1643	522	1643	522	1643	522	
14	2	Felt Wiper *	480	527	480	527	480	527	
15	1	Retainer Ring	476	4356	476	4356	476	4356	
16	1	Pivot Sleeve	466	510	466	510	466	510	
17	1	Diaphragm	475	519	475	519	475	519	
18	1	Diaphragm Plate	469	4357	469	4357	469	4357	
19	1	Pivot	459	504	459	504	459	504	
20	1	Breather Plug	147		147SS6		147		
21	2	O-Ring *	491HSN	537HSN	491HSN	537HSN	491HSN	537HSN	
22	1	Upper Adjusting Screw	457	502	457	502	457	502	
23	2	Spring Plate	462	507	462	507	462	507	
24	1	Spring	464	508	464	508	464	508	
25	1	Bonnet	461	506	461	506	461	506	
26	(Qty)	Nut	241 (10)	241 (16)	241 (10)	241 (16)	241 (10)	241 (16)	
27	(Qty)	Bolt	247 (10)	430 (16)	247 (10)	430 (16)	247 (10)	430 (16)	
28	1	O-Ring *	153HSN	530HSN	153HSN	530HSN	153HSN	530HSN	
29	1	Lower Adjusting Screw	458	503	458	503	458	503	
30	1	Position Tag	----	677	----	677	----	677	
31	1	Stuffing Bonnet	7623	7656	7623	7656	7623	7656	
32	4	Bolt	694	524	694	524	694	524	
33	1	Yoke	460	505	460	505	460	505	
34	6	Bolt	1672	1672	1672	1672	1672	1672	
35	(Qty)	Packing Ring *	484HSN (4)	533HSN (6)	484HSN (4)	533HSN (6)	484HSN (4)	533HSN (6)	
36	1	Packing Follower *	482SS6	531SS6	482SS6	531SS6	482SS6	531SS6	
37	1	Packing Spring *	465	509	465	509	465	509	
38	1	Cylinder Δ	Full Port	7624	7657S3	7624S6	7657S6	7624	7657S3
			Reduced Port	7651S3	7658S3	7651S6	7658S6	7651S3	7658S3
39	2	Back Up Δ◇*	Full Port	7683	7684	7683	7684	7683	7684
			Reduced Port	7558	7683	7558	7683	7558	7683
40	1	Piston Seal Δ◇*	Full Port	801HSN	4768HSN	801HSN	4768HSN	801HSN	4768HSN
			Reduced Port	808HSN	801HSN	808HSN	801HSN	808HSN	801HSN
41	1	Piston Δ◇	Full Port	7626	7652S3	7626S6	7652S6	7626	7652S3
			Reduced Port	7642S3	7648S3	7642S6	7648S6	7642S3	7648S3
42	1	Seat Disc Δ◇*	Full Port	7669HSN	7685HSN	7669HSN	7685HSN	7669HSN	7685HSN
			Reduced Port	7498HSN	7669HSN	7498HSN	7669HSN	7498HSN	7669HSN
43	1	Gasket Δ◇*	276	277	276	277	276	277	
	2	Lifting Ring (not shown)	----	7559	----	7559	----	7559	
Plug Assemblies			Full Port	MYJ	MYK	MYJS6	MYKS6	MYJD2	MYKD2
			Reduced Port	MYI	MYL	MYIS6	MYLS6	MYID2	MYLD2
			◇ These parts are stocked as Plug Assemblies.						
Repair Kits			Full Port	RYW	RYX	RYW	RYX	RYW	RYX
			Reduced Port	RYW5	RYX5	RYW5	RYX5	RYW5	RYX5
			* These parts are recommended spare parts and are stocked as repair kits.						
Conversion Kits			Reduced Port	MYN	MYP	MYNS6	MYP6	MYND2	MYPD2
			Δ These parts are stocked as Conversion Kits.						

NOTES:



Kimray is an ISO 9001- certified manufacturer.

PISTON BALANCED THROTTLING FAIL CLOSE MODEL PP

APPLICATION:





Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators. For back pressure or pressure reducing applications with pressure pilots.

