

# PRESSURE REGULATORS

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**GAS BACK PRESSURE:** . . . . . **06:10.1 - 06:10.10**  
 APPLICATIONS: Self-contained, Pilot-operated regulator used on vent lines for separators, heat treaters, compressor stations, gas gathering systems.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS LOW PRESSURE BACK PRESSURE:** . . . . . **06:10.9 - 06:10.11**  
 APPLICATIONS: Self-contained, pilot-operated regulator used to control 5 to 20 psig back pressure on vent lines for separators, heat treaters, compressor stations, gas gathering systems.  
 OPERATING PRESSURE RANGES: 5 psig to 20 psig

**GAS BACK PRESSURE NON VENTING:** . . . . . **06:20.1 - 06:20.5**  
 APPLICATIONS: Self-contained, pilot-operated regulator used on vent lines for separators, heat treaters, compressor stations, gas gathering systems where it is desired that no gas be vented.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS BACK PRESSURE TO VACUUM:** . . . . . **06:30.1 - 06:30.3**  
 APPLICATIONS: Self-contained, pilot-operated regulator used on positive pressure control of systems flowing into downstream vacuum gathering line.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS LOW PRESSURE BACK PRESSURE TO VACUUM:** . . . . . **06:30.5 - 06:30.9**  
 APPLICATIONS: Self-contained, pilot-operated regulator used to maintain ounces of positive pressure on systems flowing into a downstream vacuum, such as vapor recovery systems.  
 OPERATING PRESSURE RANGES: 1 psig to 20 psig

**BACK PRESSURE W/ OUTSIDE SUPPLY:** . . . . . **06:40.1 - 06:40.5**  
 APPLICATIONS: Self-contained, pilot-operated regulator used in liquid packed systems where an auxiliary source of supply gas pressure is available.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS PRESSURE REDUCING:** . . . . . **06:50.1 - 06:50.7**  
 APPLICATIONS: Self-contained, pilot-operated regulator used for regulation of inlet pressure to gas compressors. Control of supply or distribution system pressure.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS LOW PRESSURE PRESSURE REDUCING:** . . . . . **06:50.9 - 06:50.13**  
 APPLICATIONS: Self-contained, Low pressure pilot-operated regulator used for maintaining vapor pressure on storage tanks, controlling compressor by-pass for gas recirculation and maintaining low pressure head on flash separators.  
 OPERATING PRESSURE RANGES: 5 psig to 20 psig

**GAS PRESSURE REDUCING NON VENTING:** . . . . . **06:60.1 - 06:60.5**  
 APPLICATIONS: Self-contained, pilot-operated regulator used to regulate down stream pressures on vent lines for separators, heat treaters, compressor stations, gas gathering systems where it is desired that no gas be vented.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS PRESSURE REDUCING W/ OUTSIDE SUPPLY:** . . . . . **06:60.7 - 06:60.11**  
 APPLICATIONS: Self-contained, pilot-operated regulator used for regulation of inlet pressure to gas compressors. Control of supply or distribution system pressure.  
 Where an auxiliary source of supply gas pressure is available.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS PRESSURE REDUCING BALANCED:** . . . . . **06:70.1 - 06:70.5**  
 APPLICATIONS: Self-contained, pilot-operated regulator used for regulation of inlet pressure to gas compressors and control of supply or distribution system pressures where the pressure to the regulator varies significantly and regulated pressure must remain constant.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS PRESSURE REDUCING BALANCED NO VENT:** . . . . . **06:70.7 - 06:70.9**  
 APPLICATIONS: Self-contained, pilot-operated regulator used for regulation of inlet pressure to gas compressors and control of supply or distribution system pressures where the pressure to the regulator varies significantly and regulated pressure must remain constant and where it is desired that no gas be vented.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS PRESSURE DIFFERENTIAL:** . . . . . **06:80.1 - 06:80.5**  
 APPLICATIONS: Self-contained, pilot-operated regulator used for maintaining a constant pressure drop across meter systems.  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**GAS LOW PRESSURE PRESSURE REDUCING TO VACUUM:** . . . . . **06:90.1 - 06:90.5**  
 APPLICATIONS: Self-contained, pilot-operated regulator used for gas compressor suction regulation.  
 OPERATING PRESSURE RANGES: 1 psig to 20 psig

**GAS LOW PRESSURE BACK PRESSURE TO ATMOSPHERE W/OUTSIDE SUPPLY:** . . . . . **06:90.7 - 06:90.13**  
 APPLICATIONS: Self-contained, pilot-operated regulator designed to regulate ounces (0.5 oz to 2.5 psig) back pressure on a tank and vent to atmosphere when pressure exceeds set point.  
 OPERATING PRESSURE RANGES: 1 psig to 20 psig

**SPRING LOADED BACK PRESSURE FULL PORT:** . . . . . **06:100.1 - 06:100.5**  
 APPLICATIONS: Self-contained, spring-operated regulator used for liquid or gas systems where a 0 to 85 psig adjustable back pressure is desired.  
 OPERATING PRESSURE RANGES: 0 psig to 85 psig

**SPRING LOADED BACK PRESSURE REDUCED PORT:** . . . . . **06:100.7 - 06:100.11**  
 APPLICATIONS: Self-contained, spring-operated regulator used for liquid or gas systems where a 0 to 85 psig adjustable back pressure is desired.  
 OPERATING PRESSURE RANGES: 0 psig to 125 psig

**PNEUMATICALLY ADJUSTED PRESSURE:** . . . . . **06:110.1 - 06:110.3**  
 APPLICATIONS: Regulate down stream pressure to match pneumatic signal  
 OPERATING PRESSURE RANGES: 10 psig to 300 psig

**FLOW COEFFICIENT** . . . . . **06:I**  
**VALVE DIMENSIONS** . . . . . **06:II**  
**SEALS** . . . . . **06:III**  
**MATERIAL SPECIFICATIONS** . . . . . **06:IV**

# PRESSURE REGULATORS



## CODE BUILDER STANDARD PRESSURE R SERIES

Series:

**R = Pressure Regulator**

Model: \_\_\_\_\_

Line Size:

- 1 = 1 NPS
- 2 = 2 NPS**
- 3 = 3 NPS
- 4 = 4 NPS
- 6 = 6 NPS

End Connection:

- SA = FNPT**
- AR = 150RF Flange
- GV = Grooved (2 NPS only)

Shell Material:

- D = Ductile Iron**
- E = Ductile Iron w/Coating**
- W = Steel (WCB)
- X = Steel (WCB) w/Coating

Inner Valve Size:

- F = Full Port**
- R = Reduced Port

Control Range:

- 1 = **10 - 300 psig Spring**

Service Type:

- S = Standard**
- C = Corrosive

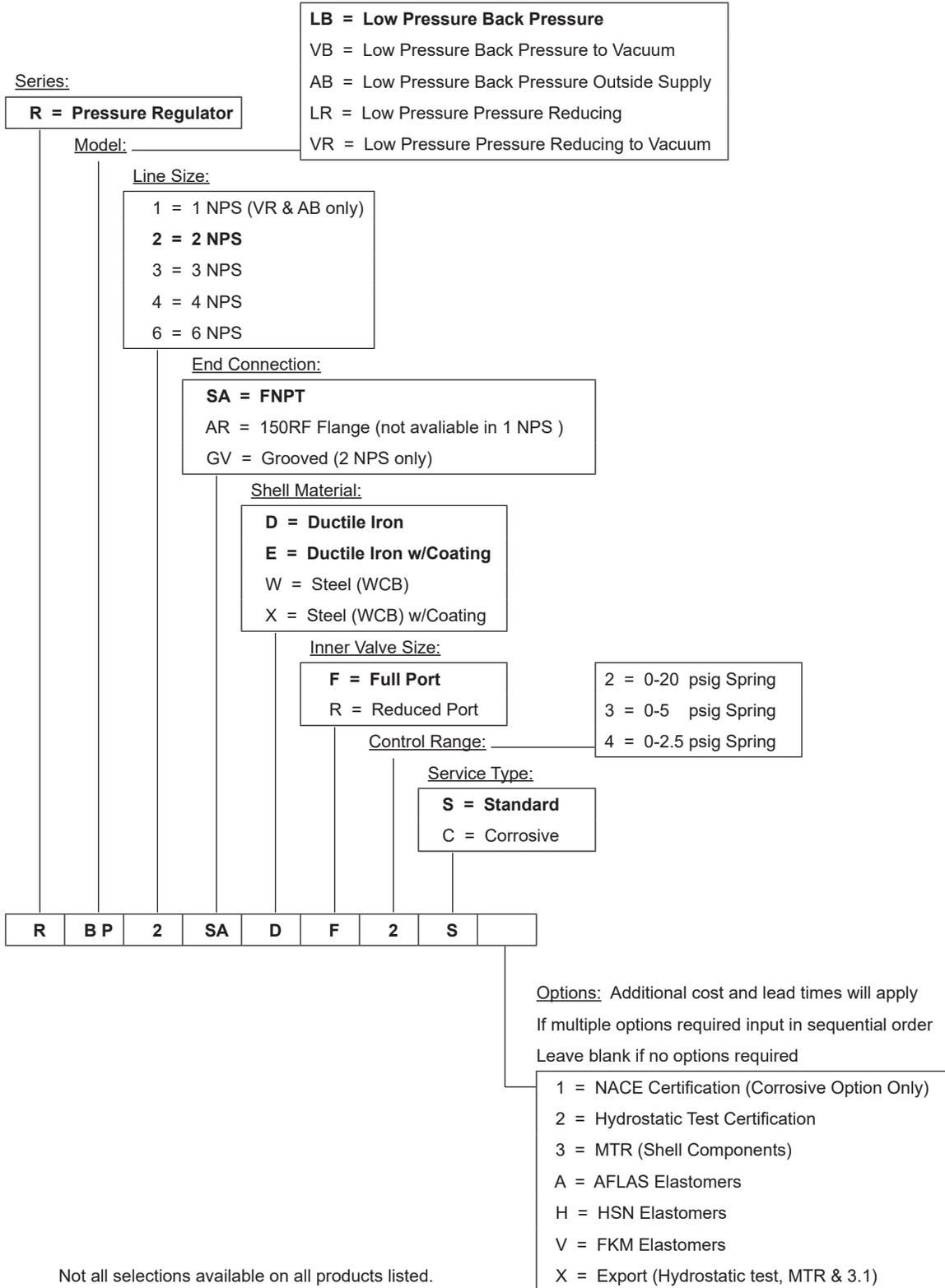
- BP = Back Pressure**
- BN = Back Pressure Non - Vent
- BV = Back Pressure Vacuum
- FB = Back Pressure Outside Supply
- PR = Pressure Reducing
- RN = Pressure Reducing Non - Vent
- FR = Pressure Reducing Outside Supply
- RB = Pressure Reducing Balanced
- PN = Pressure Reducing Balanced Non - Vent
- DP = Differential Pressure
- PA = Pneumatically Adjusted

**R BP 2 SA 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)
- A = AFLAS Elastomers
- H = HSN Elastomers
- V = FKM Elastomers
- X = Export (Hydrostatic test, MTR & 3.1)

Not all selections available on all products listed.  
See the following product pages for available options  
06:10.1 - 06:10.7, 06:20.1 - 06:20.5,  
06:30.1 - 06:30.3, 06:40.1 - 06:40.5,  
06:50.1 - 06:50.7, 06:60.1 - 06:60.5,  
06:70.1 - 06:70.5, 06:80.1 - 06:80.5,



Not all selections available on all products listed.  
See the following product pages for available options  
06:10.9 - 06:10.11, 06:30.5 - 06:30.9,  
06:50.9 - 06:50.13, 06:90.1 - 06:90.13

# PRESSURE REGULATORS



## CODE BUILDER SPRING LOADED R SERIES

Series:

**R = Pressure Regulator**

Model:

**SB = Spring Loaded BP**

Line Size:

**2 = 2 NPS**

**3 = 3 NPS**

End Connection:

**SA = FNPT**

AR = 150RF Flange

GV = Grooved (2 NPS only)

Shell Material:

**D = Ductile Iron**

**E = Ductile Iron w/Coating**

W = Steel (WCB)

X = Steel (WCB) w/Coating

Inner Valve Size:

**F = Full Port**

R = Reduced Port

Control Range:

Service Type:

**S = Standard**

C = Corrosive

		Full Port	Reduced Port	
Spring Loaded	2"	A =	0-10 psig	0-10 psig
		B =	10-20 psig	10-20 psig
		C =	15-30 psig	20-40 psig
		D =	25-50 psig	40-65 psig
		E =	30-65 psig	65-90 psig
		F =	40-85 psig	80-125 psig
	3"	G =	10-75 psig	N/A

**R SB 2 SA D F A 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)
- A = AFLAS Elastomers
- H = HSN Elastomers
- V = FKM Elastomers
- X = Export (Hydrostatic test, MTR & 3.1)

Not all selections available on all products listed.  
See product pages 06:100.1 - 06:100.11 for available options

#### APPLICATION:

Self-contained, pilot-operated regulator used on vent lines for separators, heat treaters, compressor stations, gas gathering systems.

#### FEATURES:

- Tight shut-off - Class VI
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

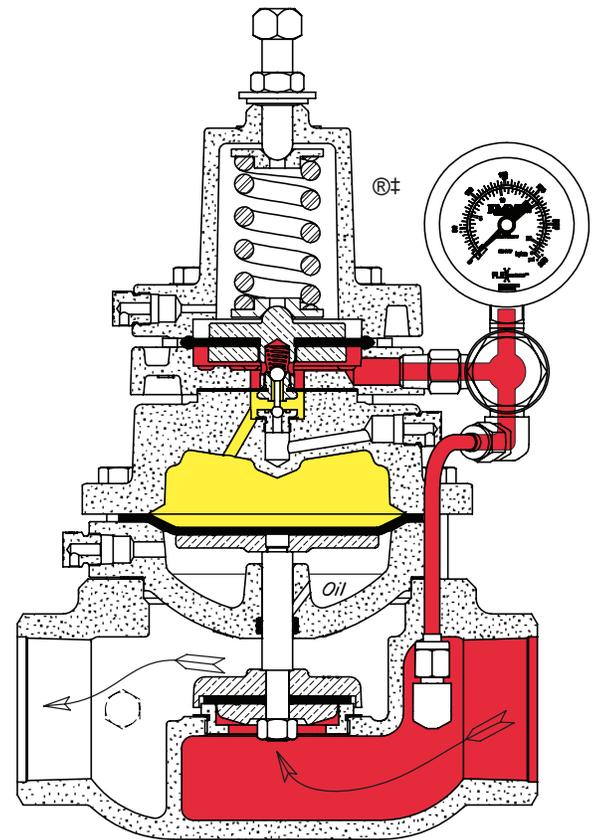
#### CERTIFICATIONS:

- Canadian Registration Number (CRN):
- 0C16234.24567890NTY (Ductile)
- 0C15604.24567890NTY (Steel)

Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent



- Pilot Assembly
- Motor Valve Stem Assembly
- Upstream Pressure
- Motor Valve Diaphragm Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RBP1SADF1S	AKB	1"	NPT	10-300	300	13.2	0.74
	RBP2SADF1S	AAR	2"	NPT	10-300	300	47.0	0.84
	RBP2ARDF1S	AAS		150RF	10-250	250		
	RBP3SADF1S	AAT	3"	NPT	10-300	300	117	0.75
	RBP3ARDF1S	AAU		150RF	10-250	250		
	RBP4SADF1S	AAW	4"	NPT	10-300	300	210	0.75
	RBP4ARDF1S	AAX		150RF	10-250	250		
RBP4ARDF1S	AAZ	6"	150RF	10-250	250	480	0.75	
Steel	RBP1SAWF1S	AKC	1"	NPT	10-285	285	13.2	0.74
	RBP2ARWF1S	AGB	2"	150RF	10-285	285	47.0	0.84
	RBP3ARWF1S	AGC	3"	150RF	10-285	285	117	0.75
	RBP4ARWF1S	AGD	4"	150RF	10-285	285	210	0.75
	RBP6ARWF1S	AGE	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

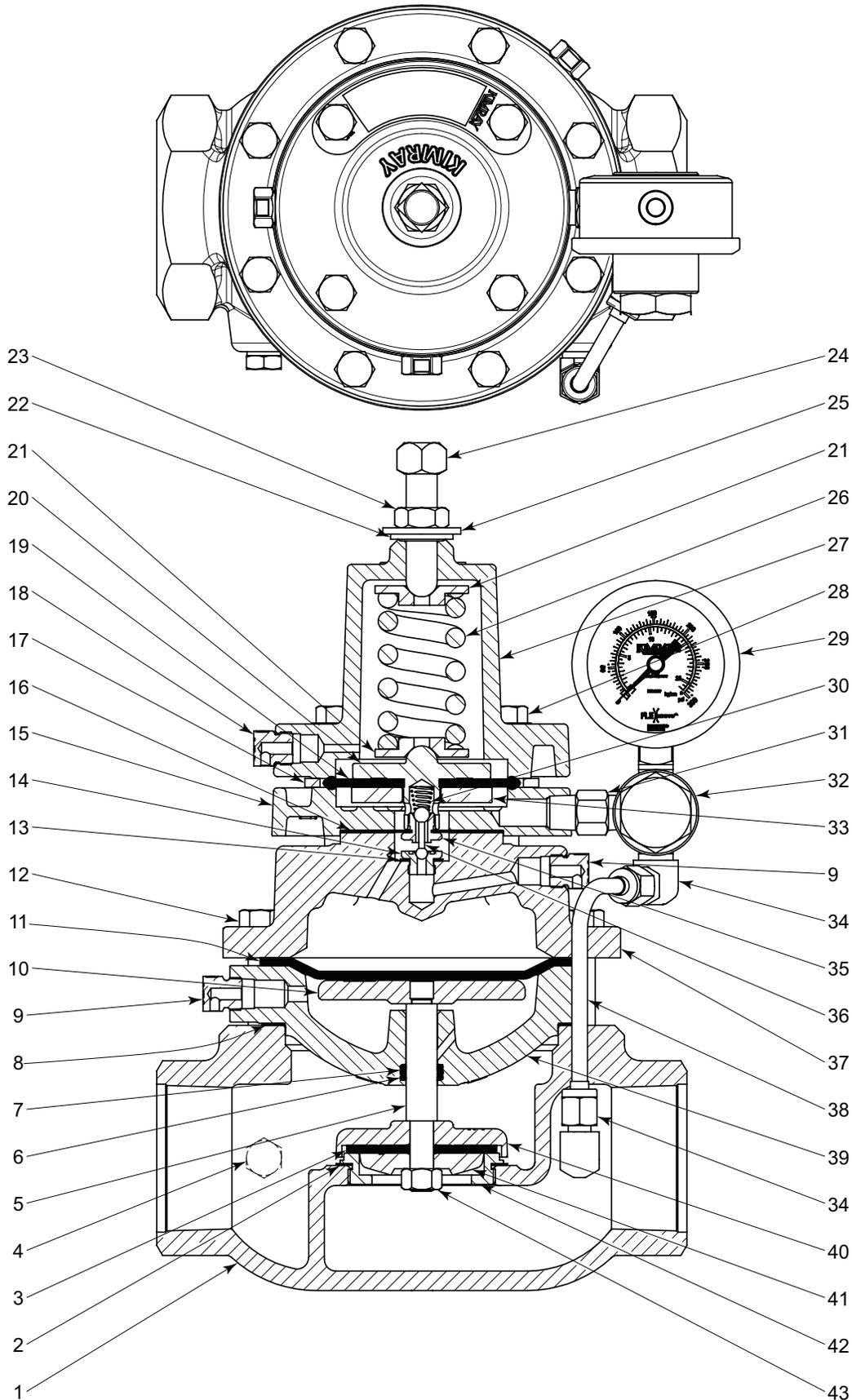
† For Corrosive service remove last "S" & replace with "C"

† For code builder see page 06:00.2

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

# PRESSURE REGULATORS

## DUCTILE GAS BACK PRESSURE MODEL BP PARTS DRAWING



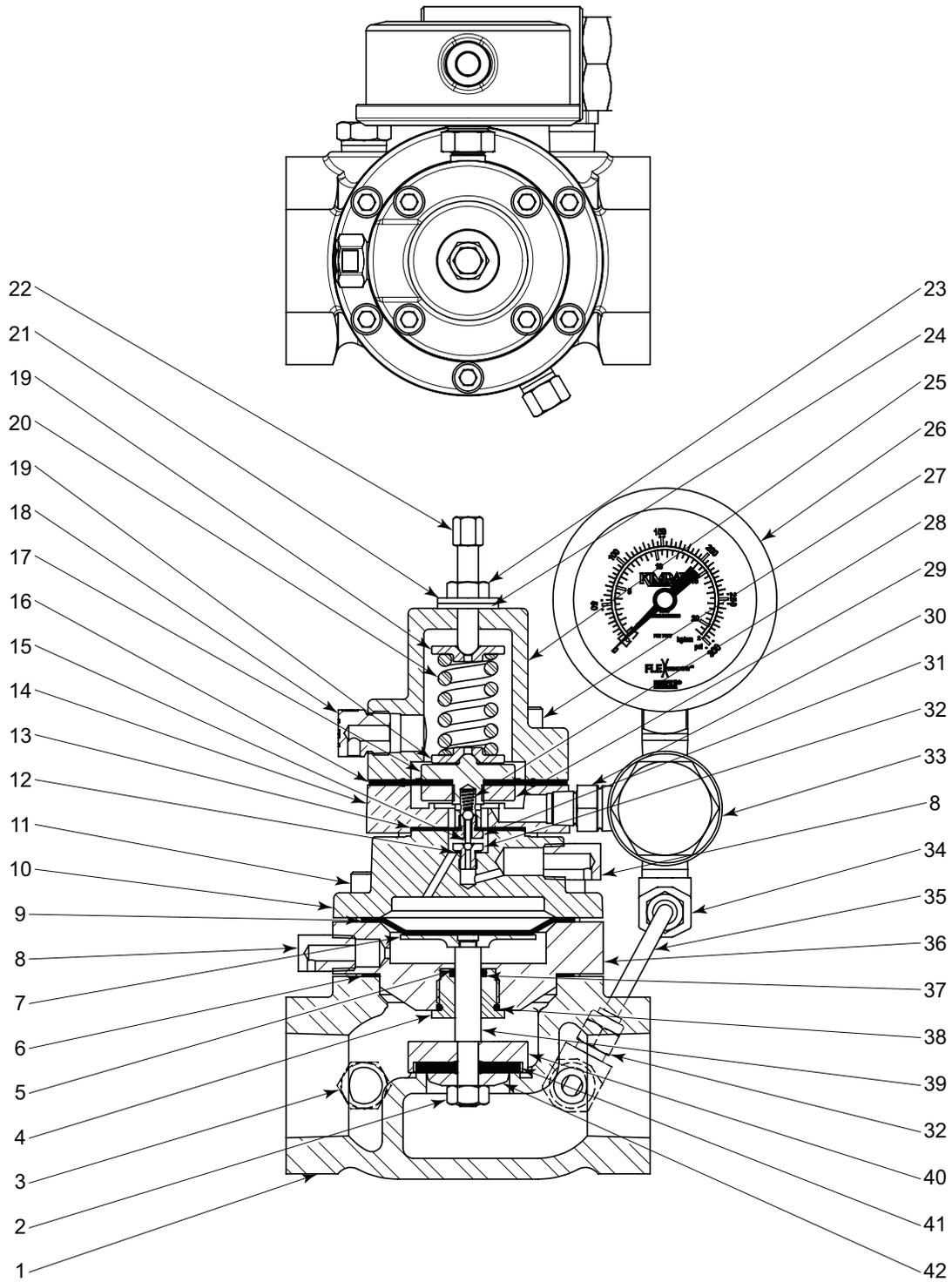
All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.  
‡ Configuration of Back Pressure Control Valve is a trademark of Kimray, Inc.  
[www.kimray.com](http://www.kimray.com)

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	----	2964	----	----	----	----	2964 ‡	----	----	----		
		NPT Angle	----	4999	----	----	----	----	4999 ‡	----	----	----		
2	1	Gasket *	----	276	277	196	279	----	276	277	196	279		
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN	
4	1	Plug	699					699SS6						
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6	
6	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T		
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157		
8	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
9	2	Vent Plug	1357	147			1357SS6 147SS6							
10	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
11	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
12	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
13	1	Gasket *	3018	118			3018 118							
14	1	Pilot Seat *	3016	113			3016SS6 113SS6							
15	1	Pilot Housing	3013	1701			3013SS6 1701 ‡							
16	1	Diaphragm *	3014	110			3014 110							
17	1	Spacer Ring *	----	7437			---- 7437							
18	1	Vent Plug	147			147SS6								
19	1	Diaphragm *	3011P	5259P			3011P 5259P							
20	1	Diaphragm Plate	3009	105			3009SS6 105SS6							
21	2	Spring Guide	4484SS6	2612			4484SS6 2612SS6							
22	1	Thread Seal *	4542	4488			4542 4488							
23	1	Nut	1676	2377			1676SS6 2377SS6							
24	1	Adjusting Screw	6976	5163			6976SS6 5163SS6							
25	1	Washer *	4543	4491			4543 4491							
26	1	Spring	4323	2611			4323 2611							
27	1	Bonnet	4525	2610			4525 2610 ‡							
28	4	Bolt	6972	907			6972 907							
29	1	Pressure Gauge	7707			7707								
30	1	Spring *	3008	108			3008 108HAC							
31	1	Nipple	6890	648			6890SS6 648SS6							
32	1	1/4 F30 Filter	YAS			YASSS6								
33	1	Diaph. Nut	3010	107			3010SS6 107SS6							
34	2	Elbow	875			875SS6								
35	1	Pilot Seat *	3015	565			3015SS6 565SS6							
36	1	Pilot Plug *	3017	112			3017 112							
37	1	Upper Housing	3019	1719	1636	2003	2177	3019SS6	1719 ‡	1636 ‡	2003 ‡	2177 ‡		
38	1	Tubing	263SS6	123SS6	124SS6	125SS6	126SS6	4416SS6	123SS6	124SS6	125SS6	126SS6		
39	1	Lower Housing	142	1704	1632	145	146	142 ‡	1704 ‡	1632 ‡	145 ‡	146 ‡		
40	1	Seat Disc	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6	
			Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6	
41	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6	
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	3076SS6	
42	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K	
43	1	Nut	Standard *	172	173	906		175	172SS6	173SS6	174SS6		175SS6	
			Reduced	172	173			906	172SS6	173SS6			174SS6	
	2	Lifting Ring (not shown)	----	----	7559		----	----	----	7559		----		
Repair Kits			RYD	RYG	RYK	RYO	RYR	RYDS6	RYGS6	RYKS6	RYOS6	RYRS6		
* These parts are recommended spare parts and are stocked as repair kits.														

# PRESSURE REGULATORS



## 1 INCH STEEL GAS BACK PRESSURE MODEL BP PARTS DRAWING



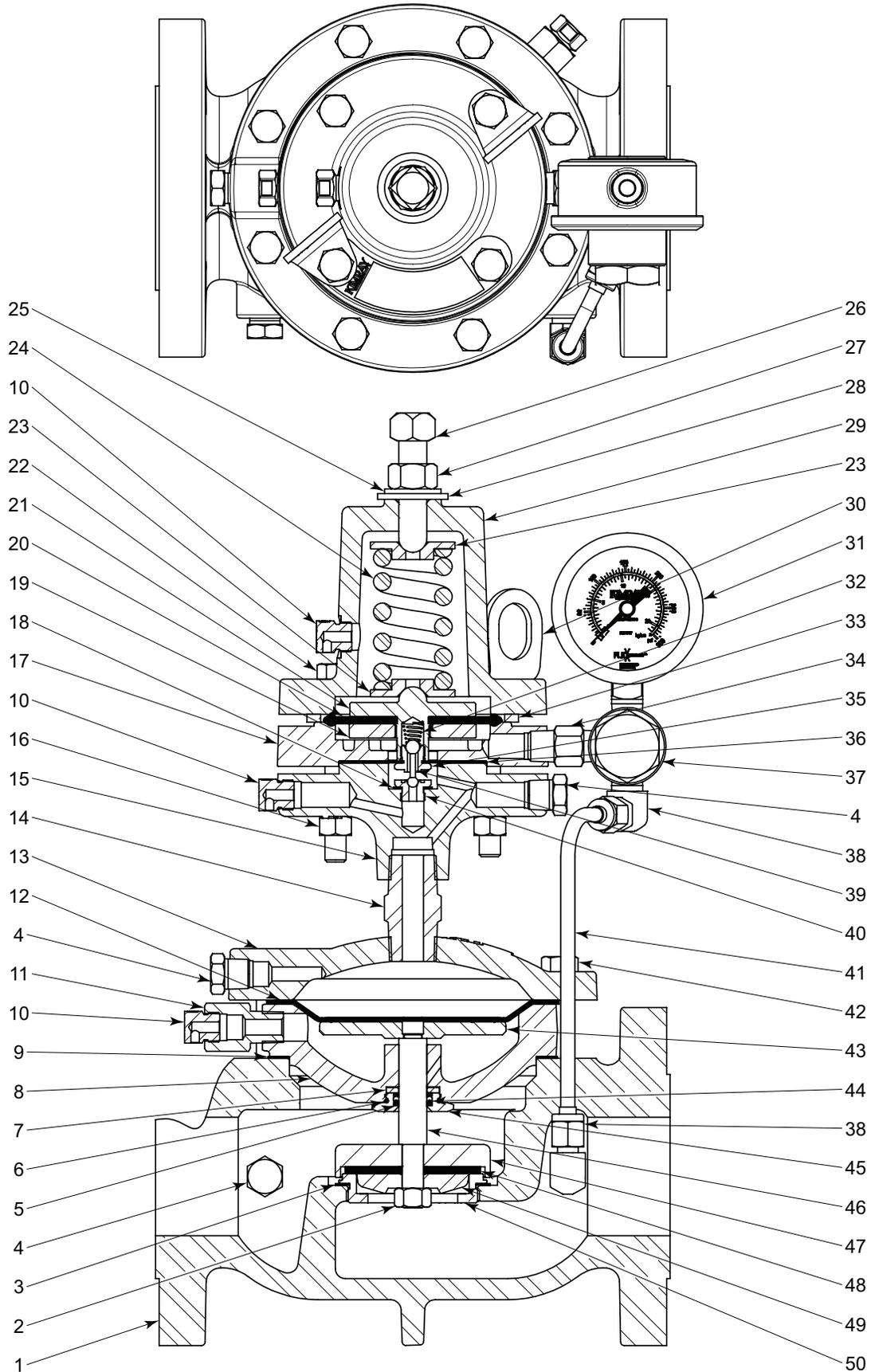
All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER	
			STANDARD	CORROSIVE
1	1	Full Port Body		
		NPT Thru	4942	4942 ‡
		150RF Thru	7354	7354 ‡
		Reduced Port Body		
		NPT Thru	4603	4603 ‡
		150RF Thru	5292	5292 ‡
		Removable Seat (not shown)	1349	1349SS6
2	1	Nut *	172	172SS6
3	1	Plug	699	699SS6
4	1	Bushing	4632A	4632A
5	1	Seal	4551C	4551C
6	1	Gasket *	195	195
7	1	Diaphragm Plate	132SS6	132SS6
8	2	Vent Plug	1357	1357SS6
9	1	Diaphragm *	127	127
10	1	Upper Housing	3019	3019SS6
11	6	Bolt	4318	4318
12	1	Gasket *	3018	3018
13	1	Diaphragm *	3014	3014
14	1	Pilot Housing	3013	3013SS6
15	1	Pilot Plug *	3017	3017
16	1	Diaphragm *	3011P	3011P
17	1	Diaphragm Plate	3009	3009SS6
18	1	Vent Plug	147	147SS6
19	2	Spring Guide	4484SS6	4484SS6
20	1	Spring *	4323	4323
21	1	Washer *	4543	4543
22	1	Adjusting Screw	6976	6976SS6
23	1	Nut	1676	1676SS6
24	1	Thread Seal *	4542	4542
25	1	Bonnet	4525	4525 ‡
26	1	Pressure Gauge	7707	7707
27	4	Bolt	6972	6972
28	1	Spring *	3008	3008
29	1	Diaph. Nut	3010	3010SS6
30	1	Nipple	6890	6890S6
31	1	Pilot Seat *	3016	3016SS6
32	1	Pilot Seat *	3015	3015SS6
33	1	1/4 F30 Filter	YAS	YASSS6
34	2	Elbow	875	875SS6
35	1	Tubing	263S6	263S6
36	1	Lower Housing	4551BSS6	4551BSS6 ‡
37	1	O-Ring *	153V	153V
38	1	O-Ring *	4552	4552
39	1	Valve Stem	137	137SS6
40	1	Seat Disc	158	158SS6
41	1	Seat	163HSN	163HSN
42	1	Standard Ratio Plug	176SS6	176SS6
		Reduced Ratio Plug	4932	4932SS6
‡ Coated Parts available with "E" shell material				
Repair Kits			RYE	RYES6
* These parts are recommended spare parts and are stocked as repair kits.				

# PRESSURE REGULATORS



## STEEL GAS BACK PRESSURE MODEL BP PARTS DRAWING



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

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡	
2	1	Nut	Standard *	173	906		175	173SS6	174SS6		175SS6
			Reduced *	173			906		173SS6		174SS6
3	1	Gasket	*	276	277	196	279	276	277	196	279
4	3	Plug		699				699SS6			
5	2	Back Up	*	149T	150T	151T	152T	149T	150T	151T	152T
6	1	O-Ring	*	5225	5226	5227	4086	5225	5226	5227	4086
7	1	Spacer		4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6
8	1	Lower Housing		2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡
9	1	Gasket	*	196	197	198	199	196	197	198	199
10	3	Vent Plug		147				147SS6			
11	1	Adapter		7244			----	7244S6			----
12	1	Diaphragm	*	1706	1640	2015	2140	1706	1640	2015	2140
13	1	Bonnet		2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡
14	1	Nipple		2516				2516SS6			
15	1	Base		4995				4995 ‡			
16	4	Nut		241				241			
17	1	Pilot Housing		2514				2514 ‡			
18	1	Gasket		118				118			
19	1	Diaphragm Nut		107				107SS6			
20	1	Diaphragm	*	5259P				5259P			
21	1	Diaphragm Plate		105				105SS6			
22	4	Bolt		1232				1232			
23	2	Spring Guide		2612				2612SS6			
24	1	Spring		2611				2611			
25	1	Thread Seal	*	4488				4488			
26	1	Adjusting Screw		5163				5163SS6			
27	1	Nut		2377				2377SS6			
28	1	Washer	*	4491				4491			
29	1	Bonnet		2672				2672 ‡			
30	2	Lifting Ring		7559			----	7559			----
31	1	Pressure Gauge		7707				7707			
32	1	Spring	*	108				108HAC			
33	1	Spacer Ring		7437				7437			
34	1	Nipple		648				648SS6			
35	1	Pilot Seat	*	565				565SS6			
36	1	Diaphragm	*	110				110			
37	1	1/4 F30 Filter		YAS				YASSS6			
38	2	Elbow		875				875SS6			
39	1	Pilot Plug		112				112			
40	1	Pilot Seat		113				113SS6			
41	1	Tubing		2505SS6	2552SS6	2529SS6	5061SS6	2505SS6	2552SS6	2529SS6	5061SS6
42	(QTY)	Bolt		965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)
43	1	Diaphragm Plate		2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6
44	1	O-Ring	*	154	807	156	157	154	807	156	157
45	1	Retainer		4557ES6	4561ES6	4566ES6	4571ES6	4557E26	4561E26	4566ES6	4571ES6
46	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
47	1	Seat Disc	Standard	2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
			Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6
48	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
49	1	Ratio Plug	Standard	177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6
50	1	Removable Seat	Standard	2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
			Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K
Repair Kits			RYG	RYK	RYO	RYR	RYGS6	RYKS6	RYOS6	RYRS6	
* These parts are recommended spare parts and are stocked as repair kits.											

**NOTES:**



Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used to control 5 to 20 psig back pressure on vent lines for separators, heat treaters, compressor stations, gas gathering systems.

#### FEATURES:

- Tight shut-off - Class VI
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

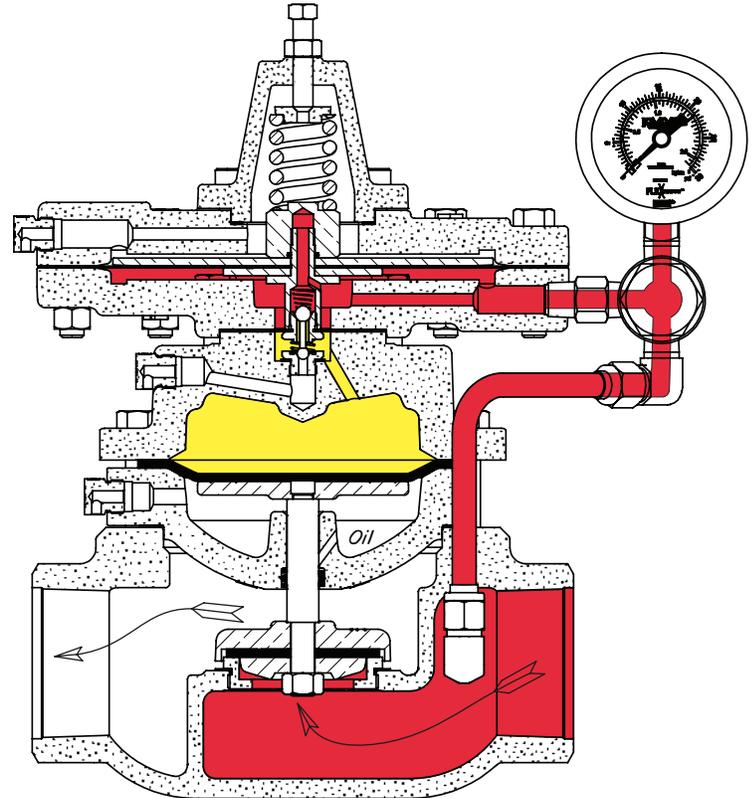
#### CERTIFICATIONS:

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

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Diaphragm Pressure



Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
RLB2SADF2S	ASE	2"	NPT	5-20	300	47.0	0.84
RLB2ARDF2S	ASF		150RF	5-20	250		
RLB3SADF2S	ASH	3"	NPT	5-20	300	117	0.75
RLB3ARDF2S	AOHD		150RF	5-20	250		
RLB4SADF2S	ASJ	4"	NPT	5-20	300	210	0.75
RLB4ARDF2S	ASK		150RF	5-20	250		
RLB4ARDF2S	AOO	6"	150RF	5-20	250	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

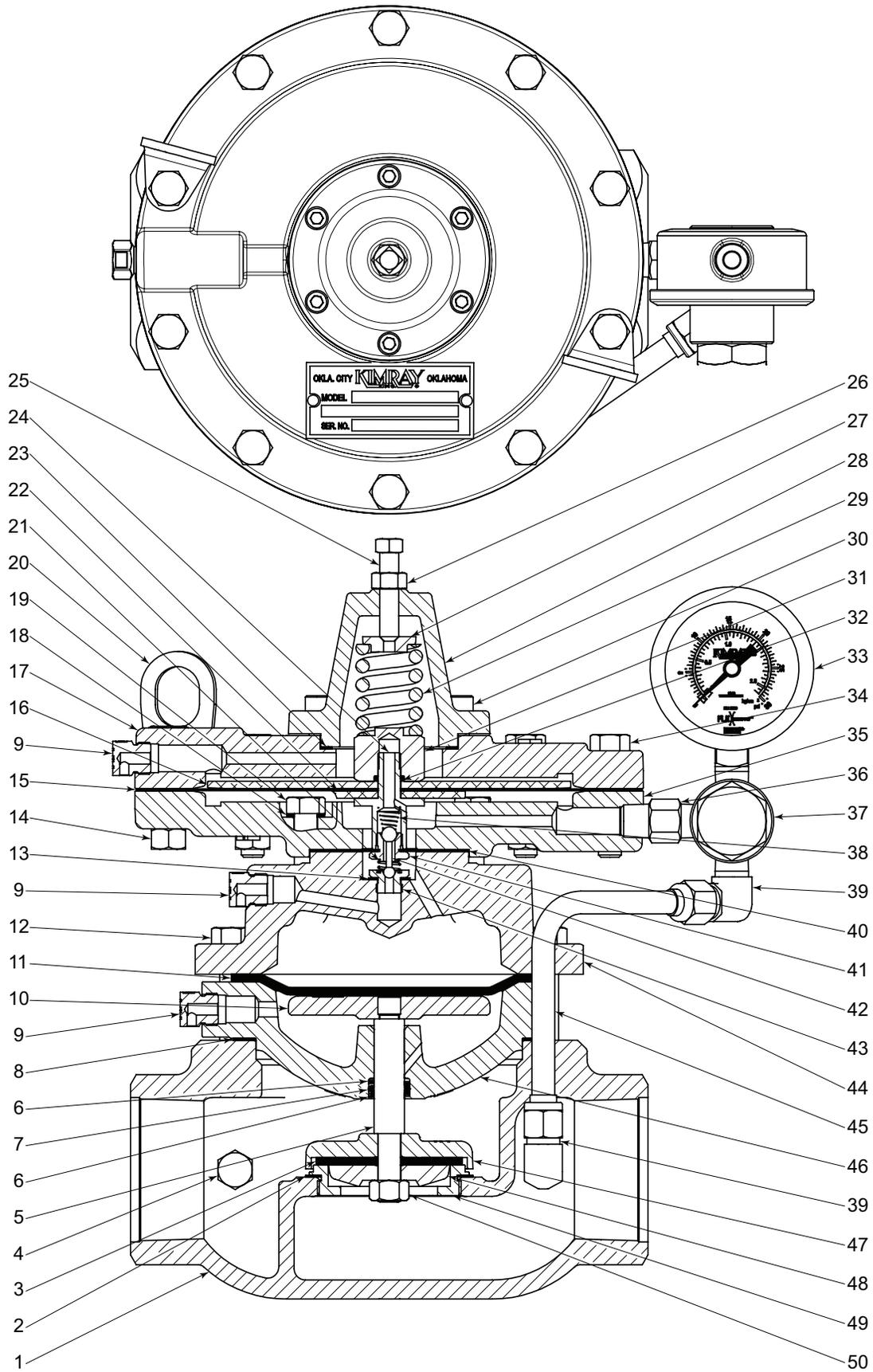
† For Corrosive service remove last "S" & replace with "C"

† For code builder see page 06:00.3

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

# PRESSURE REGULATORS

GAS LOW PRESSURE BACK PRESSURE  
MODEL LB PARTS DRAWING



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



**PRESSURE REGULATORS**

**GAS LOW PRESSURE BACK PRESSURE  
MODEL LB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER										
			STANDARD				CORROSIVE						
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH			
1	1	Body											
		NPT Thru	1709	1634	2001	----	1709 ‡	1634 ‡	2001 ‡	----			
		150RF Thru	1913	1914	2002	2466	1913 ‡	1914 ‡	2002 ‡	2466 ‡			
		Grooved Thru	2964	----	----	----	2964 ‡	----	----	----			
2	1	Gasket *	276	277	196	279	276	277	196	279			
3	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN		
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN		
4	1	Plug	699				699SS6						
5	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6		
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6		
6	2	Back Up *	149T	150T	151T	152T	149T	150T	151T	152T			
7	1	O-Ring *	154	155	156	157	154	155	156	157			
8	1	Gasket *	196	197	198	199	196	197	198	199			
9	3	Vent Plug	147				147SS6						
10	1	Diaphragm Plate	133	134	135	136	133	134	135	136			
11	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140			
12	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965SS6 (8)	907SS6(10)	907SS6 (12)	2142SS6 (16)			
13	1	Gasket *	118				118						
14	10	Nut	241				241SS6						
15	1	Diaphragm *	1212				1212						
16	1	Upper Diaphragm Plate	1208				1208SS6						
17	1	Upper Pilot Housing	1206				1206 ‡						
18	4	Gasket *	242				242						
19	4	Screw	1672				1672SS6						
20	2	Lifting Ring	7559			----	7559			----			
21	1	Spring	566				566HAC						
22	1	Lower Diaphragm Plate	1340				1340SS6						
23	1	Gasket	1216				1216						
24	1	Stem	1339				1339SS6						
25	1	Adjusting Screw	897				897						
26	1	Nut	922				922SS6						
27	1	Spring Guide	7148S6				7148S6						
28	1	Bonnet	1336				1336 ‡						
29	1	Spring	4379				4379						
30	6	Screw	7531				7531						
31	1	Nut	1337				1337SS6						
32	1	O-Ring *	265				265						
33	1	Pressure Gauge	7705				7705						
34	10	Screw	236				236SS6						
35	1	Lower Pilot Housing	1356				1356 ‡						
36	1	Nipple	648				648SS6						
37	1	1/4 F30 Filter	YAS				YASSS6						
38	1	Spring *	1360				1360HAC						
39	2	Elbow	877				877SS6						
40	1	Diaphragm *	110				110						
41	1	Pilot Seat *	565				565SS6						
42	1	Pilot Plug *	112				112						
43	1	Pilot Seat *	113				113SS6						
44	1	Upper Housing	1719	1636	2003	2177	1719 ‡	1636 ‡	2003 ‡	2177 ‡			
45	1	Tubing	4127	4129S6	74SS		4127SS6	4129S6	74SS6				
46	1	Lower Housing	1704	1632	145	146	1704 ‡	1632 ‡	145 ‡	146 ‡			
47	1	Seat Disc	Standard	159	160	161	162	2493SS6	2494SS6	2495SS6	2961SS6		
			Reduced	159	1229	159	160	2493SS6	2585SS6	2493SS6	2494SS6		
48	1	Ratio Plug	Standard	177SS6	178	179	180	177SS6	3076SS6	3078SS6	3079SS6		
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6		
49	1	Removable Seat	Standard	272K	273K	274K	275K	2496SS6K	2497SS6K	2498SS6K	3075SS6K		
			Reduced	4934K	1219DK	1220DK	1221K	4934SS6K	1219SS6K	1220SSK	1221SS6K		
50	1	Nut	Standard *	173	906		175	173SS6	174SS6		175SS6		
			Reduced *	173			906	173SS6			174SS6		
Repair Kits			RYI	RYM	RYQ	RYT	‡ Coated Parts available with "E" shell material						
			* These parts are recommended spare parts and are stocked as repair kits.				RYIS6	RYMS6	RYQS6	RYTS6			

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used on vent lines for separators, heat treaters, compressor stations, gas gathering systems where it is desired that no gas be vented

- Inside Buildings
- In populated areas
- Emissions regulated areas
- Sour or poisonous gas systems

#### FEATURES:

- Tight shut-off - Class VI
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

- Canadian Registration Number (CRN):  
0C16234.24567890NTY (Ductile)  
0C15604.24567890NTY (Steel)

Kimray is an ISO 9001- certified manufacturer.

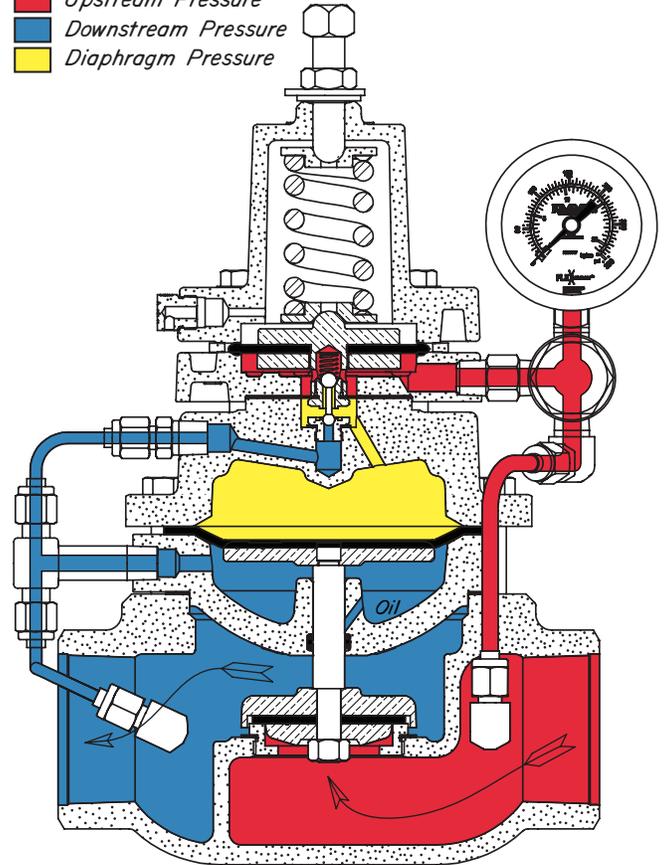
#### CLASSIFICATIONS:

Non-Venting

#### MIN. DIFFERENTIAL:

10 psig

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Diaphragm Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RBN1SADF1S	ALDD	1"	NPT	10-300	300	13.2	0.74
	RBN2SADF1S	ALED	2"	NPT	10-300	300	47.0	0.84
	RBN2ARDF1S	ALFD		150RF	10-250	250		
	RBN3SADF1S	ALHD	3"	NPT	10-300	300	117	0.75
	RBN3ARDF1S	ALID		150RF	10-250	250		
	RBN4SADF1S	ALJD	4"	NPT	10-300	300	210	0.75
	RBN4ARDF1S	ALKD		150RF	10-250	250		
RBN4ARDF1S	ALLD	6"	150RF	10-250	250	480	0.75	
Steel	RBN2ARWF1S	AGF	2"	150RF	10-285	285	47.0	0.84
	RBN3ARWF1S	AGV	3"	150RF	10-285	285	117	0.75
	RBN4ARWF1S	AGP	4"	150RF	10-285	285	210	0.75
	RBN6ARWF1S	AGU	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

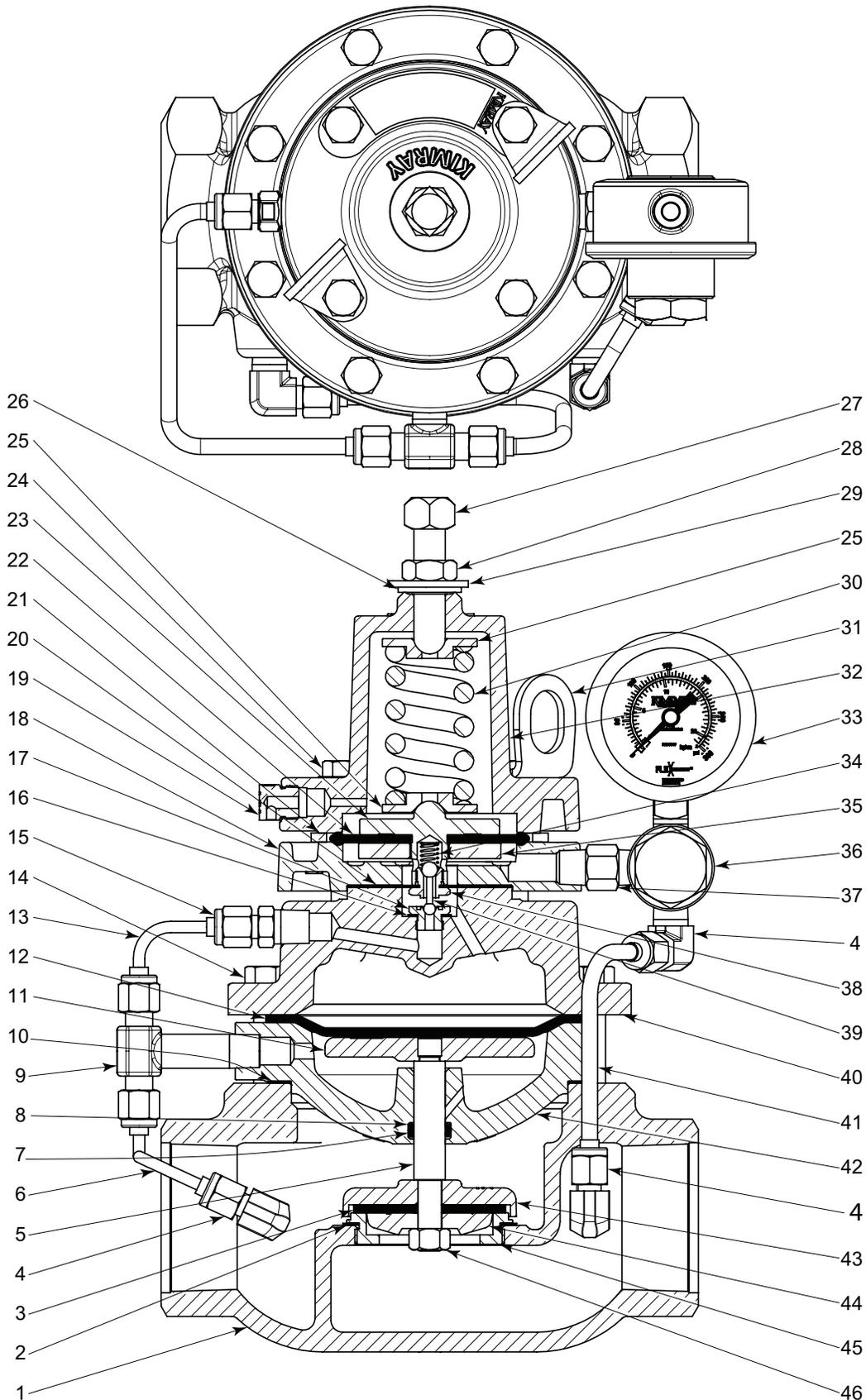
† For code builder see page 06:00.2

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

# PRESSURE REGULATORS



DUCTILE GAS BACK PRESSURE NON VENTING  
MODEL BN PARTS DRAWING

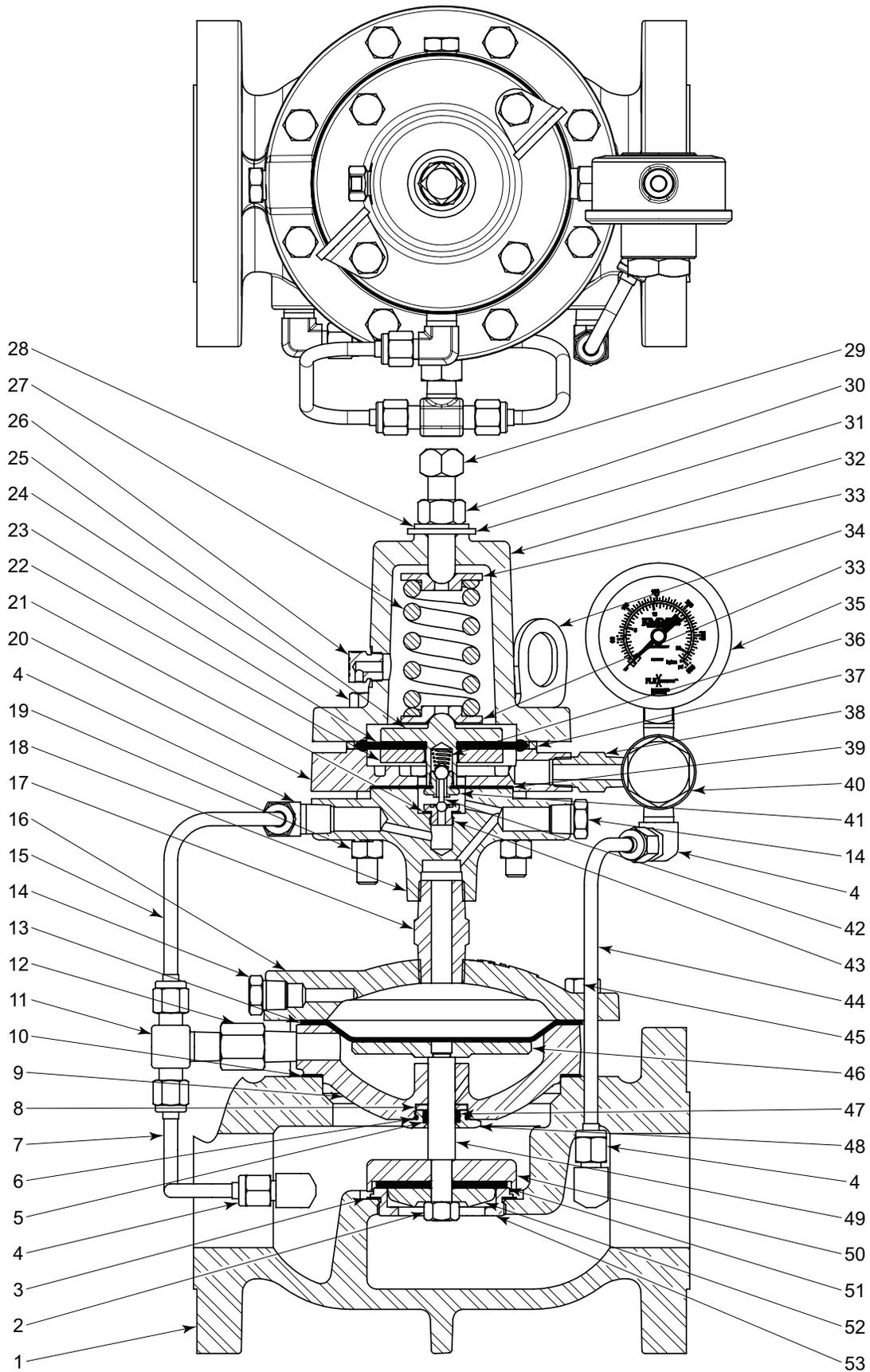


All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	----	2964	----	----	----	----	2964	----	----	----		
2	1	Gasket *	----	276	277	196	279	----	276	277	196	279		
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN	
4	3	Ell			875					875SS6				
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6	
6	1	Tubing	7852S6	7854S6	7856S6	7858S6	7860S6	7852S6	7854S6	7856S6	7858S6	7860S6		
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157		
8	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T		
9	1	Tee	7713		5087			7713		5087SS6				
							5087					5087SS6		
									5087					5087SS6
10	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
11	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
12	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
13	1	Tubing	7853S6	7855S6	17857S6	7859S6	7861S6	7853S6	7855S6	17857S6	7859S6	7861S6		
14	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
15	1	Connector	1604		874			1604SS6		874SS6				
16	1	Gasket *	3018		118			3018		118				
17	1	Pilot Seat *	3016		113			3016SS6		113SS6				
18	1	Pilot Housing	3013		1701			3013SS6		1701 ‡				
19	1	Vent Plug			147					147SS6				
20	1	Diaphragm *	3014		110			3014		110				
21	1	Spacer Ring *	----		7437			----		7437				
22	1	Diaphragm *	3011P		5259P			3011P		5259P				
23	1	Diaphragm Plate	3009		105			3009SS6		105SS6				
24	4	Bolt	6972		907			6972		907				
25	2	Spring Guide	4484SS6		2612			4484SS6		2612SS6				
26	1	Thread Seal	4542		4488			4542		4488				
27	1	Adjusting Screw	6976		5163			6976SS6		5163SS6				
28	1	Nut	1676		2377			1676SS6		2377SS6				
29	1	Washer	4543		4491			4543		4491				
30	1	Spring	4323		2611			4323		2611				
31	2	Lifting Ring	----		7559		----	----		7559		----		
32	1	Bonnet	4525		2610			4525		2610 ‡				
33	1	Pressure Gauge			7707					7707				
34	1	Spring *	3008		585			3008		585				
35	1	Diaph. Nut	3010		107			3010SS6		107SS6				
36	1	1/4 F30 Filter			YAS					YASS6				
37	1	Nipple	6890		648			6890S6		648SS6				
38	1	Pilot Seat *	3015		565			3015SS6		565SS6				
39	1	Pilot Plug *	3017		112			3017		112				
40	1	Upper Housing	3019	1719	1636	2003	2177	3019SS6	1719 ‡	1636 ‡	2003 ‡	2177 ‡		
41	1	Tubing	263SS6	123SS6	124SS6	125SS6	126SS6	263SS6	123SS6	124SS6	125SS6	126SS6		
42	1	Lower Housing	142	1704	1632	145	146	142	1704 ‡	1632 ‡	145 ‡	146 ‡		
43	1	Seat Disc	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6	
			Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6	
44	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6	
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	3076SS6	
45	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K	
46	1	Nut	Standard *	172	173	906	175	172SS6	173SS6	174SS6	175SS6			
			Reduced *	172		173	906		172SS6		173SS6		174SS6	
Repair Kits			RYD	RYG	RYK	RYO	RYR	RYDS6	RYGS6	RYKS6	RYOS6	RYRS6		
* These parts are recommended spare parts and are stocked as repair kits.														

# PRESSURE REGULATORS

STEEL GAS BACK PRESSURE NON VENTING  
MODEL BN PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS BACK PRESSURE NON VENTING  
MODEL BN PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER							
			STANDARD				CORROSIVE			
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡
2	1	Nut	Standard * 173	906		175	173SS6	174SS6		175SS6
			Reduced * 173			906	173SS6		174SS6	
3	1	Gasket *	276	277	196	279	276	277	196	279
4	4	Ell	875				875SS6			
5	2	Back Up *	149T	150T	151T	152T	149T	150T	151T	152T
6	1	O-Ring *	5225	5226	5227	4086	5225	5226	5227	4086
7	1	Tubing	2505SS6	4251S6	4418S6	4251S6	2505SS6	4251S6	4418S6	4251S6
8	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6
9	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡
10	1	Gasket *	196	197	198	199	196	197	198	199
11	1	Tee	5087			2000	5087SS6			2000SS6
	1	Nipple	----			648	----			648SS6
	2	Connector	----			874	----			874SS6
12	1	Adapter	7244		----	7244S6			----	
13	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140
14	2	Plug	699				699SS6			
15	1	Tubing	2512SS6	4011SS6	4666S6	1383SS6	2512SS6	4011SS6	4666S6	1383SS6
16	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡
17	1	Nipple	2516			2516SS6				
18	1	Base	4995			4995 ‡				
19	4	Nut	241			241SS6				
20	1	Pilot Housing	2514			2514 ‡				
21	1	Gasket *	118			118				
22	1	Diaphragm Nut	107			107SS6				
23	1	Diaphragm *	5259P			5259P				
24	4	Bolt	1232			1232				
25	1	Diaphragm Plate	105			105SS6				
26	1	Breather Plug	147			147SS6				
27	1	Spring	2611			2611				
28	1	Washer *	4491			4491				
29	1	Adjusting Screw	5163			5163SS6				
30	1	Nut	2377			2377SS6				
31	1	Thread Seal *	4488			4488				
32	1	Bonnet	2672			2672 ‡				
33	2	Spring Guide	2612			2612SS6				
34	2	Lifting Ring	7559		----	7559			----	
35	1	Pressure Gauge	7707			7707				
36	1	Spring *	585			585				
37	1	Spacer Ring *	7437			7437				
38	1	Nipple	648			648SS6				
39	1	Diaphragm *	110			110				
40	1	1/4 F30 Filter	YAS			YASS6				
41	1	Pilot Seat *	565			565SS6				
42	1	Pilot Plug *	112			112				
43	1	Pilot Seat *	113			113SS6				
44	1	Tubing	2505SS6	2552SS6	2529SS6	5061SS6	2505SS6	2552SS6	2529SS6	5061SS6
45	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)
46	1	Diaphragm Plate	2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6
47	1	O-Ring *	154	807	156	157	154	807	156	157
48	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6
49	1	Valve Stem	Standard 138	139	140	141	138SS6	139SS6	140SS6	141SS6
		Reduced 138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6	
50	1	Seat Disc	Standard 2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
		Reduced 2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6	
51	1	Seat	Standard * 164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
		Reduced * 164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN	
52	1	Ratio Plug	Standard 177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
		Reduced 4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6	
53	1	Rem. Seat	Standard 2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
		Reduced 4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K	

‡ Coated Parts available with "E" shell material

Repair Kits RYG RYK RYO RYR RYGS6 RYKS6 RYOS6 RYRS6  
\* These parts are recommended spare parts and are stocked as repair kits.

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used on positive pressure control of systems flowing into downstream vacuum gathering line.

#### FEATURES:

- Tight shut-off - Class VI
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

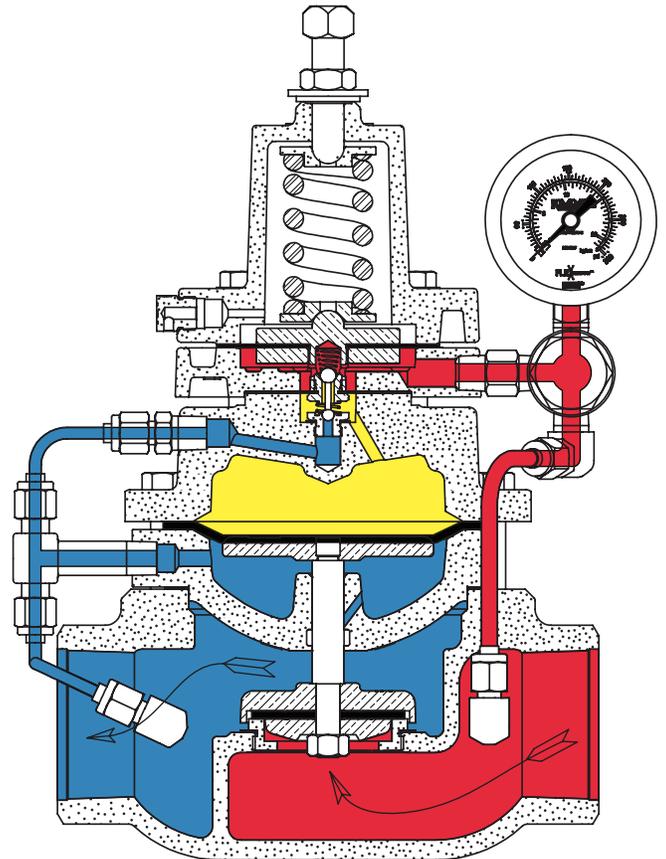
#### CERTIFICATIONS:

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

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Diaphragm Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RBV1SADF1S	AMSD	1"	NPT	10-300	300	13.2	0.74
	RBV2SADF1S	ADUD	2"	NPT	10-300	300	47.0	0.84
	RBV2ARDF1S	ADWD		150RF	10-250	250		
	RBV3SADF1S	ADYD	3"	NPT	10-300	300	117	0.75
	RBV3ARDF1S	AEAD		150RF	10-250	250		
	RBV4SADF1S	AEBD	4"	NPT	10-300	300	210	0.75
	RBV4ARDF1S	AECD		150RF	10-250	250		
	RBV4ARDF1S	AEDD	6"	150RF	10-250	250	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

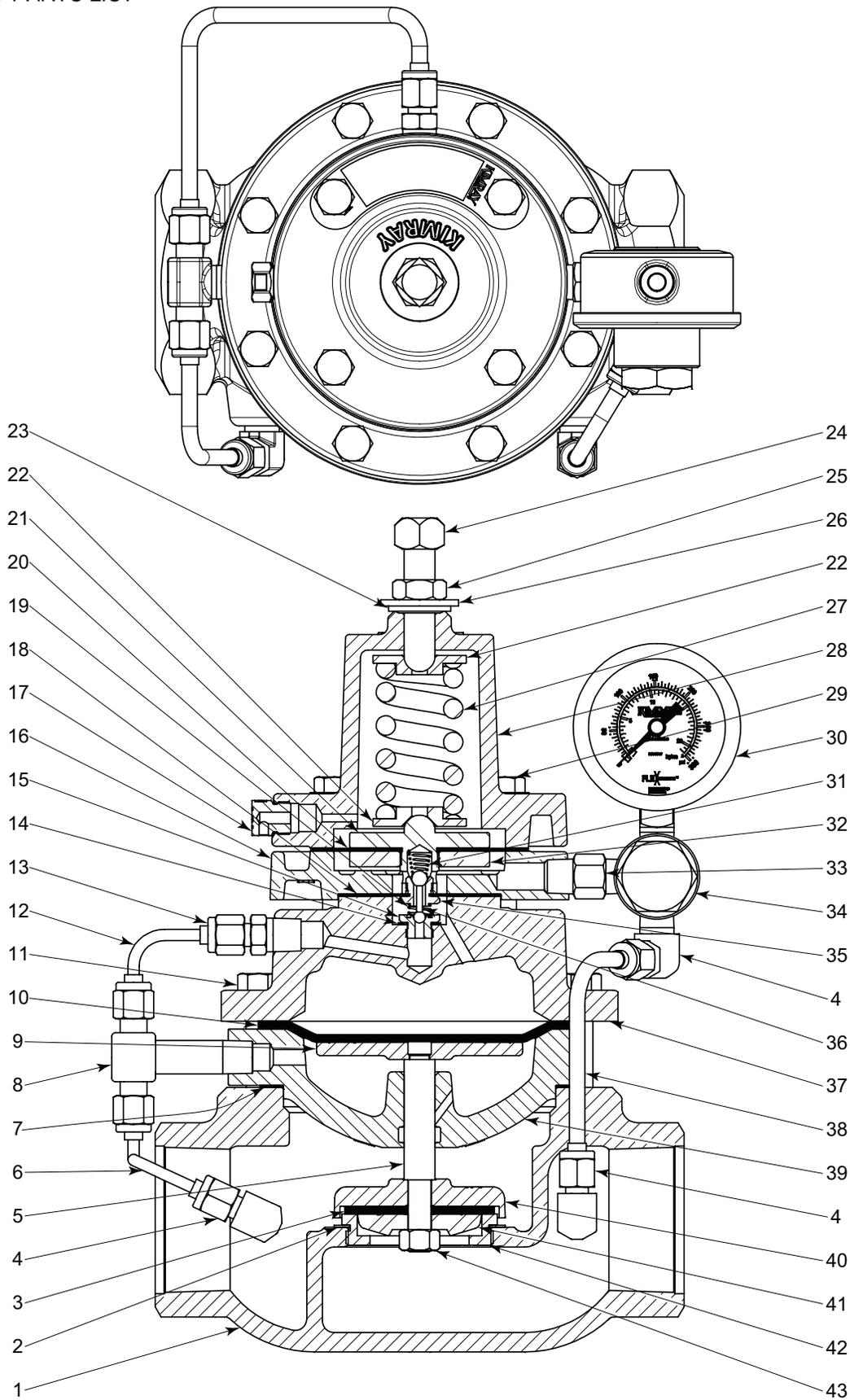
† For code builder see page 06:00.2

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

# PRESSURE REGULATORS



GAS BACK PRESSURE TO VACUUM  
MODEL BV PARTS LIST



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

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	----	2964	----	----	----	----	2964 ‡	----	----	----		
2	1	Gasket *	----	276	277	196	279	----	276	277	196	279		
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN	
4	3	Ell	875					875SS6						
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6	
6	1	Tubing	1378SS6	4050SS6	1383SS6		1385SS6	1378SS6	4050SS6	1383SS6		1385SS6		
7	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
8	1	Tee	7713	5087			5087	5087SS6	7713	5087SS6			5087SS6	
							1481						1481SS6	
							648						648SS6	
9	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
10	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
11	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
12	1	Tubing	2505SS6	4050SS6	1378SS6	1379SS6	5061SS6	2505SS6	4050SS6	1378SS6	1379SS6	5061SS6		
13	1	Connector	1604	874			1604SS6	874SS6						
14	1	Gasket *	3018	118			3018	118						
15	1	Pilot Seat *	3016	113			3016SS6	113SS6						
16	1	Pilot Housing	3013	1701			3013SS6	1701 ‡						
17	1	Vent Plug	147			147SS6								
18	1	Diaphragm *	3014	110			3014	110						
19	1	Spring *	----	566			----	566HAC						
20	1	Diaphragm *	3011P	688			3011P	688						
21	1	Diaphragm Plate	3009	687SS6			3009SS6	687SS6						
22	2	Spring Guide	4484SS6	2612			4484SS6	2612SS6						
23	1	Thread Seal	4542	4488			4542	4488SS6						
24	1	Adjusting Screw	6976	5163			6976SS6	5163SS6						
25	1	Nut	1676	2377			1676SS6	2377SS6						
26	1	Washer	4543	4491			4543	4491						
27	1	Spring	4323	2611			4323	2611						
28	1	Bonnet	4525	2610			4525 ‡	2610 ‡						
29	4	Bolt	6972	907			6972	907SS6						
30	1	Pressure Gauge	7707			7707								
31	1	Spring *	3008	108			3008	108HAC						
32	1	Diaph. Nut	3010	107			3010SS6	107SS6						
33	1	Nipple	6890	648			6890SS6	648SS6						
34	1	1/4 F30 Filter	YAS			YASSS6								
35	1	Pilot Seat *	3015	565			3015SS6	565SS6						
36	1	Pilot Plug *	3017	112			3017	112						
37	1	Upper Housing	3019	1719	1636	2003	2177	3019SS6	1719 ‡	1636 ‡	2003 ‡	2177 ‡		
38	1	Tubing	4416SS6	123SS6	124SS6	125SS6	126SS6	4416SS6	123SS6	124SS6	125SS6	126SS6		
39	1	Lower Housing	142	1704	1632	145	146	142 ‡	1704 ‡	1632 ‡	145 ‡	146 ‡		
40	1	Seat Disc	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6	
			Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6	
41	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6	
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	3076SS6	
42	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K	
43	1	Nut	Standard *	172	173	906		175	172SS6	173SS6	174SS6		175SS6	
			Reduced *	172	173			906	172SS6	173SS6			174SS6	
	2	Lifting Ring (not shown)	----	----	7559		----	----	----	7559		----		
			Repair Kits			RYD	RYG	RYK	RYO	RYR	RYDS6	RYGS6	RYKS6	RYOS6

\* These parts are recommended spare parts and are stocked as repair kits.

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used To maintain ounces of positive pressure on systems flowing into a downstream vacuum, such as vapor recovery systems.

#### FEATURES:

- Tight shut-off - Class VI
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint
- Minimum upstream pressure required

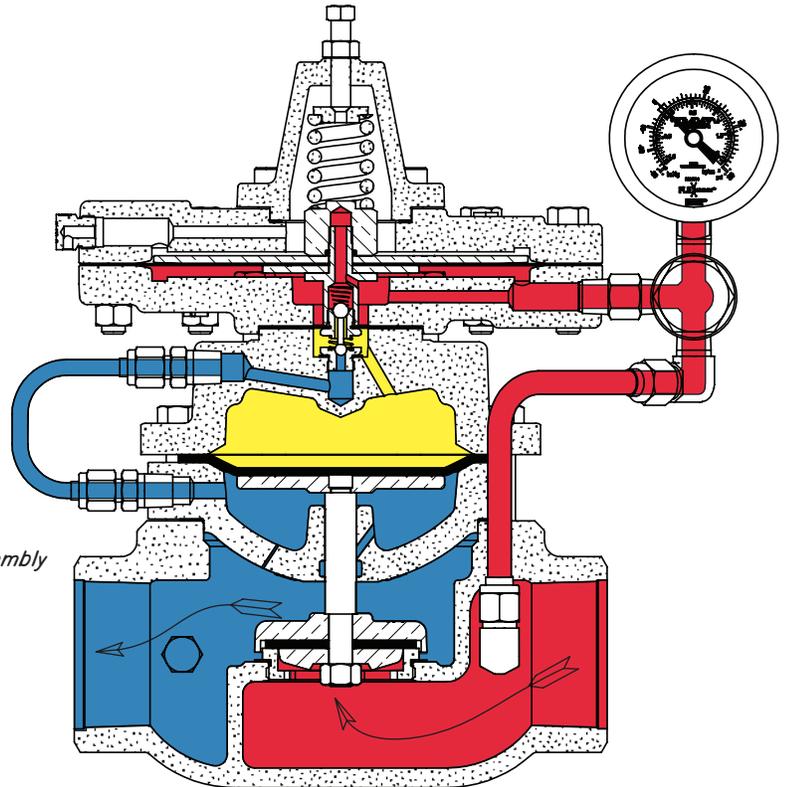
#### CERTIFICATIONS:

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

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Diaphragm Pressure



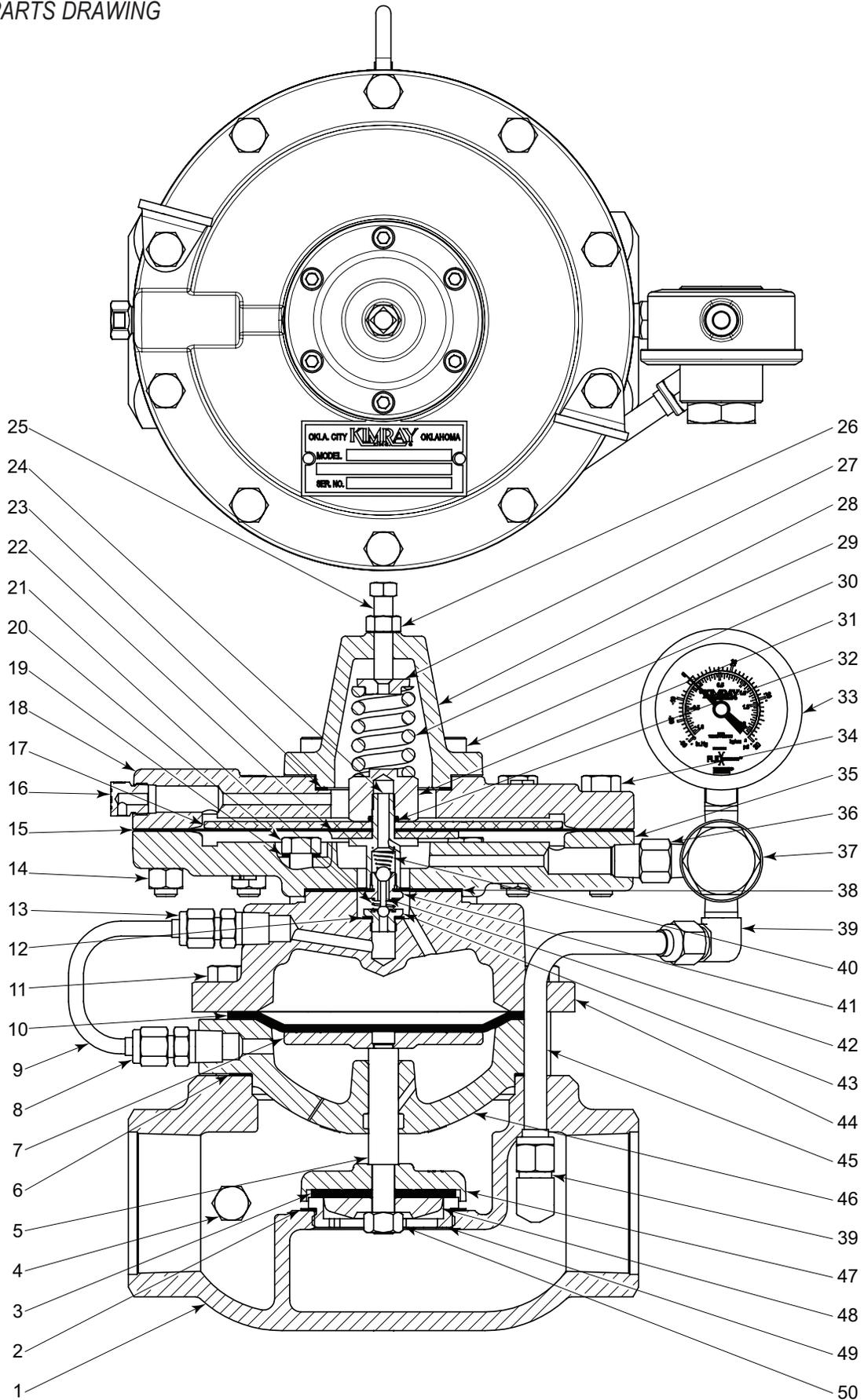
	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RVB2SADF2S	AFED20	2"	NPT	1-20	300	47.0	0.84
	RVB2ARDF2S	AFFD20		150RF	1-20	250		
	RVB3SADF2S	AFHD20	3"	NPT	1-20	300	117	0.75
	RVB3ARDF2S	AFID20		150RF	1-20	250		
	RVB4SADF2S	AFJD20	4"	NPT	1-20	300	210	0.75
	RVB4ARDF2S	AFKD20		150RF	1-20	250		
	RVB4ARDF2S	AFLD20	6"	150RF	1-20	250	480	0.75
Steel	RVB2ARWF2S	AHA20	2"	150RF	1-20	285	47.0	0.84
	RVB3ARWF2S	AHB20	3"	150RF	1-20	285	117	0.75
	RVB4ARWF2S	AHC20	4"	150RF	1-20	285	210	0.75
	RVB6ARWF2S	AHD20	6"	150RF	1-20	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:I - 06:IV  
 † For Corrosive service remove last "S" & replace with "C"  
 † For code builder see page 06:00.3  
 †† Max W.P. values based on -20°F to 100°F.

# PRESSURE REGULATORS

GAS LOW PRESSURE BACK PRESSURE TO VACUUM  
MODEL VB PARTS DRAWING

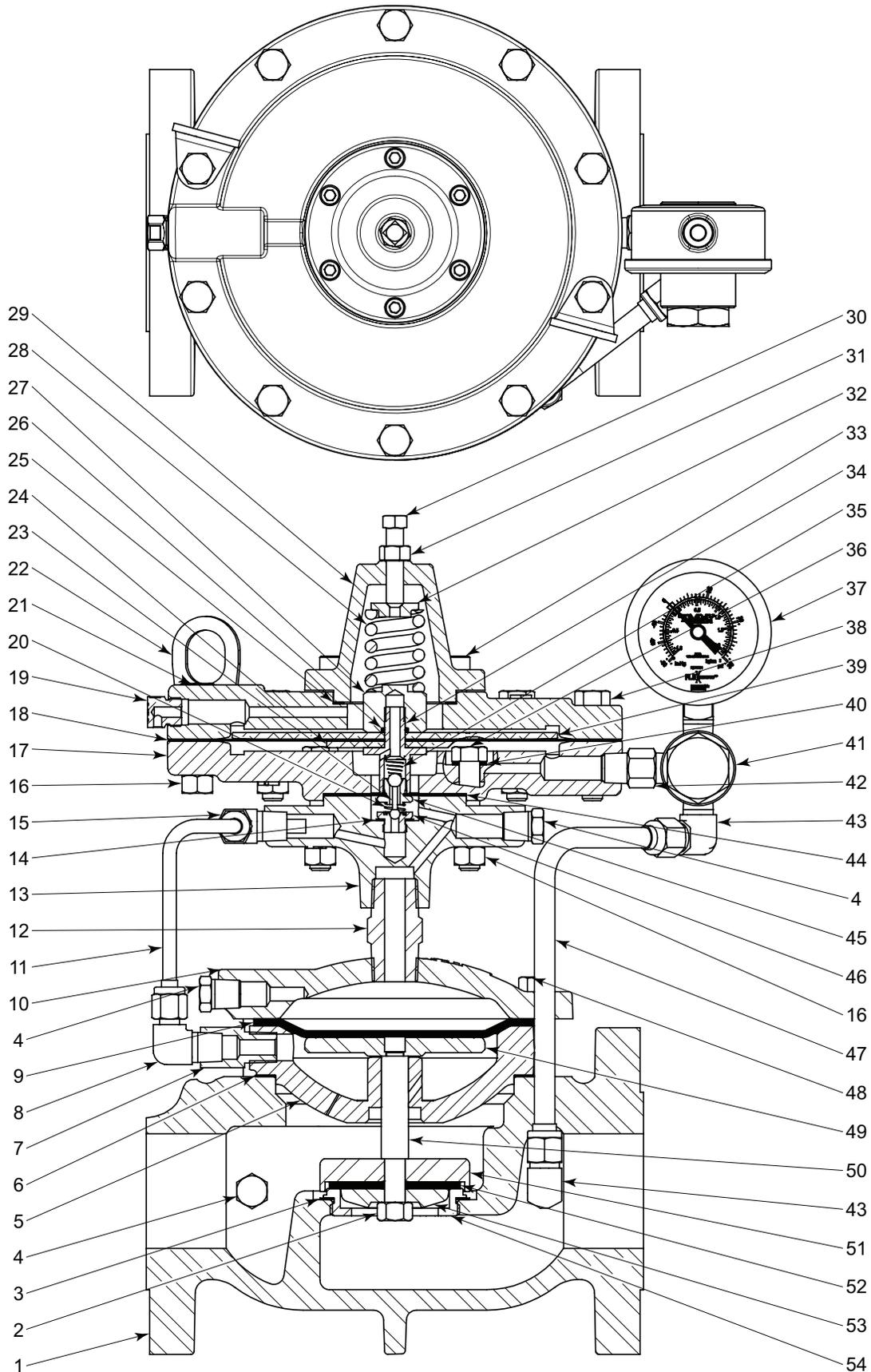


All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body									
		NPT Thru	1709	1634	2001	----	1709 ‡	1634 ‡	2001 ‡	----	
		150RF Thru	1913	1914	2002	2466	1913 ‡	1914 ‡	2002 ‡	2466 ‡	
		Grooved Thru	2964	----	----	----	2964 ‡	----	----	----	
2	1	Gasket *	276	277	196	279	276	277	196	279	
3	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
4	1	Plug	699				699SS6				
5	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
6	1	Gasket	196	197	198	199	196	197	198	199	
7	1	Diaphragm Plate	133	134	135	136	133	134	135	136	
8	1	Connector	875				875SS6				
9	1	Tubing	4008SS6	213SS6	2505SS6	215SS6	1826SS6	213SS6	2505SS6	215SS6	
10	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140	
11	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (12)	965SS6 (8)	907SS6(10)	907SS6 (12)	2142SS6 (12)	
12	1	Gasket *	118				118				
13	1	Connector	874				874SS6				
14	10	Nut	241				241				
15	1	Diaphragm *	1212				1212				
16	1	Vent Plug	147				147SS6				
17	1	Upper Diaphragm Plate	1208				1208SS6				
18	1	Upper Pilot Housing	1206				1206 ‡				
19	4	Gasket *	242				242				
20	4	Screw	1672				1672SS6				
21	1	Spring *	566				566HAC				
22	1	Lower Diaphragm Plate	1340				1340SS6				
23	1	Gasket *	1216				1216				
24	1	Stem	1339				1339SS6				
25	1	Adjusting Screw	897				897				
26	1	Nut	922				922SS6				
27	1	Spring Guide	7148S6 (Std. 20 lbs.) 636SS6 (Optional 2.5 & 5 lbs.)				7148S6 (Std. 20 lbs.) 636SS6 (Optional 2.5 & 5 lbs.)				
28	1	Bonnet	1336				1336 ‡				
29	1	Spring	4379 (Std 20 lbs.) 1527 (Opt 2.5 lbs.) 3061 (Opt 5 lbs.)				4379 (Std 20 lbs.) 1527 (Opt 2.5 lbs.) 3061 (Opt 5 lbs.)				
30	6	Screw	7531				7531				
31	1	Nut	1337				1337SS6				
32	1	O-Ring *	265				265				
33	1	Pressure Gauge	7704				7704				
34	10	Screw	236				236SS6				
35	1	Lower Pilot Housing	1356				1356 ‡				
36	1	Nipple	648				648SS6				
37	1	1/4 F30 Filter	YAS				YASSS6				
38	1	Diaphragm *	110				110				
39	2	Elbow / Conn.	877				877SS6				
40	1	Spring *	1360				1360HAC				
41	1	Pilot Seat *	565				565SS6				
42	1	Pilot Plug *	112				112				
43	1	Pilot Seat *	113				113SS6				
44	1	Upper Housing	1719	1636	2003	2177	1719 ‡	1636 ‡	2003 ‡	2177 ‡	
45	1	Tubing	4127		74SS		4127SS6		74SS6		
46	1	Lower Housing	1373	1632	1375	146	1373 ‡	1632 ‡	1375 ‡	146 ‡	
47	1	Seat Disc	Standard	159	160	161	162	2493SS6	2494SS6	2495SS6	2961SS6
			Reduced	159	1229	159	160	2493SS6	2585SS6	2493SS6	2494SS6
48	1	Ratio Plug	Standard	177SS6	178	179	180	177SS6	3076SS6	3078SS6	3079SS6
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6
49	1	Removable Seat	Standard	272K	273K	274K	275K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
			Reduced	4934K	1219DK	1220DK	1221K	4934SS6K	1219SS6K	1220SSK	1221SS6K
50	1	Nut	Standard *	173	906	175		173SS6	174SS6	175SS6	
			Reduced *	173			906		173SS6		174SS6
	2	Lifting Ring (not shown)	7559			----	7559		----		
Repair Kits			RYI	RYM	RYQ	RYT	RYIS6	RYMS6	RYQS6	RYTS6	
* These parts are recommended spare parts and are stocked as repair kits.											