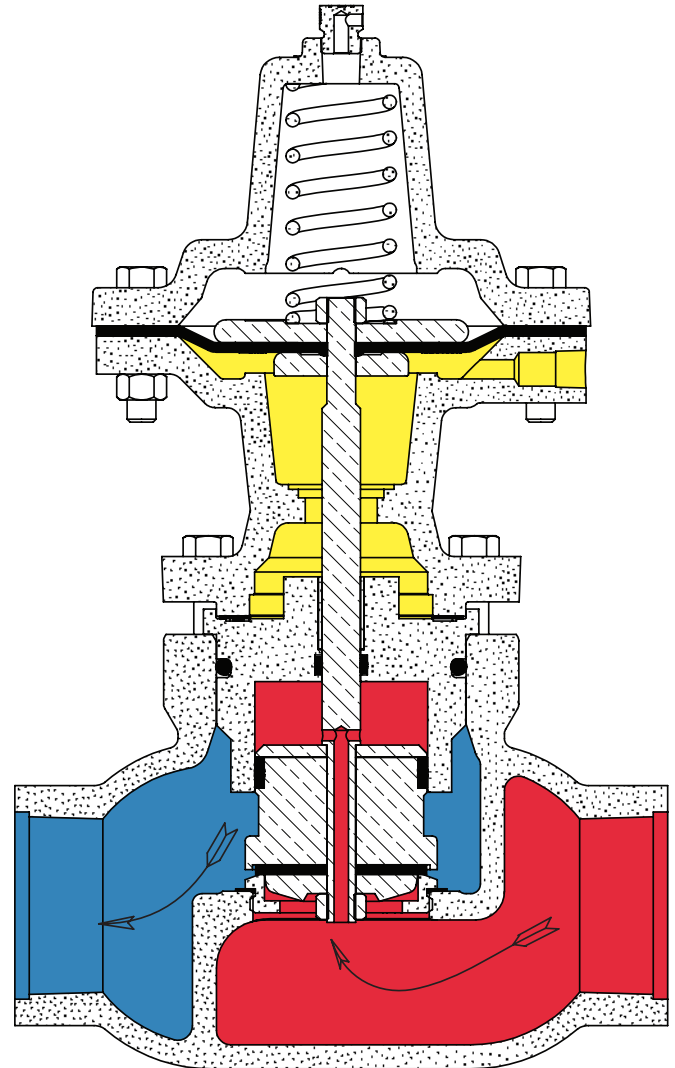
FEATURES:

- Piston balanced seat assembly
- 30 psig maximum actuating pressure
- Fail Close service.
- All internal parts can be removed with valve in-line
- Reinforced oil resistant synthetic rubber diaphragms & seats
- Trim contoured for throttle or on/off service
- Bubble tight shut-off at full range of pressure

CERTIFICATIONS:

Canadian Registration Number (CRN):
0C15804.24567890NTY (Ductile)
Kimray is an ISO 9001- certified manufacturer.

-  Stem and Seat Assembly
-  Actuator Pressure
-  Upstream Pressure
-  Downstream Pressure



2" & 3" have been discontinued



Standard Configuration Code †	Order Code	Line Size	Connection Type	Body Type	Max Δ P psig	Max. W.P. psig ††	Cv	Cf
DPP2SATDF1S	EMS	2"	NPT	Thru	125	500	47.0	0.75
DPP2ARTDF1S	EMT		150RF					
DPP3SATDF1S	EMU	3"	NPT					
DPP3ARTDF1S	EMV		150RF					
DPP4ARTDF1S	EMW	4"	150RF			160		

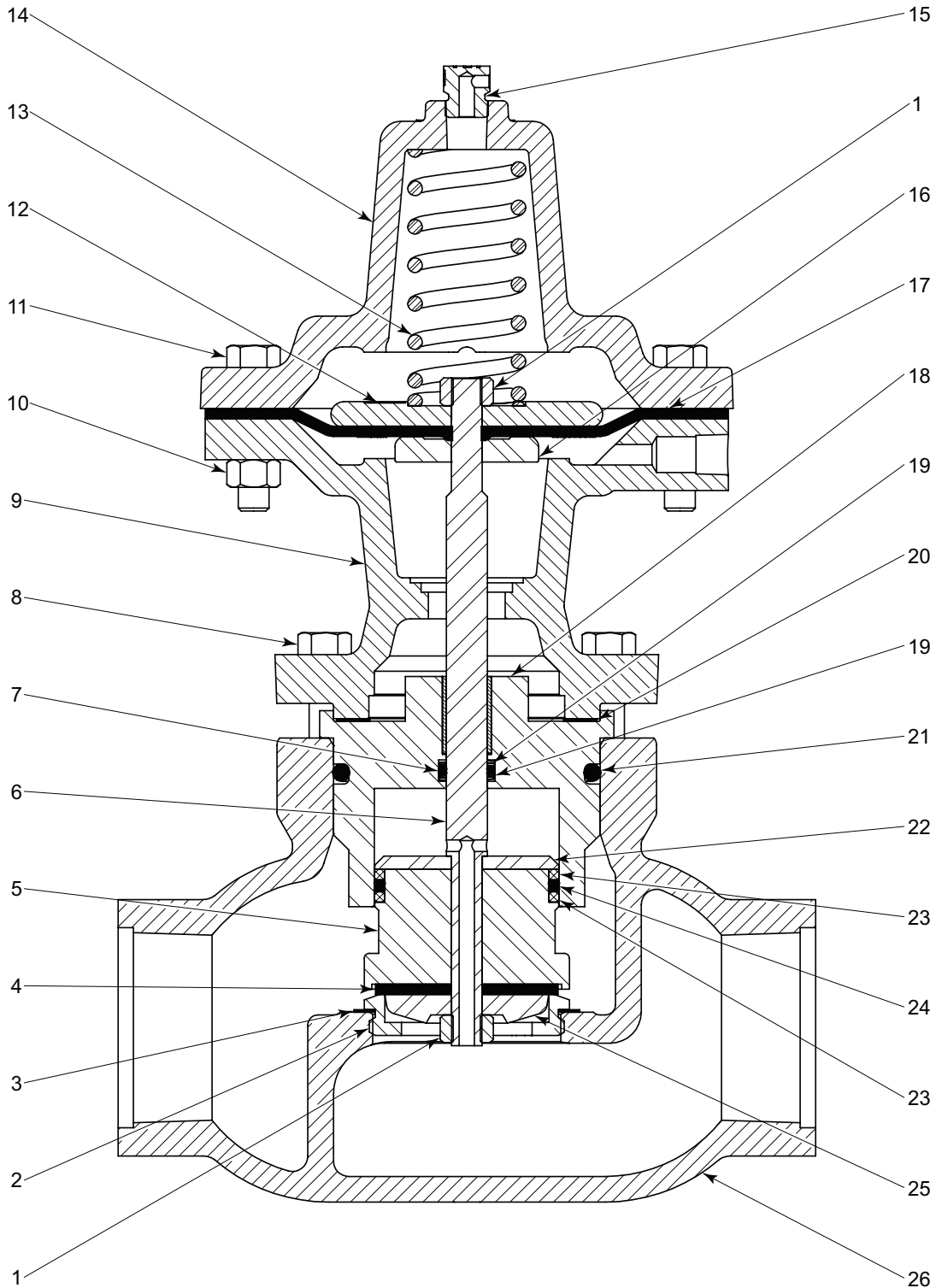
NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 04:1 - 04:111
 † For Corrosive service remove last "S" & replace with "C"
 † For KimCoat option remove last "S" & replace with "K"
 † For code builder see page 04:00.2
 †† Max W.P. values based on -20°F to 100°F.