# PRESSURE REGULATORS

STEEL GAS LOW PRESSURE BACK PRESSURE TO VACUUM  
MODEL VB PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS LOW PRESSURE BACK PRESSURE TO VACUUM  
MODEL VB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡	
2	1	Nut	Standard *	173	906		175	173SS6	174SS6		175SS6
			Reduced *	173			906	173SS6			174SS6
3	1	Gasket *	276	277	196	279	276	277	196	279	
4	3	Plug	699				699SS6				
5	1	Lower Housing	4211	4212	4213	4214	4211 ‡	4212 ‡	4213 ‡	4214 ‡	
6	1	Gasket *	196	197	198	199	196	197	198	199	
7	1	Adapter	7244				7244S6				
8	1	Elbow	875				875SS6				
9	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140	
10	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡	
11	1	Tubing	4050SS6	2505SS6		4312SS6	4050SS6	2505SS6		4312SS6	
12	1	Nipple	2516				2516SS6				
13	1	Base	4995				4995 ‡				
14	1	Gasket *	118				118				
15	1	Elbow / Connector	875		874	875	875SS6		874SS6	875SS6	
16	14	Nut	241				241				
17	1	Lower Pilot Housing	1356				1356 ‡				
18	1	Diaphragm *	1212				1212				
19	1	Vent Plug	147				147SS6				
20	1	Spring *	566				566HAC				
21	2	Lifting Ring (not shown)	7559			----	7559			----	
22	1	Upper Pilot Housing	1206				1206 ‡				
23	1	Pilot Plug *	112				112				
24	1	Lower Diaphragm Plate	1340				1340SS6				
25	1	Gasket *	1216				1216				
26	1	O-Ring *	265				265				
27	1	Nut	1337				1337S6				
28	1	Spring	4379 (Std 20 lbs.) 1527 (Opt 2.5 lbs.) 3061 (Opt 5 lbs.)				4379 (Std 20 lbs.) 1527 (Opt 2.5 lbs.) 3061 (Opt 5 lbs.)				
29	1	Bonnet	1336				1336 ‡				
30	1	Adjusting Screw	897				897				
31	1	Nut	922				922				
32	1	Spring Guide	7148S6 (Std. 20 lbs.) 636SS6 (Optional 2.5 & 5 lbs.)				7148S6 (Std. 20 lbs.) 636SS6 (Optional 2.5 & 5 lbs.)				
33	6	Screw	7531				7531				
34	1	Stem	1339				1339S6				
35	1	Spring *	1360				1360HAC				
36	4	Screw	191				191				
37	1	Pressure Gauge	7704				7704				
38	10	Screw	236				236				
39	1	Upper Diaphragm Plate	1208				1208SS6				
40	4	Gasket *	242				242				
41	1	Nipple	648				648SS6				
42	1	1/4 F30 Filter	YAS				YASSS6				
43	2	Elbow	877			875	877SS6			875SS6	
44	1	Diaphragm *	110				110				
45	1	Pilot Seat *	565				565SS6				
46	1	Pilot Seat *	113				113SS6				
47	1	Tubing	4127	4129S6		2529SS6	4127SS6	4129S6		2529SS6	
48	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)	
49	1	Diaphragm Plate	2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6	
50	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
51	1	Seat Disc	Standard	2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
			Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6
52	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
53	1	Ratio Plug	Standard	177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6
54	1	Removable Seat	Standard	2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
			Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K
Repair Kits			RYI	RYM	RYQ	RYT	RYIS6	RYMS6	RYQS6	RYTS6	

\* These parts are recommended spare parts and are stocked as repair kits.

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator ideal for use in liquid packed systems where an auxiliary source of supply air or dry gas pressure available. When compressed air can be used as the outside source of supply, it is a great way to mitigate emissions concerns related to vented gas.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

- Canadian Registration Number (CRN):
- 0C16234.24567890NTY (Ductile)
- 0C15604.24567890NTY (Steel)

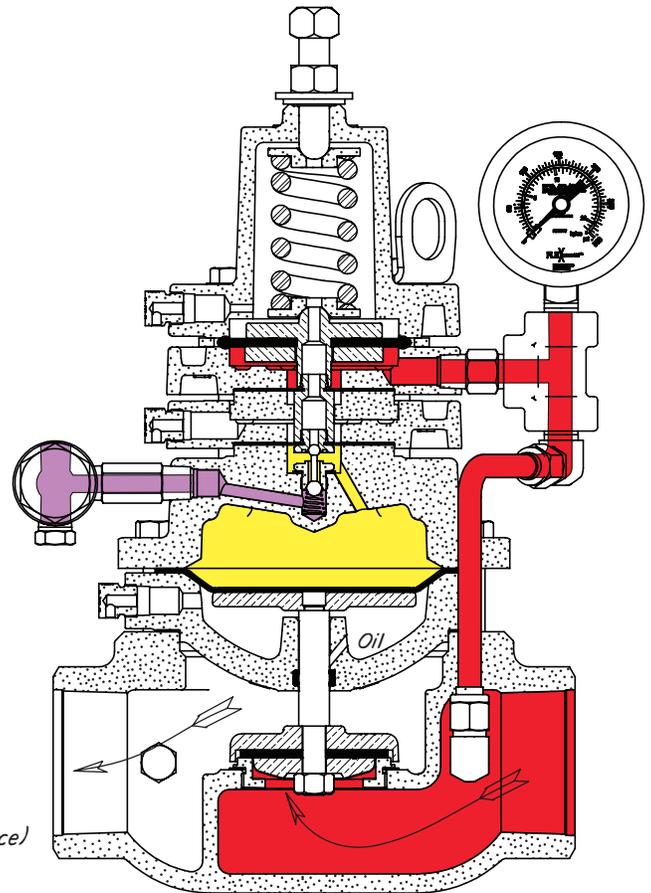
Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

- Non-Bleed / Intermittent Vent

#### SUPPLY PRESSURE:

Equal to or not less than 60% of controlled pressure upstream



- Pilot Assembly
- Motor Valve Stem Assembly
- Upstream Pressure
- Diaphragm Pressure
- Supply Pressure (outside source)



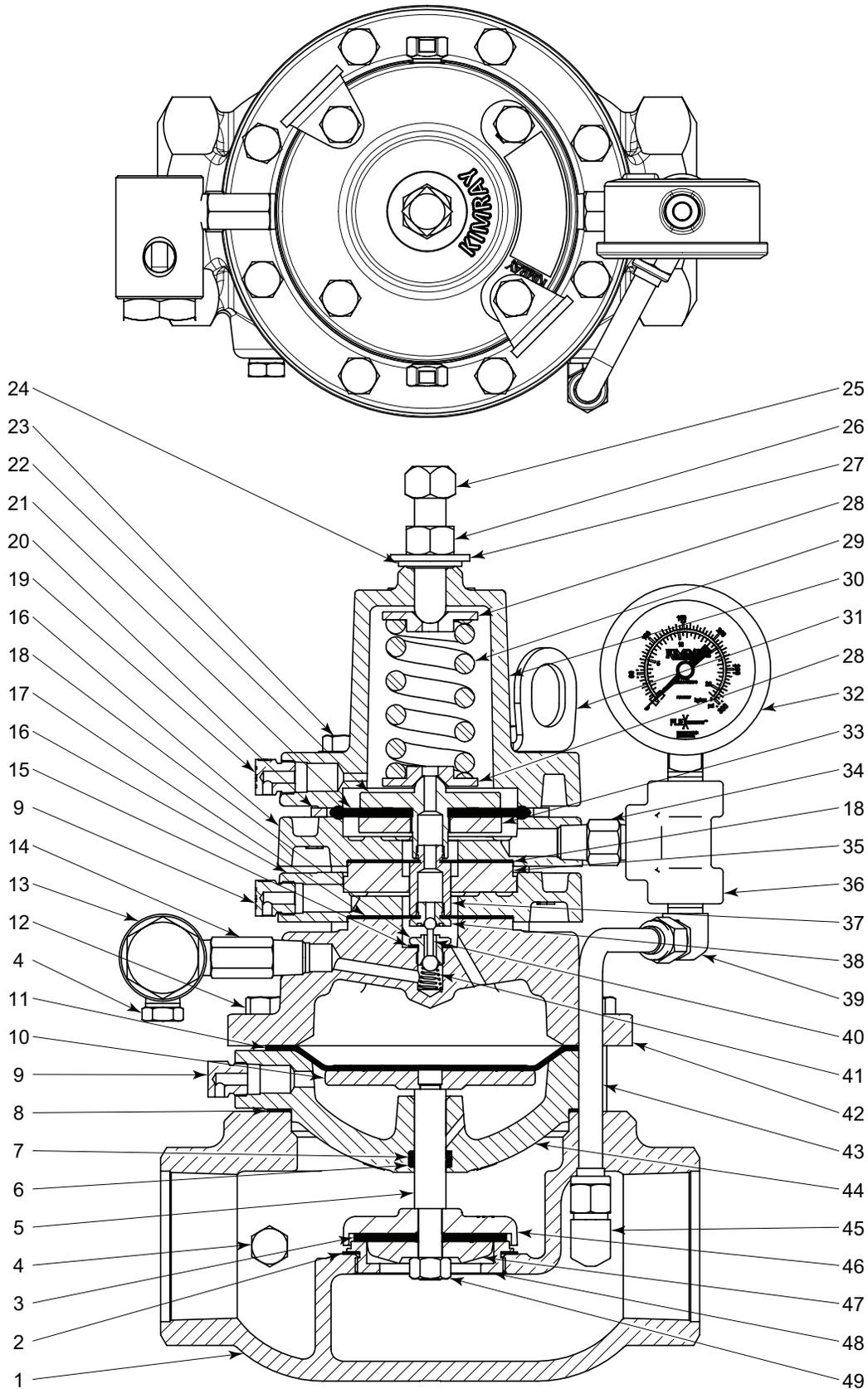
	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RFB1SADF1S	ACG	1"	NPT	10-300	300	13.2	0.74
	RFB2SADF1S	AEM	2"	NPT	10-300	300	47.0	0.84
	RFB2ARDF1S	AEN		150RF	10-250	250		
	RFB3SADF1S	AEP	3"	NPT	10-300	300	117	0.75
	RFB3ARDF1S	AER		150RF	10-250	250		
	RFB4SADF1S	AES	4"	NPT	10-300	300	210	0.75
	RFB4ARDF1S	AET		150RF	10-250	250		
	RFB6ARDF1S	AEU	6"	150RF	10-250	250	480	0.75
Steel	RFB2ARWF1S	AGW	2"	150RF	10-285	285	47.0	0.84
	RFB3ARWF1S	AGX	3"	150RF	10-285	285	117	0.75
	RFB4ARWF1S	AGY	4"	150RF	10-285	285	210	0.75
	RFB6ARWF1S	AGZ	6"	150RF	10-285	285	480	0.75

#### NOTES:

- For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V
- † For Corrosive service remove last "S" & replace with "C"
- † For code builder see page 06:00.2
- †† Max W.P. values based on -20°F to 100°F.

# PRESSURE REGULATORS

DUCTILE BACK PRESSURE W/ OUTSIDE SUPPLY  
MODEL FB PARTS DRAWING



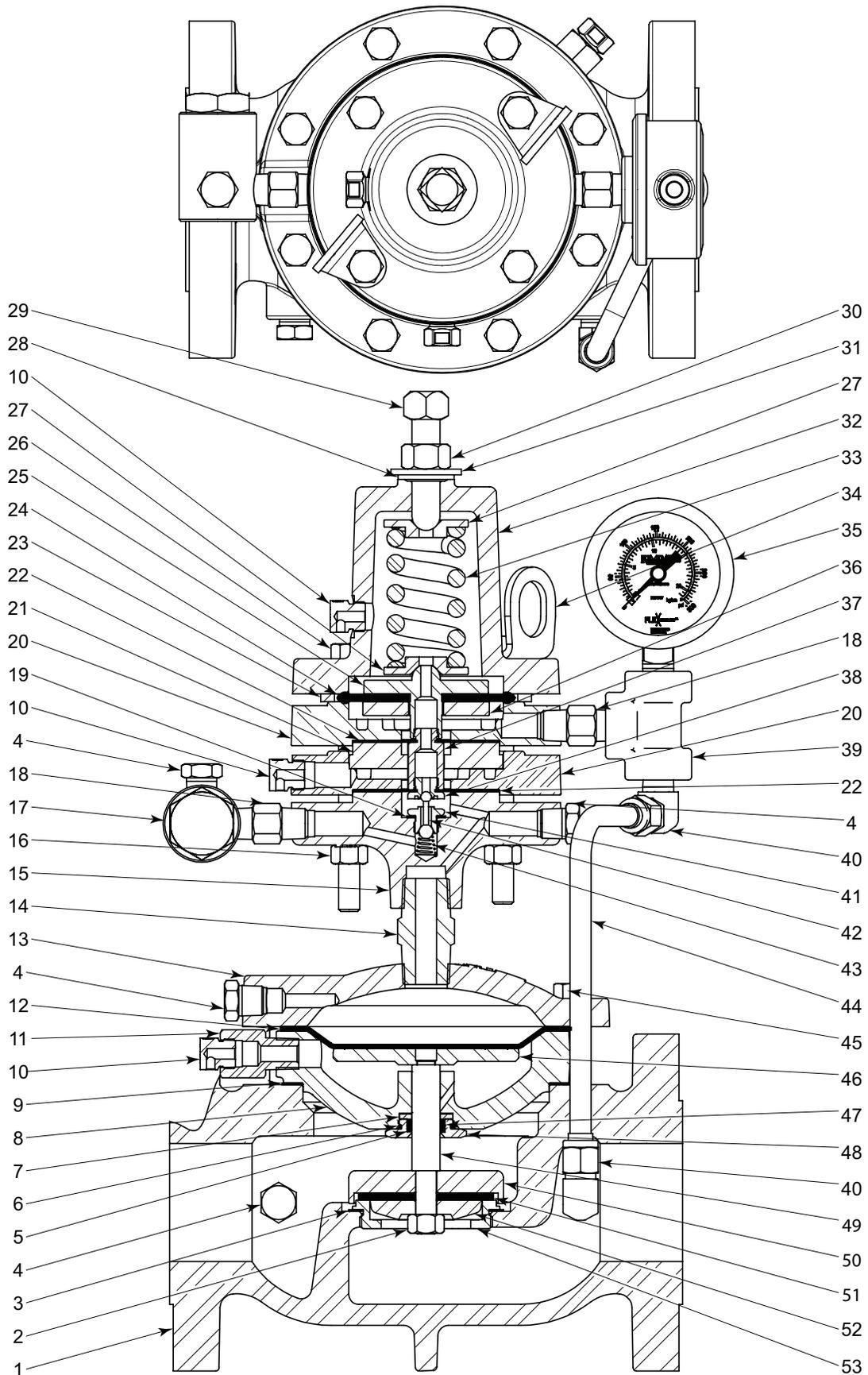
All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER																		
			STANDARD					CORROSIVE													
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH									
1	1	Body																			
		Screwed Thru	2033	1709	1634	2001	----	2033	1709 ‡	1634 ‡	2001 ‡	----									
		Flanged Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡									
		Grooved Thru	----	2964	----	----	----	2964 ‡	----	----	----										
2	1	Gasket *	----	276	277	196	279	----	276	277	196	279									
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN								
			Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN								
4	2	Plug		699					699SS6												
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6								
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6								
6	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T									
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157									
8	1	Gasket *	195	196	197	198	199	195	196	197	198	199									
9	2	Vent Plug	1357	147					1357SS6	147SS6											
10	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136									
11	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140									
12	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)									
13	1	1/4 F30 Filter	YAS	YAS					YASSS6	YASSS6											
14	1	Nipple	6890	262	2600			6890S6	262SS6	2600SS6											
15	1	Gasket	3018	118					3018	118											
16	2	Pilot Housing *	3013	1701					3013SS6	1701 ‡											
17	2	Diaphragm	3014	110					3014	110											
18	1	Pilot Seat *	3015	565					3015SS6	565SS6											
19	1	Vent Plug *	147					147SS6													
20	1	Spacer Ring	----	7437					----	7437											
21	1	Diaphragm *	3011P	5259P					3011P	5259P											
22	1	Diaphragm Plate	4014	116					4014SS6	116SS6											
23	4	Bolt	4553	7671					4553	7671											
24	1	Thread Seal	4542	4488					4542	4488											
25	1	Adjusting Screw	6976	5163					6976S6	5163SS6											
26	1	Nut	1676	2377					1676SS6	2377SS6											
27	1	Washer	4543	4491					4543	4491S6											
28	2	Spring Guide	4484SS6	2612					4484SS6	2612SS6											
29	1	Spring	4323	2611					4323	2611											
30	1	Bonnet	4525	2610					4525	2610 ‡											
31	2	Lifting Ring	----	7559					----	7559											
32	1	Pressure Gauge	7707	7707					7707	7707											
33	1	Diaphragm Nut	3010	107					3010SS6	107SS6											
34	1	Nipple	6890	648					6890S6	648SS6											
35	1	Spacer Ring	4494S6	2021					4494S6	2021											
36	1	Tee	219	2000					219SS6	2000SS6											
37	1	Seat Extension	7871S6	4297					7871S6	4297											
38	1	Pilot Seat *	3016	113					3016SS6	113SS6											
39	1	Elbow / Connector	----	877	876	877	----	----	877SS6	876SS6	877SS6	----									
40	1	Pilot Plug *	3017	112					3017	112											
41	1	Spring *	3008	108					3008	108HAC											
42	1	Upper Housing	3019	1719	1636	2003	2177	3019	1719 ‡	1636 ‡	2003 ‡	2177 ‡									
43	1	Tubing	4416S6	72SS6	72SS6	73SS6	74SS6	4416S6	4416S6	72SS6	73SS6	74SS6									
44	1	Lower Housing	142	1704	1632	145	146	142	1704 ‡	1632 ‡	145 ‡	146 ‡									
45	1	Elbow	875	877					875SS6	877SS6											
46	1	Seat Disc	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6								
			Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6								
47	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6								
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	3076SS6								
48	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K								
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K								
49	1	Nut	Standard *	172	173	906	175	172SS6	173SS6	174SS6	175SS6										
			Reduced *	172	173			906	172SS6	173SS6			174SS6								
Repair Kits			RYD	RYG	RYK	RYO	RYR	RYDS6	RYGS6	RYKS6	RYOS6	RYRS6									
* These parts are recommended spare parts and are stocked as repair kits.																					

‡ Coated Parts available with "E" shell material

# PRESSURE REGULATORS

STEEL BACK PRESSURE W/ OUTSIDE SUPPLY  
MODEL FB PARTS DRAWING



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

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡	
2	1	Nut	Standard *	173	906	175	173SS6	174SS6	175SS6		
			Reduced *		173	906		173SS6	174SS6		
3	1	Gasket *	276	277	196	279	276	277	196	279	
4	4	Plug	699				699SS6				
5	2	Back Up *	149T	150T	151T	152T	149T	150T	151T	152T	
6	1	O-Ring *	5225	5226	5227	4086	5225	5226	5227	4086	
7	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6	
8	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡	
9	1	Gasket *	196	197	198	199	196	197	198	199	
10	3	Vent Plug	147				147SS6				
11	1	Adapter	7244				7244SS6				
12	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140	
13	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡	
14	1	Nipple	2516				2516SS6				
15	1	Base	4995				4995 ‡				
16	4	Nut	241				241				
17	1	1/4 F30 Filter	YAS				YASSS6				
18	2	Nipple	648				648SS6				
19	1	Gasket *	118				118				
20	2	Pilot Housing	2514				2514 ‡				
21	1	Spacer	2021				2021				
22	2	Diaphragm *	110				110				
23	1	Spacer Ring *	7437				7437				
24	1	Diaphragm *	5259P				5259P				
25	1	Diaphragm Plate	116				116SS6				
26	4	Bolt	4298				4298				
27	2	Spring Guide	2612				2612SS6				
28	1	Thread Seal *	4488				4488				
29	1	Adjusting Screw	5163				5163SS6				
30	1	Nut	2377				2377SS6				
31	1	Washer *	4491				4491				
32	1	Bonnet	2672				2672 ‡				
33	1	Spring	2611				2611				
34	2	Lifting Ring	7559			----	7559			----	
35	1	Pressure Gauge	7707				7707				
36	1	Diaphragm Nut	107				107SS6				
37	1	Seat Extension	4297				4297				
38	1	Pilot Seat *	113				113SS6				
39	1	Tee	2000				2000SS6				
40	2	Elbow	877				877SS6				
41	1	Pilot Seat *	565				565SS6				
42	1	Pilot Plug *	112				112				
43	1	Spring *	108				108HAC				
44	1	Tubing	2558	2559	2560	4309	2558SS6	2559SS6	2560SS6	4309SS6	
45	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965SS6 (8)	907SS6(10)	907SS6 (12)	2142SS6 (16)	
46	1	Diaphragm Plate	2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6	
47	1	O-Ring *	154	807	156	157	154	807	156	157	
48	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6	
49	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
50	1	Seat Disc	Standard	2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
			Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6
51	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
52	1	Ratio Plug	Standard	177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6
53	1	Removable Seat	Standard	2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
			Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K
Repair Kits			RYG	RYK	RYO	RYR	RYG6	RYK6	RYO6	RYR6	
* 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.

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Regulation of inlet pressure to gas compressors. Control of supply or distribution system pressure

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes downstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

Canadian Registration Number (CRN):  
0C16234.24567890NTY (Ductile)  
0C15604.24567890NTY (Steel)

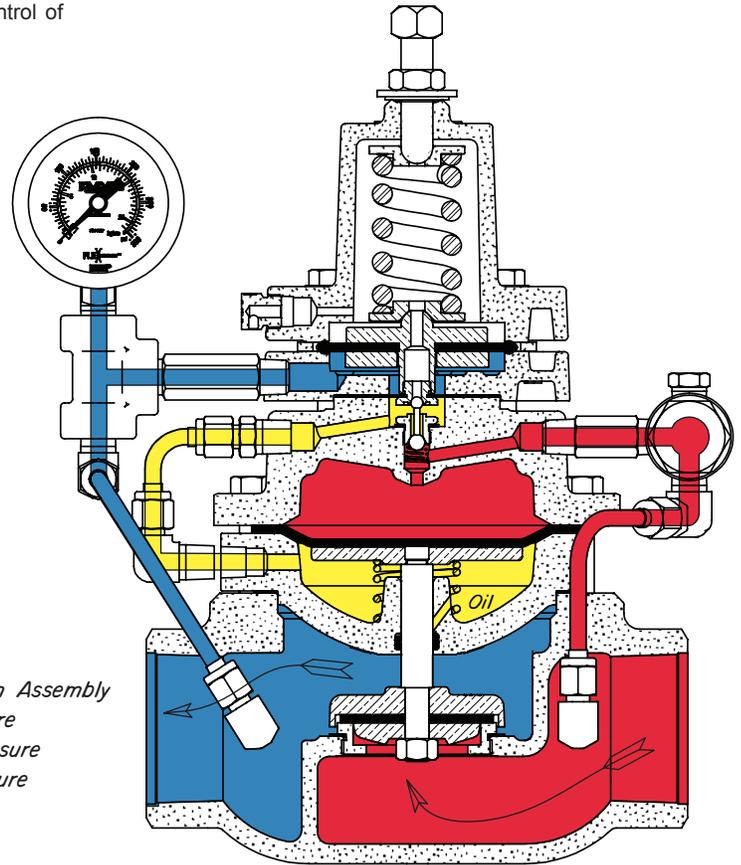
Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

#### SET POINT DRIFT RATIO:

8:1



- Pilot Assembly
- Motor Valve Stem Assembly
- Upstream Pressure
- Downstream Pressure
- Diaphragm Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RPR1SADF1S	AKF	1"	NPT	10-300	300	13.2	0.74
	RPR2SADF1S	ABU	2"	NPT	10-300	300	47.0	0.84
	RPR2ARDF1S	ABW		150RF	10-250	250		
	RPR3SADF1S	ABX	3"	NPT	10-300	300	117	0.75
	RPR3ARDF1S	ABY		150RF	10-250	250		
	RPR4SADF1S	ACA	4"	NPT	10-300	300	210	0.75
	RPR4ARDF1S	ACB		150RF	10-250	250		
RPR4ARDF1S	ACC	6"	150RF	10-250	250	480	0.75	
Steel	RPR1SAWF1S	AKG	1"	NPT	10-300	300	13.2	0.74
	RPR2ARWF1S	AGG	2"	150RF	10-285	285	47.0	0.84
	RPR3ARWF1S	AGH	3"	150RF	10-285	285	117	0.75
	RPR4ARWF1S	AGI	4"	150RF	10-285	285	210	0.75
	RPR6ARWF1S	AGJ	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

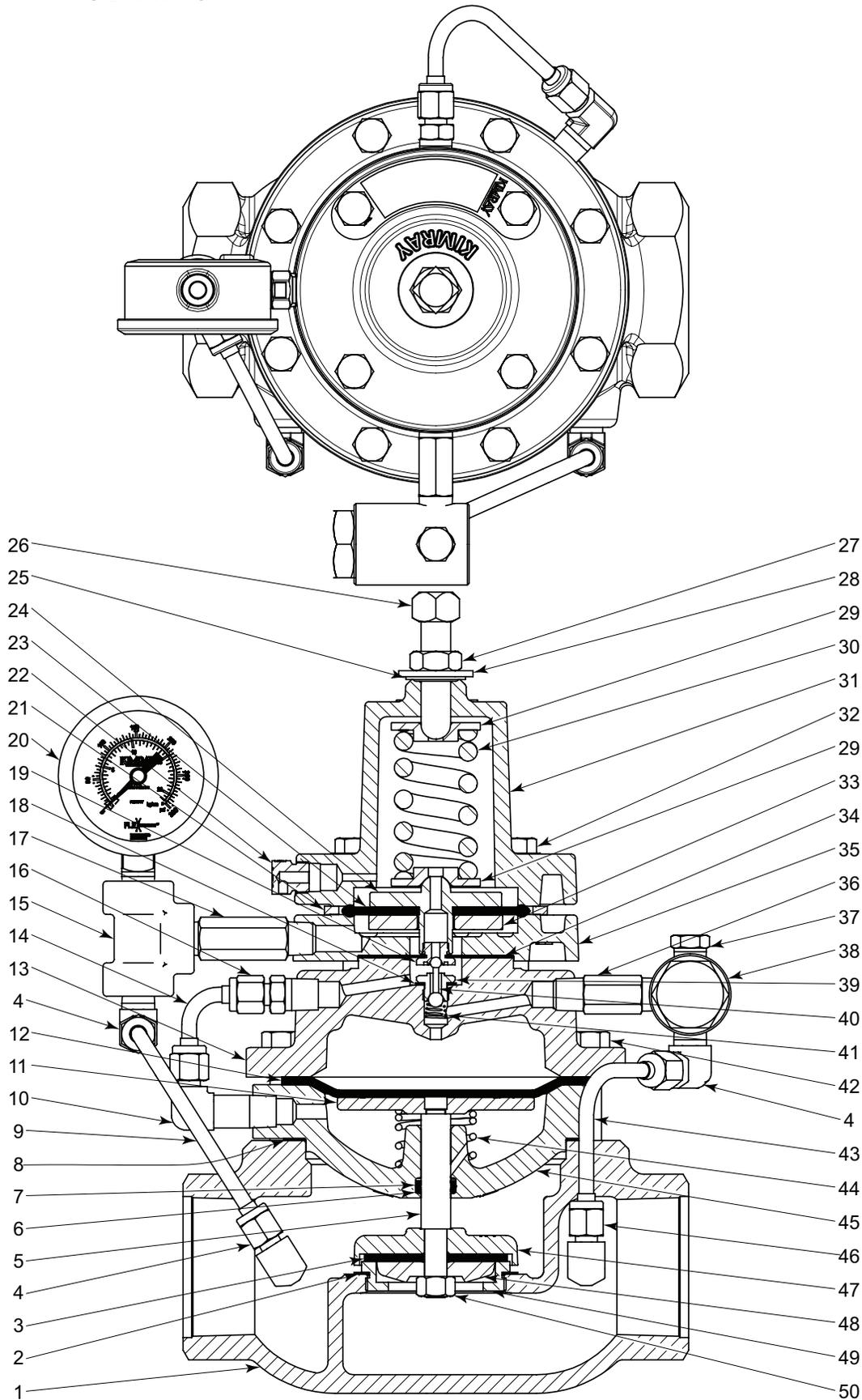
† For code builder see page 06:00.2

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

# PRESSURE REGULATORS



## DUCTILE GAS PRESSURE REDUCING MODEL PR PARTS DRAWING



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



**PRESSURE REGULATORS**

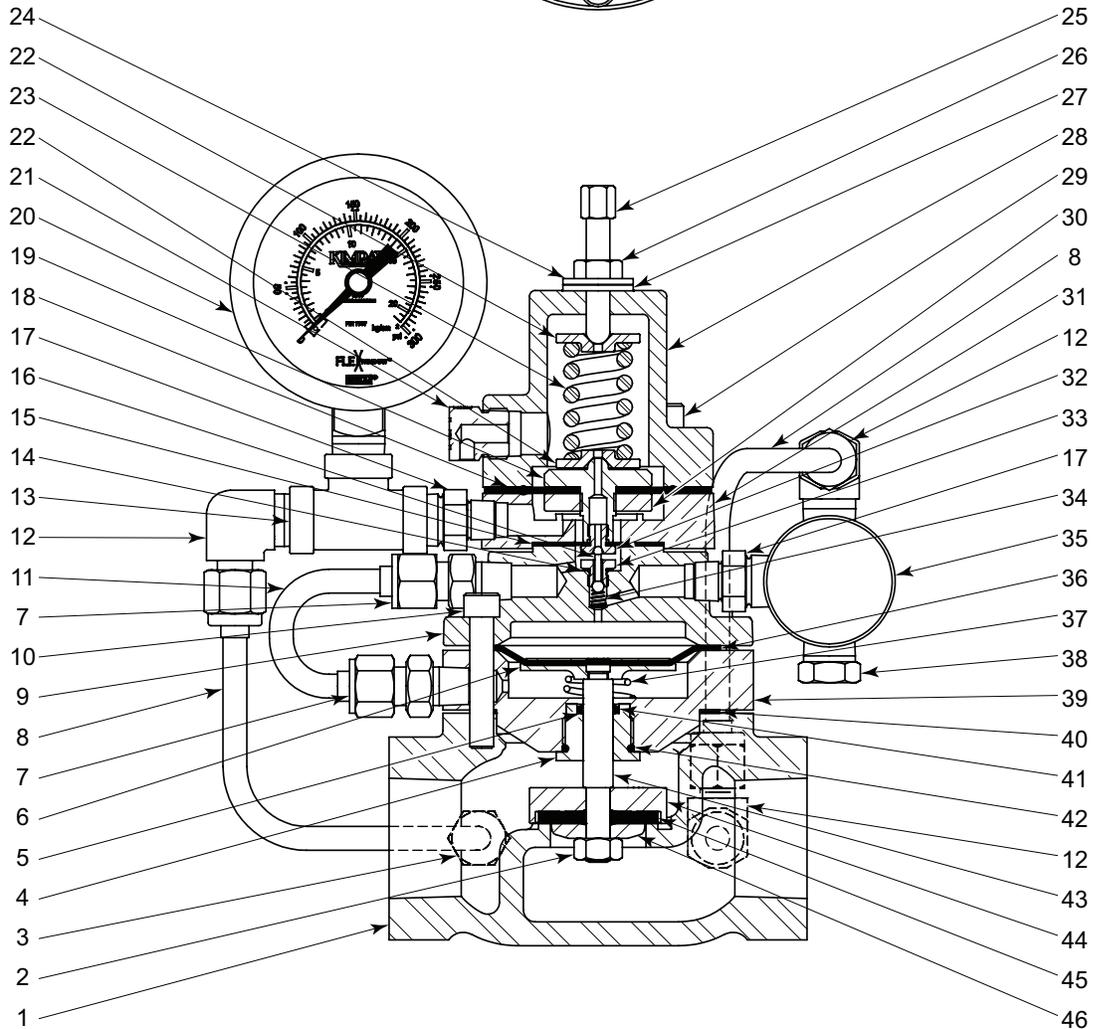
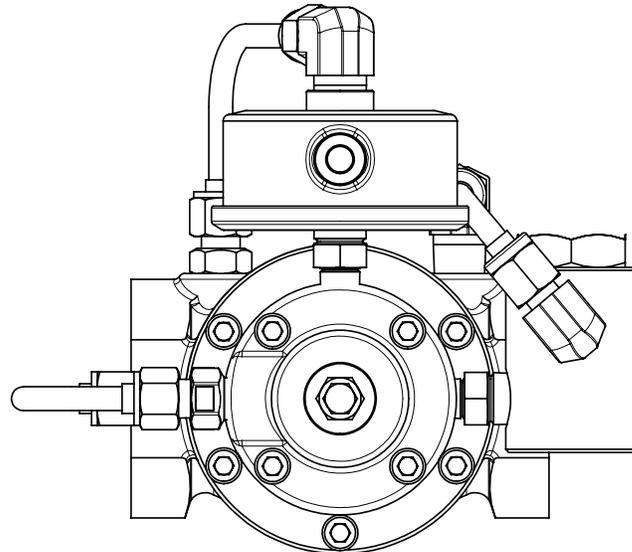
**DUCTILE GAS PRESSURE REDUCING  
MODEL PR PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	----	2964	----	----	----	----	2964 ‡	----	----	----		
2	1	Gasket *	----	276	277	196	279	----	276	277	196	279		
3	1	Seat	Standard*	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced*	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN	
4	3	Elbow	875					875SS6						
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6	
6	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T		
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157		
8	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
9	1	Tubing	123SS6	216SS6	217SS6	4251S6	218SS6	123SS6	216SS6	217SS6	4251S6	218SS6		
10	1	Elbow	1605	875			1481	1605SS6	875SS6			1481SS6		
	1	Connector	----	----	----	----	874	----	----	----	----	874SS6		
	1	Nipple	----	----	----	----	262	----	----	----	----	262SS6		
11	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
12	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
13	1	Upper Housing	4015	1703	1639	2004	2178	4015SS6	1703 ‡	1639 ‡	2004 ‡	2178 ‡		
14	1	Tubing	1378SS6	4008SS6	213SS6	4011SS6	2529SS6	1378SS6	4008SS6	213SS6	4011SS6	2529SS6		
15	1	Tee	219	2000				219SS6	2000SS6					
16	1	Connector	1604	874				1604SS6	874SS6					
17	1	Nipple	6890	648				6890S6	648SS6					
18	1	Gasket *	3018	118				3018	118					
19	1	Pilot Seat *	3016	113				3016SS6	113SS6					
20	1	Pressure Gauge	7707					7707						
21	1	Spacer Ring *	----	7437				----	7437					
22	1	Vent Plug	147					147SS6						
23	1	Diaphragm *	3011P	5259P				3011P	5259P					
24	1	Diaphragm Plate	4014	116				4014SS6	116SS6					
25	1	Thread Seal *	4542	4488				4542	4488					
26	1	Adjusting Screw	6976	5163				6976S6	5163SS6					
27	1	Nut	1676	2377				1676SS6	2377SS6					
28	1	Washer *	4543	4491				4543	4491					
29	2	Spring Guide	4484SS6	2612				4484SS6	2612SS6					
30	1	Spring	4323	2611				4323	2611					
31	1	Bonnet	4525	2610				4525 ‡	2610 ‡					
32	4	Bolt	6972	907				6972	907					
33	1	Diaph. Nut	3010	107				3010SS6	107SS6					
34	1	Diaphragm *	3014	110				3014	110					
35	1	Pilot Housing	3013	1701				3013SS6	1701 ‡					
36	1	Nipple	6890	262	2600	648		6890S6	262SS6	2600SS6	648SS6			
37	1	Plug	699					699SS6						
38	1	1/4 F30 Filter	YAS					YASSS6						
39	1	Pilot Seat *	3015	565				3015SS6	565SS6					
40	1	Pilot Plug *	3017	112				3017	112					
41	1	Spring *	3008	108				3008	108HAC					
42	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
43	1	Tubing	123S6	1638SS6	1826SS6	1383SS6	2247SS6	123S6	1638SS6	1826SS6	1383SS6	2247SS6		
44	1	Spring	1358	1388	7132	1529	1575	1358	1388	7132	1529	1575		
45	1	Lower Housing	142	1704	1632	145	146	142 ‡	1704 ‡	1632 ‡	145 ‡	146 ‡		
46	1	Elbow	874	875	874		1481	874SS6	875SS6	874SS6		1481SS6		
47	1	Seat Disc	Standard	158	159	160	161	162	158SS6	159SS6	160SS6	161SS6	162SS6	
			Reduced	158	159	1229	159	160	158SS6	159SS6	1229SS6	159SS6	160SS6	
48	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	178SS6	179SS6	180SS6	
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	178SS6	
49	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	2499SS6K	
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SS6K	1221SS6K	
50	1	Nut	Standard*	172	173	906		175	172SS6	173SS6	174SS6		175SS6	
			Reduced*	172	173			906	172SS6	173SS6			174SS6	
51	2	Lifting Ring (not shown)	----	----	7559		----	----	----	7559		----		
Repair Kits			RYD	RYG	RYK	RYO	RYR	‡ Coated Parts available with "E" shell material						
			* These parts are recommended spare parts and are stocked as repair kits.					RYGS6	RYKS6	RYOS6	RYRS6	RDJS6		

# PRESSURE REGULATORS



## 1 INCH STEEL GAS PRESSURE REDUCING MODEL PR PARTS DRAWING

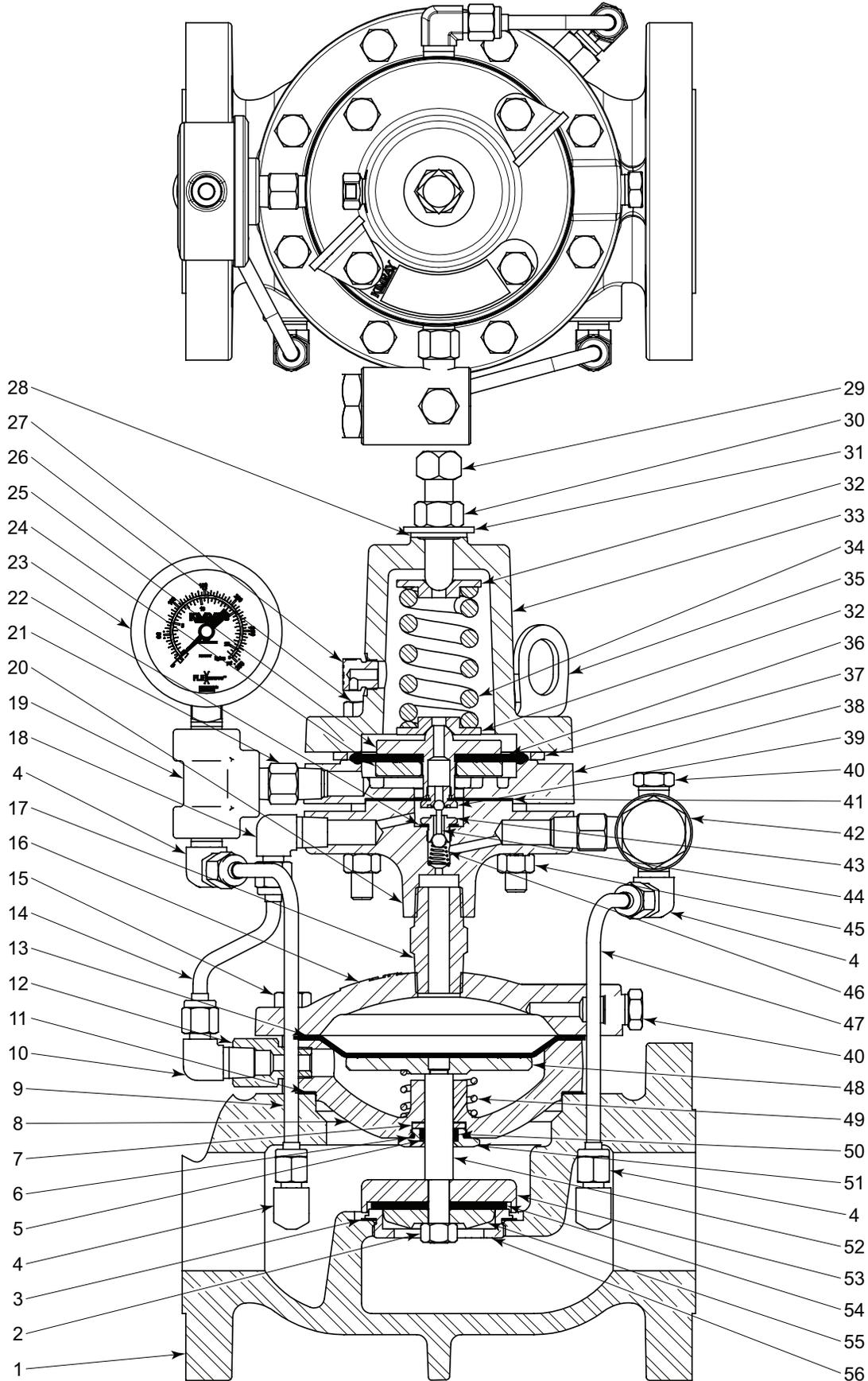


All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER	
			STANDARD	CORROSIVE
1	1	Body		
		NPT Thru	4942	4942 ‡
		150RF Thru	5292	5292
2	1	Nut *	172	172SS6
3	2	Nipple	6890	6890S6
4	1	Bushing *	4632A	4632A
5	1	Seal *	4551C	4551C
6	1	Diaphragm Plate	132SS6	132SS6
7	3	Connector	1604	1604SS6
8	2	Tubing	123SS6	123SS6
9	1	Upper Housing	4015	4015SS6
10	6	Bolt	4318	4318
11	1	Tubing	4008SS6	4008SS6
12	3	Elbow	875	875SS6
13	1	Tee	219	219SS6
14	1	Gasket *	3018	3018
15	1	Diaphragm *	3014	3014
16	1	Pilot Plug *	3017	3017
17	2	Nipple	6890	6890S6
18	1	Diaphragm *	3011P	3011P
19	1	Diaphragm Plate	4014	4014SS6
20	1	Pressure Gauge	7707	7707
21	1	Breather Plug	147	147SS6
22	2	Spring Guide	4484SS6	4484SS6
23	1	Spring	4323	4323
24	1	Washer *	4543	4543
25	1	Adjusting Screw	6976	6976S6
26	1	Nut	1676	1676SS6
27	1	Thread Seal *	4542	4542
28	1	Bonnet	4525	4525 ‡
29	4	Bolt	6972	6972
30	1	Diaph. Nut	3010	3010SS6
31	1	Pilot Housing	3013	3013SS6
32	1	Pilot Seat *	3016	3016SS6
33	1	Pilot Seat *	3015	3015SS6
34	1	Spring *	3008	3008
35	1	1/4 F30 Filter	YAS	YASSS6
36	1	Diaphragm *	127	127
37	1	Spring	1358S	1358S
38	1	Plug	699	699SS6
39	1	Lower Housing	4632	4632 ‡
40	1	Gasket *	195	195
41	1	O-Ring *	153V	153V
42	1	O-Ring *	4552	4552
43	1	Valve Stem	137	137SS6
44	1	Seat Disc	158	158SS6
45	1	Seat *	163HSN	163HSN
46	1	Standard Ratio Plug	176SS6	176SS6
		Reduced Ratio Plug	4932	4932SS6
‡ Coated Parts available with "E" shell material				
Repair Kits			RYE	RYES6
* These parts are recommended spare parts and are stocked as repair kits.				