LIQUID DUMP VALVES PNEUMATIC OPERATED



PISTON BALANCED THROTTLING FAIL CLOSE
MODEL PP PARTS DRAWING



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

2" & 3" have been discontinued

ITEM	QTY.	DESCRIPTION	PART NO.					
			STANDARD			CORROSIVE		
			2 INCH	3 INCH	4 INCH	2 INCH	3 INCH	4 INCH
1	2	Lock Nut ◊ *	173	174SS6		173SS6	174SS6	
2	1	Removable Seat ◊	5214	5215D	5216	5214SS6	5215SS6	5216SS6
3	1	Gasket ◊ *	276	277	196	276	277	196
4	1	Seat ◊ *	5211HSN	5212HSN	5213HSN	5211HSN	5212HSN	5213HSN
5	1	Piston ◊	5208	5209	5210SS6	5208SS6	5209SS6	5210SS6
6	1	Stem ◊	5193	5194	5195	5193SS6	5194SS6	5195SS6
7	1	Quad Ring ◊ *	154QHSN	155QHSN	155Q	154QHSN	155QHSN	155Q
8	(Qty)	Bolt	833 x (6)		833 x (8)	833 x (6)		833 x (8)
9	1	Housing	1689	1868D	5200	1689 ‡	1868D ‡	5200 ‡
10	(Qty)	Nut	241 x (8)	241 x (10)	241 x (12)	241 x (8)	241 x (10)	241 x (12)
11	(Qty)	Bolt	236 x (8)	191 x (10)	192 x (12)	236 x (8)	191 x (10)	192 x (12)
12	1	Upper Diaph. Plate	732	1476	734	732	1476	734
13	1	Spring	5188	621	5192	5188	621	5192
14	1	Bonnet	1665	718	719	1665 ‡	718 ‡	719 ‡
15	1	Breather Plug	147			147		
16	1	Lower Diaph. Plate	5289	5224	739	5289	5224	739
17	1	Diaphragm *	7053	743	744	7053	743	744
18	1	Cylinder	5202	5203SS6	5204SS6	5202SS6	5203SS6	5204SS6
19	2	Back Up ◊ *	149T	150T		149T	150T	
20	1	Gasket ◊ *	5199	5223	1901	5199	5223	1901
21	2	O-Ring ◊ *	329HSN	330HSN	331	329HSN	330HSN	331
22	1	Seal Retainer ◊	5205	5206SS6	5207	5205SS6	5206SS6	5207SS6
23	2	Back Up ◊ *	1458	772	5201	1458	772	5201
24	1	Quad Ring ◊ *	774QHSN	329QHSN	1872Q	774QHSN	329QHSN	1872Q
25	1	Ratio Plug ◊	177SS6	178	179	177SS6	178	179
26	1	Body						
		NPT Thru	5217D	5219D	----	5217D ‡	5219D ‡	----
		150RF Thru	5218D	5220D	5222D	5218D ‡	5220D ‡	5222D ‡
2	Lifting Ring (not shown)	7559			7559			
					‡ Coated Parts available with "K" service type			
Cage Assemblies			CLE	CLG	CLI	CLES6	CLGS6	CLIS6
			◊ These parts are stocked as Cage Assemblies.					
Repair Kits			RUMD	RUND	RUOD	RUMD	RUND	RUOD
			* These parts are recommended spare parts and are stocked as repair kits.					

NOTES:



Kimray is an ISO 9001- certified manufacturer.

PISTON BALANCED THROTTLING FAIL OPEN MODEL PP

APPLICATION:





Used as oil or water dump valves on separators, treaters, knockouts, and other similar liquid accumulators. For back pressure or pressure reducing applications with pressure pilots.

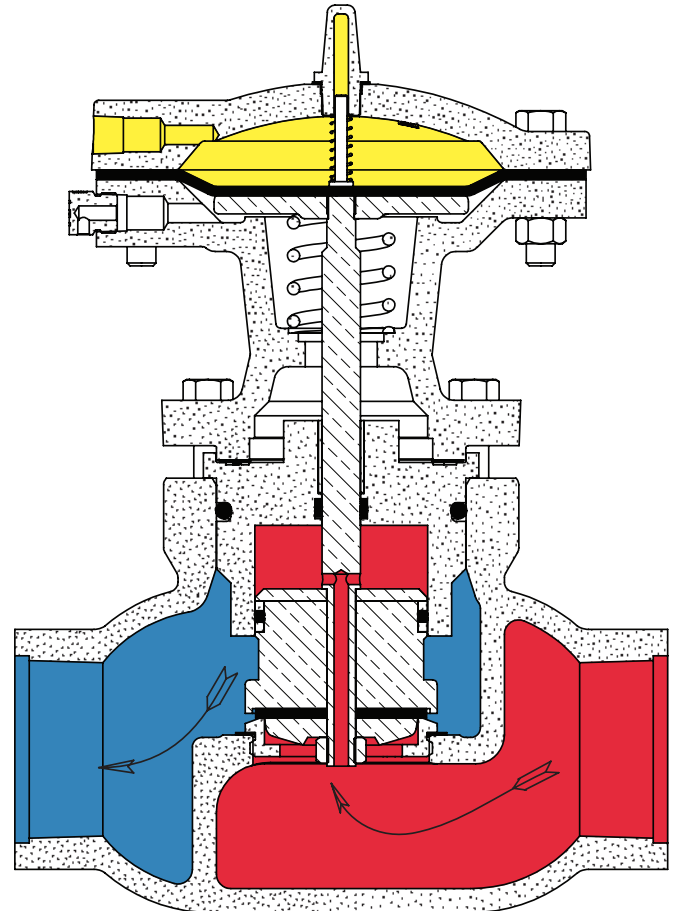
FEATURES:

- Piston balanced seat assembly
- 30 psig maximum actuating pressure
- Fail Open service.
- All internal parts can be removed with valve in-line
- Reinforced oil resistant synthetic rubber diaphragms & seats
- Trim contoured for throttle or on/off service
- Bubble tight shut-off at full range of pressure

CERTIFICATIONS:

Canadian Registration Number (CRN):
0C15804.24567890NTY (DuctileKimray is an ISO 9001- certified manufacturer.

-  Stem and Seat Assembly
-  Actuator Pressure
-  Upstream Pressure
-  Downstream Pressure



2" & 3" have been discontinued

Standard Configuration Code †	Order Code	Line Size	Connection Type	Body Type	Max Δ P psig	Max. W.P. psig ††	Cv	Cf
DPP2SATDF4S	EUS	2"	NPT	Thru	125	500	47.0	0.75
DPP2ARTDF4S	EUT		150RF					
DPP3SATDF4S	EUU	3"	NPT					
DPP3ARTDF4S	EUV		150RF					
DPP4ARTDF4S	EUW	4"	150RF			250	89.0	
						160		

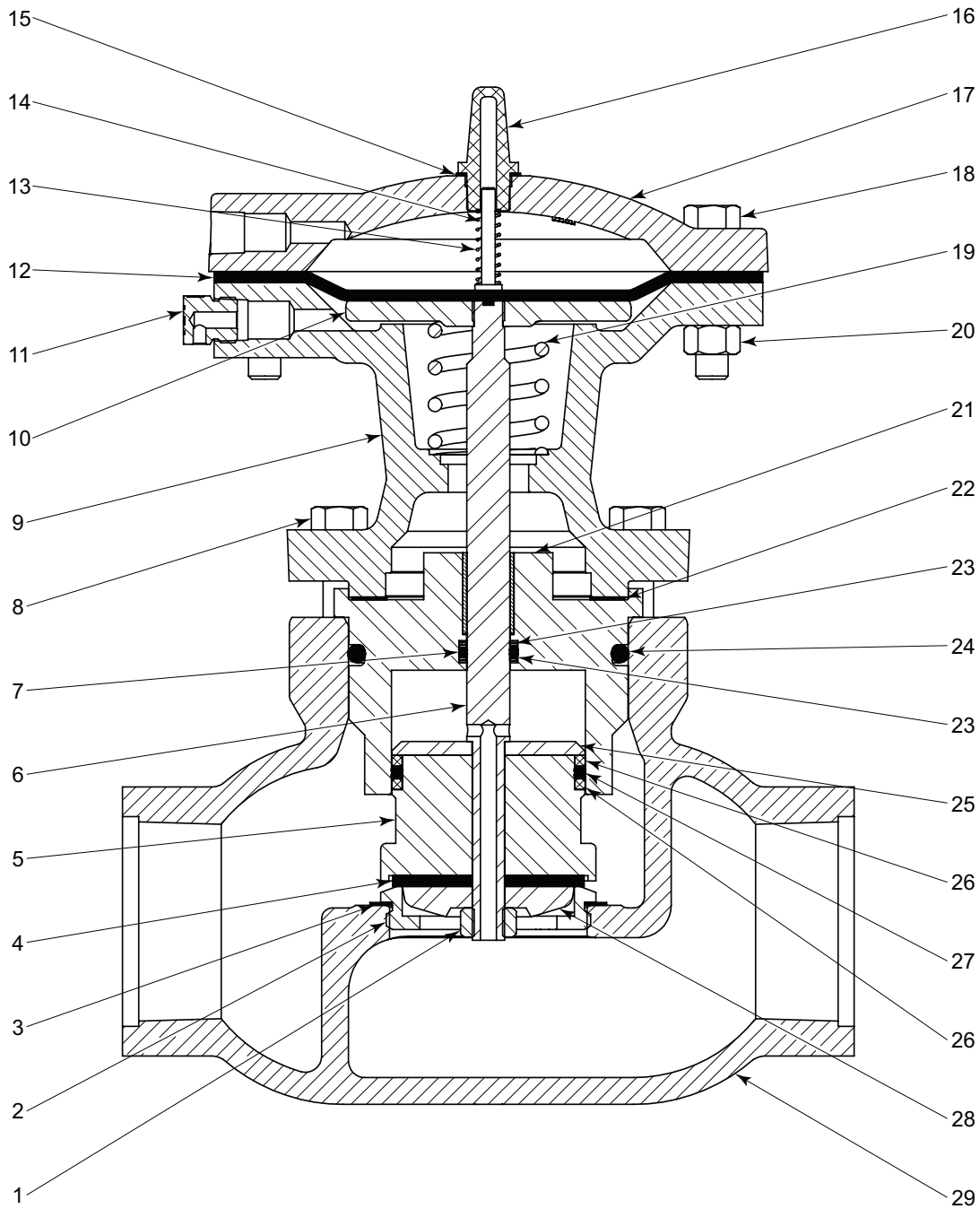
NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 04:I - 04:III
 † For Corrosive service remove last "S" & replace with "C"
 † For KimCoat option remove last "S" & replace with "K"
 † For code builder see page 04:00.2
 †† Max W.P. values based on -20°F to 100°F.