# PRESSURE REGULATORS

## STEEL GAS PRESSURE REDUCING MODEL PR PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS PRESSURE REDUCING  
MODEL PR PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡	
2	1	Nut	Standard *	173	906		175	173SS6	174SS6		175SS6
			Reduced *	173			906	173SS6			174SS6
3	1	Gasket	*	276	277	196	279	276	277	196	279
4	4	Ell		875				875SS6			
5	2	Back Up	*	149T	150T	151T	152T	149T	150T	151T	152T
6	1	O-Ring	*	5225	5226	5227	4086	5225	5226	5227	4086
7	1	Spacer		4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6
8	1	Lower Housing		2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡
9	1	Tubing		2505SS6	2552SS6	2529SS6	4306SS6	2505SS6	2552SS6	2529SS6	4306SS6
10	1	Ell / Connector		875				875SS6			
11	1	Gasket	*	196	197	198	199	196	197	198	199
				7244				7244S6			
				---				648SS6			
12	1	Adapter		7244				7244S6			
				---				648SS6			
				---				1481SS6			
13	1	Diaphragm	*	1706	1640	2015	2140	1706	1640	2015	2140
				2511SS6				4011SS6			
				2511SS6				2529SS6			
14	1	Tubing		2511SS6	4011SS6		2529SS6	2511SS6	4011SS6		2529SS6
15	(QTY)	Bolt		965 (8)	907 (10)	907 (12)	2142 (16)	965 (8)	907 (10)	907 (12)	2142 (16)
16	1	Bonnet		2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡
17	1	Nipple		2516				2516SS6			
18	1	Ell / Connector		875		874		875SS6		874SS6	
19	1	Tee		2000				2000SS6			
20	1	Base		2515				2515 ‡			
21	2	Nipple		648				648SS6			
22	1	Gasket	*	118				118			
23	1	Pressure Gauge		7707				7707			
24	1	Diaphragm Nut		107				107SS6			
25	1	Diaphragm Plate		116				116SS6			
26	4	Bolt		1232				1232			
27	1	Breather Plug		147				147SS6			
28	1	Thread Seal	*	4488				4488			
29	1	Adjusting Screw		2613				2613SS6			
30	1	Nut		2377				2377SS6			
31	1	Washer	*	4491				4491			
32	2	Spring Guide		2612				2612SS6			
33	1	Bonnet		2671				2671 ‡			
34	1	Spring		2611				2611			
35	2	Lifting Ring		7559			----	7559			----
36	1	Diaphragm	*	5259P				5259P			
37	1	Spacer Ring	*	7437				7437			
38	1	Pilot Housing		2514				2514 ‡			
39	1	Pilot Seat	*	113				113SS6			
40	2	Plug		699				699SS6			
41	1	Diaphragm	*	110				110			
42	1	1/4 F30 Filter		YAS				YASSS6			
43	1	Pilot Seat	*	565				565SS6			
44	1	Pilot Plug	*	112				112			
45	4	Nut		241				241SS6			
46	1	Spring	*	108				108HAC			
47	1	Tubing		2505SS6	4011SS6	2529SS6	5061SS6	2505SS6	4011SS6	2529SS6	5061SS6
48	1	Diaphragm Plate		2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6
49	1	Spring		1388	7132	1529	1575	1388	7132	1529	1575
50	1	O-Ring	*	154	807	156	157	154	807	156	157
51	1	Retainer		4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6
52	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
53	1	Seat Disc	Standard	2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
			Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6
54	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
55	1	Ratio Plug	Standard	177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6
56	1	Removable Seat	Standard	2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
			Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K

‡ Coated Parts available with "E" shell material

Repair Kits

RYG	RYK	RYO	RYR	RYGS6	RYKS6	RYOS6	RYRS6
* These parts are recommended spare parts and are stocked as repair kits.							

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, low pressure pilot-operated regulator used for maintaining vapor pressure on storage tanks, controlling compressor by-pass for gas recirculation and maintaining low pressure head on flash separators.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

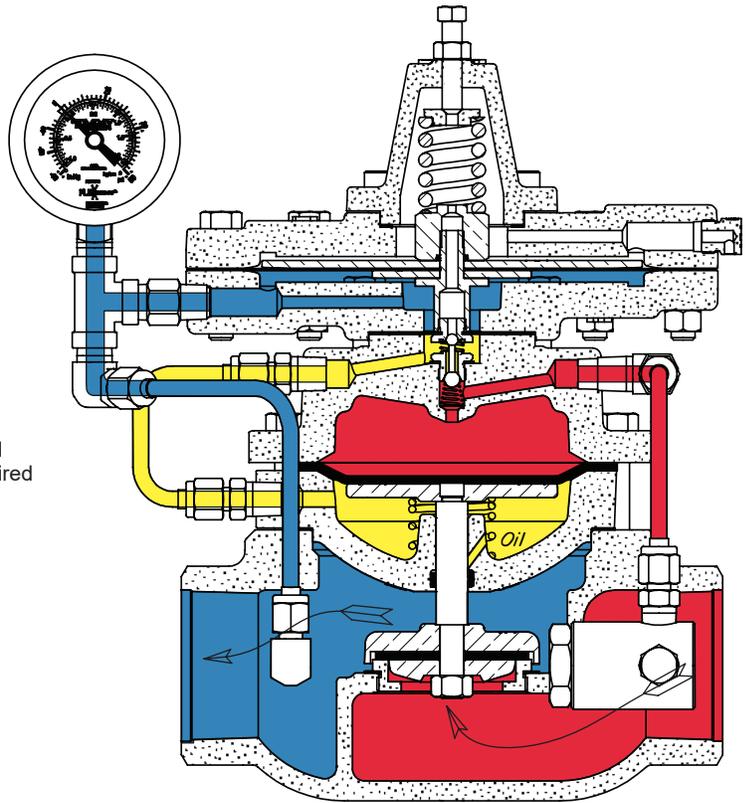
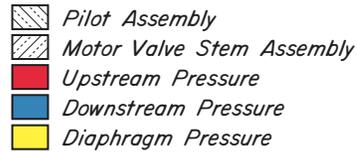
Canadian Registration Number (CRN):  
0C16234.24567890NTY (Ductile)  
Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

#### UPSTREAM PRESSURE RANGE:

- 1 Inch valves:  
Full port 10 psig min. or outside supply source is required  
Reduced port 5 psig min. or outside supply source is required
- 2 thru 6 inch valves:  
5 psig min. or outside supply source is required



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RLR2SADF2S	AOSD20	2"	NPT	1-20	300	47.0	0.84
	RLR2ARDF2S	AOTD20		150RF	1-20	250		
	RLR3SADF2S	AOVD20	3"	NPT	1-20	300	117	0.75
	RLR3ARDF2S	AOWD20		150RF	1-20	250		
	RLR4SADF2S	AOYD20	4"	NPT	1-20	300	210	0.75
	RLR4ARDF2S	AOZD20		150RF	1-20	250		
	RLR4ARDF2S	APCD20	6"	150RF	1-20	250	480	0.75
Steel	RLR2ARWF2S	AIA20	2"	150RF	1-20	285	47.0	0.84
	RLR3ARWF2S	AFC20	3"	150RF	1-20	285	117	0.75
	RLR4ARWF2S	AFD20	4"	150RF	1-20	285	210	0.75
	RLR6ARWF2S	AHH20	6"	150RF	1-20	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

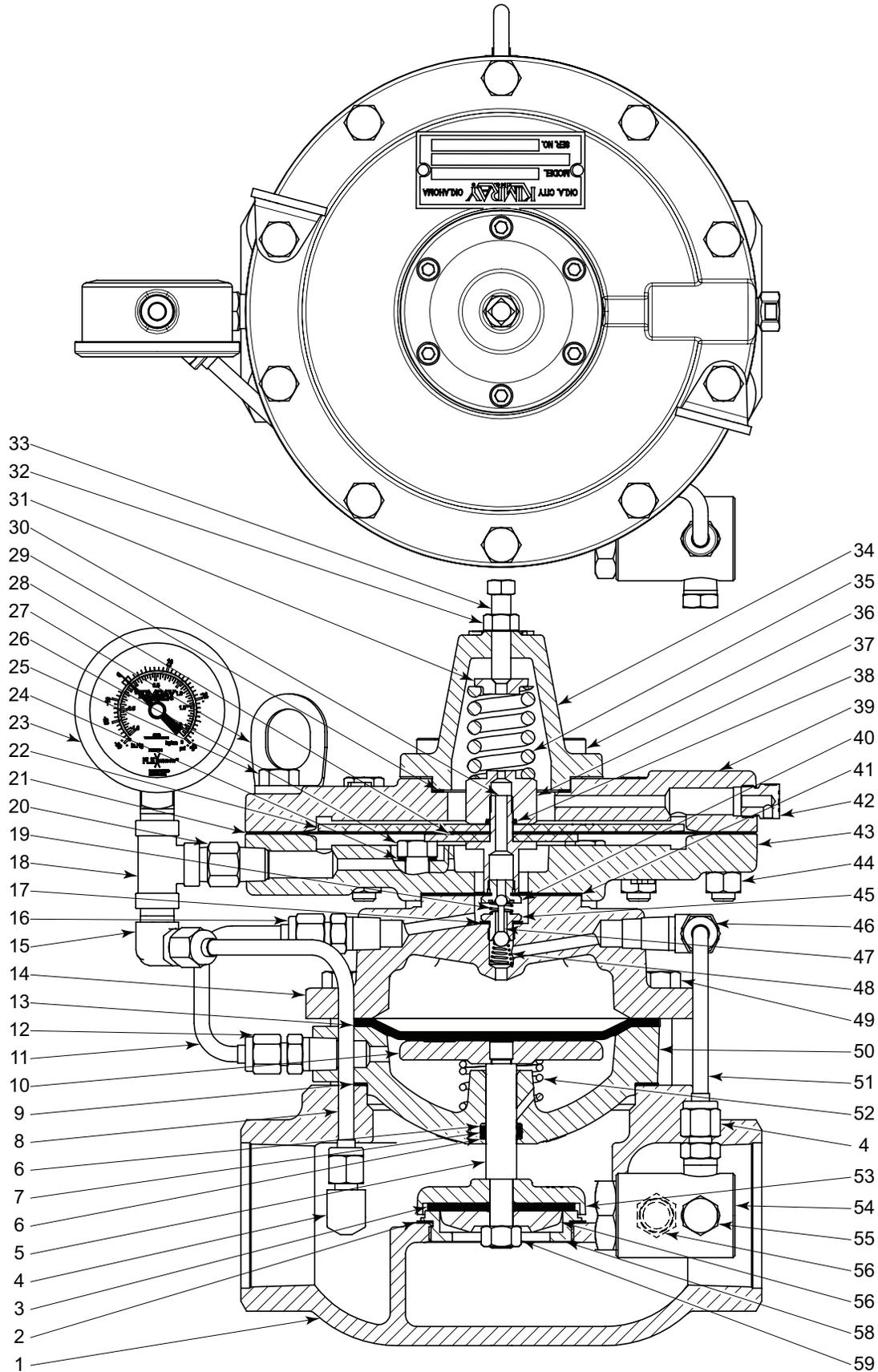
† For Corrosive service remove last "S" & replace with "C"

† For code builder see page 06:00.3

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

# PRESSURE REGULATORS

GAS LOW PRESSURE PRESSURE REDUCING  
MODEL LR PARTS DRAWING

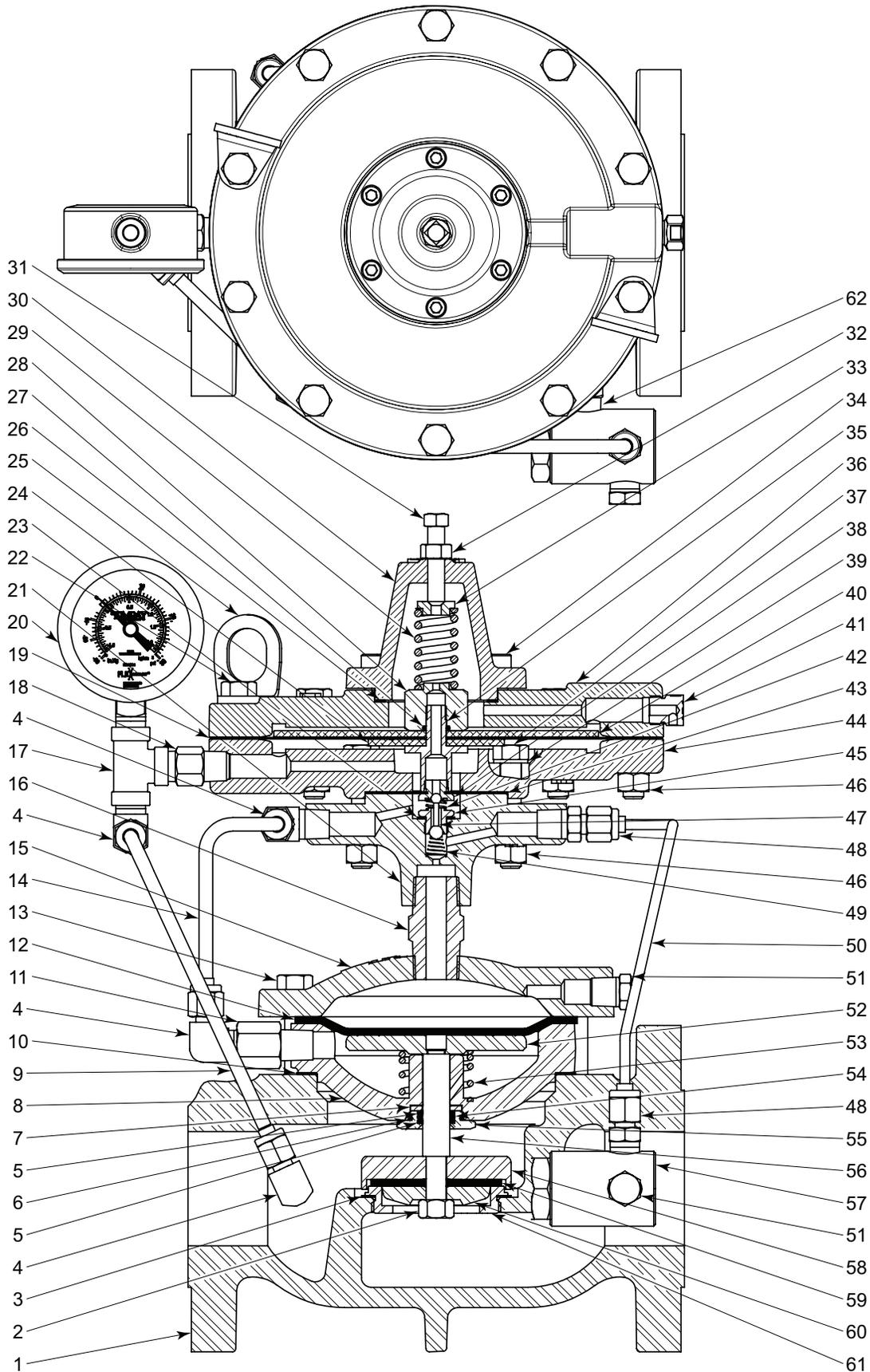


All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER										
			STANDARD				CORROSIVE						
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH			
1	1	Body											
		NPT Thru	1709	1634	2001	----	1709 ‡	1634 ‡	2001 ‡	----			
		150RF Thru	1913	1914	2002	2466	1913 ‡	1914 ‡	2002 ‡	2466 ‡			
		Grooved Thru	2964	----	----	----	2964 ‡	----	----	----			
2	1	Gasket *	276	277	196	279	276	277	196	279			
3	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN		
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN		
4	2	Elbow			875								
5	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6		
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6		
6	2	Back Up *	149T	150T	151T	152T	149T	150T	151T	152T			
7	1	O-Ring *	154	155	156	157	154	155	156	157			
8	1	Tubing	1378SS6	2529SS6	4251S6	218SS6	1378SS6	2529SS6	4251S6	218SS6			
9	1	Gasket *	196	197	198	199	196	197	198	199			
10	1	Diaphragm Plate	133	134	135	136	133	134	135	136			
11	1	Tubing	4008SS6	213SS6	4251S6	2529SS6	4008SS6	213SS6	4251S6	2529SS6			
12	1	Elbow / Conn.		875		874		875SS6		874SS6			
	1	Nipple & Ell		----		648 & 1481		----		648SS6 & 1481SS6			
13	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140			
14	1	Upper Housing	1703	1639	2004	2178	1703 ‡	1639 ‡	2004 ‡	2178 ‡			
15	1	Elbow / Conn.	875		874	875	875SS6		874SS6	875SS6			
16	1	Elbow / Conn.			874				874SS6				
17	1	Gasket *			118				118				
18	1	Tee			219				219SS6				
19	1	Spring *			566				566HAC				
20	1	Nipple			648				648SS6				
21	1	Diaphragm *			1212				1212				
22	1	Upper Diaphragm Plate			1208				1208SS6				
23	1	Pressure Gauge			7704				7704				
24	4	Gasket *			242				242				
25	10	Screw			236				236				
26	4	Screw			1672				1672SS6				
27	2	Lifting Ring		7559		----		7559		----			
28	1	Lower Diaphragm Plate			1340				1340SS6				
29	1	Gasket *			1216				1216				
30	1	Stem			2913				2913SS6				
31	1	Spring Guide		7148S6 (Std.)	636SS6 (Opt. 2.5 & 5 lbs.)			7148S6 (Std.)	636SS6 (Opt. 2.5 & 5 lbs.)				
32	1	Nut			922				922				
33	1	Adjusting Screw			897				897				
34	1	Bonnet			1336				1336 ‡				
35	1	Spring		4379 (Std.)	1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)			4379 (Std.)	1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)				
36	6	Screw			7531				7531				
37	1	Nut			2912				2912SS6				
38	1	O-Ring *			265				265				
39	1	Upper Pilot Housing			1206				1206 ‡				
40	1	Pilot Seat *			113				113SS6				
41	1	Diaphragm *			110				110				
42	2	Vent Plug			147				147SS6				
43	1	Lower Pilot Housing			1356				1356 ‡				
44	10	Nut			241				241				
45	1	Pilot Seat *			565				565SS6				
46	1	Elbow / Conn.		874		875		874SS6		875SS6			
47	1	Pilot Plug *			112				112				
48	1	Spring			108				108HAC				
49	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)			
50	1	Lower Housing	1704	1632	145	146	1704 ‡	1632 ‡	145 ‡	146 ‡			
51	1	Tubing	1826SS6	206SS6	126SS6	1385SS6	1826SS6	206SS6	126SS6	1385SS6			
52	1	Spring	1388	7132	1529	1575	1388	7132	1529	1575			
53	1	Seat Disc	Standard	159	160	161	162	2493SS6	2494SS6	2495SS6	2961SS6		
			Reduced	159	1229	159	160						
54	1	1/4 F30 Filter			YAS				YASSS6				
55	1	Plug			699				699SS6				
56	1	Nipple	262		648		262SS6		648SS6				
57	1	Ratio Plug	Standard	177SS6	178	179	180	177SS6	3076SS6	3078SS6	3079SS6		
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6		
58	1	Removable Seat	Standard	272K	273K	274K	275K	2496SS6K	2497SS6K	2498SS6K	3075SS6K		
			Reduced	4934K	1219DK	1220DK	1221K	4934SS6K	1219SS6K	1220SS6K	1221SS6K		
59	1	Nut	Standard *	173		906	175	173SS6		174SS6	175SS6		
			Reduced *		173		906			173SS6	174SS6		
Repair Kits			RYI	RYM	RYQ	RYT	‡ Coated Parts available with "E" shell material						
			* These parts are recommended spare parts and are stocked as repair kits.										

# PRESSURE REGULATORS

STEEL GAS LOW PRESSURE PRESSURE REDUCING  
MODEL LR PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS LOW PRESSURE PRESSURE REDUCING  
MODEL LR PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER									
			STANDARD				CORROSIVE					
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡		
2	1	Nut	Standard *	173	906	175	173SS6	174SS6	175SS6			
			Reduced *		173	906						
3	1	Gasket	276	277	196	279	276	277	196	279		
4	4	Elbow	875				875SS6					
5	2	Back Up	149T	150T	151T	152T	149T	150T	151T	152T		
6	1	O-Ring	5225	5226	5227	4086	5225	5226	5227	4086		
7	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6		
8	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡		
9	1	Tubing	2552SS6	213SS6	4251S6	5061SS6	2552SS6	213SS6	4251S6	5061SS6		
10	1	Gasket	196	197	198	199	196	197	198	199		
			7244				7244S6					
			----				----					
11	1	Elbow	----				1481					
			----				1481SS6					
			----				2600					
12	1	Diaphragm	----				2600SS6					
			1706	1640	2015	2140	1706	1640	2015	2140		
			965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)		
14	1	Tubing	2511SS6	213SS6	4050SS6	5060SS6	2511SS6	213SS6	4050SS6	5060SS6		
15	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡		
16	1	Nipple	2516				2516SS6					
17	1	Tee	219		2000	219	219SS6		2000SS6	219SS6		
18	1	Nipple	648				648SS6					
19	1	Diaphragm	1212				1212					
20	1	Pressure Gauge	7704				7704					
21	1	Base	2515				2515 ‡					
22	10	Screw	236				236					
23	1	Gasket	118				118					
24	1	Lower Diaphragm Plate	1340				1340SS6					
25	2	Lifting Ring	7559				7559					
26	1	Gasket	1216				1216					
27	1	O-Ring	265				265					
28	1	Nut	2912				2912S6					
29	1	Spring	4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)				4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)					
30	1	Bonnet	1336				1336 ‡					
31	1	Adjusting Screw	897				897					
32	1	Nut	922				922					
33	1	Spring Guide	7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)				7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)					
34	6	Screw	7531				7531					
35	1	Stem	2913				2913SS6					
36	1	Upper Pilot Housing	1206				1206 ‡					
37	4	Screw	191				191					
38	1	Pilot Seat	113				113SS6					
39	4	Gasket	242				242					
40	1	Upper Diaphragm Plate	1208				1208SS6					
41	1	Vent Plug	147				147SS6					
42	1	Spring	566				566HAC					
43	1	Diaphragm	110				110					
44	1	Lower Pilot Housing	1356				1356 ‡					
45	1	Pilot Seat	565				565SS6					
46	14	Nut	241				241					
47	1	Pilot Plug	112				112					
48	2	Elbow / Conn.	874				874SS6					
49	1	Spring	1360				1360HAC					
50	1	Tubing	2552SS6	213SS6	4251S6	2529SS6	4251SS6	213SS6	4251S6	2529SS6		
51	2	Plug	699				699SS6					
52	1	Diaphragm Plate	2490	2491	2492	2958	2490	2491	2492	2958SS6		
53	1	Spring	1388	1528	1529	1575	1388	1528	1529	1575		
54	1	O-Ring	154	807	156	157	154	807	156	157		
55	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6		
56	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6	
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6	
57	1	1/4 F30 Filter	YAS				YASSS6					
58	1	Seat Disc	Standard	2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6	
			Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6	
59	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN	
60	1	Ratio Plug	Standard	177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6	
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6	
61	1	Removable Seat	Standard	2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
			Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K	
62	1	Nipple	262	648				262SS6	648SS6			
Repair Kits			RYI	RYM	RYQ	RYT	RYI6	RYM6	RYQ6	RYT6		

\* These parts are recommended spare parts and are stocked as repair kits.

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used to regulate down stream pressures on vent lines for separators, heat treaters, compressor stations, gas gathering systems where it is desired that no gas be vented

- Inside Buildings
- In populated areas
- Emissions regulated areas
- Sour or poisonous gas systems

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

Canadian Registration Number (CRN):  
0C16234.24567890NTY (Ductile)  
0C15604.24567890NTY (Steel)

Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

Non-Venting

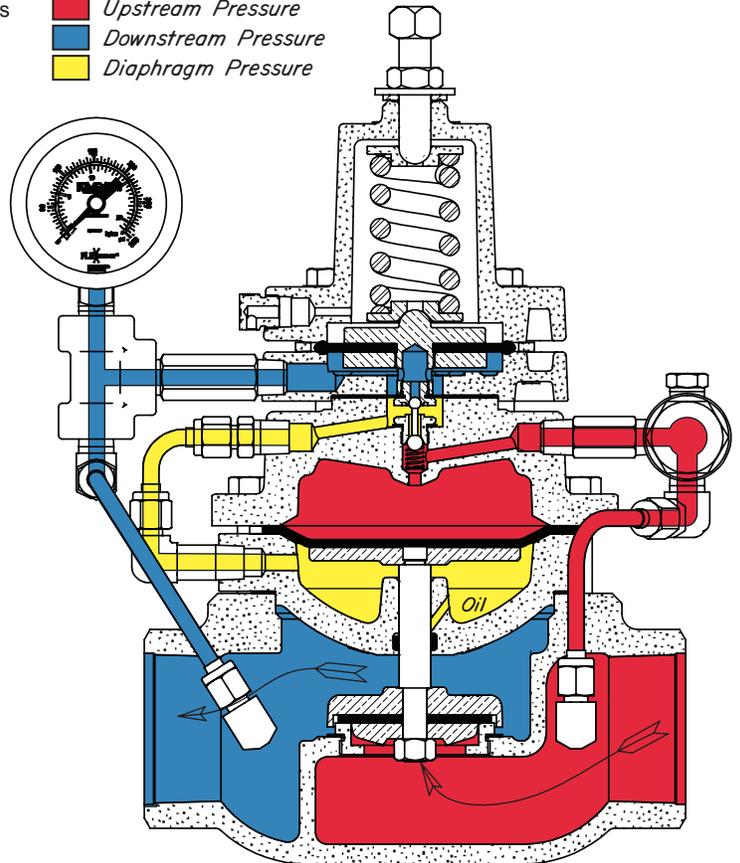
#### SET POINT DRIFT RATIO:

8:1

#### MIN. DIFFERENTIAL:

10 psig

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Diaphragm Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RRN1SADF1S	AKLD	1"	NPT	10-300	300	13.2	0.74
	RRN2SADF1S	AKMD	2"	NPT	10-300	300	47.0	0.84
	RRN2ARDF1S	AKND		150RF	10-250	250		
	RRN3SADF1S	AKPD	3"	NPT	10-300	300	117	0.75
	RRN3ARDF1S	AKQD		150RF	10-250	250		
	RRN4SADF1S	AKRD	4"	NPT	10-300	300	210	0.75
	RRN4ARDF1S	AKSD		150RF	10-250	250		
RRN4ARDF1S	AKTD	6"	150RF	10-250	250	480	0.75	
Steel	RRN2ARWF1S	AEV	2"	150RF	10-285	285	47.0	0.84
	RRN3ARWF1S	AEW	3"	150RF	10-285	285	117	0.75
	RRN4ARWF1S	AEX	4"	150RF	10-285	285	210	0.75
	RRN6ARWF1S	AEY	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

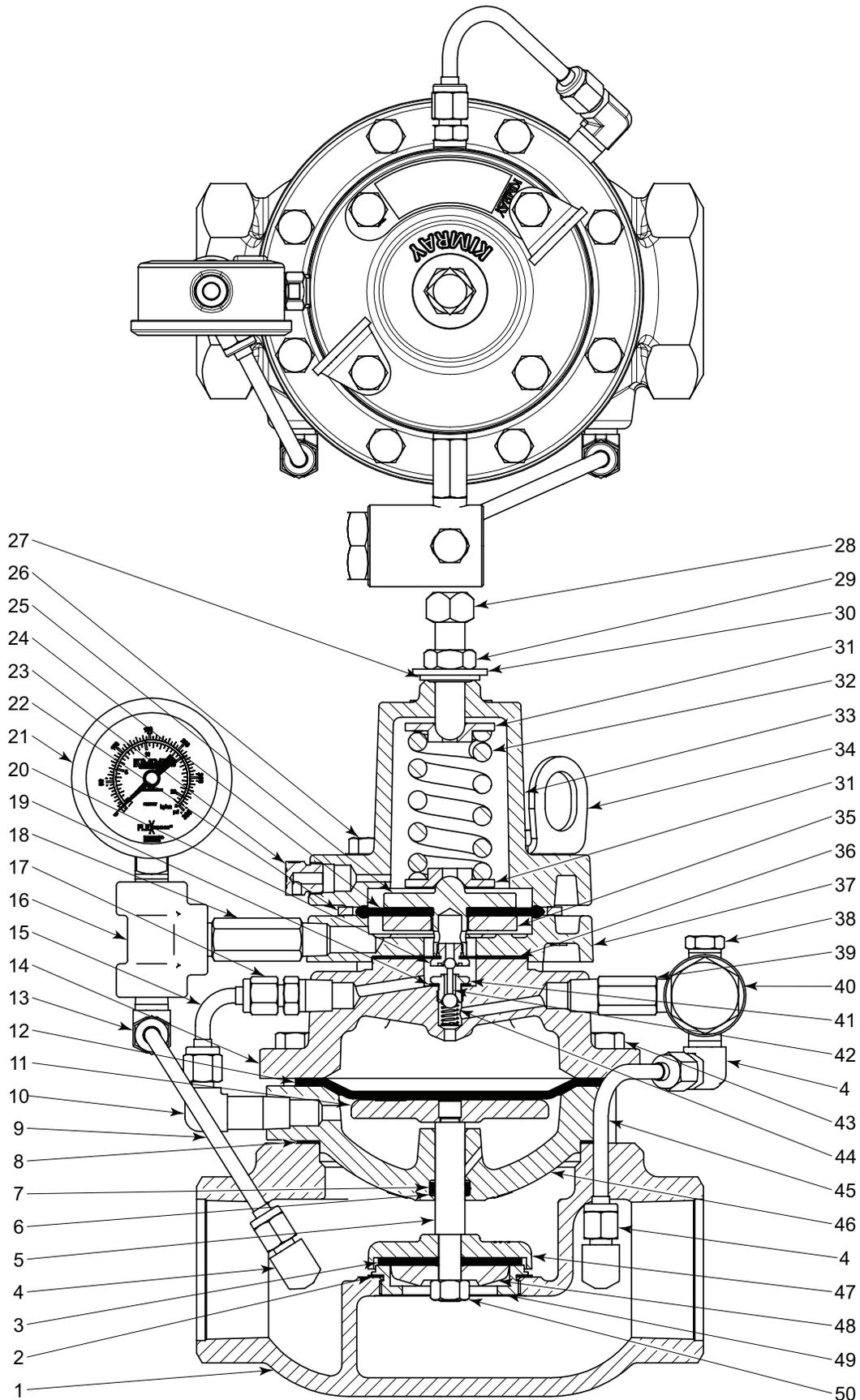
† For Corrosive service remove last "S" & replace with "C"

† For code builder see page 06:00.2

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

# PRESSURE REGULATORS

GAS PRESSURE REDUCING NON - VENTING  
MODEL RN PARTS DRAWING



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

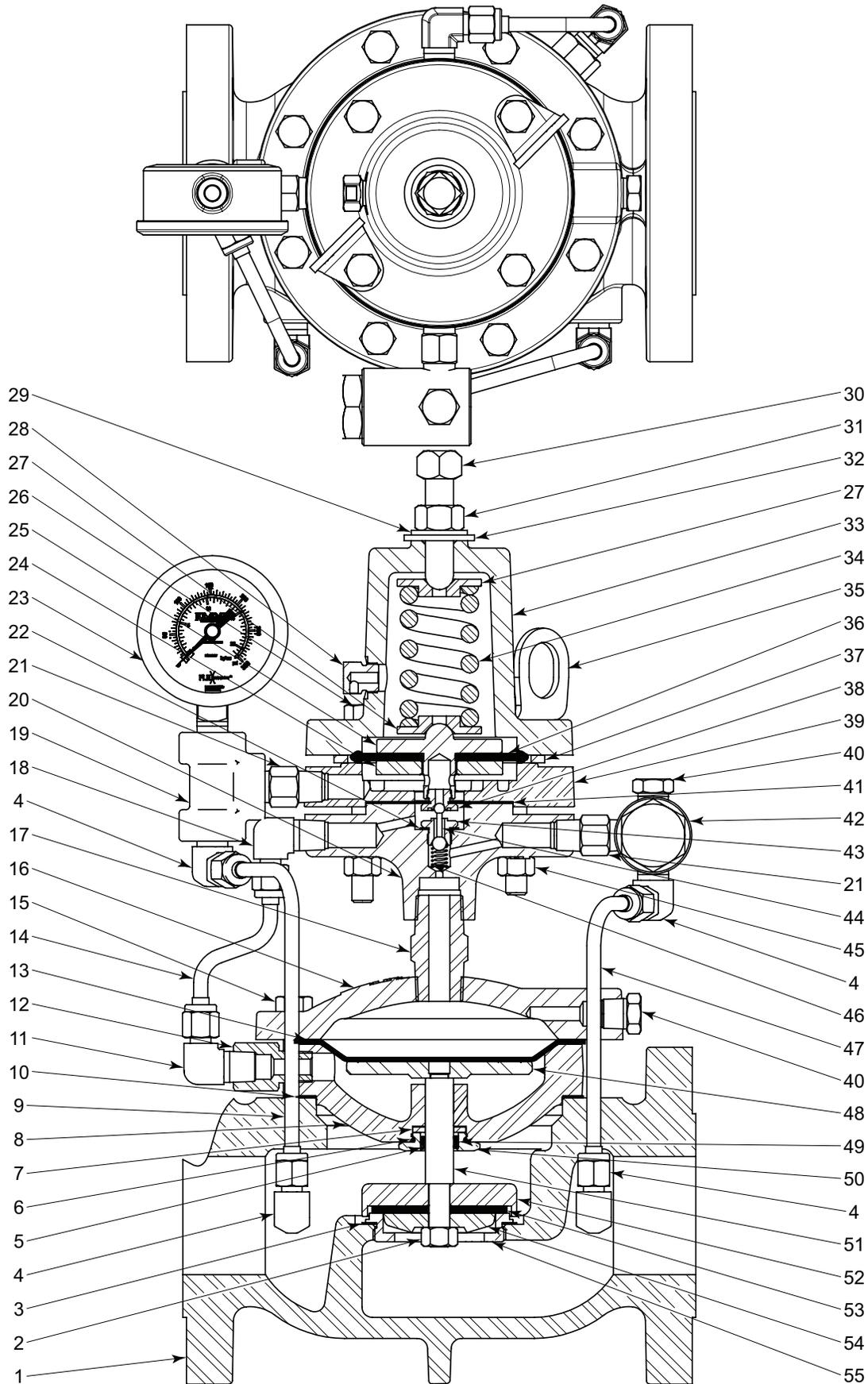
### GAS PRESSURE REDUCING NON - VENTING MODEL RN PARTS LIST

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	----	2964	----	----	----	----	2964 ‡	----	----	----		
2	1	Gasket *	----	276	277	196	279	----	276	277	196	279		
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN	
4	3	Elbow	875					875SS6						
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6	
6	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T		
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157		
8	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
9	1	Tubing	123SS6	216SS6	217SS6	4251S6	218SS6	123SS6	216SS6	217SS6	4251S6	218SS6		
10	1	Elbow	1605	875			1481	1605SS6	875SS6			1481SS6		
		Connector	----			874	874SS6	----			874SS6			
		Nipple	----			262	648SS6	----			648SS6			
11	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
12	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
13	1	Elbow / Connector	874	875	874		875	874SS6	875SS6	874SS6		875SS6		
14	1	Upper Housing	4015	1703	1639	2004	2178	4015SS6	1703 ‡	1639 ‡	2004 ‡	2178 ‡		
15	1	Tubing	1378SS6	4008SS6	213SS6	4011SS6	2529SS6	1378SS6	4008SS6	213SS6	4011SS6	2529SS6		
16	1	Tee	219	2000			219SS6	2000SS6						
17	1	Connector	1604	874			1604SS6	874SS6						
18	1	Nipple	6890	648			6890SS6	648SS6						
19	1	Gasket *	3018	118			3018	118						
20	1	Pilot Seat *	3016	113			3016SS6	113SS6						
21	1	Pressure Gauge	7707					7707						
22	1	Spacer Ring *	----	7437			----	7437						
23	1	Vent Plug	147					147SS6						
24	1	Diaphragm *	3011P	5259P			3011P	5259P						
25	1	Diaphragm Plate	3009	105			3009SS6	105SS6						
26	4	Bolt	6972	907			6972	907						
27	1	Thread Seal *	4542	4488			4542	4488						
28	1	Adjusting Screw	6976	5163			6976SS6	5163SS6						
29	1	Nut	1676	2377			1676SS6	2377SS6						
30	1	Washer *	4543	4491			4543	4491						
31	2	Spring Guide	4484SS6	2612			4484SS6	2612SS6						
32	1	Spring	4323	2611			4323	2611						
33	1	Bonnet	4525	2610			4525	2610 ‡						
34	2	Lifting Ring	----	7559			----	7559			----			
35	1	Diaph. Nut	3010	107			3010SS6	107SS6						
36	1	Diaphragm *	3014	110			3014	110						
37	1	Pilot Housing	3013	1701			3013SS6	1701 ‡						
38	1	Plug	699					699SS6						
39	1	Nipple	6890	262	2600	648	6890S6	262SS6	2600SS6	648SS6				
40	1	1/4 F30 Filter	YAS					YASS6						
41	1	Pilot Seat *	3015	565			3015SS6	565SS6						
42	1	Pilot Plug *	3017	112			3017	112						
43	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
44	1	Spring *	3008	585			3008	585						
45	1	Tubing	123SS6	1638SS6	1826SS6	1383SS6	2247SS6	4123SS6	1638SS6	1826SS6	1383SS6	2247SS6		
46	1	Lower Housing	142	1704	1632	145	146	142 ‡	1704 ‡	1632 ‡	145 ‡	146 ‡		
47	1	Seat Disc	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6	
			Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6	
48	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6	
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	3076SS6	
49	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K	
50	1	Nut	Standard *	172	173	906		175	172SS6	173SS6	174SS6		175SS6	
			Reduced *	172	173			906	172SS6	173SS6			174SS6	
Repair Kits			RYD	RYG	RYK	RYO	RYR	‡ Coated Parts available with "E" shell material						
			* These parts are recommended spare parts and are stocked as repair kits.											

# PRESSURE REGULATORS



## STEEL GAS PRESSURE REDUCING NON - VENTING MODEL RN PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS PRESSURE REDUCING NON - VENTING  
MODEL RN PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER							
			STANDARD				CORROSIVE			
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡
2	1	Nut	Standard * 173	906		175	173SS6	174SS6		175SS6
			Reduced * 173			906	173SS6		174SS6	
3	1	Gasket	* 276	277	196	279	276	277	196	279
4	4	Ell	875				875SS6			
5	2	Back Up	* 149T	150T	151T	152T	149T	150T	151T	152T
6	1	O-Ring	* 5225	5226	5227	4086	5225	5226	5227	4086
7	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6
8	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡
9	1	Tubing	2505SS6	2552SS6	2529SS6	4306SS6	2505SS6	2552SS6	2529SS6	4306SS6
10	1	Gasket	* 196	197	198	199	196	197	198	199
11	1	Elbow / Connector	875			874	875SS6			874SS6
12	1	Adapter	7244			----	7244SS6			----
		Nipple	----			648	----			648SS6
		Elbow	----			1481	----			1481SS6
13	1	Diaphragm	* 1706	1640	2015	2140	1706	1640	2015	2140
14	1	Tubing	2511SS6	4011SS6		2529SS6	2511SS6	4011SS6		2529SS6
15	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)
16	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡
17	1	Nipple	2516				2516SS6			
18	1	Elbow / Connector	875		874		875SS6		874SS6	
19	1	Tee	2000			2000SS6				
20	1	Base	2515			2515 ‡				
21	2	Nipple	648			648SS6				
22	1	Gasket	118			118				
23	1	Pressure Gauge	7707			7707				
24	1	Diaphragm Nut	107			107SS6				
25	1	Diaphragm Plate	105			105SS6				
26	4	Bolt	1232			1232				
27	2	Spring Guide	2612			2612SS6				
28	1	Breather Plug	147			147SS6				
29	1	Washer	4491			4491				
30	1	Adjusting Screw	5163			5163SS6				
31	1	Nut	2377			2377SS6				
32	1	Thread Seal	4488			4488				
33	1	Bonnet	2672			2672 ‡				
34	1	Spring	2611			2611				
35	2	Lifting Ring	7559		----		7559		----	
36	1	Diaphragm	5259P			5259P				
37	1	Spacer Ring	7437			7437				
38	1	Pilot Seat	113			113SS6				
39	1	Pilot Housing	2514			2514 ‡				
40	2	Plug	699			699SS6				
41	1	Diaphragm	110			110				
42	1	1/4 F30 Filter	YAS			YASSS6				
43	1	Pilot Seat	565			565SS6				
44	1	Pilot Plug	112			112				
45	4	Nut	241			241				
46	1	Spring	585			585				
47	1	Tubing	2505SS6	4011SS6	2529SS6	5061SS6	2505SS6	4011SS6	2529SS6	5061SS6
48	1	Diaphragm Plate	2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6
49	1	O-Ring	* 154	807	156	157	154	807	156	157
50	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6
51	1	Valve Stem	Standard 138	139	140	141	138SS6	139SS6	140SS6	141SS6
		Reduced 138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6	
52	1	Seat Disc	Standard 2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
		Reduced 2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6	
53	1	Seat	Standard * 164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
		Reduced * 164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN	
54	1	Ratio Plug	Standard 177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
		Reduced 4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6	
55	1	Removable Seat	Standard 2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
		Reduced 4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K	

‡ Coated Parts available with "E" shell material

Repair Kits

RYG	RYK	RYO	RYR	RYGS6	RYKS6	RYOS6	RYRS6
* These parts are recommended spare parts and are stocked as repair kits.							

**NOTES:**



Kimray is an ISO 9001- certified manufacturer.

### GAS PRESSURE REDUCING W/ OUTSIDE SUPPLY MODEL FR

#### APPLICATION:

Regulation of inlet pressure to gas compressors. Control of supply or distribution system pressure. Ideal for use in liquid packed systems where an auxiliary source of supply air or dry gas pressure available. When compressed air can be used as the outside source of supply, it is a great way to mitigate emissions concerns related to vented gas.