LIQUID DUMP VALVES PNEUMATIC OPERATED



PISTON BALANCED THROTTLING FAIL OPEN
MODEL PP PARTS DRAWING



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



LIQUID DUMP VALVES PNEUMATIC OPERATED

**PISTON BALANCED THROTTLING FAIL OPEN
MODEL PP PARTS LIST**

2" & 3" have been discontinued

ITEM	QTY.	DESCRIPTION	PART NO.					
			STANDARD			CORROSIVE		
			2 INCH	3 INCH	4 INCH	2 INCH	3 INCH	4 INCH
1	1	Lock Nut ◇ *	173	174SS6		173SS6	174SS6	
2	1	Removable Seat ◇	5214	5215D	5216	5214SS6	5215SS6	5216SS6
3	1	Gasket ◇ *	276	277	196	276	277	196
4	1	Seat ◇ *	5211HSN	5212HSN	5213HSN	5211HSN	5212HSN	5213HSN
5	1	Piston ◇	5208	5209	5210SS6	5208SS6	5209SS6	5210SS6
6	1	Stem ◇	5196	5197	5198	5196SS6	5197SS6	5198SS6
7	1	Quad Ring ◇ *	154QHSN	155QHSN	155Q	154QHSN	155QHSN	155Q
8	(Qty)	Bolt	833 x (6)		833 x (8)	833 x (6)		833 x (8)
9	1	Housing	1689	1868D	5200	1689 ‡	1868D ‡	5200 ‡
10	1	Diaphragm Plate	133	134	135	133	134	135
11	1	Breather Plug	147			147		
12	1	Diaphragm *	6810	6811	6812	6810	6811	6812
13	1	Spring	1936	551		1936	551	
14	1	Travel Indicator Stem	1687	1733	7670	1687	1733	7670
15	1	Gasket *	1784			1784		
16	1	Travel Indicator Housing	1686		5159	1686		5159
17	1	Bonnet	1671	1867	2588	1671 ‡	1867 ‡	2588 ‡
18	(Qty)	Bolt	236 x (8)	191 x (10)	192 x (12)	236 x (8)	191 x (10)	192 x (12)
19	1	Spring	1678	5191	5192	1678	5191	5192
20	(Qty)	Nut	241 x (8)	241 x (10)	241 x (12)	241 x (8)	241 x (10)	241 x (12)
21	1	Cylinder ◇	5202	5203SS6	5204SS6	5202SS6	5203SS6	5204SS6
22	1	Gasket ◇ *	5199	5223	1901	5199	5223	1901
23	2	Back Up ◇ *	149T	150T		149T	150T	
24	1	O-Ring ◇ *	329HSN	330HSN	331	329HSN	330HSN	331
25	1	Seal Retainer ◇	5205	5206SS6	5207	5205 ‡	5206SS6	5207SS6
26	2	Back Up ◇ *	1458	772	5201	1458	772	5201
27	1	Quad Ring ◇ *	774QHSN	329QHSN	1872Q	774QHSN	329QHSN	1872Q
28	1	Ratio Plug ◇	177SS6	178	179	177SS6	178SS6	179SS6
29	1	Body						
		NPT Thru	5217D	5219D	----	5217D ‡	5219D ‡	----
		150RF Thru	5218D	5220D	5222D	5218D ‡	5220D ‡	5222D ‡
2	Lifting Ring (not shown)	7559			7559			
			‡ Coated Parts available with "K" service type					
Cage Assemblies			CLF	CLH	CLJ	CLFS6	CLHS6	CLJS6
			◇ These parts are stocked as Cage Assemblies.					
Repair Kits			RUWD	RUXD	RUYD	RUWD	RUXD	RUYD
			* These parts are recommended spare parts and are stocked as repair kits.					