And other systems where it is desired that no gas be vented

- Inside Buildings
- In populated areas
- Emissions regulated areas
- Sour or poisonous gas systems

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes downstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

Canadian Registration Number (CRN):  
0C16234.24567890NTY (Ductile)  
0C15604.24567890NTY (Steel)

Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

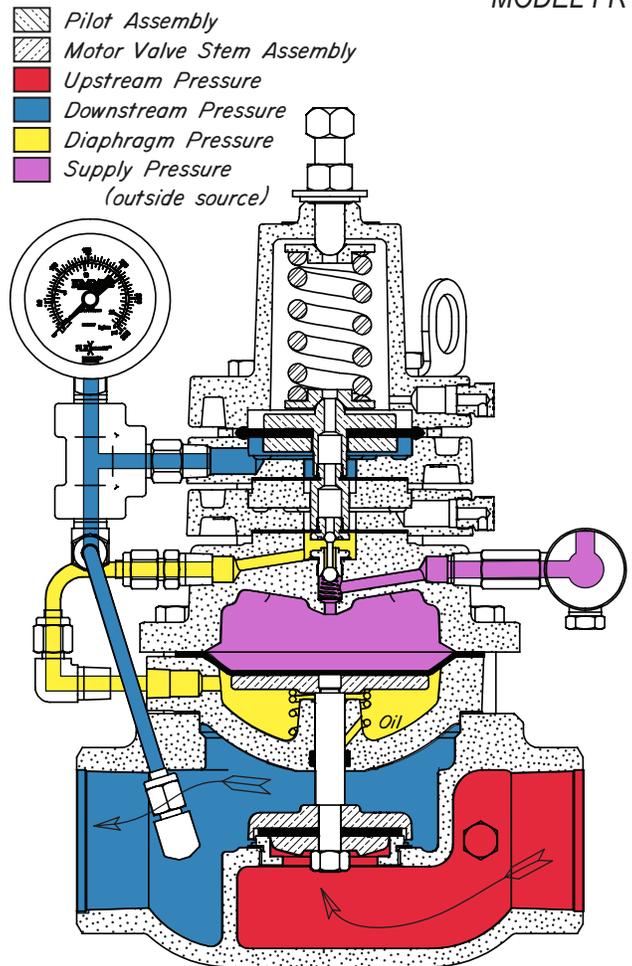
Non-Bleed / Intermittent Vent

#### SET POINT DRIFT RATIO:

8:1

#### SUPPLY PRESSURE:

Equal to or not less than 60% of upstream pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RFR1SADF1S	AWA	1"	NPT	10-300	300	13.2	0.74
	RFR2SADF1S	AWB	2"	NPT	10-300	300	47.0	0.84
	RFR2ARDF1S	AWD		150RF	10-250	250		
	RFR3SADF1S	AWE	3"	NPT	10-300	300	117	0.75
	RFR3ARDF1S	AWF		150RF	10-250	250		
	RFR4SADF1S	AWG	4"	NPT	10-300	300	210	0.75
	RFR4ARDF1S	AWH		150RF	10-250	250		
RFR6ARDF1S	AWI	6"	150RF	10-250	250	480	0.75	
Steel	RFR1SAWF1S	AWJ	1"	NPT	10-300	300	13.2	0.74
	RFR2ARWF1S	AWL	2"	150RF	10-285	285	47.0	0.84
	RFR3ARWF1S	AWM	3"	150RF	10-285	285	117	0.75
	RFR4ARWF1S	AWN	4"	150RF	10-285	285	210	0.75
	RFR6ARWF1S	AWO	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

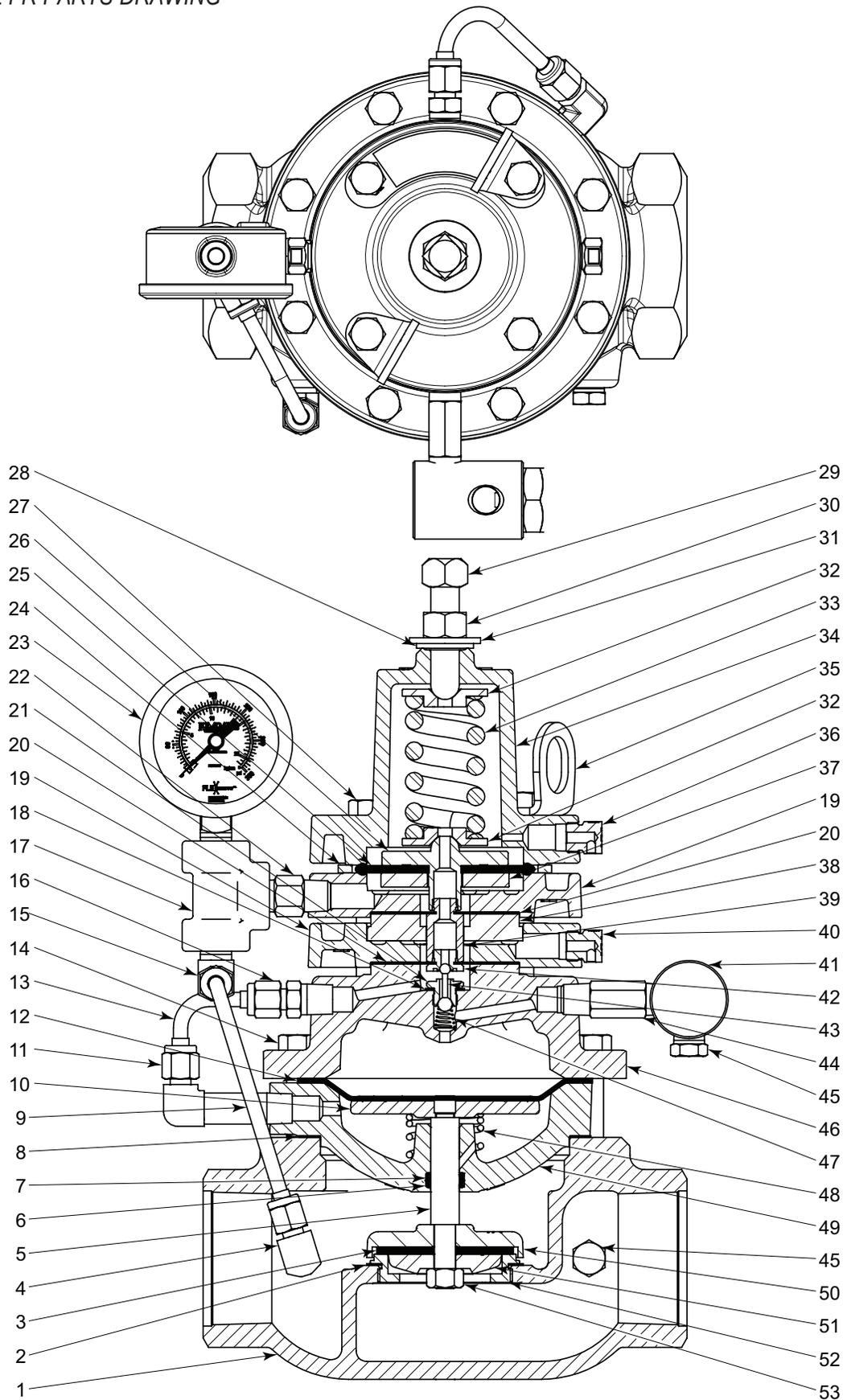
† For code builder see page 06:00.2

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

# PRESSURE REGULATORS



DUCTILE GAS PRESSURE REDUCING W/ OUTSIDE SUPPLY  
MODEL FR PARTS DRAWING



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



**PRESSURE REGULATORS**

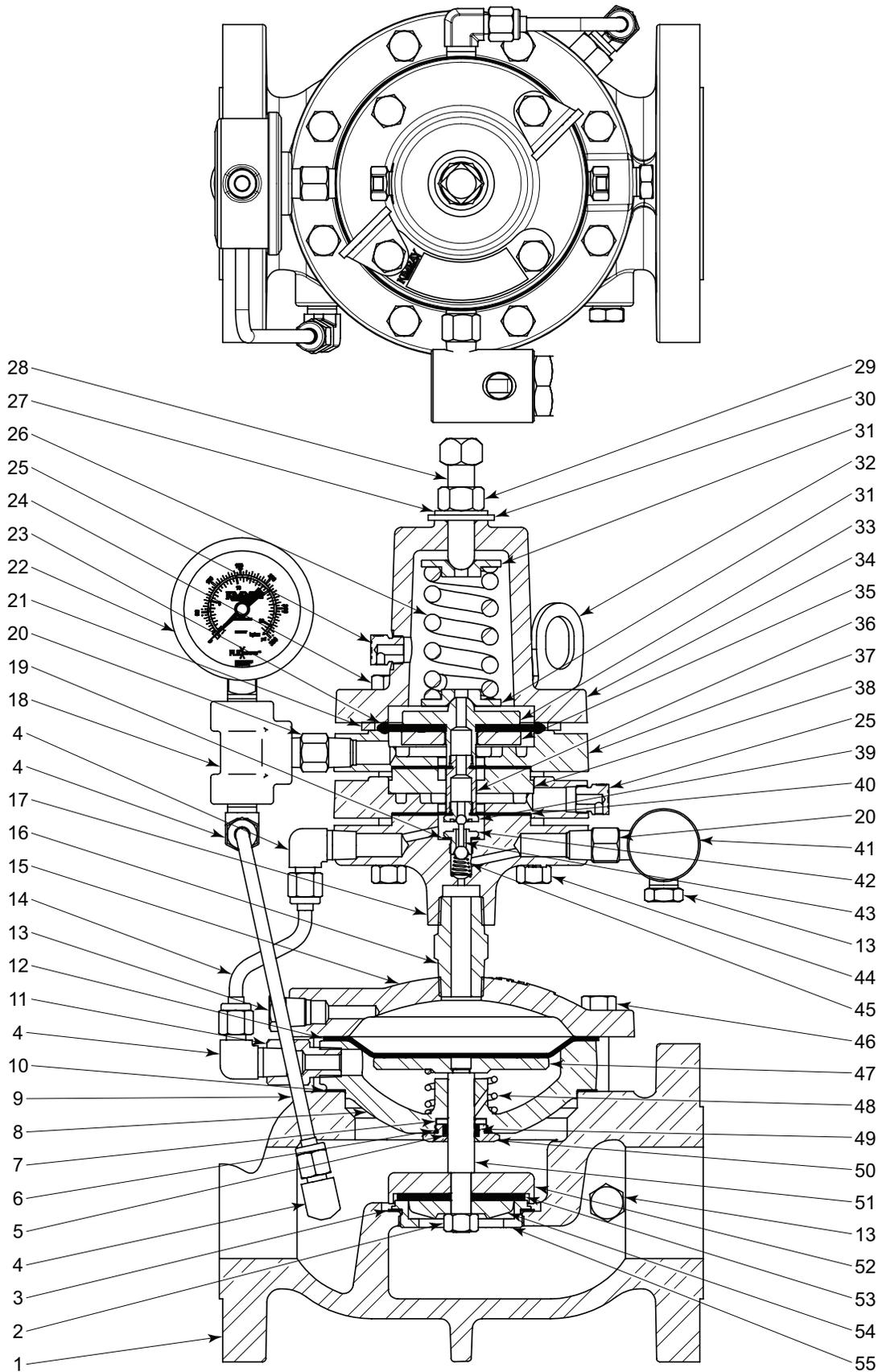
**DUCTILE GAS PRESSURE REDUCING W/ OUTSIDE SUPPLY  
MODEL FR PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER															
			STANDARD					CORROSIVE										
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH						
1	1	Body																
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----						
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡						
		Grooved Thru	----	2964	----	----	----	----	2964 ‡	----	----	----						
2	1	Gasket	*	----	276	277	196	279										
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN					
			Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN					
4	1	Elbow	875					875SS6										
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6					
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6					
6	2	Back Up	*	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T					
7	1	O-Ring	*	153	154	155	156	157	153	154	155	156	157					
8	1	Gasket	*	195	196	197	198	199	195	196	197	198	199					
9	1	Tubing		123SS6	2512SS6	4251S6	2529SS6	4306SS6	123SS6	216SS6	217SS6	4251S6	4306SS6					
10	1	Diaphragm Plate		132SS6	133	134	135	136	132SS6	133	134	135	136					
11	1	Elbow	875					875SS6										
	1	Connector	----	----	----	----	874	----	----	----	----	874SS6						
	1	Nipple	----	----	----	----	262	----	----	----	----	262SS6						
12	1	Diaphragm	*	127	1706	1640	2015	2140	127	1706	1640	2015	2140					
13	1	Tubing		1378SS6	4008SS6	213SS6	4011SS6	2529SS6	1378SS6	4008SS6	213SS6	4011SS6	2529SS6					
14	(QTY)	Bolt		4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)					
15	1	Connector	874				875				874SS6							
16	1	Connector	1604	874				1604SS6				874SS6						
17	1	Tee	219	2000				219SS6				2000SS6						
18	1	Gasket	*	3018	118				3018				118					
19	2	Pilot Housing	3013				1701				3013SS6				1701 ‡			
20	2	Diaphragm	*	3014	110				3014				110					
21	1	Pilot Seat	*	3015	565				3015SS6				565SS6					
22	1	Nipple	6890	648				6890S6				648SS6						
23	1	Pressure Gauge	7707					7707										
24	1	Spacer Ring	----	7437				----				7437						
25	1	Diaphragm	*	3011P	5259P				3011P				5259P					
26	1	Diaphragm Plate	4014	116				4014SS6				116SS6						
27	4	Bolt	4553	7671				4553				7671						
28	1	Thread Seal	*	4542	4488				4542				4488					
29	1	Adjusting Screw	6976	5163				6976S6				5163SS6						
30	1	Nut	1676	2377				1676SS6				2377SS6						
31	1	Washer	*	4543	4491				4543				4491					
32	2	Spring Guide	4484SS6	2612				4484SS6				2612SS6						
33	1	Spring	4323	2611				4323				2611						
34	1	Bonnet	4525	2610				4525				2610 ‡						
35	2	Lifting Ring	----	7559				----				7559						
36	1	Vent Plug	147					147SS6										
37	1	Diaph. Nut	3010	107				3010SS6				107SS6						
38	1	Spacer Ring	----	2021				----				2021						
39	1	Seat Extension	----	4297				----				4297						
40	1	Vent Plug	1357	147				1357SS6				147SS6						
41	1	1/4 F30 Filter	YAS					YASS6										
42	1	Pilot Seat	*	3016	113				3016SS6				113SS6					
43	1	Pilot Plug	*	3017	112				3017				112					
44	1	Nipple	6890	262	2600	648	6890S6					262SS6	2600SS6	648SS6				
45	2	Plug	699					699SS6										
46	1	Upper Housing	4015	1703	1639	2004	2178	4015SS6	1703 ‡	1639 ‡	2004 ‡	2178 ‡						
47	1	Spring	*	3008	108				3008				108HAC					
48	1	Spring	1358	1388	7132	1529	1575	1358	1388	7132	1529	1575						
49	1	Lower Housing	142	1704	1632	145	146	142 ‡	1704 ‡	1632 ‡	145 ‡	146 ‡						
50	1	Seat Disc	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6					
			Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6					
51	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6					
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	3076SS6					
52	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K					
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K					
53	1	Nut	Standard *	172	173	906		175	172SS6	173SS6	174SS6		175SS6					
			Reduced *	172	173				906	172SS6	173SS6			174SS6				
Repair Kits			RYD	RYG	RYK	RYO	RYR	‡ Coated Parts available with "E" shell material										
								RYDS6	RYGS6	RYKS6	RYOS6	RYRS6						
* These parts are recommended spare parts and are stocked as repair kits.																		

# PRESSURE REGULATORS



## STEEL GAS PRESSURE REDUCING W/ OUTSIDE SUPPLY MODEL FR PARTS DRAWING



All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.  
‡ Configuration of Back Pressure Control Valve is a trademark of Kimray, Inc.  
[www.kimray.com](http://www.kimray.com)



**PRESSURE REGULATORS**

**STEEL GAS PRESSURE REDUCING W/ OUTSIDE SUPPLY  
MODEL FR PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡	
2	1	Nut	Standard *	173	906		175	173SS6	174SS6		175SS6
			Reduced *	173			906		174SS6		
3	1	Gasket	*	276	277	196	279	276	277	196	279
4	4	Ell		875				875SS6			
5	2	Back Up	*	149T	150T	151T	152T	149T	150T	151T	152T
6	1	O-Ring	*	5225	5226	5227	4086	5225	5226	5227	4086
7	1	Spacer		4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6
8	1	Lower Housing		2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡
9	1	Tubing		2529SS6	2552SS6	2529SS6	4306S6	2529SS6	2552SS6	2529SS6	4306S6
10	1	Gasket	*	196	197	198	199	196	197	198	199
11	1	Adapter		7244			----	7244S6			----
		Nipple		----	----	648	----	----	648SS6	----	
		Elbow		----	----	1481	----	----	1481226	----	
12	1	Diaphragm	*	1706	1640	2015	2140	1706	1640	2015	2140
13	3	Plug		699			699SS6				
14	1	Tubing		2511SS6	4011SS6		2529SS6	2511SS6	4011SS6	2529SS6	2529SS6
15	1	Bonnet		2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡
16	1	Nipple		2516			2516SS6				
17	1	Base		2515			2515 ‡				
18	1	Tee		2000			2000SS6				
19	1	Gasket	*	118			118				
20	2	Nipple		648			648SS6				
21	1	Spacer Ring	*	7437			7437				
22	1	Pressure Gauge		7707			7707				
23	1	Diaphragm	*	5259P			5259P				
24	4	Bolt		1232			1232				
25	1	Breather Plug		147			147SS6				
26	1	Spring		2611			2611				
27	1	Washer	*	4491			4491				
28	1	Adjusting Screw		5163			5163SS6				
29	1	Nut		2377			2377SS6				
30	1	Thread Seal	*	4488			4488				
31	2	Spring Guide		2612			2612SS6				
32	2	Lifting Ring		7559		----	7559		----	----	
33	1	Diaphragm Plate		116			116SS6				
34	1	Bonnet		2672			2672 ‡				
35	1	Diaphragm Nut		107			107SS6				
36	1	Seat Extension		4297			4297				
37	1	Pilot Housing		2514			2514 ‡				
38	1	Spacer Ring		2021			2021				
39	1	Pilot Seat	*	113			113SS6				
40	1	Diaphragm	*	110			110				
41	1	1/4 F30 Filter		YAS			YASSS6				
42	1	Pilot Seat	*	565			565SS6				
43	1	Pilot Plug	*	112			112				
44	4	Nut		241			241SS6				
45	1	Spring	*	108			108HAC				
46	(QTY)	Bolt		965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)
47	1	Diaphragm Plate		2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6
48	1	Spring		1388	7132	1529	1575	1388	7132	1529	1575
49	1	O-Ring	*	154	807	156	157	154	807	156	157
50	1	Retainer		4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6
51	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
52	1	Seat Disc	Standard	2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
			Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6
53	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
54	1	Ratio Plug	Standard	177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	178
55	1	Removable Seat	Standard	2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
			Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K

‡ Coated Parts available with "E" shell material

Repair Kits

RYG RYK RYO RYR RYGS6 RYKS6 RYOS6 RYRS6

\* 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.

‡ Configuration of Back Pressure Control Valve is a trademark of Kimray, Inc.

www.kimray.com

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used for regulation of inlet pressure to gas compressors and control of supply or distribution system pressures where the pressure to the regulator varies significantly and regulated pressure must remain constant.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

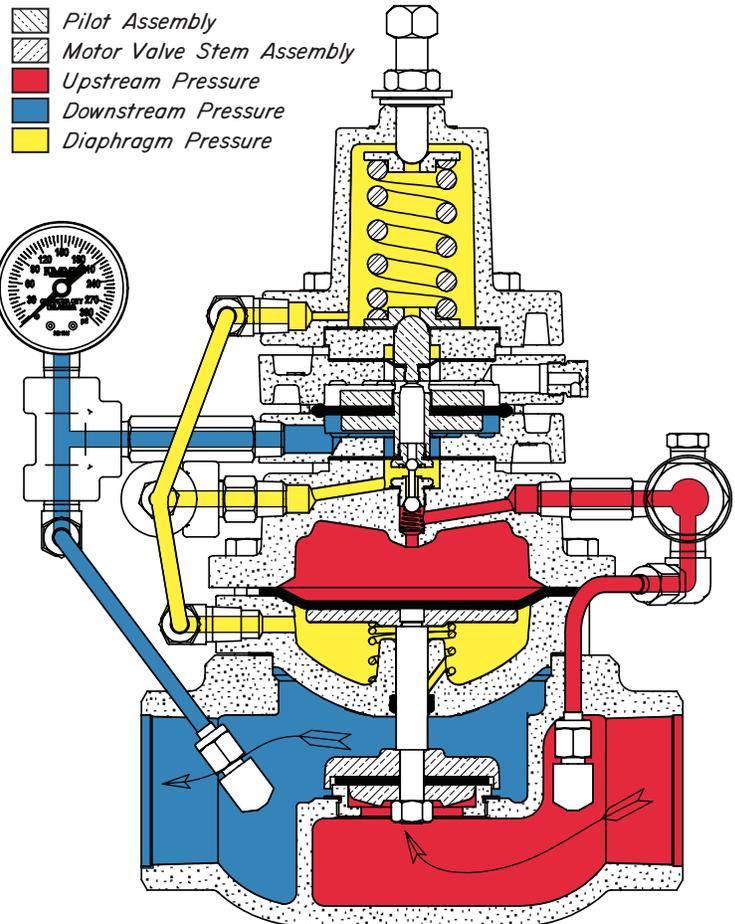
Canadian Registration Number (CRN):  
 0C16234.24567890NTY (Ductile)  
 0C15604.24567890NTY (Steel)  
 Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

#### SET POINT DRIFT RATIO:

100:1



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RRB1SADF1S	AKJ	1"	NPT	10-300	300	13.2	0.74
	RRB2SADF1S	AJI	2"	NPT	10-300	300	47.0	0.84
	RRB2ARDF1S	AJJ		150RF	10-250	250		
	RRB3SADF1S	AJK	3"	NPT	10-300	300	117	0.75
	RRB3ARDF1S	AJL		150RF	10-250	250		
	RRB4SADF1S	AJM	4"	NPT	10-300	300	210	0.75
	RRB4ARDF1S	AJN		150RF	10-250	250		
	RRB4ARDF1S	AJP	6"	150RF	10-250	250	480	0.75
Steel	RRB2ARWF1S	AJR	2"	150RF	10-285	285	47.0	0.84
	RRB3ARWF1S	AJS	3"	150RF	10-285	285	117	0.75
	RRB4ARWF1S	AJT	4"	150RF	10-285	285	210	0.75
	RRB6ARWF1S	AJU	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

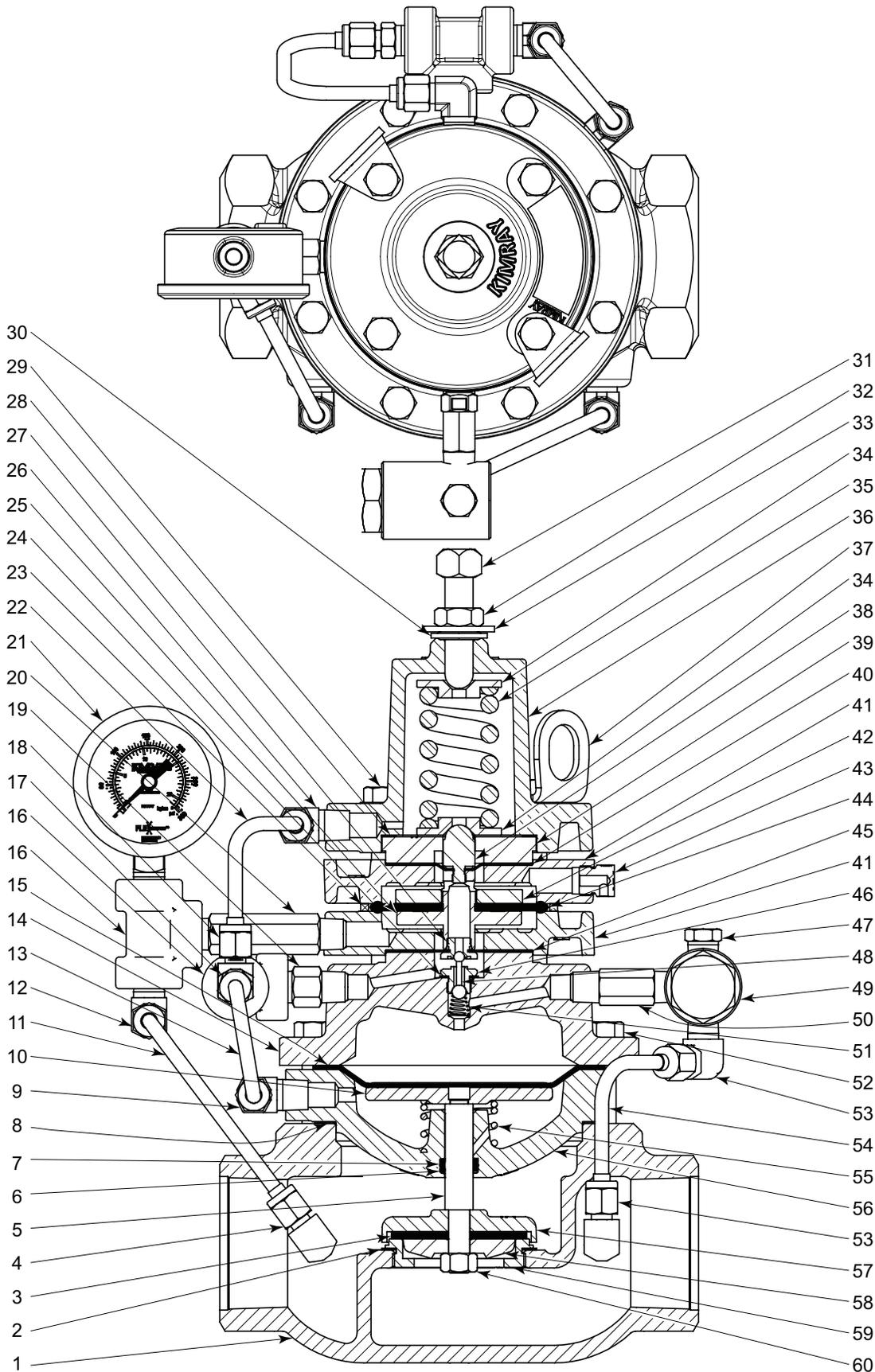
† For code builder see page 06:00.2

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

# PRESSURE REGULATORS



## GAS PRESSURE REDUCING BALANCED MODEL RB PARTS DRAWING



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



**PRESSURE REGULATORS**

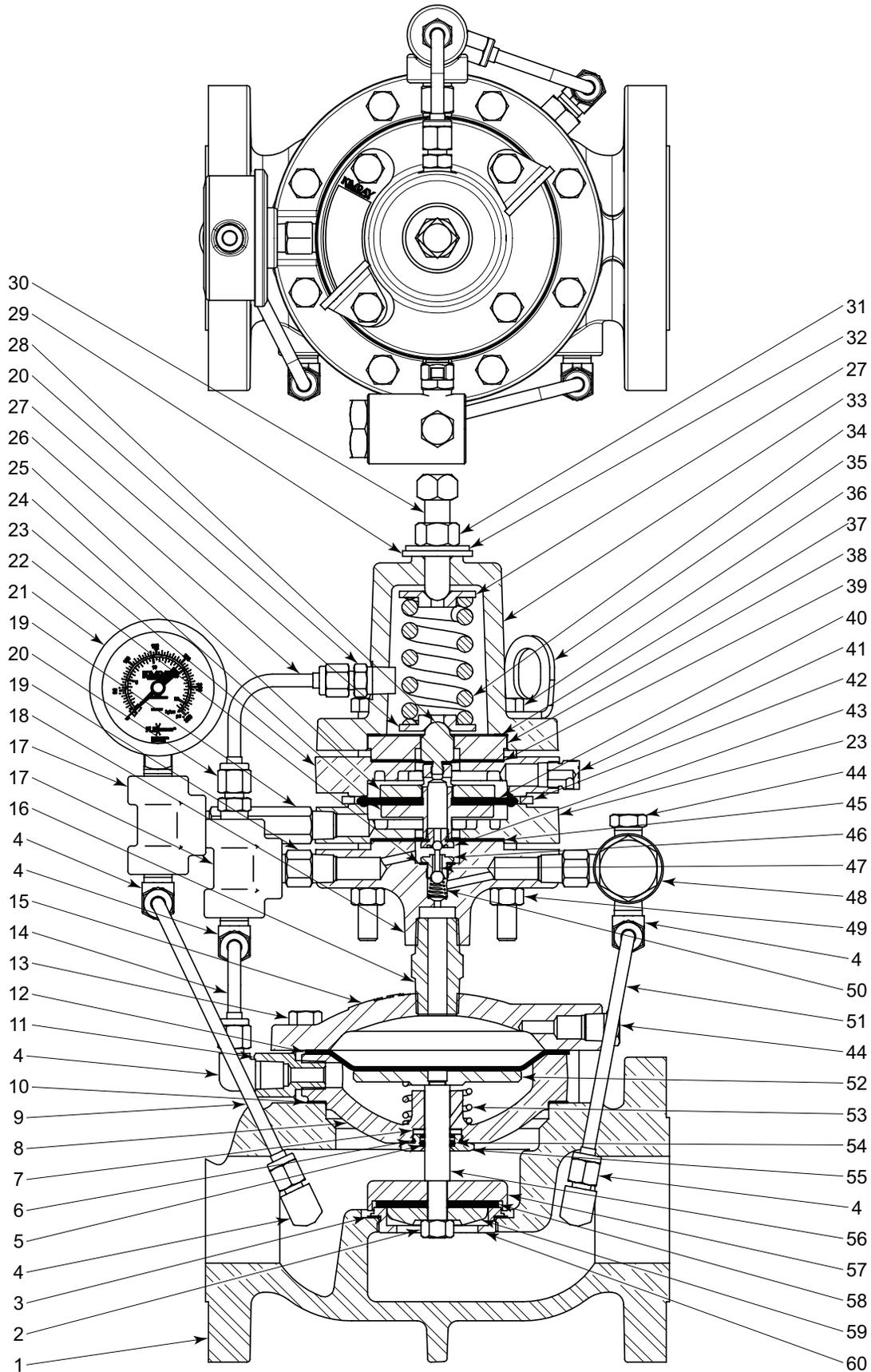
**GAS PRESSURE REDUCING BALANCED  
MODEL RB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	----	2964	----	----	----	----	2964 ‡	----	----	----		
2	1	Gasket *	----	276	277	196	279	4554	276	277	196	279		
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
		Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN		
4	1	Elbow / Connector	874			875			874SS6			875SS6		
5	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
		Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6		
6	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T		
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157		
8	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
9	1	Elbow	1605		875		1481	1605SS6		875SS6		1481SS6		
		Connector			----		874			----		874SS6		
		Nipple			----		262			----		262SS6		
10	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
11	1	Tubing	123SS6	216SS6	217SS6	4251S6	218SS6	123SS6	216SS6	217SS6	4251S6	218SS6		
12	1	Elbow		875	874		875		875SS6	874SS6		875SS6		
13	1	Tubing	4416SS6	2511SS6		4011SS6	2247SS6	4416SS6	2511SS6		4011SS6	2247SS6		
14	1	Upper Housing	4015	1703	1639	2004	2178	4015SS6	1703 ‡	1639 ‡	2004 ‡	2178 ‡		
15	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
16	2	Tee	219			2000		219SS6			2000SS6			
17	1	Elbow / Connector	875		874		875	874	875SS6		874SS6		875SS6	874SS6
18	1	Elbow / Connector	874		875		874		874SS6		875SS6		874SS6	
19	1	Nipple	6890	648		2600	648	6890SS6	648SS6		2600SS6	648SS6		
20	1	Nipple	6890			648		6890SS6			648SS6			
21	1	Pressure Gauge				7707					7707			
22	1	Tubing	4416SS6	2511SS6		4011SS6	4262SS6	4416SS6	2511SS6		4011SS6	4262SS6		
23	1	Spacer Ring *	----			7437		----			7437			
24	1	Gasket *	3018			118		3018			118			
25	1	Diaphragm Plate	4495			6525		4495SS6			6525SS6			
26	1	Elbow / Connector		875		874	875		875SS6		874SS6	875SS6		
27	1	Pilot Seat *	3016			113		3016SS6			113SS6			
28	1	Gasket *	4554			276		4554			276			
29	4	Bolt	4553			7671		4553			7671			
30	1	Thread Seal *	4542			4488		4542			4488			
31	1	Adjusting Screw	6976			5163		6976SS6			5163SS6			
32	1	Nut	1676			2377		1676SS6			2377SS6			
33	1	Washer	4543			4491		4543			4491			
34	2	Spring Guide	4484SS6			2612		4484SS6			2612SS6			
35	1	Spring	4323			2611		4323			2611			
36	1	Bonnet	4525			2610		4525			2610 ‡			
37	2	Lifting Ring	----			7559	----	----			7559	----		
38	1	Pivot Screw	4493			6524		4493			6524SS6			
39	1	Spacer	4494S6			2021		4494S6			2021			
40	1	Diaphragm *	3014			6520		3014			6520			
41	2	Pilot Housing	3013			1701		3013SS6			1701 ‡			
42	1	Diaph. Nut	3010			107		3010SS6			107SS6			
43	1	Vent Plug	1357			147		1357SS6			147SS6			
44	1	Diaphragm *	3011P			5259P		3011P			5259P			
45	1	Diaphragm *	3014			110		3014			110			
46	1	Pilot Seat	3015			565		3015SS6			565SS6			
47	1	Plug				699					699SS6			
48	1	Pilot Plug *	3017			112		3017			112			
49	1	1/4 F30 Filter				YAS					YASS6			
50	1	Nipple	6890	262		2600	648	6890S6	262SS6		2600SS6	648SS6		
51	1	Spring *	3008			108		3008			108HAC			
52	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
53	2	Elbow				875					875SS6			
54	1	Tubing	123SS6	1638SS6	1826SS6	1383SS6	2247SS6	123SS6	1638SS6	1826SS6	1383SS6	2247SS6		
55	1	Spring	1358	1388	7132	1529	1575	1358	1388	7132	1529	1575		
56	1	Lower Housing	142	1704	1632	145	146	142 ‡	1704 ‡	1632 ‡	145 ‡	146 ‡		
57	1	Seat	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6	
		Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6		
58	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6	
		Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	178		
59	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
		Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K		
60	1	Nut	Standard *	172	173		906	175	172SS6	173SS6		174SS6	175SS6	
		Reduced *	172			173		906	172SS6			173SS6	174SS6	
Repair Kits			RYD	RYG	RYK	RYO	RYR	RYDS6	RYGS6	RYKS6	RYOS6	RYRS6		
* These parts are recommended spare parts and are stocked as repair kits.														

# PRESSURE REGULATORS



## STEEL GAS PRESSURE REDUCING BALANCED MODEL RB PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS PRESSURE REDUCING BALANCED  
MODEL RB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡	
2	1	Nut	173	906		175	173SS6	174SS6		175SS6	
3	1	Gasket	276	277	196	279	173SS6		174SS6		
4	6	Eil	875 (see note below)				875SS6 (see note below)				
5	2	Back Up	149T	150T	151T	152T	149T	150T	151T	152T	
6	1	O-Ring	5225	5226	5227	4086	5225	5226	5227	4086	
7	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6	
8	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡	
9	1	Tubing	2529SS6	2552SS6	2507SS6	4306SS6	2529SS6	2552SS6	2507SS6	4306SS6	
10	1	Gasket	196	197	198	199	196	197	198	199	
11	1	Adapter	7244			----	7244S6			----	
12	1	Diaphragm	1706	1640	2015	2140	1706	1640	2015	2140	
13	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)	
14	1	Tubing	4416S6	4305S6	4418S6	4251S6	4416S6	4305S6	4418S6	4251S6	
15	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡	
16	1	Nipple	2516				2516SS6				
17	2	Tee	2000				2000SS6				
18	1	Base	2515				2515 ‡				
19	3	Nipple	648				648SS6				
20	2	Connector	874				874SS6				
21	1	Pressure Gauge	7707				7707				
22	1	Gasket	*	118				118			
23	2	Pilot Housing	2514				2514 ‡				
24	1	Diaphragm Plate	6525				6525SS6				
25	1	Diaphragm Nut	107				107SS6				
26	1	Tubing	4414S6	4050SS6	4666S6	4305S6	4414S6	4050SS6	4666S6	4305S6	
27	2	Spring Guide	2612				2612SS6				
28	1	Pivot Screw	6524				6524SS6				
29	1	Packing Seal	*	4488				4488			
30	1	Adjusting Screw	5163				5163SS6				
31	1	Nut	2377				2377SS6				
32	1	Washer	*	4491				4491			
33	1	Bonnet	2672				2672 ‡				
34	1	Spring	2611				2611				
35	2	Lifting Ring	7559		----		7559		----		
36	4	Bolt	4298				4298				
37	1	Gasket	276				276				
38	1	Spacer	2021				2021				
39	1	Diaphragm	*	6520				6520			
40	1	Diaphragm	*	5259P				5259P			
41	1	Breather Plug	147				147SS6				
42	1	Spacer Ring	7437				7437				
43	1	Pilot Seat	*	113				113SS6			
44	2	Plug	699				699SS6				
45	1	Diaphragm	*	110				110			
46	1	Pilot Seat	*	565				565SS6			
47	1	Pilot Plug	*	112				112			
48	1	1/4 F30 Filter	YAS				YASS6				
49	4	Nut	241				241				
50	1	Spring	*	108				108HAC			
51	1	Tubing	2505SS6	4011SS6	2510SS6	5061SS6	2505SS6	4011SS6	2510SS6	5061SS6	
52	1	Diaphragm Plate	2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6	
53	1	Spring	1388	7132	1529	1575	1388	7132	1529	1575	
54	1	O-Ring	*	154	807	156	157	154	807	156	
55	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6	
56	1	Valve Stem	Standard Reduced	138 1222SS6	139 1223SS6	140 1224SS6	141 1225SS6	138SS6	139SS6	140SS6	141SS6
57	1	Seat Disc	Standard Reduced	2493SS6 2493SS6	2494SS6 2585SS6	2495SS6 2493SS6	2961SS6 2494SS6	2493SS6	2494SS6	2495SS6	2961SS6
58	1	Seat	Standard Reduced	164HSN 164HSN	165HSN 1230HSN	166HSN 164HSN	167HSN 165HSN	164HSN	165HSN	166HSN	167HSN
59	1	Ratio Plug	Standard Reduced	177SS6 4933	178 1228SS6	179 177SS6	3079SS6 178	177SS6	3076SS6	3078SS6	3079SS6
60	1	Removable Seat	Standard Reduced	2496SS6K 4934SS6K	2497SS6K 1219SS6K	2498SS6K 1220SSK	3075SS6K 1221SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
‡ Coated Parts available with "E" shell material											
Repair Kits			RYG	RYK	RYO	RYR	RYGS6	RYKS6	RYOS6	RYRS6	
* These parts are recommended spare parts and are stocked as repair kits.											
NOTE: 6 inch Lower Housing uses (1) 874, (1) 1481, & (1) 648 instead of 875											

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used for regulation of inlet pressure to gas compressors and control of supply or distribution system pressures where the pressure to the regulator varies significantly and regulated pressure must remain constant.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

Canadian Registration Number (CRN):  
 0C16234.24567890NTY (Ductile)  
 0C15604.24567890NTY (Steel)  
 Kimray is an ISO 9001- certified manufacturer.

#### SET POINT DRIFT RATIO:

100:1

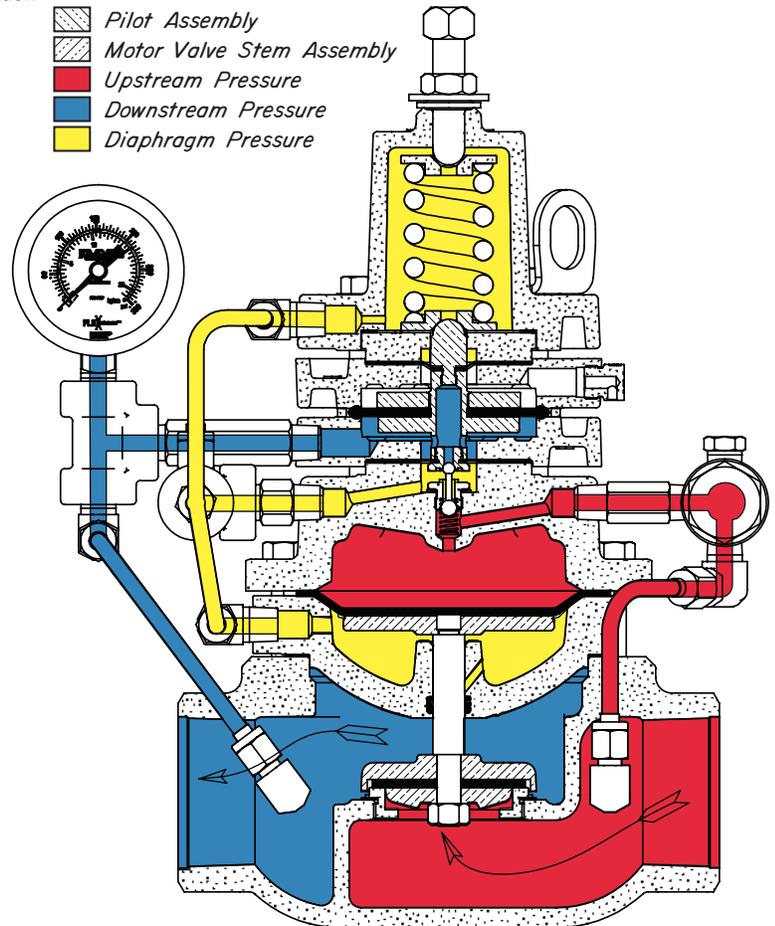
#### CLASSIFICATIONS:

Non-Venting

#### MIN. DIFFERENTIAL:

10 psig

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Diaphragm Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RPN1SADF1S	AVD	1"	NPT	10-300	300	13.2	0.74
	RPN2SADF1S	AVE	2"	NPT	10-300	300	47.0	0.84
	RPN2ARDF1S	AVF		150RF	10-250	250		
	RPN3SADF1S	AVH	3"	NPT	10-300	300	117	0.75
	RPN3ARDF1S	AVI		150RF	10-250	250		
	RPN4SADF1S	AVK	4"	NPT	10-300	300	210	0.75
	RPN4ARDF1S	AVL		150RF	10-250	250		
RPN6ARDF1S	AVN	6"	150RF	10-250	250	480	0.75	
Steel	RPN2ARWF1S	AVG	2"	150RF	10-285	285	47.0	0.84
	RPN3ARWF1S	AVJ	3"	150RF	10-285	285	117	0.75
	RPN4ARWF1S	AVM	4"	150RF	10-285	285	210	0.75
	RPN6ARWF1S	AVO	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

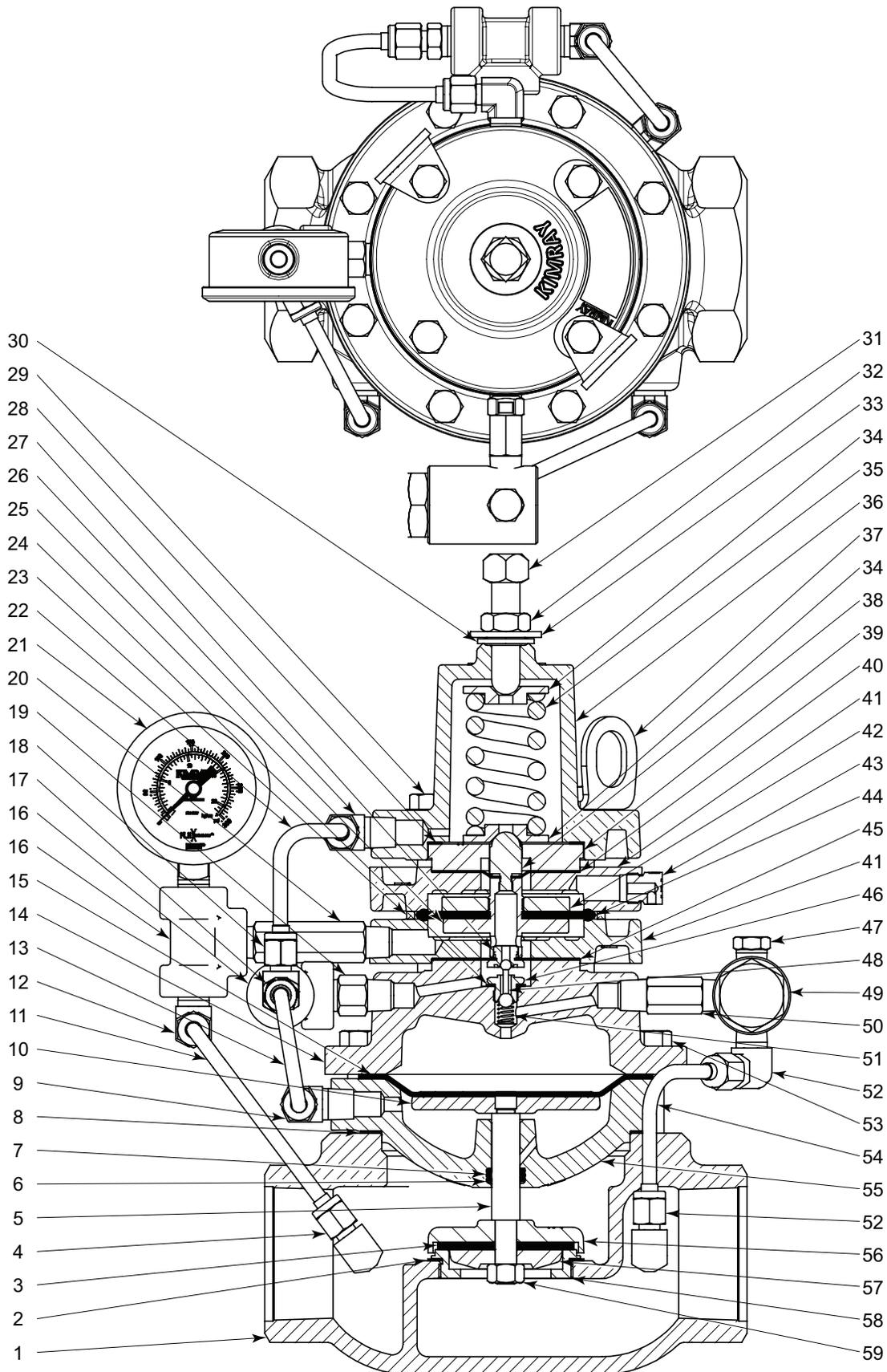
† For code builder see page 06:00.2

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

# PRESSURE REGULATORS



## GAS PRESSURE REDUCING BALANCED NON - VENTING MODEL PN PARTS DRAWING



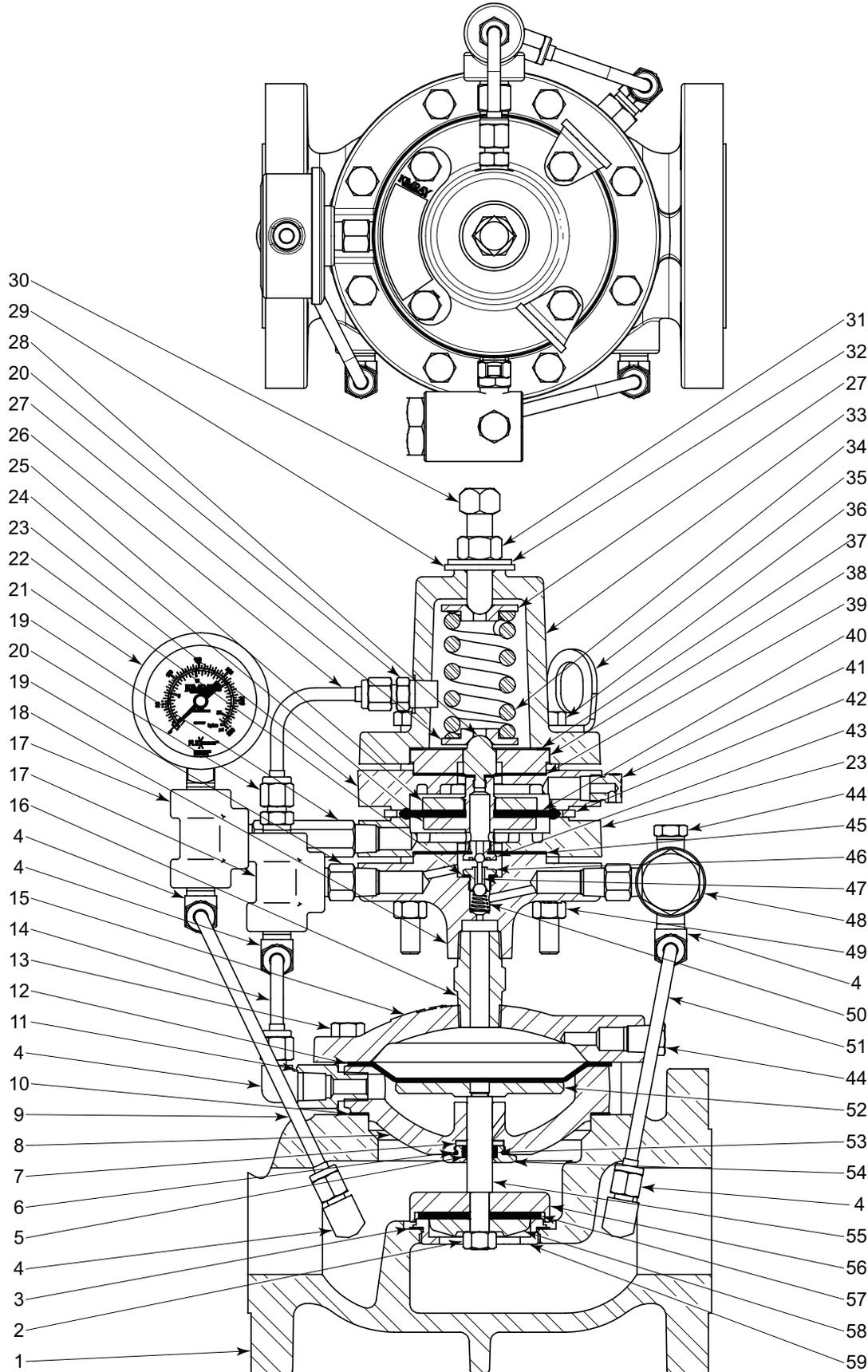
All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