LIQUID DUMP VALVES PNEUMATIC OPERATED



Table 1 - Flow Coefficient(Cv) for Pneumatic Dump Valves													
Line Size	Trim Size in. (mm)	Trim Type	Cf	Valve Opening Percentage									
				10	20	30	40	50	60	70	80	90	100
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	179	217	250	277
Low Pressure High Volume Piston Balanced Throttling													
2"	1 1/2 in (38mm)	Linear (Nominal)	0.75	5.50	7.80	10.5	14.1	16.8	18.5	21.9	24.3	26.7	29.0
2"	2 in (51 mm)		0.75	9.70	16.5	23.9	29.7	34.9	39.8	43.7	47.4	50.4	53.6
3"	2 in (51 mm)		0.75	13.3	22.8	32.1	42.8	51.6	57.9	62.6	66.2	70.9	72.2
3"	3 in (76 mm)		0.75	19.0	33.6	47.5	62.7	75.2	83.9	91.7	97.7	105	109
Piston Balanced Throttling													
2"	2 in (51 mm)	Linear (Nominal)	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
4"	4 in (76 mm)		0.75	11.7	18.1	24.8	36.8	58.3	86.1	114	137	152	160

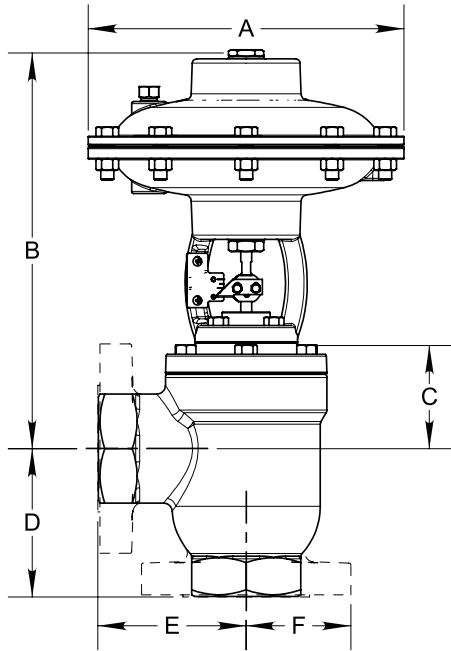
Kimray flow equations conform to ANSI/ISA - 75.01.01-2002
 Kimray inherent flow characteristics conform to ANSI/ISA 75.11.01 -1985