### GAS PRESSURE REDUCING BALANCED NON - VENTING MODEL PN PARTS LIST

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033 ‡	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	----	2964	----	----	----	----	2964 ‡	----	----	----		
2	1	Gasket *	----	276	277	196	279	4554	276	277	196	279		
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
		Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN		
4	1	Elbow / Connector	874			875			874SS6			875SS6		
5	1	Valve	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
		Stem	Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6	
6	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T		
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157		
8	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
9	1	Elbow	1605		875		1481	1605SS6		875SS6		1481SS6		
		Connector			----		874			----		874SS6		
		Nipple			----		262			----		262SS6		
10	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
11	1	Tubing	123SS6	216SS6	217SS6	4251S6	218SS6	123SS6	216SS6	217SS6	4251S6	218SS6		
12	1	Elbow		875		874	875		875SS6		874SS6	875SS6		
13	1	Tubing	4416SS6	2511SS6		4011SS6	2247SS6	4416SS6	2511SS6		4011SS6	2247SS6		
14	1	Upper Housing	4015	1703	1639	2004	2178	4015SS6	1703 ‡	1639 ‡	2004 ‡	2178 ‡		
15	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
16	2	Tee	219			2000		219SS6			2000SS6			
17	1	Elbow / Connector	875		874		875	874	875SS6		874SS6		875SS6	874SS6
18	1	Elbow / Connector	874		875		874		874SS6		875SS6		874SS6	
19	1	Nipple	6890	648		2600	648	6890SS6	648SS6		2600SS6	648SS6		
20	1	Nipple	6890			648		6890SS6			648SS6			
21	1	Pressure Gauge				7707					7707			
22	1	Tubing	4416SS6	2511SS6		4011SS6	4262SS6	4416SS6	2511SS6		4011SS6	4262SS6		
23	1	Spacer Ring *	----			7437		----			7437			
24	1	Gasket *	3018			118		3018			118			
25	1	Diaphragm Plate	7873			7872		7873S6			7872S6			
26	1	Elbow / Connector		875		874	875		875SS6		874SS6	875SS6		
27	1	Pilot Seat *	3016			113		3016SS6			113SS6			
28	1	Gasket *	4554			276		4554			276			
29	4	Bolt	4553			7671		4553			7671			
30	1	Thread Seal *	4542			4488		4542			4488			
31	1	Adjusting Screw	6976			5163		6976SS6			5163SS6			
32	1	Nut	1676			2377		1676SS6			2377SS6			
33	1	Washer	4543			4491		4543			4491S6			
34	2	Spring Guide	4484SS6			2612		4484SS6			2612SS6			
35	1	Spring	4323			2611		4323			2611			
36	1	Bonnet	4525			2610		4525			2610 ‡			
37	2	Lifting Ring	----			7559	----	----			7559	----		
38	1	Pivot Screw	4493			6524		4493			6524SS6			
39	1	Spacer	4494S6			2021		4494S6			2021			
40	1	Diaphragm *	3014			6520		3014			6520			
41	2	Pilot Housing	3013			1701		3013SS6			1701 ‡			
42	1	Diaph. Nut	3010			107		3010SS6			107SS6			
43	1	Vent Plug	1357			147		1357SS6			147SS6			
44	1	Diaphragm *	3011P			5259P		3011P			5259P			
45	1	Diaphragm *	3014			110		3014			110			
46	1	Pilot Seat	3015			565		3015SS6			565SS6			
47	1	Plug				699					699SS6			
48	1	Pilot Plug *	3017			112		3017			112			
49	1	1/4 F30 Filter				YAS					YASS6			
50	1	Nipple	6890	262		2600	648	6890S6	262SS6		2600SS6	648SS6		
51	1	Spring *	3008			585		3008			585HAC			
52	2	Elbow				875					875SS6			
53	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
54	1	Tubing	123SS6	1638SS6	1826SS6	1383SS6	2247SS6	123SS6	1638SS6	1826SS6	1383SS6	2247SS6		
55	1	Lower Housing	142	1704	1632	145	146	142 ‡	1704 ‡	1632 ‡	145 ‡	146 ‡		
56	1	Seat	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6	
		Disc	Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6	
57	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6	
		Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	178		
58	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
		Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K		
59	1	Nut	Standard *	172	173		906	175	172SS6	173SS6		174SS6	175SS6	
		Reduced *	172			173	906	172SS6			173SS6	174SS6		
Repair Kits			RYD	RYG	RYK	RYO	RYR	RYDS6	RYGS6	RYKS6	RYOS6	RYRS6		
* These parts are recommended spare parts and are stocked as repair kits.														

# PRESSURE REGULATORS

STEEL GAS PRESSURE REDUCING BALANCED NON - VENTING  
MODEL PN PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS PRESSURE REDUCING BALANCED NON - VENTING  
MODEL PN PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER							
			STANDARD				CORROSIVE			
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡
2	1	Nut	173	906		175	173SS6	174SS6		175SS6
		Standard *		173		906		173SS6		174SS6
		Reduced *								
3	1	Gasket	276	277	196	279	276	277	196	279
4	6	Ell	875 (see note below)				875SS6 (see note below)			
5	2	Back Up	149T	150T	151T	152T	149T	150T	151T	152T
6	1	O-Ring	5225	5226	5227	4086	5225	5226	5227	4086
7	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6
8	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡
9	1	Tubing	2529SS6	2552SS6	2507SS6	4306SS6	2529SS6	2552SS6	2507SS6	4306SS6
10	1	Gasket	196	197	198	199	196	197	198	199
11	1	Adapter	7244			----	7244S6			----
12	1	Diaphragm	1706	1640	2015	2140	1706	1640	2015	2140
13	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)
14	1	Tubing	4416S6	4305S6	4418S6	4251S6	4416S6	4305S6	4418S6	4251S6
15	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡
16	1	Nipple	2516			2516SS6				
17	2	Tee	2000			2000SS6				
18	1	Base	2515			2515 ‡				
19	3	Nipple	648			648SS6				
20	2	Connector	874			874SS6				
21	1	Pressure Gauge	7707			7707				
22	1	Gasket	118			118				
23	2	Pilot Housing	2514			2514 ‡				
24	1	Diaphragm Plate	7872S6			7872S6				
25	1	Diaphragm Nut	107			107SS6				
26	1	Tubing	4414S6	4050SS6	4666S6	4305S6	4414S6	4050SS6	4666S6	4305S6
27	2	Spring Guide	2612			2612SS6				
28	1	Pivot Screw	6524			6524SS6				
29	1	Packing Seal	4488			4488				
30	1	Adjusting Screw	5163		2613	5163SS6	2613SS6			
31	1	Nut	2377			2377SS6				
32	1	Washer	4491			4491				
33	1	Bonnet	2672			2672 ‡				
34	1	Spring	2611			2611				
35	2	Lifting Ring	7559		----	7559	----			
36	4	Bolt	4298			4298				
37	1	Gasket	276			276				
38	1	Spacer	2021			2021				
39	1	Diaphragm	6520			6520				
40	1	Diaphragm	5259P			5259P				
41	1	Breather Plug	147			147SS6				
42	1	Spacer Ring	7437			7437				
43	1	Pilot Seat	113			113SS6				
44	2	Plug	699			699SS6				
45	1	Diaphragm	110			110				
46	1	Pilot Seat	565			565SS6				
47	1	Pilot Plug	112			112				
48	1	1/4 F30 Filter	YAS			YASSS6				
49	4	Nut	241			241				
50	1	Spring	585			585HAC				
51	1	Tubing	2505SS6	4011SS6	2510SS6	5061SS6	2505SS6	4011SS6	2510SS6	5061SS6
52	1	Diaphragm Plate	2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6
53	1	O-Ring	154	807	156	157	154	807	156	157
54	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6
55	1	Valve Stem	Standard 138	139	140	141	138SS6	139SS6	140SS6	141SS6
		Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
56	1	Seat Disc	Standard 2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
		Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6
57	1	Seat	Standard * 164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
		Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
58	1	Ratio Plug	Standard 177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
		Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6
59	1	Removable Seat	Standard 2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
		Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K

‡ Coated Parts available with "E" shell material

Repair Kits

RYG RYK RYO RYR RYGS6 RYKS6 RYOS6 RYRS6

\* These parts are recommended spare parts and are stocked as repair kits.

NOTE: 6 inch Lower Housing uses (1) 874, (1) 1481, & (1) 648 instead of 875

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, pilot-operated regulator used for maintaining a constant pressure drop across meter systems.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

Canadian Registration Number (CRN):

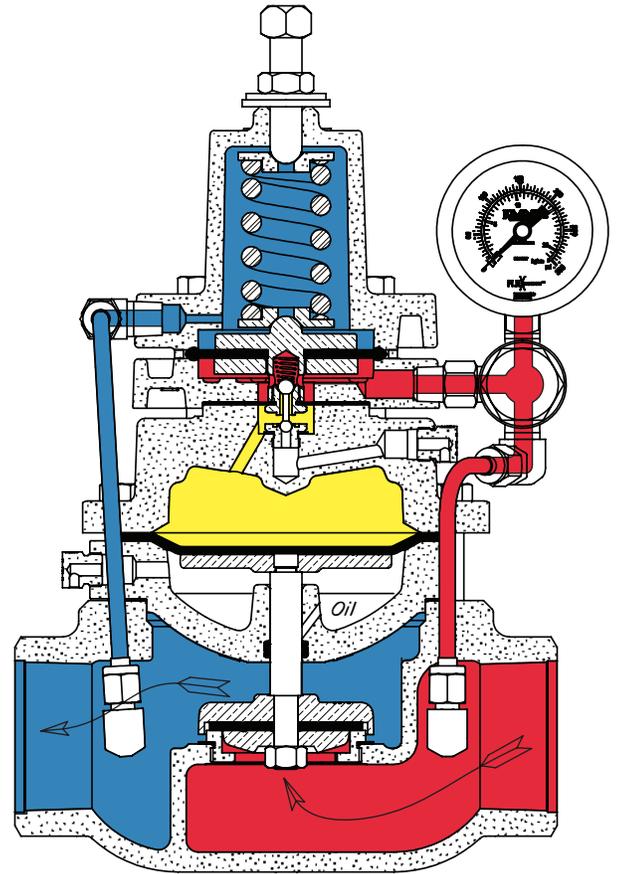
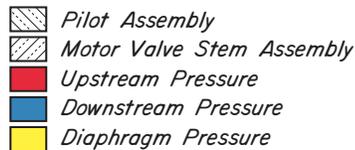
0C16234.24567890NTY (Ductile)

0C15604.24567890NTY (Steel)

Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RDP1SADF1S	ADQ	1"	NPT	10-300	300	13.2	0.74
	RDP2SADF1S	ACU	2"	NPT	10-300	300	47.0	0.84
	RDP2ARDF1S	ACW		150RF	10-250	250		
	RDP3SADF1S	ACX	3"	NPT	10-300	300	117	0.75
	RDP3ARDF1S	ACY		150RF	10-250	250		
	RDP4SADF1S	ADA	4"	NPT	10-300	300	210	0.75
	RDP4ARDF1S	ADB		150RF	10-250	250		
	RDP4ARDF1S	ADC	6"	150RF	10-250	250	480	0.75
Steel	RDP2ARWF1S	AGL	2"	150RF	10-285	285	47.0	0.84
	RDP3ARWF1S	AGM	3"	150RF	10-285	285	117	0.75
	RDP4ARWF1S	AGN	4"	150RF	10-285	285	210	0.75
	RDP6ARWF1S	AGO	6"	150RF	10-285	285	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

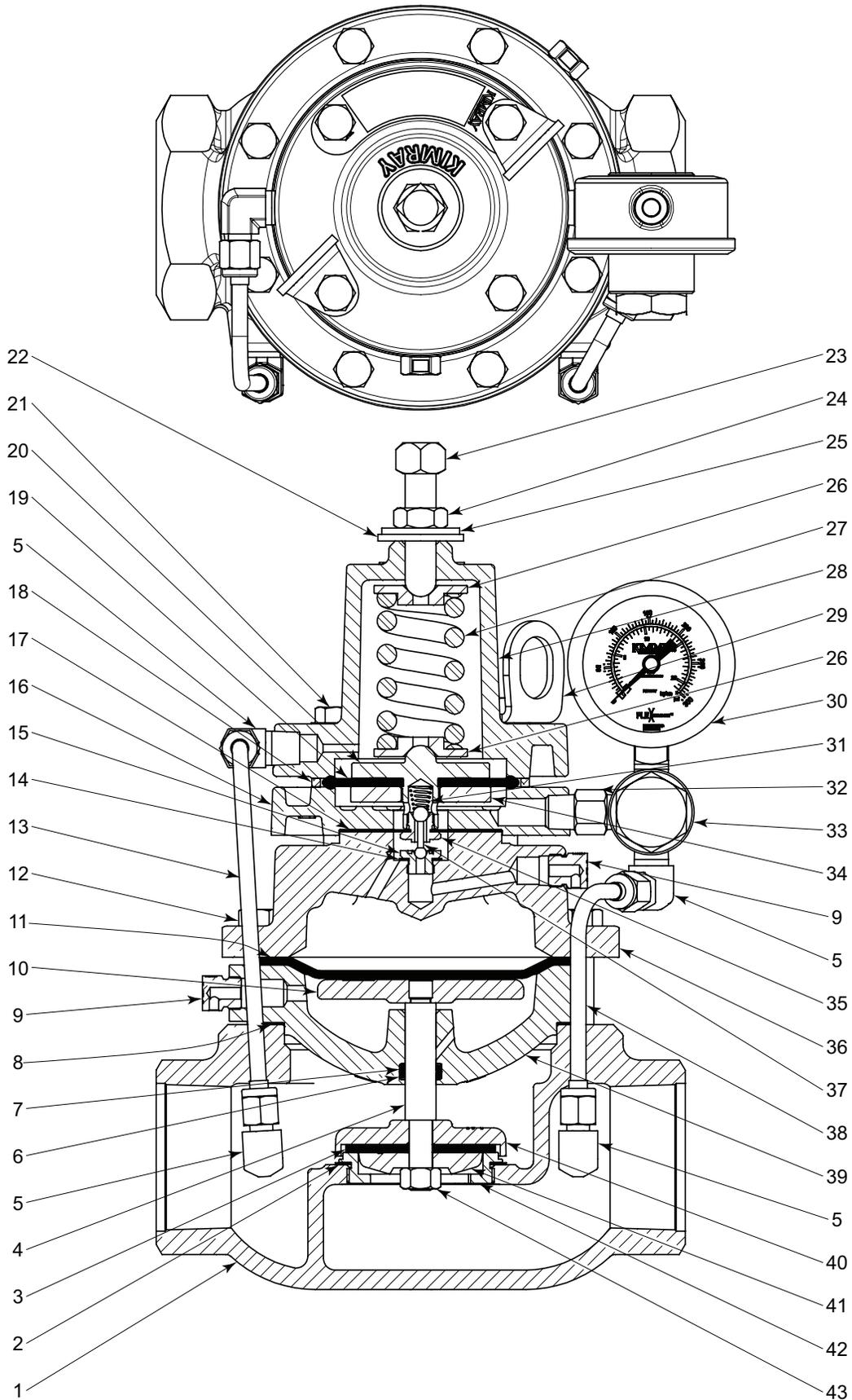
† For Corrosive service remove last "S" & replace with "C"

† For code builder see page 06:00.2

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

# PRESSURE REGULATORS

## GAS PRESSURE DIFFERENTIAL MODEL DP PARTS DRAWING



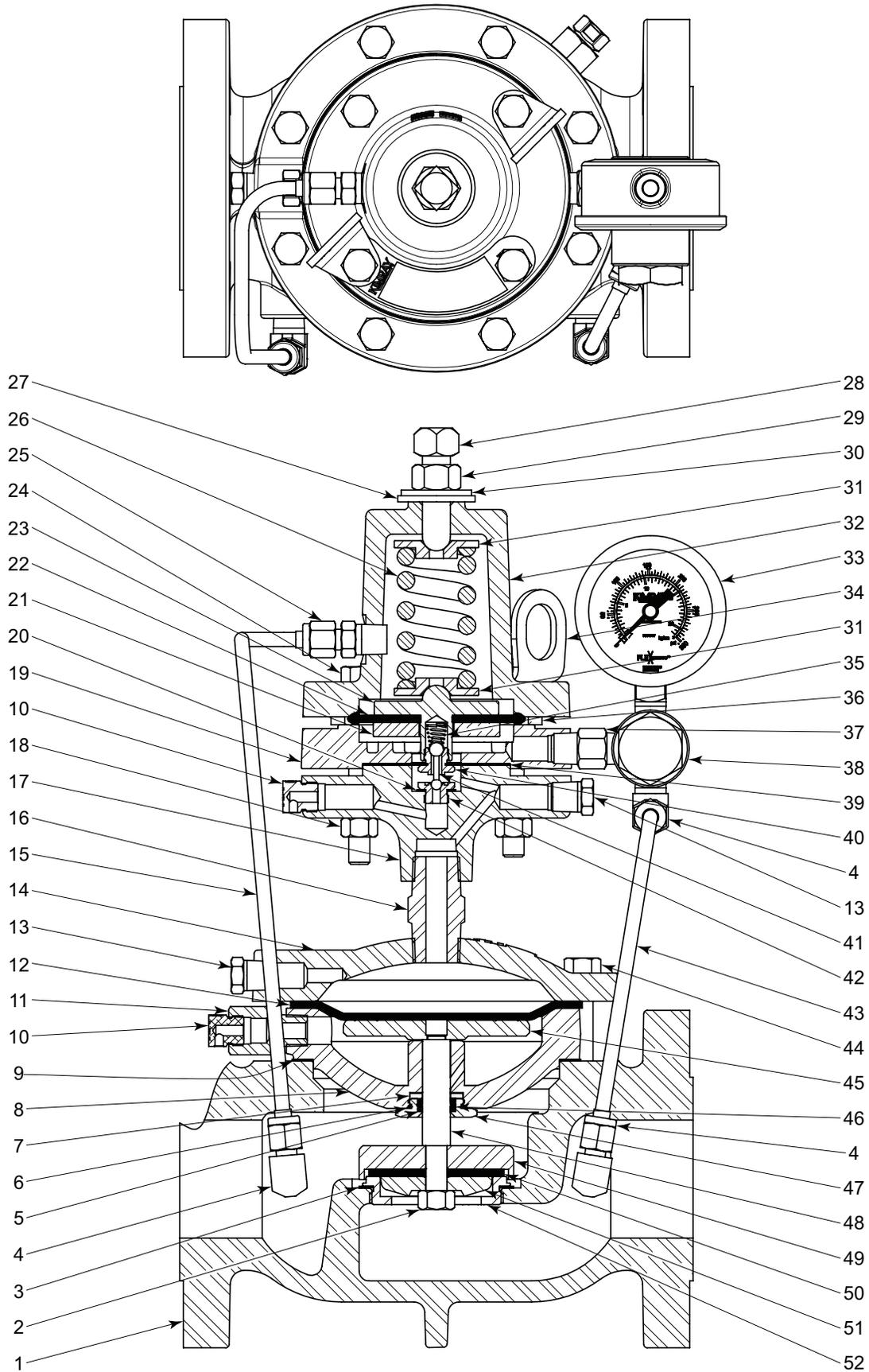
All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER											
			STANDARD					CORROSIVE						
			1 INCH	2 INCH	3 INCH	4 INCH	6 INCH	1 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body												
		NPT Thru	2033	1709	1634	2001	----	2033	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	----	1913	1914	2002	2466	----	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Angle	----	2964	----	----	----	----	2964 ‡	----	----	----		
2	1	Gasket *	----	276	277	196	279	----	276	277	196	279		
3	1	Seat	Standard *	163HSN	164HSN	165HSN	166HSN	167HSN	163HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced *	163HSN	164HSN	1230HSN	164HSN	165HSN	163HSN	164HSN	1230HSN	164HSN	165HSN	
4	1	Valve Stem	Standard	137	138	139	140	141	137SS6	138SS6	139SS6	140SS6	141SS6	
			Reduced	137	138	1222SS6	1223SS6	1224SS6	137SS6	138SS6	1222SS6	1223SS6	1224SS6	
5	4	Elbow	875	875					875SS6	875SS6				
6	2	Back Up *	148T	149T	150T	151T	152T	148T	149T	150T	151T	152T		
7	1	O-Ring *	153	154	155	156	157	153	154	155	156	157		
8	1	Gasket *	195	196	197	198	199	195	196	197	198	199		
9	2	Vent Plug	1357	147					1357SS6	147SS6				
10	1	Diaphragm Plate	132SS6	133	134	135	136	132SS6	133	134	135	136		
11	1	Diaphragm *	127	1706	1640	2015	2140	127	1706	1640	2015	2140		
12	(QTY)	Bolt	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)	4318 (6)	965 (8)	907(10)	907 (12)	2142 (16)		
13	1	Tubing	123SS6	2603SS6	4251S6	4853SS6	4312SS6	123SS6	2603SS6	4251S6	4853SS6	4312SS6		
14	1	Gasket *	3018	118					3018	118				
15	1	Pilot Seat *	3016	113					3016SS6	113SS6				
16	1	Pilot Housing	3013	1701					3013SS6	1701 ‡				
17	1	Diaphragm *	3014	110					3014	110				
18	1	Spacer Ring	----	7437					----	7437				
19	1	Diaphragm *	3011P	5259P					3011P	5259P				
20	1	Diaphragm Plate	3009	105					3009SS6	105SS6				
21	4	Bolt	6972	907					6972	907				
22	1	Thread Seal *	4542	4488					4542	4488				
23	1	Adjusting Screw	6976	5163					6976S6	5163SS6				
24	1	Nut	1676	2377					1676	2377SS6				
25	1	Washer *	4543	4491					4543	4491				
26	2	Spring Guide	4484SS6	2612					4484SS6	2612SS6				
27	1	Spring	4323	2611					4323	2611				
28	1	Bonnet	4525	2610					4525	2610 ‡				
29	2	Lifting Ring	----	----	7559		----	----	----	7559		----		
30	1	Pressure Gauge	7707	7707					7707	7707				
31	1	Spring *	3008	108					3008	108HAC				
32	1	Nipple	6890	648					6890S6	648SS6				
33	1	1/4 F30 Filter	YAS					YASS6						
34	1	Diaph. Nut	3010	107					3010SS6	107SS6				
35	1	Pilot Seat *	3015	565					3015SS6	565SS6				
36	1	Upper Housing	3019	1719	1636	2003	2177	3019	1719 ‡	1636 ‡	2003 ‡	2177 ‡		
37	1	Pilot Plug	3017	112					3017	112				
38	1	Tubing	4416S6	123SS6	124SS6	125SS6	126SS6	4416S6	123SS6	124SS6	125SS6	126SS6		
39	1	Lower Housing	142	1704	1632	145	146	142	1704 ‡	1632 ‡	145 ‡	146 ‡		
40	1	Seat Disc	Standard	158	159	160	161	162	158SS6	2493SS6	2494SS6	2495SS6	2961SS6	
			Reduced	158	159	1229	159	160	158SS6	2493SS6	2585SS6	2493SS6	2494SS6	
41	1	Ratio Plug	Standard	176SS6	177SS6	178	179	180	176SS6	177SS6	3076SS6	3078SS6	3079SS6	
			Reduced	4932	4933	1228SS6	177SS6	178	4932SS6	4933SS6	1228SS6	177SS6	3076SS6	
42	1	Rem. Seat	Standard	----	272K	273K	274K	275K	----	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
			Reduced	----	4934K	1219DK	1220DK	1221K	----	4934SS6K	1219SS6K	1220SSK	1221SS6K	
43	1	Nut	Standard *	172	173	906		175	172SS6	173SS6	174SS6		175SS6	
			Reduced *	172	173			906		172SS6	173SS6			174SS6
Repair Kits			RYD	RYG	RYK	RYO	RYR	RYDS6	RYGS6	RYKS6	RYOS6	RYRS6		

\* These parts are recommended spare parts and are stocked as repair kits.

# PRESSURE REGULATORS

## STEEL GAS PRESSURE DIFFERENTIAL MODEL DP PARTS DRAWING



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

ITEM	QTY.	DESCRIPTION	PART NUMBER								
			STANDARD				CORROSIVE				
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡	
2	1	Nut	Standard *	173	906		175	173SS6	174SS6		175SS6
			Reduced *	173			906	173SS6			174SS6
3	1	Gasket *	276	277	196	279	276	277	196	279	
4	3	Elbow	875				875SS6				
5	2	Back Up *	149T	150T	151T	152T	149T	150T	151T	152T	
6	1	O-Ring *	5225	5226	5227	4086	5225	5226	5227	4086	
7	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6	
8	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡	
9	1	Gasket *	196	197	198	199	196	197	198	199	
10	2	Vent Plug	147				147SS6				
11	1	Adapter	7244				7244SS6				
12	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140	
13	2	Plug	699				699SS6				
14	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡	
15	1	Tubing	2529SS6	4068SS6	5061SS6	4312SS6	2529SS6	4068SS6	5061SS6	4312SS6	
16	1	Nipple	2516				2516SS6				
17	1	Base	4995				4995 ‡				
18	4	Nut	241				241				
19	1	Pilot Housing	2514				2514 ‡				
20	1	Gasket *	118				118				
21	1	Diaphragm Nut	107				107SS6				
22	1	Diaphragm *	5259P				5259P				
23	1	Diaphragm Plate	105				105SS6				
24	2	Spring Guide	2612				2612SS6				
25	1	Connector	874				874SS6				
26	1	Spring	2611				2611				
27	1	Packing Seal *	4488				4488				
28	1	Adjusting Screw	5163				5163SS6				
29	1	Nut	2377				2377SS6				
30	1	Washer *	4491				4491				
31	1	Bonnet	2672				2672 ‡				
32	1	Pressure Gauge	7707				7707				
33	4	Bolt	1232				1232				
34	2	Lifting Ring	7559			----	7559			----	
35	1	Spring *	108				108HAC				
36	1	Spacer Ring *	7437				7437				
37	1	Nipple	648				648SS6				
38	1	1/4 F30 Filter	YAS				YASSS6				
39	1	Diaphragm *	110				110				
40	1	Pilot Seat *	565				565SS6				
41	1	Pilot Plug *	112				112				
42	1	Pilot Seat *	113				113SS6				
43	1	Tubing	2505SS6	2552SS6	2529SS6	5061SS6	2505SS6	2552SS6	2529SS6	5061SS6	
44	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (12)	
45	1	Diaphragm Plate	2490	2491	2492	2958	2490SS6	2491SS6	2492SS6	2958SS6	
46	1	O-Ring *	154	807	156	157	154	807	156	157	
47	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6	
48	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6
49	1	Seat Disc	Standard	2493SS6	2494SS6	2495SS6	2961SS6	2493SS6	2494SS6	2495SS6	2961SS6
			Reduced	2493SS6	2585SS6	2493SS6	2494SS6	2493SS6	2585SS6	2493SS6	2494SS6
50	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN
51	1	Ratio Plug	Standard	177SS6	178	179	3079SS6	177SS6	3076SS6	3078SS6	3079SS6
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6
52	1	Removable Seat	Standard	2496SS6K	2497SS6K	2498SS6K	3075SS6K	2496SS6K	2497SS6K	2498SS6K	3075SS6K
			Reduced	4934SS6K	1219SS6K	1220SSK	1221SS6K	4934SS6K	1219SS6K	1220SSK	1221SS6K
			‡ Coated Parts available with "E" shell material								
Repair Kits			RYG	RYK	RYO	RYR	RYGS6	RYKS6	RYOS6	RYRS6	
			* These parts are recommended spare parts and are stocked as repair kits.								

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

### GAS OUNCES PRESSURE REDUCING TO VACUUM MODEL VR

#### APPLICATION:

Self-contained, pilot-operated regulator used for gas compressor suction regulation. Vapor pressure recovering systems and vacuum distribution systems, and compressor by-pass lines.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

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

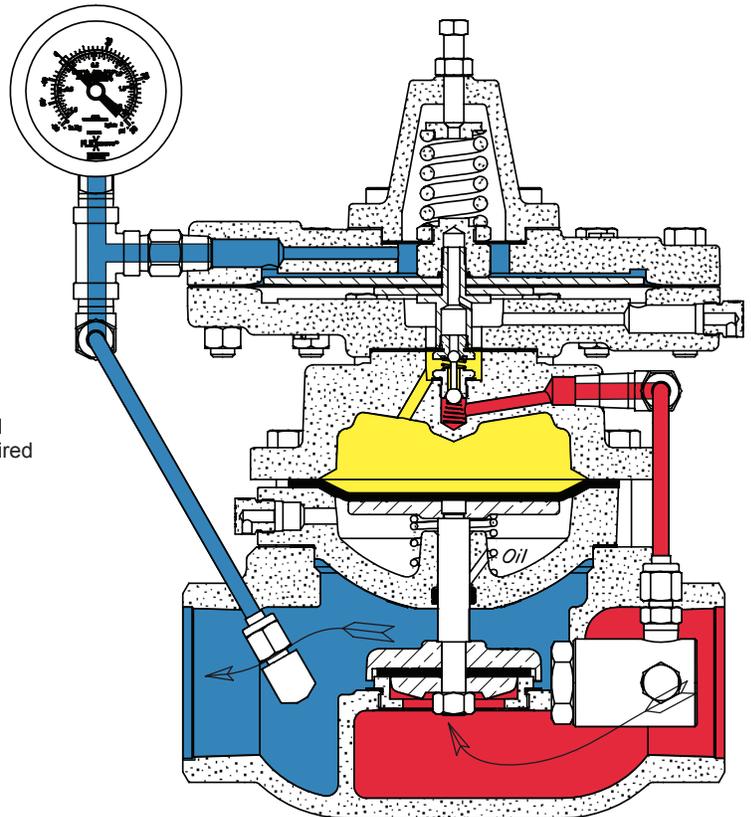
#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

#### UPSTREAM PRESSURE RANGE:

- 1 Inch valves:  
Full port 10 psig min. or outside supply source is required  
Reduced port 5 psig min. or outside supply source is required
- 2 thru 6 inch valves:  
5 psig min. or outside supply source is required

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Diaphragm Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
Ductile	RVR1SADF2S	APED20	1"	NPT	10-300	300	13.2	0.74
	RVR2SADF2S	APHD20	2"	NPT	0-20	300	47.0	0.84
	RVR2ARDF2S	APID20		150RF	0-20	250		
	RVR3SADF2S	APKD20	3"	NPT	0-20	300	117.0	0.75
	RVR3ARDF2S	APLD20		150RF	0-20	250		
	RVR4SADF2S	APND20	4"	NPT	0-20	300	210.0	0.75
	RVR4ARDF2S	APOD20		150RF	0-20	250		
	RVR4ARDF2S	APRD20	6"	150RF	0-20	250	480.0	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

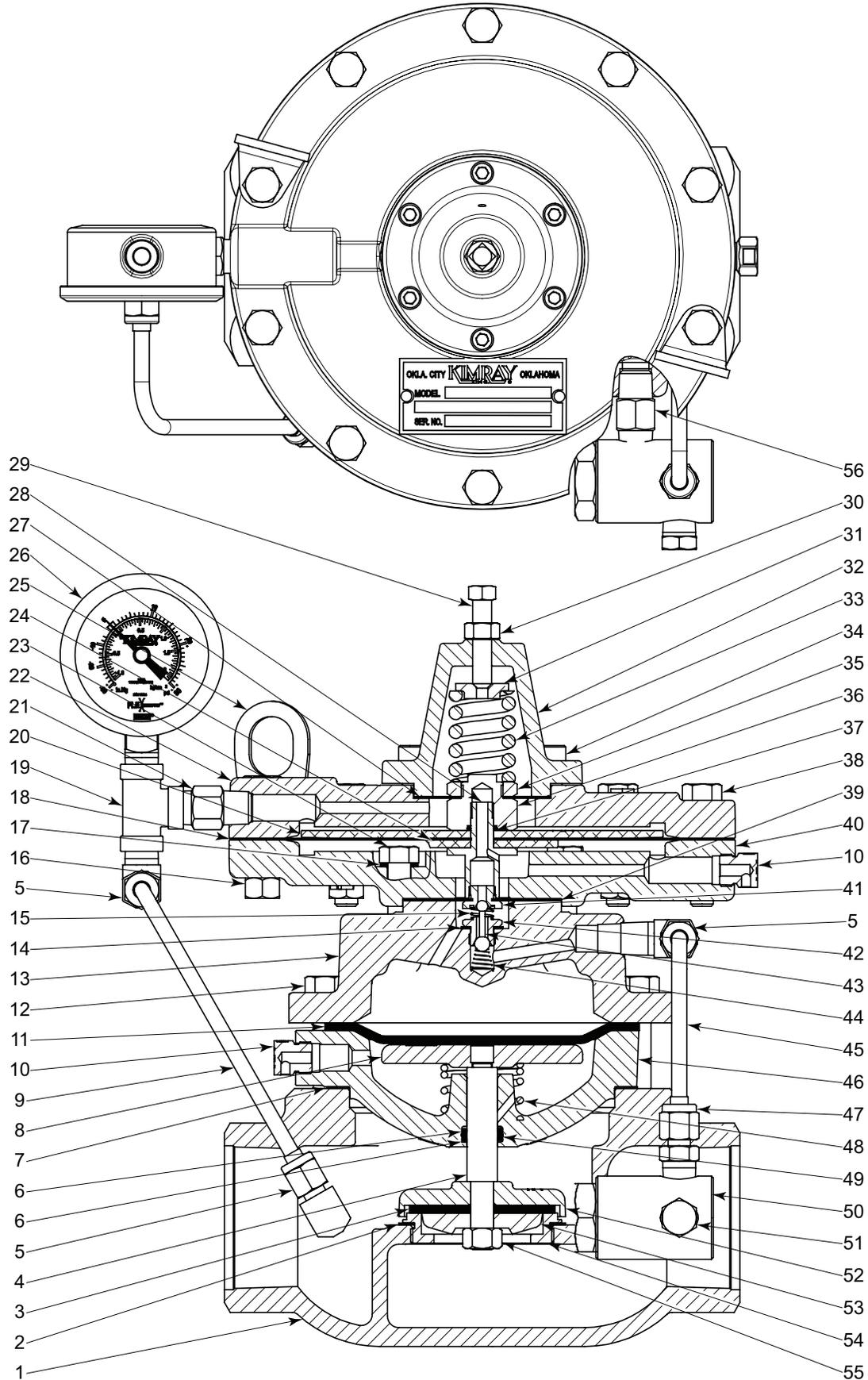
† For Corrosive service remove last "S" & replace with "C"

† For code builder see page 06:00.3

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

# PRESSURE REGULATORS

GAS OUNCES PRESSURE REDUCING TO VACUUM  
MODEL VR PARTS DRAWING



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



**PRESSURE REGULATORS**

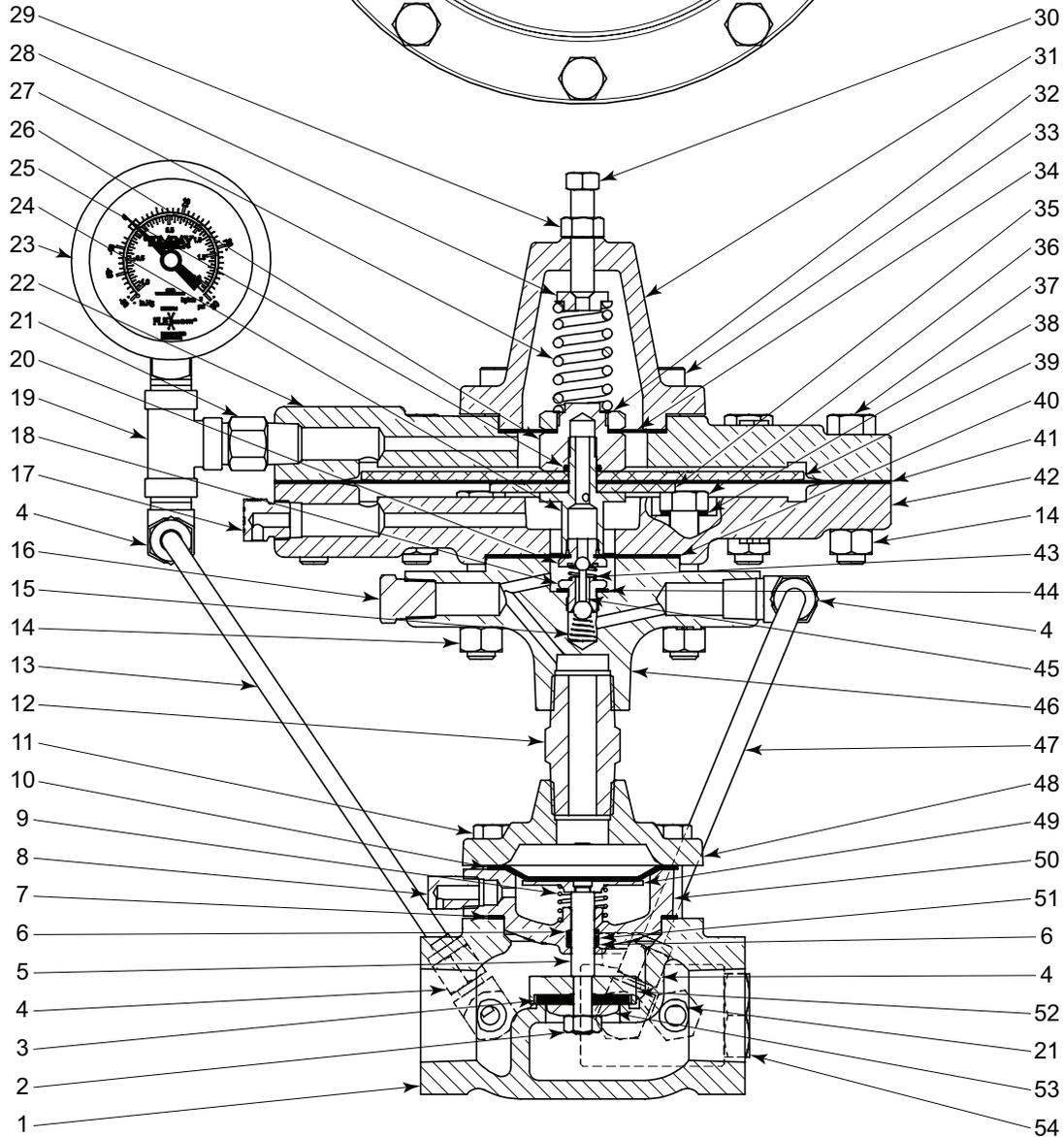
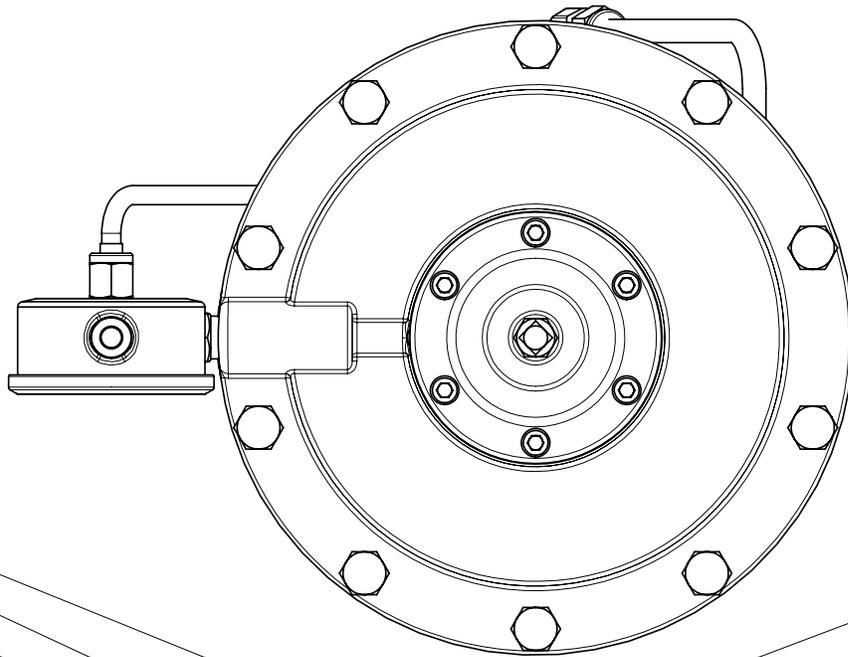
**GAS OUNCES PRESSURE REDUCING TO VACUUM  
MODEL VR PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER									
			STANDARD				CORROSIVE					
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH		
1	1	Body										
		NPT Thru	1709	1634	2001	----	1709 ‡	1634 ‡	2001 ‡	----		
		150RF Thru	1913	1914	2002	2466	1913 ‡	1914 ‡	2002 ‡	2466 ‡		
		Grooved Thru	2964	----	----	----	2964 ‡	----	----	----		
2	1	Gasket *	276	277	196	279	276	277	196	279		
3	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN	
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN	
4	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6	
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6	
5	3	Elbow			875							
6	2	Back Up *	149T	150T	151T	152T	149T	150T	151T	152T		
7	1	Gasket *	196	197	198	199	196	197	198	199		
8	1	Diaphragm Plate	133	134	135	136	133	134	135	136		
9	1	Tubing	2505SS6	213SS6	2505SS6	5061SS6	2505SS6	213SS6	2505SS6	5061SS6		
10	2	Vent Plug			147							
11	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140		
12	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)		
13	1	Upper Housing	1719	1636	2003	2177	1719 ‡	1636 ‡	2003 ‡	2177 ‡		
14	1	Gasket *			118				118			
15	1	Spring *			566				566HAC			
16	10	Nut			241				241			
17	4	Gasket *			242				242			
18	1	Diaphragm *			1212				1212			
19	1	Tee			219				219SS6			
20	1	Upper Diaphragm Plate			1208				1208SS6			
21	1	Nipple			648				648SS6			
22	1	Upper Pilot Housing			1206				1206 ‡			
23	4	Screw			1672				1672SS6			
24	1	Lower Diaphragm Plate			1340				1340SS6			
25	2	Lifting Ring		7559		----			7559		----	
26	1	Pressure Gauge			7704				7704			
27	1	Diaphragm *			5027				5027			
28	1	Stem			1339				1339S6			
29	1	Adjusting Screw			897				897			
30	1	Nut			922				922SS6			
31	1	Spring Guide		7148S6 (Std.)	636SS6 (Opt. 2.5 & 5 lbs.)				7148S6 (Std.)	636SS6 (Opt. 2.5 & 5 lbs.)		
32	1	Bonnet			5043				5043 ‡			
33	1	Spring		4379 (Std.)	1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)				4379 (Std.)	1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)		
34	6	Screw			7531				7531			
35	1	Diaphragm Nut			5026				5026SS6			
36	1	Diaphragm Stem			5028				5028SS6			
37	1	O-Ring *			265				265			
38	10	Screw			236				236			
39	1	Diaphragm *			110				110			
40	1	Lower Pilot Housing			1356				1356 ‡			
41	1	Pilot Seat *			113				113SS6			
42	1	Pilot Seat *			565				565SS6			
43	1	Pilot Plug *			112				112			
44	1	Spring *			1360				1360			
45	1	Tubing	214SS6	217SS6	2552SS6	5061SS6	214SS6	217SS6	2552SS6	5061SS6		
46	1	Lower Housing	1704	1632	145	146	1704 ‡	1632 ‡	145 ‡	146 ‡		
47	1	Connector			874				874SS6			
48	1	Spring	1388	1528	1529	1575	1388	1528	1529	1575		
49	1	O-Ring *	154	155	156	157	154	155	156	157		
50	1	1/4 F30 Filter			YAS				YASSS6			
51	1	Plug			699				699SS6			
52	1	Seat Disc	Standard	159	160	161	162	2493SS6	2494SS6	2495SS6	2961SS6	
			Reduced	159	1229	159	160	2493SS6	2585SS6	2493SS6	2494SS6	
53	1	Ratio Plug	Standard	177SS6	178	179	180	177SS6	3076SS6	3078SS6	3079SS6	
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6	
54	1	Removable Seat	Standard	272K	273K	274K	275K	2496SS6K	2497SS6K	2498SS6K	3075SS6K	
			Reduced	4934K	1219DK	1220DK	1221K	4934SS6K	1219SS6K	1220SSK	1221SS6K	
55	1	Nut	Standard *	173	906		175	173SS6		174SS6	175SS6	
			Reduced *		173		906		173SS6		174SS6	
56	1	Nipple	262		648				262	648SS6		
Repair Kits			RYI	RYM	RYQ	RYT	‡ Coated Parts available with "K" service type RYS6 RYMS6 RYQS6 RYTS6					
* These parts are recommended spare parts and are stocked as repair kits.												

# PRESSURE REGULATORS



1 INCH GAS OUNCES PRESSURE REDUCING TO VACUUM  
MODEL VR PARTS DRAWING



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

1 INCH GAS OUNCES PRESSURE REDUCING TO VACUUM  
MODEL VR PARTS LIST

ITEM	QTY.	DESCRIPTION	PART NUMBER	
			STANDARD	CORROSIVE
1	1	Body	2033	2033 ‡
2	1	Nut *	172	172SS6
3	1	Seat *	163	163HSN
4	4	Elbow	875	875SS6
5	1	Valve Stem	137X	138SS6X
6	2	Back Up *	148T	148T
7	1	Gasket *	195	195
8	1	Vent Plug	1357	1357SS6
9	1	Spring	7323	7323
10	1	Diaphragm *	127	127
11	6	Bolt	2007	2007
12	1	Nipple	2516	2516SS6
13	1	Tubing	4251S6	4251S6
14	14	Nut	241	241
15	1	Spring *	1360	1360HAC
16	1	Plug	699	699SS6
17	1	Vent Plug	147	147SS6
18	1	Pilot Seat *	565	565SS6
19	1	Tee	219	219SS6
20	1	Pilot Seat *	113	113SS6
21	2	Nipple	648	648SS6
22	1	Upper Pilot Housing	1206	1206 ‡
23	1	Pressure Gauge	7704	7704
25	1	O-Ring *	265	265
24	1	Stem	1339	1339S6
26	1	Diaphragm Stem	5028	5028S6
27	1	Spring	4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)	4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)
28	1	Spring Guide	7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)	7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)
29	1	Nut	922	922
30	1	Adjusting Screw	897	897
31	1	Bonnet	4477	4477 ‡
32	1	Diaphragm Nut	5026	5026S6
33	6	Screw	7531	7531
34	1	Diaphragm *	5027	5027
35	1	Lower Diaphragm Plate	1340	1340SS6
36	4	Screw	191	191
37	10	Screw	236	236
38	4	Gasket *	242	242
39	1	Upper Diaphragm Plate	1208	1208SS6
40	1	Diaphragm *	110	110
41	1	Diaphragm *	1212	1212
42	1	Lower Pilot Housing	1356	1356 ‡
43	1	Spring *	566	566HAC
44	1	Gasket *	118	118
45	1	Pilot Plug *	112	112
46	1	Base	4995	4995 ‡
47	1	Tubing	217SS6	217SS6
48	1	Bonnet	1336	1336 ‡
49	1	Diaphragm Plate	132SS6	132SS6
50	1	Lower Housing	142	142 ‡
51	1	O-Ring *	153	153
52	1	Seat Disc	158	158SS6
53	1	Ratio Plug	176SS6	176SS6
54	1	1/4 F30 Filter	YAS	YASS6
‡ Coated Parts available with "E" shell material				
Repair Kits			RYF	RYFS6
* These parts are recommended spare parts and are stocked as repair kits.				

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

### GAS LOW PRESSURE BACK PRESSURE WITH OUTSIDE SUPPLY MODEL AB

#### APPLICATION:

Self-contained, pilot-operated regulator designed to regulate ounces (0.5 oz to 20 psig) back pressure on a tank and vent to atmosphere when pressure exceeds set point. When compressed air or nitrogen gas can be used as the outside source of supply, it is a great way to mitigate emissions concerns related to vented gas.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Single-point adjustment of setpoint
- Utilizes outside supply gas pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

#### CERTIFICATIONS:

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

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

#### UPSTREAM PRESSURE RANGE:

Practically, a minimum supply pressure of 12 psig would provide the necessary closing force on all spring configurations.

TABLE 1: SPRINGS FOR OPTIONAL RANGES

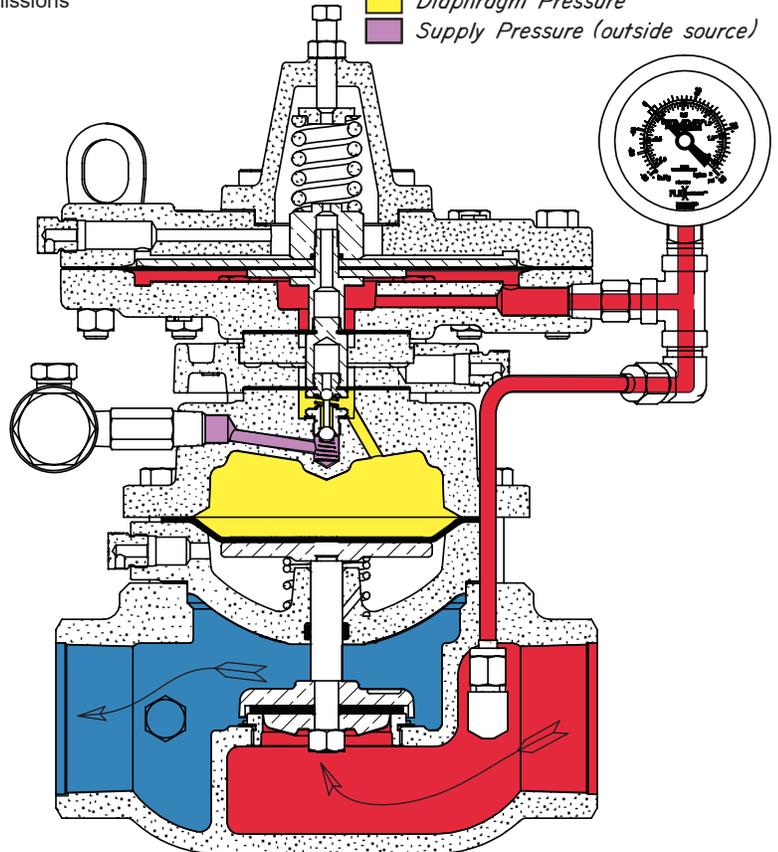
SPRING	OPER. PRESSURE RANGE	
	MIN.	MAX.
2.5	0.5 oz	2.5 psig
5	1 oz	5 psig
20	1 psig	20 psig

#### SUPPLY PRESSURE:

Equal to or not less than 60% of controlled pressure upstream



- Pilot Assembly
- Motor Valve Stem Assembly
- Upstream Pressure
- Downstream Pressure
- Diaphragm Pressure
- Supply Pressure (outside source)



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig ††	Max. W.P. psig †††	Cv	Cf
Ductile	RAB1SADF2S	AYI20	1"	NPT	1-20	300	13.2	0.74
	RAB2SADF2S	AYA20	2"	NPT	1-20	300	47.0	0.84
	RAB2ARDF2S	AYB20		150RF	1-20	250		
	RAB3SADF2S	AYD20	3"	NPT	1-20	300	117	0.75
	RAB3ARDF2S	AYE20		150RF	1-20	250		
	RAB4SADF2S	AYF20	4"	NPT	1-20	300	210	0.75
	RAB4ARDF2S	AYG20		150RF	1-20	250		
RAB4ARDF2S	AYH20	6"	150RF	1-20	250	480	0.75	
Steel	RAB2ARWF2S	AZA20	2"	150RF	1-20	285	47.0	0.84
	RAB3ARWF2S	AZB20	3"	150RF	1-20	285	117	0.75
	RAB4ARWF2S	AZC20	4"	150RF	1-20	285	210	0.75
	RAB6ARWF2S	AZD20	6"	150RF	1-20	285	480	0.75

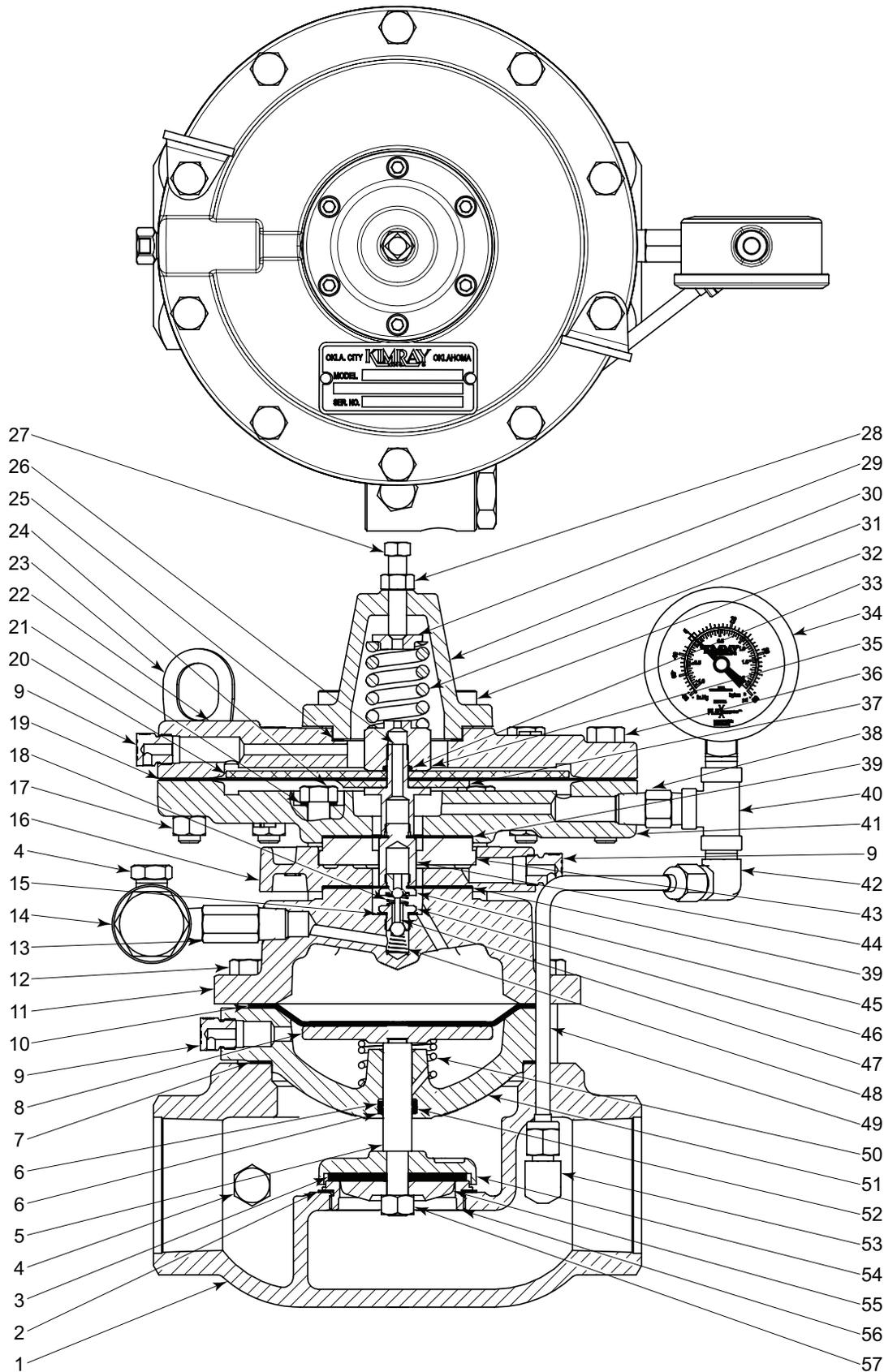
#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:I - 06:IV  
 † For Corrosive service remove last "S" & replace with "C"  
 ‡ For code builder see page 06:00.3  
 †† Optional spring ranges available; refer to table 1 at left for ranges  
 ††† Max W.P. values based on -20°F to 100°F.

# PRESSURE REGULATORS



GAS LOW PRESSURE BACK PRESSURE WITH OUTSIDE SUPPLY  
MODEL AB PARTS DRAWING



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



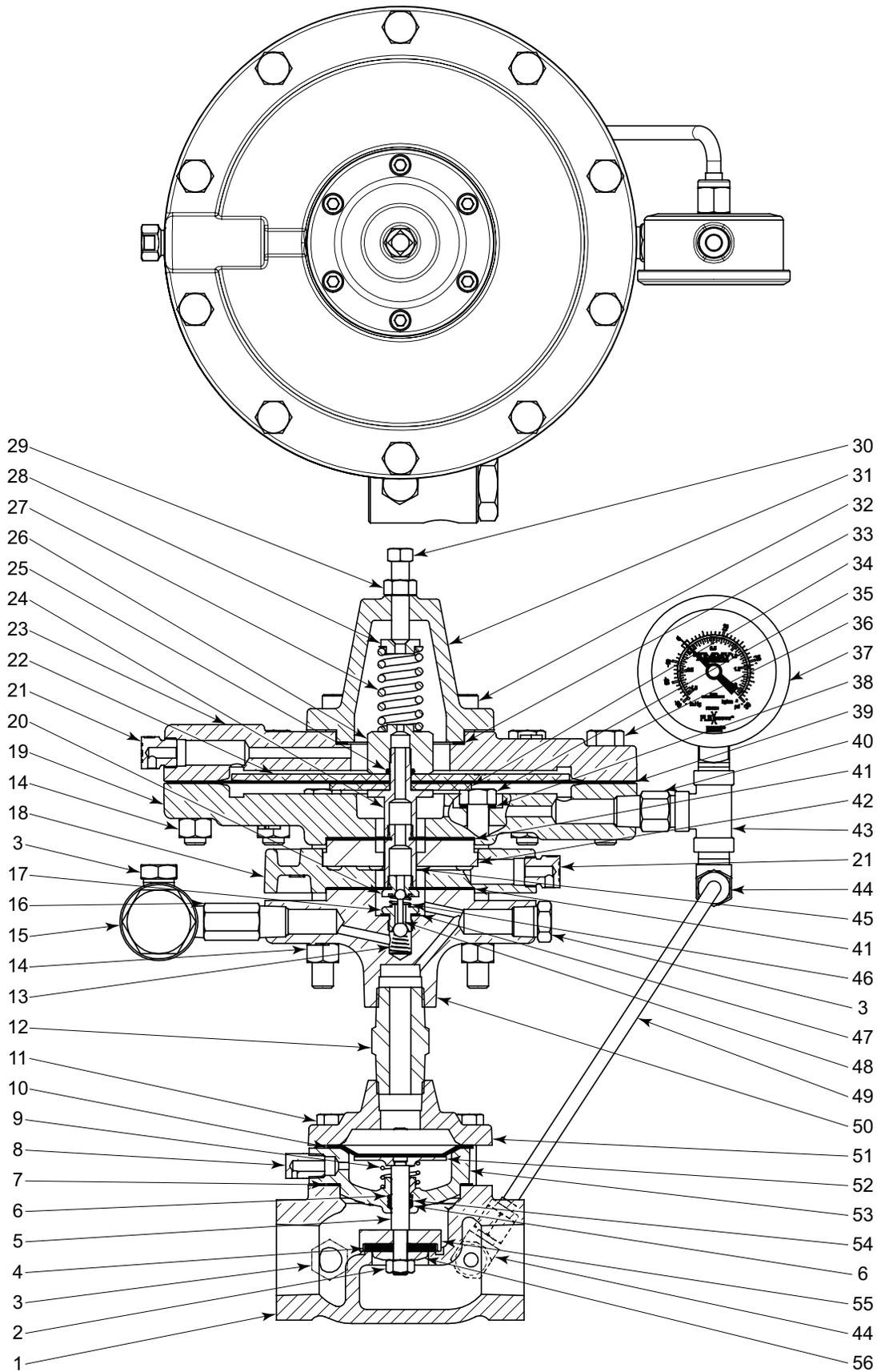
**PRESSURE REGULATORS**

**GAS LOW PRESSURE BACK PRESSURE WITH OUTSIDE SUPPLY  
MODEL AB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER										
			STANDARD				CORROSIVE						
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH			
1	1	Body											
		NPT Thru	1709	1634	2001	----	1709 ‡	1634 ‡	2001 ‡	----			
		150RF Thru	1913	1914	2002	2466	1913 ‡	1914 ‡	2002 ‡	2466 ‡			
		Grooved Thru	2964	----	----	----	2964 ‡	----	----	----			
2	1	Gasket *	276	277	196	279	276	277	196	279			
3	1	Seat	Standard *	164HSN	165HSN	166HSN	167HSN	164HSN	165HSN	166HSN	167HSN		
			Reduced *	164HSN	1230HSN	164HSN	165HSN	164HSN	1230HSN	164HSN	165HSN		
4	2	Plug		699				699SS6					
5	1	Valve Stem	Standard	138	139	140	141	138SS6	139SS6	140SS6	141SS6		
			Reduced	138	1222SS6	1223SS6	1224SS6	138SS6	1222SS6	1223SS6	1224SS6		
6	2	Back Up *	149T	150T	151T	152T	149T	150T	151T	152T			
7	1	Gasket *	196	197	198	199	196	197	198	199			
8	1	Diaphragm Plate	133	134	135	136	133	134	135	136			
9	2	Vent Plug		147				147SS6					
10	1	Diaphragm *	1706	1640	2015	2140	1706	1640	2015	2140			
11	1	Upper Housing	1719	1636	2003	2177	1719 ‡	1636 ‡	2003 ‡	2177 ‡			
12	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)			
13	1	Nipple		262				262SS6					
14	1	1/4 F30 Filter		YAS				YASS6					
15	1	Gasket *		118				118					
16	1	Pilot Housing		1701				1701					
17	10	Nut		241				241					
18	1	Spring *		566				566HAC					
19	1	Diaphragm *		1212				1212					
20	1	Upper Diaphragm Plate		1208				1208SS6					
21	4	Gasket *		242				242					
22	1	Upper Pilot Housing		1206				1206 ‡					
23	2	Lifting Ring	----	7559		----	----	7559		----			
24	4	Bolt		965				965					
25	1	Gasket *		1216				1216					
26	1	Stem		2913				2913SS6					
27	1	Adjusting Screw		897				897					
28	1	Nut		922				922					
29	1	Spring Guide	7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)				7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)						
30	1	Bonnet		1336				1336 ‡					
31	1	Spring	4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)				4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)						
32	6	Screw		7531				7531					
33	1	O-Ring *		265				265					
34	1	Pressure Gauge		7704				7704					
35	1	Diaphragm Nut		2912				2912SS6					
36	10	Screw		236				236					
37	1	Lower Diaphragm Plate		1340				1340SS6					
38	1	Nipple		648				648SS6					
39	2	Diaphragm *		110				110					
40	1	Tee		219				219SS6					
41	1	Lower Pilot Housing		1356				1356 ‡					
42	1	Elbow / Connector	877	876	877		877SS6	876SS6	877SS6				
43	1	Spacer Ring		2021				2021SS6					
44	1	Seat Extension		4297				4297SS6					
45	1	Pilot Seat *		113				113SS6					
46	1	Pilot Seat *		565				565SS6					
47	2	Pilot Plug *		112				112					
48	1	Spring *		1360				1360HAC					
49	1	Tubing	2559SS6	4129S6	74SS	4309SS6	2559SS6	4129S6	74SS	4309SS6			
50	1	Spring	1388	1528	1529	1575	1388	1528	1529	1575			
51	1	Lower Housing	1704	1632	145	146	1704 ‡	1632 ‡	145 ‡	146 ‡			
52	1	O-Ring *	154	155	156	157	154	155	156	157			
53	1	Elbow		877				877SS6					
54	1	Seat Disc	Standard	159	160	161	162	2493SS6	2494SS6	2495SS6	2961SS6		
			Reduced	159	1229	159	160	2493SS6	2585SS6	2493SS6	2494SS6		
55	1	Ratio Plug	Standard	177SS6	178	179	180	177SS6	3076SS6	3078SS6	3079SS6		
			Reduced	4933	1228SS6	177SS6	178	4933SS6	1228SS6	177SS6	3076SS6		
56	1	Removable Seat	Standard	272K	273K	274K	275K	2496SS6K	2497SS6K	2498SS6K	3075SS6K		
			Reduced	4934K	1219DK	1220DK	1221K	4934SS6K	1219SS6K	1220SS6K	1221SS6K		
57	1	Nut	Standard *	173	906		175	173SS6	174SS6		175SS6		
			Reduced *	173			906	173SS6		174SS6			
Repair Kits			RYI	RYM	RYQ	RYT	‡ Coated Parts available with "E" shell material						
			* These parts are recommended spare parts and are stocked as repair kits.				RYIS6	RYMS6	RYQS6	RYTS6			

# PRESSURE REGULATORS

1 INCH GAS LOW PRESSURE BACK PRESSURE WITH OUTSIDE SUPPLY  
MODEL AB PARTS DRAWING



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



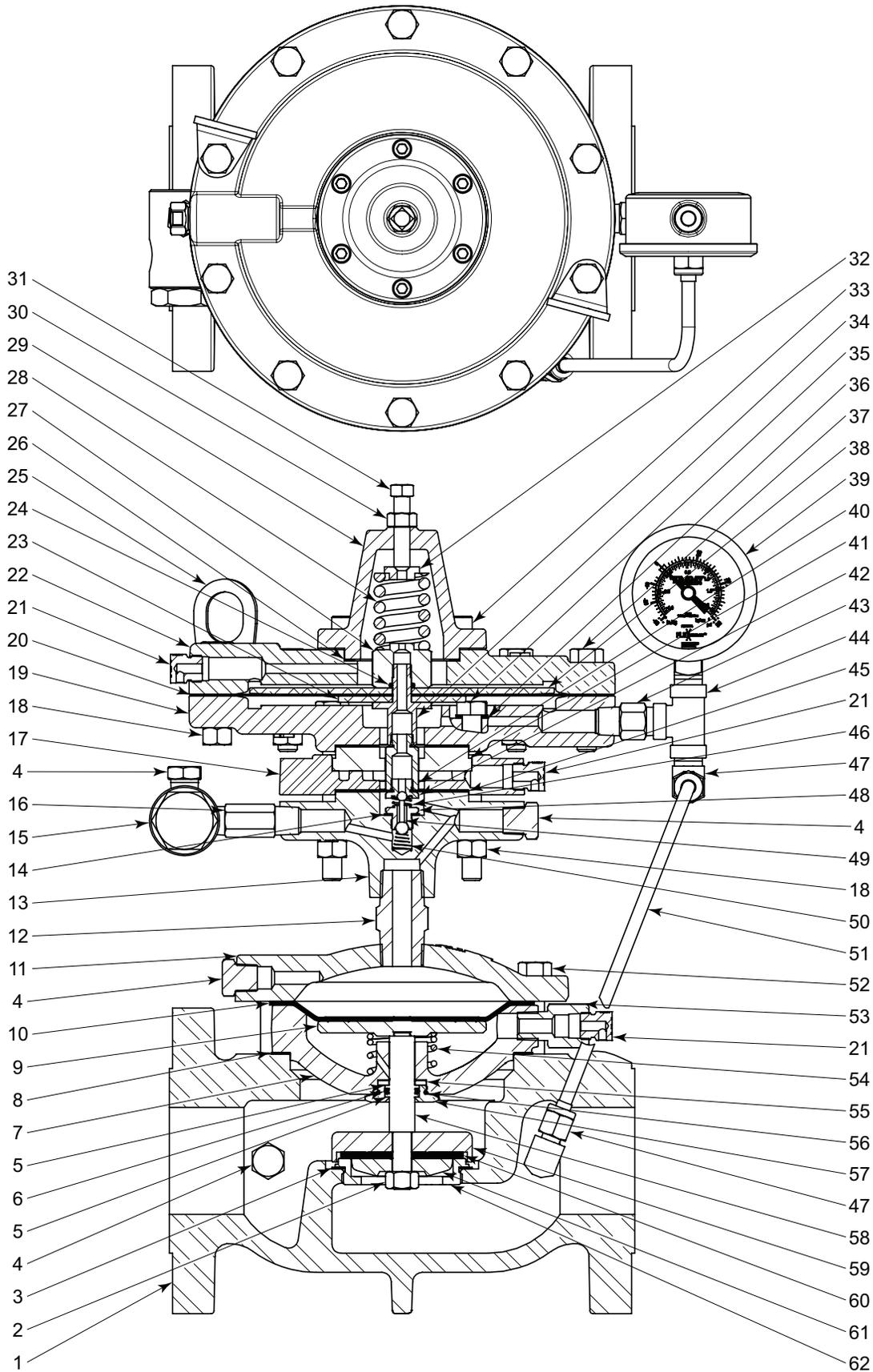
**PRESSURE REGULATORS**

**1 INCH GAS LOW PRESSURE BACK PRESSURE WITH OUTSIDE SUPPLY  
MODEL AB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER	
			STANDARD	CORROSIVE
1	1	Body	2033	2033 ‡
2	1	Nut *	172	172SS6
3	3	Plug	699	699SS6
4	1	Seat *	163	163HSN
5	1	Valve Stem	137X	138SS6X
6	2	Back Up *	148T	148T
7	1	Gasket *	195	195
8	1	Vent Plug	1357	1357SS6
9	1	Spring	1358	1358
10	1	Diaphragm *	127	127
11	6	Bolt	2007	2007
12	1	Nipple	2516	2516SS6
13	1	Spring *	1360	1360HAC
14	14	Nut	241	241
15	1	1/4 F30 Filter	YAS	YASS6
16	1	Nipple	262	262SS6
17	1	Pilot Seat *	565	565SS6
18	1	Pilot Housing	1701	1701
19	1	Lower Pilot Housing	1356	1356 ‡
20	1	Pilot Seat *	113	113SS6
21	2	Vent Plug	147	147SS6
22	1	Upper Diaphragm Plate	1208	1208SS6
23	1	Upper Pilot Housing	1206	1206 ‡
24	1	Stem	2913	2913SS6
25	1	O-Ring *	265	265
26	1	Diaphragm Nut	2912	2912S6
27	1	Spring	4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)	4379 (Std.) 1527 (Opt. 2.5 lbs.) & 3061 (Opt. 5 lbs.)
28	1	Spring Guide	7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)	7148S6 (Std.) 636SS6 (Opt. 2.5 & 5 lbs.)
29	1	Nut	922	922
30	1	Adjusting Screw	897	897
31	1	Bonnet	1336	1336 ‡
32	6	Screw	7531	7531
33	1	Gasket *	1216	1216
34	1	Lower Diaphragm Plate	1340	1340SS6
35	4	Screw	1232	1232
36	10	Screw	236	236
37	1	Pressure Gauge	7704	7704
38	4	Gasket *	242	242
39	1	Diaphragm *	1212	1212
40	1	Nipple	648	648SS6
41	2	Diaphragm *	110	110
42	1	Spacer Ring	2021	2021
43	1	Tee	219	219SS6
44	2	Elbow	875	875SS6
45	1	Seat Extension	4297	4297
46	1	Spring *	566	566HAC
47	1	Gasket *	118	118
48	1	Pilot Plug *	112	112
49	1	Tubing	1383SS6	1383SS6
50	1	Base	4995	4995 ‡
51	1	Bonnet	4477	4477 ‡
52	1	Diaphragm Plate	132SS6	132SS6
53	1	Lower Housing	142	142 ‡
54	1	O-Ring *	153	153
55	1	Seat Disc	158	158SS6
56	1	Ratio Plug	176SS6	176SS6
‡ Coated Parts available with "E" shell material				
Repair Kits			RYF	RYFS6
* These parts are recommended spare parts and are stocked as repair kits.				

# PRESSURE REGULATORS

STEEL GAS LOW PRESSURE BACK PRESSURE WITH OUTSIDE SUPPLY  
MODEL AB PARTS DRAWING



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



**PRESSURE REGULATORS**

**STEEL GAS LOW PRESSURE BACK PRESSURE WITH OUTSIDE SUPPLY  
MODEL AB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER							
			STANDARD				CORROSIVE			
			2 INCH	3 INCH	4 INCH	6 INCH	2 INCH	3 INCH	4 INCH	6 INCH
1	1	Body	2468	2469	2470	2959	2468 ‡	2469 ‡	2470 ‡	2959 ‡
2	1	Nut	173	906		175	173SS6	174SS6		175SS6
								173SS6		174SS6
3	1	Gasket	276	277	196	279	276	277	196	279
4	4	Plug		699				699SS6		
5	2	Back Up	149T	150T	151T	152T	149T	150T	151T	152T
6	1	O-Ring	154	807	156	157	154	807	156	157
7	1	Lower Housing	2481	2482	2483	2957	2481 ‡	2482 ‡	2483 ‡	2957 ‡
8	1	Gasket	196	197	198	199	196	197	198	199
9	1	Diaphragm Plate	2490	2491	2492	2958	2490S6	2491S6	2492S6	2958SS6
10	1	Diaphragm	1706	1640	2015	2140	1706	1640	2015	2140
11	1	Bonnet	2487	2488	2489	2956	2487 ‡	2488 ‡	2489 ‡	2956 ‡
12	1	Nipple		2516				2516SS6		
13	1	Base		4995				4995 ‡		
14	1	Gasket		118				118		
15	1	1/4 F30 Filter		YAS				YASS6		
16	1	Nipple		262				262SS6		
17	1	Pilot Housing		2514				45		
18	14	Nut		241				241		
19	1	Lower Pilot Housing		1356				1356 ‡		
20	1	Diaphragm		1212				1212		
21	3	Vent Plug		147				147SS6		
22	1	Upper Pilot Housing		1206				1206 ‡		
23	1	Lower Diaphragm Plate		1340				1340SS6		
24	1	O-Ring		265				265		
25	2	Lifting Ring		7559		----		7559		----
26	1	Gasket		1216				1216		
27	1	Diaphragm Nut		2912				2912SS6		
28	1	Spring	4379 (Std.)	1527 (Opt. 2.5 lbs.)	& 3061 (Opt. 5 lbs.)		4379 (Std.)	1527 (Opt. 2.5 lbs.)	& 3061 (Opt. 5 lbs.)	
29	1	Bonnet		1336				1336 ‡		
30	1	Nut		922				922		
31	1	Adjusting Screw		897				897		
32	1	Spring Guide	7148S6 (Std.)	636SS6 (Opt. 2.5 & 5 lbs.)			7148S6 (Std.)	636SS6 (Opt. 2.5 & 5 lbs.)		
33	6	Screw		7531				7531		
34	1	Stem		2913				2913SS6		
35	4	Screw		1232				1232		
36	4	Gasket		242				242		
37	10	Screw		236				236		
38	1	Upper Diaphragm Plate		1208				1208SS6		
39	1	Pressure Gauge		7704				7704		
40	1	Seat Extension		4297				4297		
41	1	Spacer Ring		2021				2021		
42	1	Nipple		648				648SS6		
43	1	Tee		219				219SS6		
44	1	Pilot Seat		113				113SS6		
45	2	Diaphragm		110				110		
46	1	Spring		566				566HAC		
47	2	Elbow		877				877SS6		
48	1	Pilot Seat		565				565SS6		
49	1	Pilot Plug		112				112		
50	1	Spring		1360				1360HAC		
51	1	Tubing	4129S6		74SS	4309SS6	4129S6		74SS	4309SS6
52	(QTY)	Bolt	965 (8)	907(10)	907 (12)	2142 (16)	965 (8)	907(10)	907 (12)	2142 (16)
53	1	Adapter		7244				7244S6		
54	1	Spring	1388	7132	1529	1575	1388	7132	1529	1575
55	1	Spacer	4557DS6	4561DS6	4566DS6	4571DS6	4557DS6	4561DS6	4566DS6	4571DS6
56	1	O-Ring	5225	5226	5227	4086	5225	5226	5227	4086
57	1	Retainer	4557ES6	4561ES6	4566ES6	4571ES6	4557ES6	4561ES6	4566ES6	4571ES6
58	1	Valve Stem	Standard Reduced	138 138	139 1222SS6	140 1223SS6	141 1224SS6	138SS6 1222SS6	139SS6 1223SS6	140SS6 1224SS6
59	1	Seat Disc	Standard Reduced	2493SS6 2493SS6	2494SS6 2585SS6	2495SS6 2493SS6	2961SS6 2494SS6	2493SS6 2585SS6	2495SS6 2493SS6	2961SS6 2494SS6
60	1	Seat	Standard Reduced	164HSN 164HSN	165HSN 1230HSN	166HSN 164HSN	167HSN 165HSN	164HSN 1230HSN	165HSN 166HSN	167HSN 165HSN
61	1	Ratio Plug	Standard Reduced	177SS6 4933	178 1228SS6	179 177SS6	3079SS6 178	177SS6 3076SS6	3078SS6 177SS6	3079SS6 3076SS6
62	1	Removable Seat	Standard Reduced	2496SS6K 4934SS6K	2497SS6K 1219SS6K	2498SS6K 1220SSK	3075SS6K 1221SS6K	2496SS6K 4934SS6K	2497SS6K 1219SS6K	2498SS6K 1220SSK
Repair Kits			RTN	RTO	RTP		RTNHSN	RTOHSN	RTPHSN	
* These parts are recommended spare parts and are stocked as repair kits.										

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, spring-operated regulator used for liquid or gas systems where a 0 to 85 psig adjustable back pressure is desired, such as treaters, free water knockouts, pressure vessels, vent lines on separators, flow treaters, compressor stations, and gas gathering systems

#### FEATURES:

- Single adjustment
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line

#### CLASSIFICATIONS:

Non-Venting

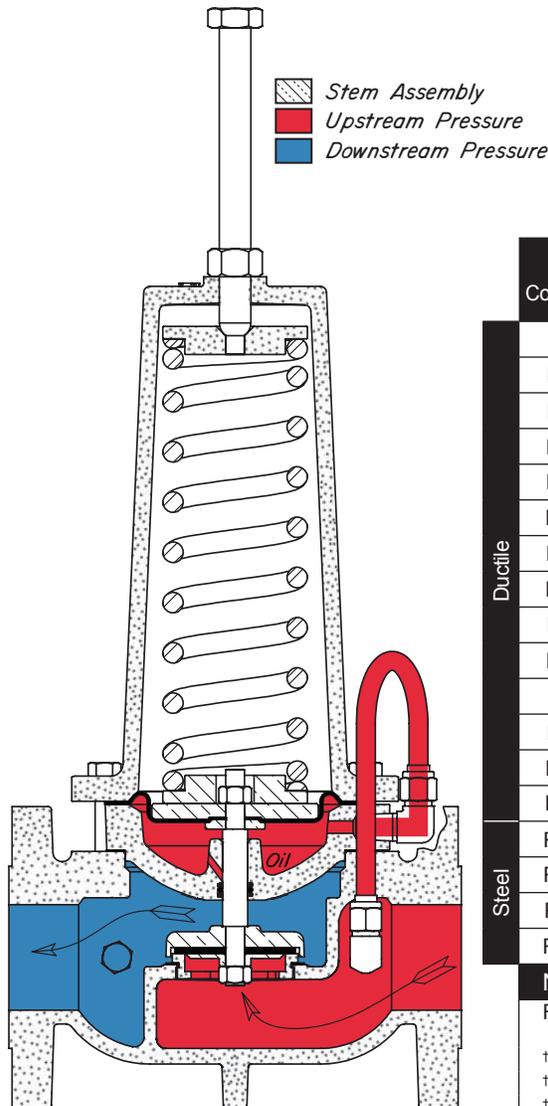
#### CERTIFICATIONS:

Canadian Registration Number (CRN):

0C15676.24567890NTY (Ductile)

0C15331.24567890NTY (Steel)

Kimray is an ISO 9001- certified manufacturer.



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf	
Ductile	RSB2SADFAS	AMU1	2"	NPT	0-10	300	47.0	0.84	
	RSB2ARDFAS	AMW1		150RF		250			
	RSB2SADFBS	AMU2	2"	NPT	10-20	300	47.0	0.84	
	RSB2ARDFBS	AMW2		150RF		250			
	RSB2SADFCS	AMU3	2"	NPT	15-30	300	47.0	0.84	
	RSB2ARDFCS	AMW3		150RF		250			
	RSB2SADFDS	AMU5	2"	NPT	25-50	300	47.0	0.84	
	RSB2ARDFDS	AMW5		150RF		250			
	RSB2SADFES	AMU6	2"	NPT	30-65	300	47.0	0.84	
	RSB2ARDFES	AMW6		150RF		250			
	RSB2SADFFS	AMU8	2"	NPT	40-85	300	47.0	0.84	
	RSB2ARDFFS	AMW8		150RF		250			
	Steel	RSB3SADFES	ENU	3"	NPT	10-75	300	117	0.75
		RSB3ARDFES	ENZ		150RF		250		
		RSB2ARWFCS	ALZ4	2"	150RF	15-30	285	47.0	0.84
		RSB2ARWFDS	ALZ6			25-50			
RSB2ARWFFS		ALZ8	40-85						
RSB3ARWFGS		MGB	3"	150RF	10-75		117	0.75	

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

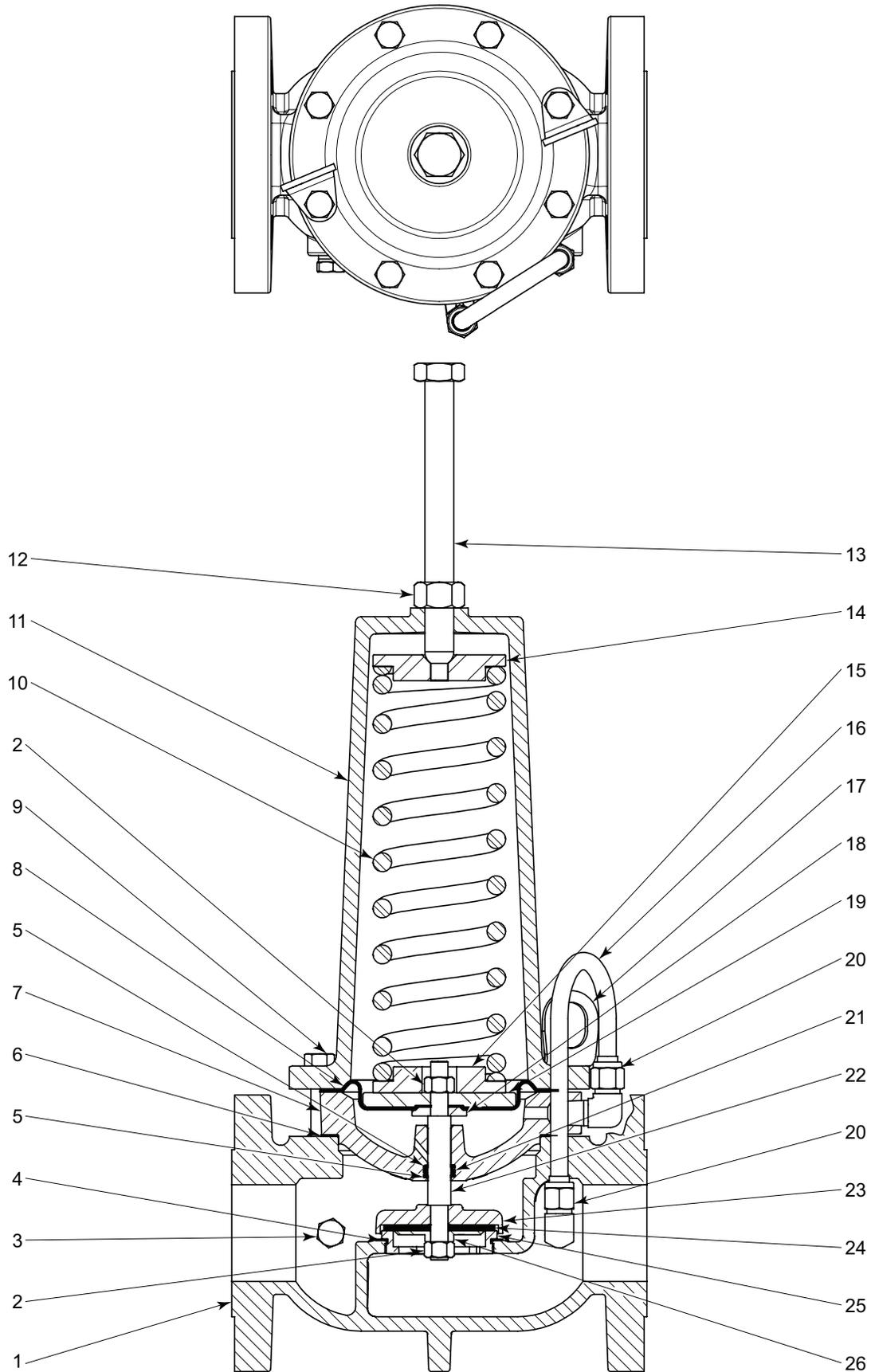
† For code builder see page 06:00.4

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

# PRESSURE REGULATORS



## SPRING LOADED BACK PRESSURE FULL PORT MODEL SB PARTS DRAWING



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

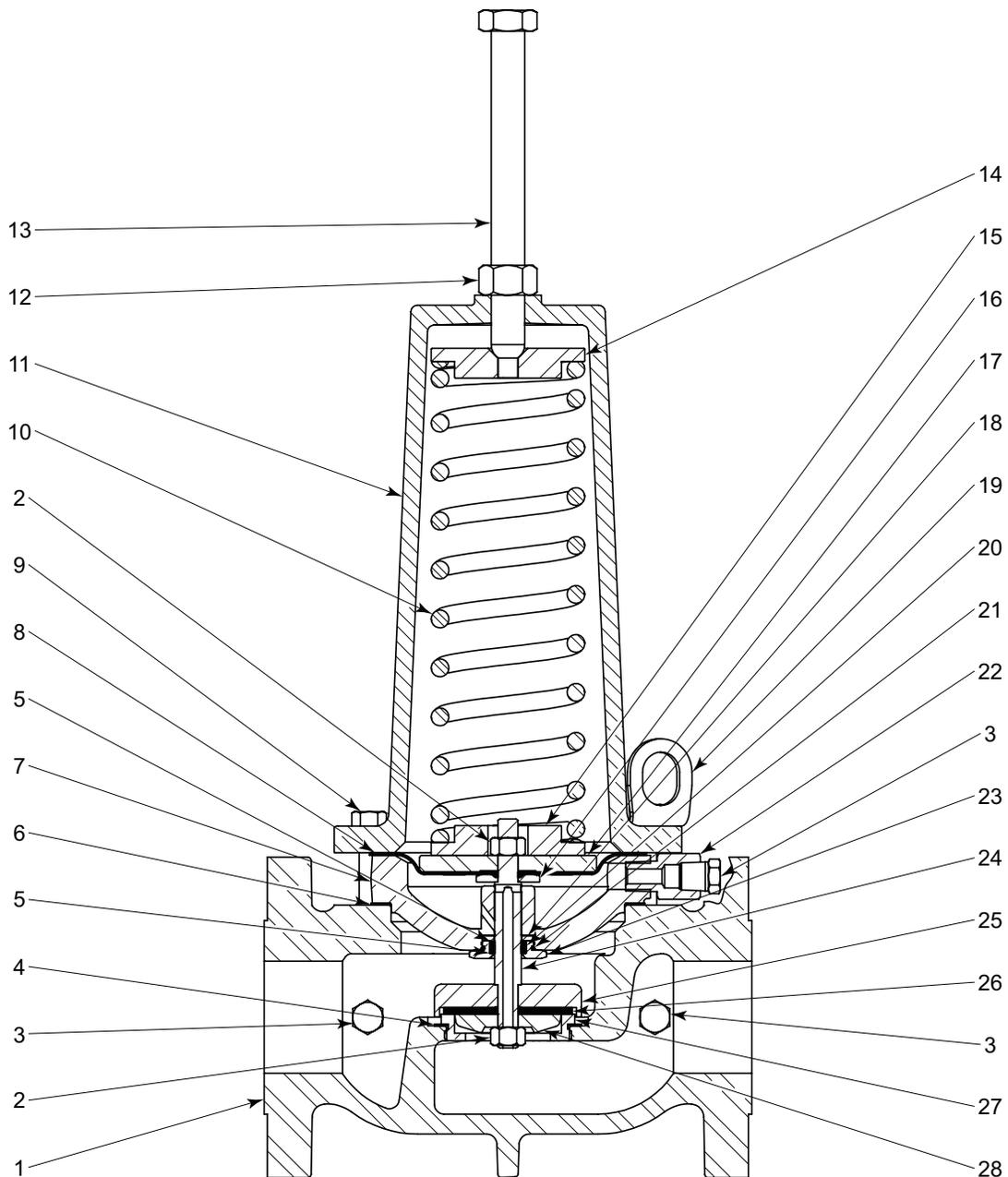
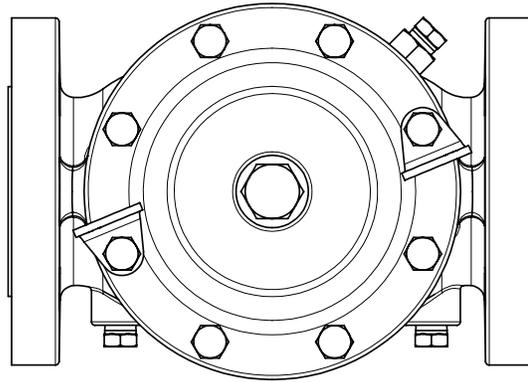
**SPRING LOADED BACK PRESSURE FULL PORT  
MODEL SB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER			
			STANDARD		CORROSIVE	
			2 INCH	3 INCH	2 INCH	3 INCH
1	1	Body				
		NPT Thru	1709	1634	1709 ‡	1634 ‡
		150RF Thru	1913	1914	1913 ‡	1914 ‡
		Grooved Thru	2964	----	2964 ‡	----
2	2	Nut *	173	906	173SS6	174SS6
3	(QTY)	Plug	699 (1)	699 (3)	699SS6 (1)	699SS6 (3)
4	1	Gasket *	276	277	276	277
5	2	Back Up *	149T	150T	149T	150T
6	1	Gasket *	196	197	196	197
7	1	Lower Housing	1704	1632	1704 ‡	1632 ‡
8	1	Diaphragm *	5369	743	5369	743
9	(QTY)	Bolt	965 (8)	907(10)	965 (8)	907(10)
10	1	Spring				
		0-10	5368	----	5368	----
		10-20	5370	----	5370	----
		15-30	5336	----	5336	----
		25-50	2013	----	2013	----
		30-65	5371	----	5371	----
		40-85	4006	----	4006	----
	10-75	Inner Spring	----	6937	----	6937
		Outer Spring	----	6938	----	6938
11	1	Bonnet	2031	4581	2031 ‡	4581 ‡
12	1	Nut		1897		1897
13	1	Adjusting Screw	6911	7546	6911	7546
14	1	Upper Spring Guide	1888	5293	1888	5293
15	1	Lower Spring Guide	2029	5294	2029	5294
16	1	Tubing	2996SS	----	2996SS6	----
17	2	Lifting Ring		7559		7559
18	1	Lower Diaphragm Plate	323SS6	738	323SS6	738
19	1	Upper Diaphragm Plate	737	733	737	733
20	2	Elbow	877	----	877SS6	----
21	1	O-Ring *	154	155	154	155
22	1	Valve Stem	727	6801	727SS6	6801S6
23	1	Seat Disc	159	160	2493SS6	2494SS6
24	1	Seat *	164HSN	165HSN	164HSN	165HSN
25	1	Removable Seat	272K	273K	2496SS6K	2497SS6K
26	1	Ratio Plug	5391	178	5391SS6	3076SS6
			‡ Coated Parts available with "E" shell material			
Repair Kits			RYJ	RYN	RYJSS6	RYNS6
* These parts are recommended spare parts and are stocked as repair kits.						