LIQUID DUMP VALVES PNEUMATIC OPERATED

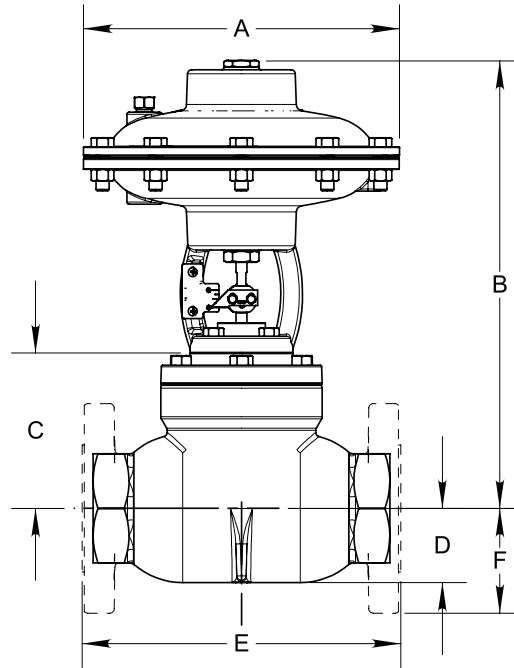


DIMENSIONS

PH ANGLE DIMENSIONS



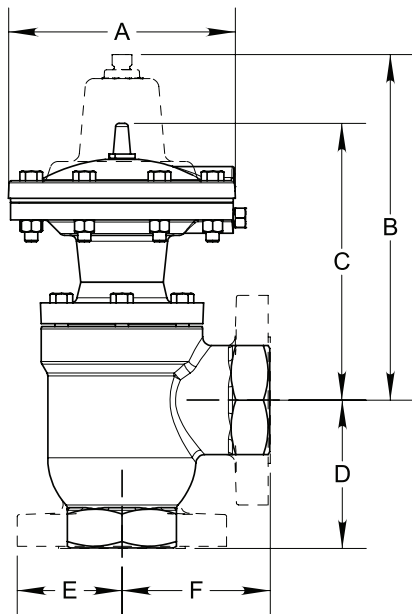
PH THRU DIMENSIONS



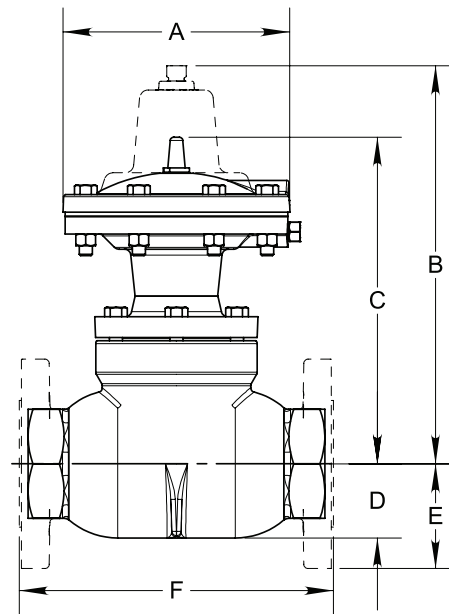
VALVE	A	B	C	D	E	F
2" SA & AR	9 1/16	11 9/32	2 29/32	4 1/4	4 1/4	3
3" SA & AR	12 7/8	15 9/32	4 1/32	5 1/2	5 1/2	3 3/4

VALVE	A	B	C	D	E	F
2" SA	9 1/16	12 13/16	4 7/16	2 1/8	8 1/2	3
2" AR	9 1/16	12 13/16	4 7/16	2 1/8	9 1/8	3
3" SA	12 7/8	17 5/32	5 29/32	2 7/8	12	3 3/4
3" AR	12 7/8	17 5/32	5 29/32	2 7/8	12 3/16	3 3/4

PB, PB, PP ANGLE DIMENSIONS



PB, PB, PP THRU DIMENSIONS



VALVE	A	B	C	D	E	F
2" SA & AR	6 1/2	9	8 1/2	4 1/4	3	4 1/4
3" SA & AR	8 1/2	11 3/4	10 1/4	5 1/2	3 3/4	5 1/2
4" SA & AR	8 1/2	12 1/2	11	6 1/2	4 1/2	6 1/2
6" SA & AR	10 3/4	—	19 3/4	10 1/4	5 1/2	7 11/16

VALVE	A	B	C	D	E	F
2" SA	6 1/2	10 3/8	9 7/8	2 1/8	—	8 1/2
2" AR	6 1/2	10 3/8	9 7/8	—	3	9
3" SA	8 1/2	13 5/16	11 9/16	2 7/8	—	12
3" AR	8 1/2	13 5/16	11 9/16	—	3 3/4	12 3/16
4" SA	8 1/2	14 7/8	13 3/8	—	4 1/2	15 1/8
6" SA	10 3/4	—	19 3/4	—	5 1/2	22

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

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

Table 3 - 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
		-29° to +149°C	-26° to +204°C
RATINGS: P-POOR, F-FAIR, G-GOOD, E-EXCELLENT			

Table 4 - Material Options - Diaphragm Balanced & Piston Balanced Throttle

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 (ASTM A395)	17-4PH (ASTM A564)
Cage	2 & 3 inch Delrin (ASTM D4181), 4 & 6 inch (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Stem	303SS (ASTM A582)	316SS (ASTM A479)
Bonnet	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
Piston	303SS (ASTM A582)	316SS (ASTM A479)
Cylinder	303SS (ASTM A582)	316SS (ASTM A479)

Table 5 - Material Options - Piston Balance High Volume

Part Description	Standard Material	Erosive Material	Corrosive Material
Body	Ductile (ASTM A395)		
Bonnet	Ductile (ASTM A395)		
Cylinder	303SS (ASTM A582)		316SS (ASTM A479)
Piston	303SS (ASTM A582)		316SS (ASTM A479)
Ratio Plug	303SS (ASTM A582)	D-2 (ASTM A681)	316SS (ASTM A479)
Removable Seat	303SS (ASTM A582)	D-2 (ASTM A681)	316SS (ASTM A479)
Stuffing Box	Ductile (ASTM A395)		
Stuffing Box Stem	17-4PH (ASTM A564)		316SS (ASTM A479)
Piston Stem	303SS (ASTM A582)		316SS (ASTM A479)
Seat Disc	316SS (ASTM A479)		