# PRESSURE REGULATORS



## STEEL SPRING LOADED BACK PRESSURE FULL PORT MODEL SB PARTS DRAWING



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

**STEEL SPRING LOADED BACK PRESSURE FULL PORT  
MODEL SB PARTS LIST**

ITEM	QTY.	DESCRIPTION	PART NUMBER			
			STANDARD		CORROSIVE	
			2 INCH	3 INCH	2 INCH	3 INCH
1	1	Body	2468	2469	2468 ‡	2469 ‡
2	2	Nut	173	906	173SS6	174SS6
3	3	Plug	699		699SS6	
4	1	Gasket *	276	277	276	277
5	2	Back Up *	149T	150T	149T	150T
6	1	Gasket *	196	197	196	197
7	1	Lower Housing	2481	2482	2481 ‡	2482 ‡
8	1	Diaphragm *	5369	743	5369	743
9	(QTY)	Bolt	965 (8)	907(10)	965 (8)	907(10)
10	1	Spring				
		15-30	5336	----	5336	----
		25-50	2013	----	2013	----
		40-85	4006	----	4006	----
		10-75	Inner Spring	----	6937	----
		Outer Spring	----	6938	----	6938
11	1	Bonnet	2031	4581	2031 ‡	4581 ‡
12	1	Nut	1897		1897	
13	1	Adjusting Screw	6911	7546	6911SS6	7546
14	1	Upper Spring Guide	1888	5293	1888SS6	5293SS6
15	1	Lower Spring Guide	2029	5294	2029SS6	5294SS6
16	1	Lower Diaphragm Plate	323SS6	738	323SS6	738SS6
17	1	Upper Diaphragm Plate	737	733	737SS6	733SS6
18	1	Spacer	4557DS6	4564DS6	4557DS6	4564DS6
19	2	Lifting Ring *	7559		7559	
20	1	O-Ring *	154	807	154Q	807
21	1	O-Ring	5225	5226	5225	5226
22	1	Adapter	7244		7244S6	
23	1	Retainer	4557ES6	4564ES6	4557ES6	4564ES6
24	1	Valve Stem	3070	6801	3070SS6	6801S6
25	1	Seat Disc *	2493SS6	2494SS6	2493SS6	2494SS6
26	1	Seat	164HSN	165HSN	164HSN	165HSN
27	1	Removable Seat	2496SS6K	2497SS6K	2496SS6K	2497SS6K
28	1	Ratio Plug	177SS6	178	177SS6	3076SS6
			‡ Coated Parts available with "E" shell material			
Repair Kits			RYJ	RYN	RYJS6	RYNS6
			* These parts are recommended spare parts and are stocked as repair kits.			

**NOTES:**

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**KIMRAY**  
INC.®

Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Self-contained, spring-operated regulator used for Liquid or gas systems where a 0 to 125 psig adjustable back pressure is desired, such as treaters, free water knockouts, pressure vessels, vent lines on separators, flow treaters, compressor stations, and gas gathering systems

#### FEATURES:

- Single adjustment
- Single soft seat
- Internal sense line
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line

#### CLASSIFICATIONS:

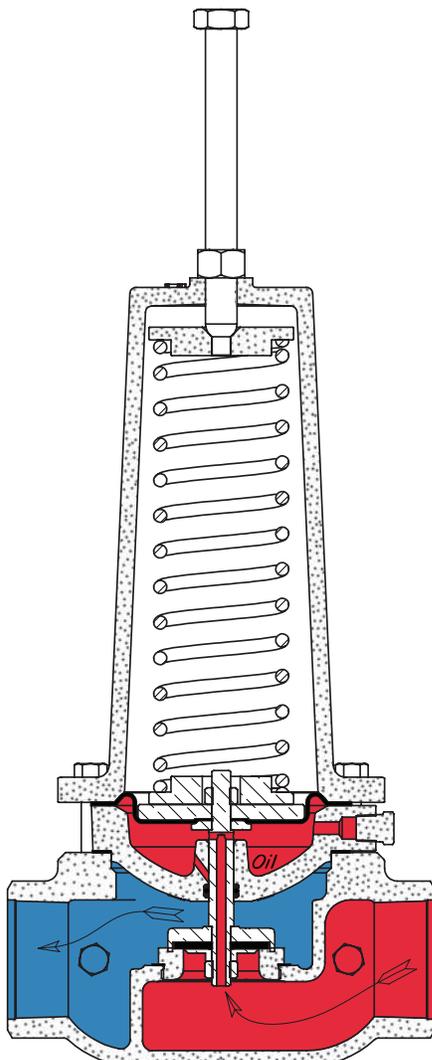
Non-Venting

#### CERTIFICATIONS:

Canadian Registration Number (CRN):  
0C15676.24567890NTY (Ductile)  
0C15331.24567890NTY (Steel)

Kimray is an ISO 9001- certified manufacturer.

-  Stem Assembly
-  Upstream Pressure
-  Downstream Pressure



	Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf	
Ductile	RSB2SADRAS	ALU1	2"	NPT	0-10	300	21.0	0.75	
	RSB2ARDRAS	ALW1		150RF		250			
	RSB2GVDRAS	ALV1		GRVD		300			
	RSB2SADRBS	ALU2	2"	NPT	10-20	300	21.0	0.75	
	RSB2ARDRBS	ALW2		150RF		250			
	RSB2GVDRBS	ALV2		GRVD		300			
	RSB2SADRCS	ALU4	2"	NPT	20-40	300	21.0	0.75	
	RSB2ARDRCS	ALW4		150RF		250			
	RSB2GVDRCS	ALV4		GRVD		300			
	RSB2SADRDS	ALU6	2"	NPT	40-65	300	21.0	0.75	
	RSB2ARDRDS	ALW6		150RF		250			
	RSB2GVDRDS	ALV6		GRVD		300			
	RSB2SADRFS	ALU9	2"	NPT	65-90	300	21.0	0.75	
	RSB2ARDRES	ALW9		150RF		250			
	RSB2GVDRES	ALV9		GRVD		300			
	Steel	RSB2SADRFS	ALU12	2"	NPT	80-125	300	21.0	0.75
		RSB2ARDRFS	ALW12		150RF		250		
		RSB2GVDRFS	ALV12		GRVD		300		
RSB3SADRFS		ENU5	3"	NPT	10-75	300	34.0	0.82	
RSB3ARDRFS		ENZ5		150RF		250			
RSB2ARWRAS		ALY1	2"	150RF	0-10	285	21.0	0.75	
RSB2ARWRBS		ALY2			10-20				
RSB2ARWRCS		ALY4			20-40				
RSB2ARWRDS		ALY6			40-65				
RSB2ARWRFS		ALY9			65-90				
RSB2ARWRFS		ALY12			80-125				

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:1 - 06:1V

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

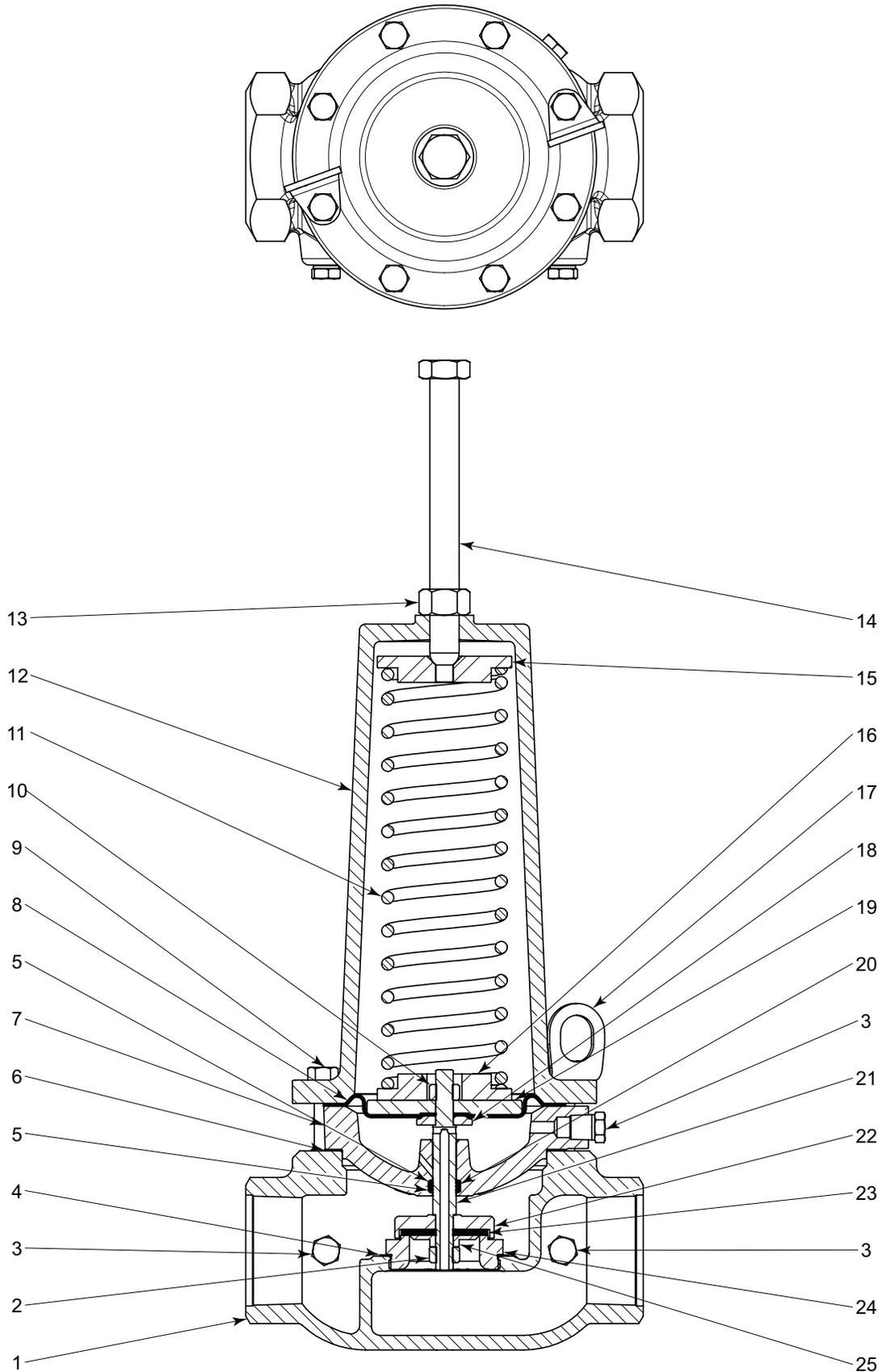
† For code builder see page 06:00.4

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

# PRESSURE REGULATORS



## SPRING LOADED BACK PRESSURE REDUCED PORT MODEL SB PARTS DRAWING



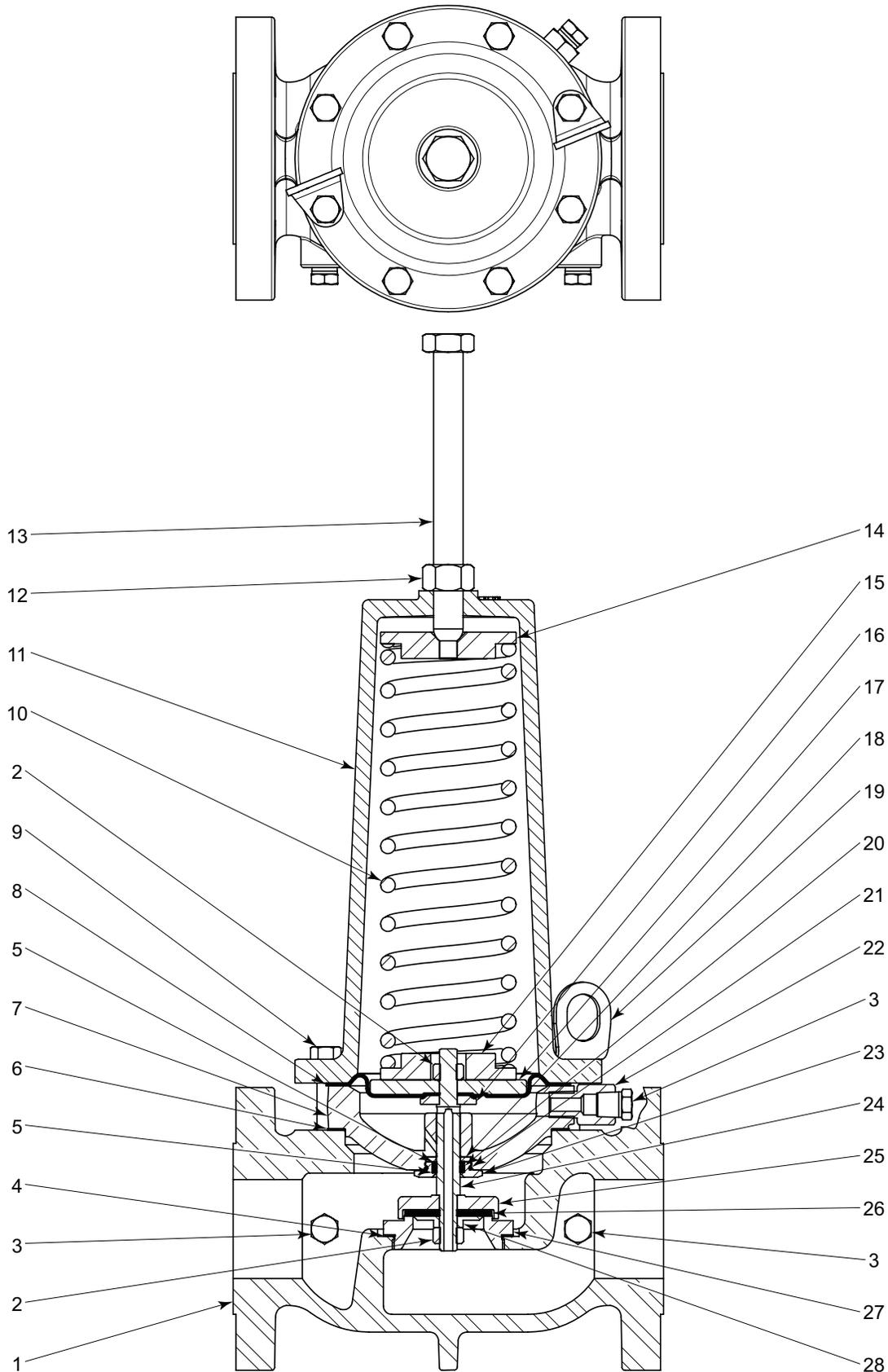
All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ITEM	QTY.	DESCRIPTION	PART NUMBER			
			STANDARD		CORROSIVE	
			2 INCH	3 INCH	2 INCH	3 INCH
1	1	Body				
		NPT Thru	1709	----	1709 ‡	----
		150RF Thru	1913	1914	1913 ‡	1914 ‡
		Grooved Thru	2964	----	2964 ‡	----
2	1	Nut *		173		173SS6
3	3	Plug		699		699SS6
4	1	Gasket *	276	277	276	277
5	2	Back Up *	149T	150T	149T	150T
6	1	Gasket *	196	197	196	197
7	1	Lower Housing	1704	1632	1704 ‡	1632 ‡
8	1	Diaphragm *	5369	743	5369	743
9	(QTY)	Bolt	965 (8)	907 (10)	965 (8)	907 (10)
10	1	Nut	173	906	173SS6	174SS6
11	1	Spring				
		0-10	5368	----	5368	----
		10-20	5370	----	5370	----
		20-40	5336	----	5336	----
		40-65	2013	----	2013	----
		65-90	5371	----	5371	----
		80-125	4006 & 6763	----	4006 & 6763	----
	10-75	Inner Spring	----	6937	----	6937
		Outer Spring	----	6938	----	6938
12	1	Bonnet	2031	4581	2031 ‡	4581 ‡
13	1	Nut		1897		1897
14	1	Adjusting Screw	6911	7546	6911	7546
15	1	Upper Spring Guide	1888	5293	1888	5293
16	1	Lower Spring Guide	2029	5294	2029	5294
17	2	Lifting Ring		7559		7559
18	1	Lower Diaphragm Plate	323SS6	738	323SS6	738
19	1	Upper Diaphragm Plate	737	733	737	733
20	1	Quad Ring *	154	155	154Q	155
21	1	Valve Stem	3070	4582SS6	3070SS6	4582SS6
22	1	Seat Disc	312	1229	312SS6	1229
23	1	Seat *	310HSN	1230P	310HSN	1230HSN
24	1	Removable Seat	4005K	1219DK	4005K	1219DK
25	1	Ratio Plug		1539SS6		1539SS6
‡ Coated Parts available with "E" shell material						
Repair Kits			RYJ	RYN	RYJS6	RYNS6
			* These parts are recommended spare parts and are stocked as repair kits.			

# PRESSURE REGULATORS



## STEEL SPRING LOADED BACK PRESSURE REDUCED PORT MODEL SB PARTS DRAWING



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

ITEM	QTY.	DESCRIPTION	PART NUMBER	
			STANDARD	CORROSIVE
1	1	Body	2468	2468S6 ‡
2	2	Nut	173	173SS6
3	3	Plug	699	699SS6
4	1	Gasket *	276	276
5	2	Back Up *	149T	149T
6	1	Gasket *	196	196
7	1	Lower Housing	2481	2481SS6 ‡
8	1	Diaphragm *	5369	5369
9	8	Bolt	965	965
10	1	Spring		
		0-10	5368	5368
		10-20	5370	5370
		20-40	5336	5336
		40-65	2013	2013
		65-90	5371	5371
		80-125	4006 & 6763	4006 & 6763
11	1	Bonnet	2031	2031 ‡
12	1	Nut	1897	1897
13	1	Adjusting Screw	6911	6911
14	1	Upper Spring Guide	1888	1888
15	1	Lower Spring Guide	2029	2029
16	1	Lower Diaphragm Plate	323SS6	323SS6
17	1	Upper Diaphragm Plate	737	737
18	1	Spacer	4557DS6	4557DS6
19	2	Lifting Ring	7559	7559
20	1	Quad Ring *	154	154Q
21	1	O-Ring *	5225	5225
22	1	Adapter	7244	7244S6
23	1	Retainer	4557ES6	4557ES6
24	1	Valve Stem	3070	3070SS6
25	1	Seat Disc	312	312SS6
26	1	Seat *	310HSN	310HSN
27	1	Removable Seat	4060SS6K	4060SS6K
28	1	Ratio Plug	1539SS6	1539SS6
			‡ Coated Parts available with "E" shell material	
Repair Kits			RYJ	RYJS6
* These parts are recommended spare parts and are stocked as repair kits.				

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

#### APPLICATION:

Used to regulate downstream pressure. Downstream pressure is regulated to match the pneumatic signal sent to the pilot. Downstream pressure remains constant through changes in upstream pressure.

#### FEATURES:

- Tight shut-off
- Single soft seat
- Removable valve seat
- Minimum maintenance
- All internal parts can be removed with valve in line
- Remote setpoint
- Utilizes upstream pressure as actuation pressure
- Efficient 3-way plug accurately maintains setpoint

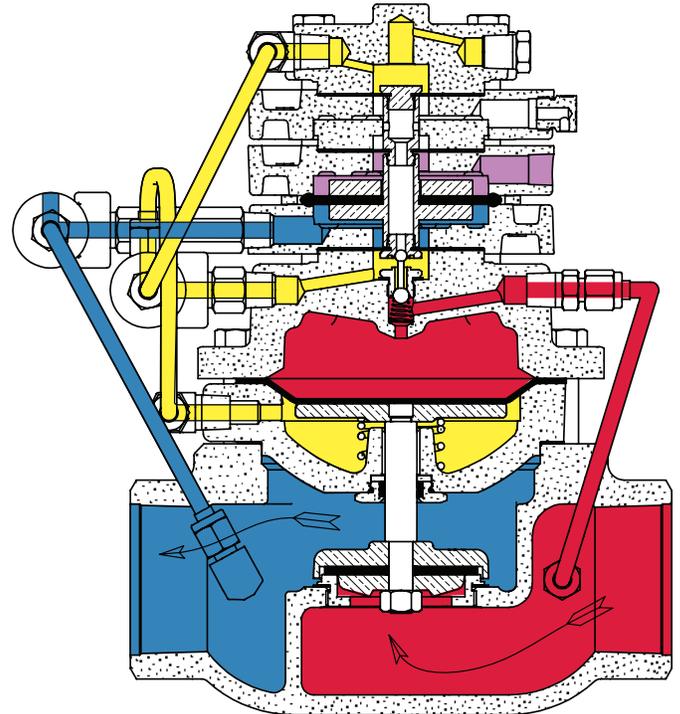
#### CERTIFICATIONS:

Kimray is an ISO 9001- certified manufacturer.

#### CLASSIFICATIONS:

Non-Bleed / Intermittent Vent

-  Pilot Assembly
-  Motor Valve Stem Assembly
-  Upstream Pressure
-  Downstream Pressure
-  Diaphragm Pressure
-  Supply Pressure



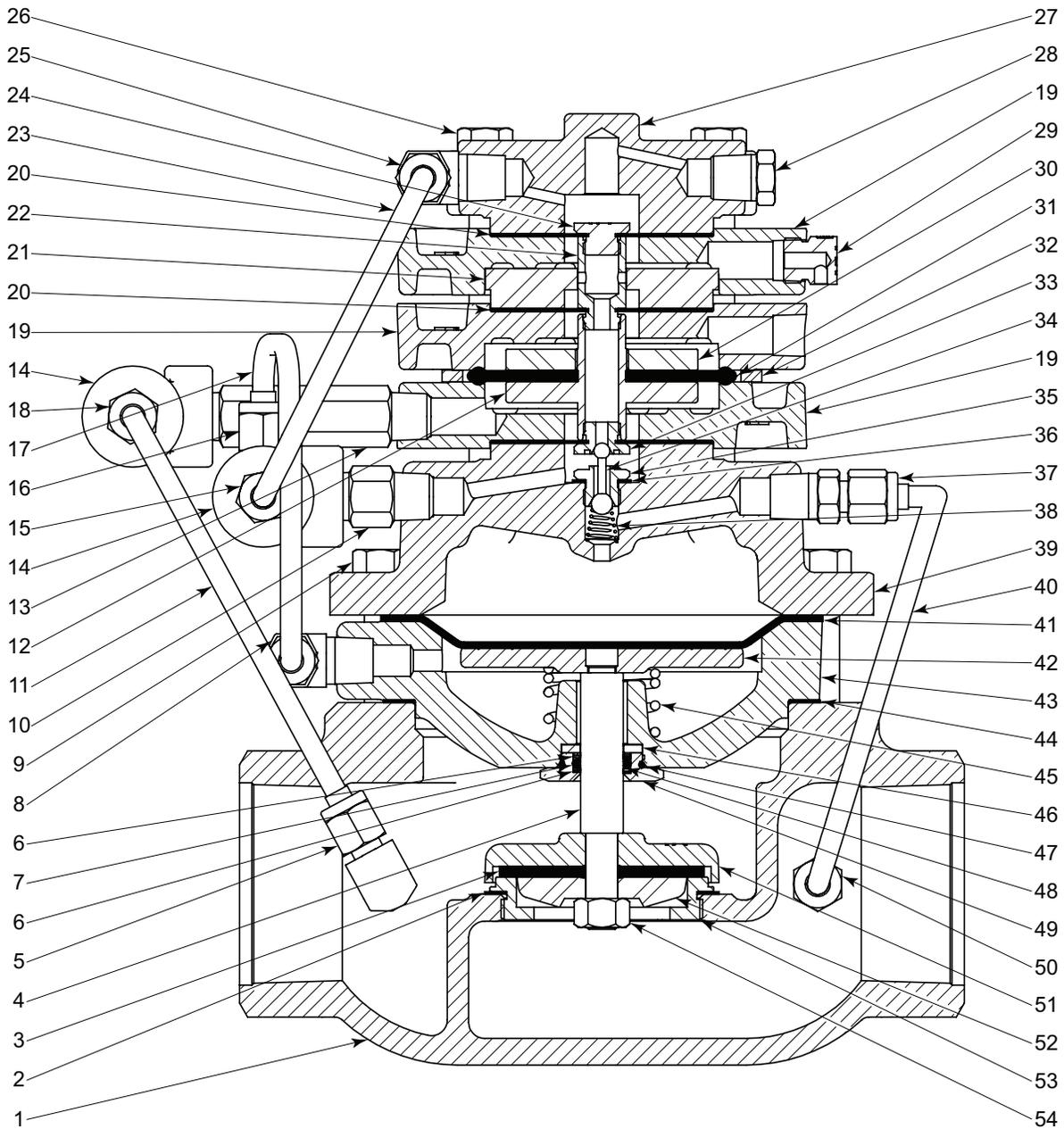
Standard Configuration Code †	Order Code	Line Size	Connection Type	Oper. Press. psig	Max. W.P. psig ††	Cv	Cf
RPA2SADF1S	AJIPNU	2"	NPT	10-300	300	47.0	0.84
RPA2ARDF1S	AJJPNU		150RF	10-250	250		
RPA3SADF1S	AJKPNU	3"	NPT	10-300	300	117	0.75
RPA3ARDF1S	AJLPNU		150RF	10-250	250		
RPA4SADF1S	AJMPNU	4"	NPT	10-300	300	210	0.75
RPA4ARDF1S	AJNPNU		150RF	10-250	250		
RPA4ARDF1S	AJPPNU	6"	150RF	10-250	250	480	0.75

#### NOTES:

For standard & optional seals, metals, Cf Cv values, material specifications & dimensions see technical data on pages 06:I - 06:IV  
 † For Corrosive service remove last "S" & replace with "C"  
 † For code builder see page 06:00.2  
 †† Max W.P. values based on -20°F to 100°F.

# PRESSURE REGULATORS

## PNEUMATICALLY ADJUSTED MODEL PA PARTS DRAWING



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

ITEM	QTY.	DESCRIPTION	PART NUMBER				
			2 INCH	3 INCH	4 INCH	6 INCH	
1	1	Body	NPT Thru	1709	1634	2001	----
			150RF Thru	1913	1914	2002	2466
2	1	Gasket *	276	277	196	279	
3	1	Seat *	164HSN	165HSN	166HSN	167HSN	
4	1	Valve Stem	138	139	140	141	
5	1	Elbow	875				
6	2	Back Up *	149T	150T	151T	152T	
7	1	O-Ring *	154	807	156	157	
8	1	Elbow	875				
		Connector	----				
		Nipple	----				
9		Bolt	965 (8)	907 (10)	907 (12)	2142 (16)	
10	1	Nipple	648				
11	1	Tubing	216SS6	4011SS6	1383SS6	2247SS6	
12	1	Diaphragm Plate	2022				
13	1	Nipple	648	2600		648	
14	2	Tee	2000				
15	1	Elbow / Connector	874				
16	1	Elbow / Connector	875			874	
17	1	Tubing	4008SS6	4011SS6	2505SS6	4262SS6	
18	1	Elbow / Connector	874			875	
19	3	Pilot Housing	1701				
20	3	Diaphragm *	110				
21	1	Spacer	2021				
22	1	Seat Extension	5063				
23	1	Tubing	2603SS6	4011SS6		2247SS6	
24	1	Plug	1546				
25	1	Elbow	875				
26	4	Bolt	5069				
27	1	Base	6969				
28	1	Plug	699				
29	1	Vent Plug	147				
30	1	Diaph. Nut	107				
31	1	Diaphragm *	5259P				
32	1	Spacer Ring *	7437				
33	1	Pilot Seat *	113				
34	1	Pilot Plug *	112				
35	1	Pilot Seat *	565				
36	1	Gasket *	118				
37	1	Elbow / Connector	874				
38	1	Spring *	108				
39	1	Upper Housing	1703	1639	2004	2178	
40	1	Tubing	2512SS6	4011SS6	4251S6	218SS6	
41	1	Diaphragm *	1706	1640	2015	2140	
42	1	Diaphragm Plate	133	134	135	136	
43	1	Lower Housing	4557B	4561B	4566B	4571B	
44	1	Gasket *	196	197	198	199	
45	1	Spring	1388	1528	1529	1575	
46	1	Spacer *	4557DS6	4561DS6	4566DS6	4571DS6	
47	1	O-Ring *	5225	5226	5227	4086	
48	1	Channel Seal *	4557C	4561C	4566C	4571C	
49	1	Retainer *	4557ES6	4561ES6	4566ES6	4571ES6	
50	1	Elbow / Connector	874	874	874	875	
51	1	Seat Disc	159	160	161	162	
52	1	Ratio Plug	177SS6	178	179	180	
53	1	Removable Seat	272K	273K	274K	275K	
54	1	Nut *	173	906	906	175	
Repair Kits			RYH	RYL	RYP	RYS	
* These parts are recommended spare parts and are stocked as repair kits.							

**NOTES:**

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Kimray is an ISO 9001- certified manufacturer.

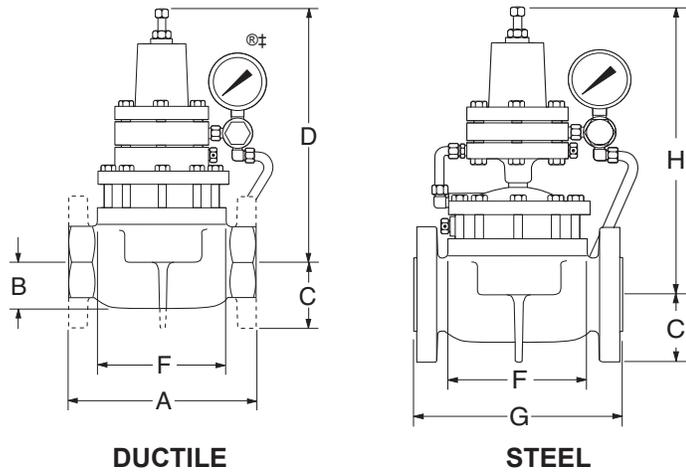
<b>Table 1 - Flow Coefficient(Cv) at % stem travel for Pilot-operated Regulators</b>											
<b>1" Pressure Regulator</b>											
Trim Size in.(mm)	Cf	Valve Opening Percentage									
		10	20	30	40	50	60	70	80	90	100
<b>1/2 in (12mm) Reduced</b>	<b>0.75</b>	0.4	0.7	0.9	1.3	1.8	2.5	3.2	3.9	4.5	5
<b>1 in (25mm) Full Port</b>	<b>0.74</b>	1.1	1.8	2.4	3.4	4.8	6.6	8.5	10.2	11.9	13.2
<b>2" Pressure Regulator</b>											
Trim Size in. (mm)	Cf	Valve Opening Percentage									
		10	20	30	40	50	60	70	80	90	100
<b>1 1/4 in (31 mm) Reduced</b>	<b>0.75</b>	1.8	2.8	3.9	5.4	7.7	10.5	13.6	16.2	19.0	21.0
<b>2 in Removable Full Port *</b>	<b>0.84</b>	4.0	6.2	8.6	12.1	17.2	23.5	30.4	36.3	42.5	47.0
<b>2 in (50 mm) Full Port *</b>	<b>0.75</b>	4.4	6.9	9.5	13.4	19.1	26.0	33.6	40.2	47.0	52.0
<b>3" Pressure Regulator</b>											
Trim Size in. (mm)	Cf	Valve Opening Percentage									
		10	20	30	40	50	60	70	80	90	100
<b>1 5/8 in (66 mm) Reduced</b>	<b>0.82</b>	2.9	4.5	6.2	8.8	12.5	17.0	22.0	26.3	30.7	34.0
<b>3 in (76 mm) Full Port</b>	<b>0.75</b>	9.9	15.6	21.5	30.2	42.9	58.6	75.7	90.4	105.7	117.0
<b>4" Pressure Regulator</b>											
Trim Size in. (mm)	Cf	Valve Opening Percentage									
		10	20	30	40	50	60	70	80	90	100
<b>2 in (50 mm) Reduced</b>	<b>0.80</b>	4.7	7.3	10.1	14.2	20.2	27.5	35.6	42.5	49.7	55.0
<b>4 in (100 mm) Full Port</b>	<b>0.75</b>	17.8	27.9	38.6	54.2	77.0	105.2	135.9	162.2	189.8	210.0
<b>6" Pressure Regulator</b>											
Trim Size in. (mm)	Cf	Valve Opening Percentage									
		10	20	30	40	50	60	70	80	90	100
<b>3 in (76 mm) Reduced</b>	<b>0.80</b>	10.2	16.0	22.0	30.9	44.0	60.1	77.7	92.7	108.4	120.0
<b>6 in (152 mm) Full Port</b>	<b>0.75</b>	40.6	63.8	88.1	123.8	176.0	240.4	310.6	370.7	433.7	480.0

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

# PRESSURE REGULATORS

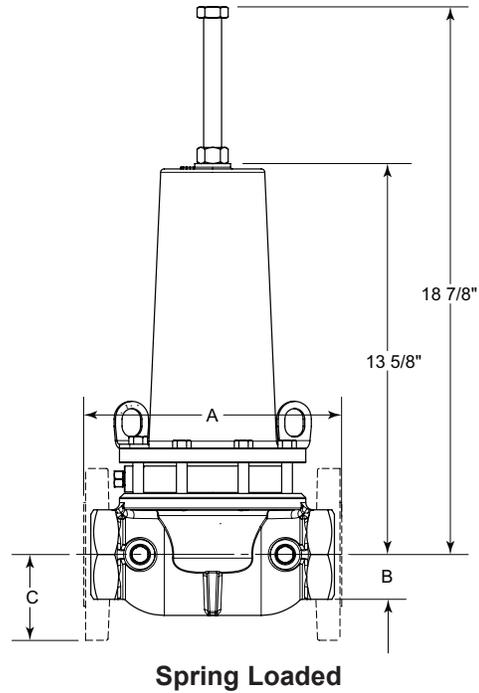
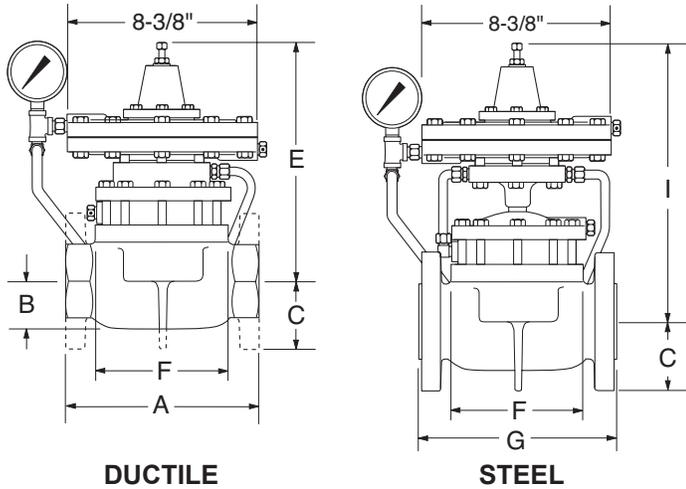


## DIMENSIONS



- Back Pressure
- Back Pressure Vacuum
- Liquid Back Pressure
- Pressure Reducing
- Pressure Reducing Vacuum
- Pressure Reducing-Balanced
- Pressure Differential

- Low Pressure Back Pressure
- Ounces Back Pressure To Vacuum
- Ounces Pressure Reducing
- Ounces Pressure Reducing Vacuum
- Vacuum Back Pressure To Vacuum



LINE SIZE	BODY SIZE	A	B	C	D*	E	F	G	H*	I
1"	NPT	4 3/8"	1 1/8"		7 1/2"	11 5/8"	3 1/4"			
	FLANGED	7 1/4"	1 1/8"	2 1/8"	7 1/2"	11 5/8"	3 1/4"			
2"	NPT	8 1/2"	2 1/8"		11 1/2"	10 1/2"	6 1/2"			
	FLANGED	9"		3"	11 1/2"	10 1/2"	6 1/2"	9 1/8"	14 1/2"	14"
	GROOVED	8 3/4"	2 1/8"		11 1/2"	10 1/2"	6 1/2"			
250 S/FGT	NPT							10 1/2"		
	FLANGED							10 3/8"		
3"	NPT	12 1/16"	3 1/16"		13"	12"	8 1/2"			
	FLANGED	12 3/16"		3 3/4"	13"	12"	8 1/2"	12 3/8"	16 1/2"	15 1/2"
4"	NPT	15" 1/16"	4"		14 1/2"	13 3/16"	10 1/2"			
	FLANGED	15 1/16"		4 1/2"	14 1/2"	13 3/16"	10 1/2"	15 1/16"	18 1/2"	16 11/16"
6"	FLANGED	22"		5 1/2"	17"	17 7/8"	16"	21 15/16"	20 1/2"	18 3/8"

FLANGE DIMENSIONS ARE ANSI 125/150 STANDARD. \*Add 7/8" to Pressure Reducing Balanced and Up Stream Differential Pressure Regulators for this dimension.

All Pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.  
 ‡ Configuration of Back Pressure Control Valve is a trademark of Kimray, Inc.

[www.kimray.com](http://www.kimray.com)

Table 2 - Seal Options		
Part	Standard Material	Optional Material
Seat	HSN	FKM, AFLAS®
O-rings	Nitrile	HSN, FKM, AFLAS®
All Diaphragms	Nitrile	HSN, FKM, AFLAS®

Table 3 - Seal Specifications				
	NITRILE	HIGHLY SATURATED NITRILE	FKM	AFLAS®
Kimray Suffix	-	HSN	V	AF
Resistance	Abrasion	G	G-E	G
	Acid	F	G-E	E
	Chemical	F	F	E
	Cold	G	G	P
	Flame	P	P	E
	Heat	G	E	E
	Oil	G-E	E	E
	Ozone	P	G	G-E
	Set	G	G	G-E
	Tear	F	F	F
	Water/Steam	F	E	P
	Weather	F	G	E
	CO2	F-G	G	G
	H2S	P	F	P
	Methanol	F	E	P
Properties	Dynamic	G	G	G
	Electrical	F	F	G-E
	Impermeability	G	G	G
	Tensile Strength	G	G-E	G
Temp. Range	-20° to +250°F	-20° to +300°F	-15° to +400°F	+15° to +450°F
	-29° to +121°C	-29° to +149°C	-26° to +204°C	-9° to +232°C
RATINGS: P-POOR, F-FAIR, G-GOOD, E-EXCELLENT				

**Table 4 - Material Options**

Part Description	Valve Size	Standard Material	Corrosive Material
Ratio Plug	1" & 2"	316 Powdered Metal SS-316NI-25	
	1" & 2" Reduced Trim	Alloy Steel (ASTM A108)	316SS (ASTM A479)
	3"	Powdered Metal F-008	316SS (ASTM A479)
	4" & 6"	Ductile (ASTM A395)	316SS (ASTM A479)
Seat Disc	1"	Powdered Metal F-008	316SS (ASTM A479)
	2", 3" & 4"	Ductile (ASTM A395)	316SS (ASTM A351 CF8M)
	6"	Ductile (ASTM A395)	316SS (ASTM A 240)
Stem	1" thru 6"	303SS (ASTM A582)	316SS (ASTM A479)
Body	1" thru 6"	Ductile (ASTM A395)	Ductile (ASTM A395) + Kimcoat
	2" thru 6"	WCB (ASTM A216)	WCB (ASTM A216) + Kimcoat
Tubing	1" thru 6"	304SS (ASTM A249)	316SS (ASTM A213)
Removable Seat	2" thru 6" Ductile Body	Ductile (ASTM A395)	316SS (ASTM A351 CF8M)
	2" thru 6" Steel Body	316SS (ASTM A351 CF8M)	