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

## 550 Series Back Pressure, Low Pressure Valve

### Application:

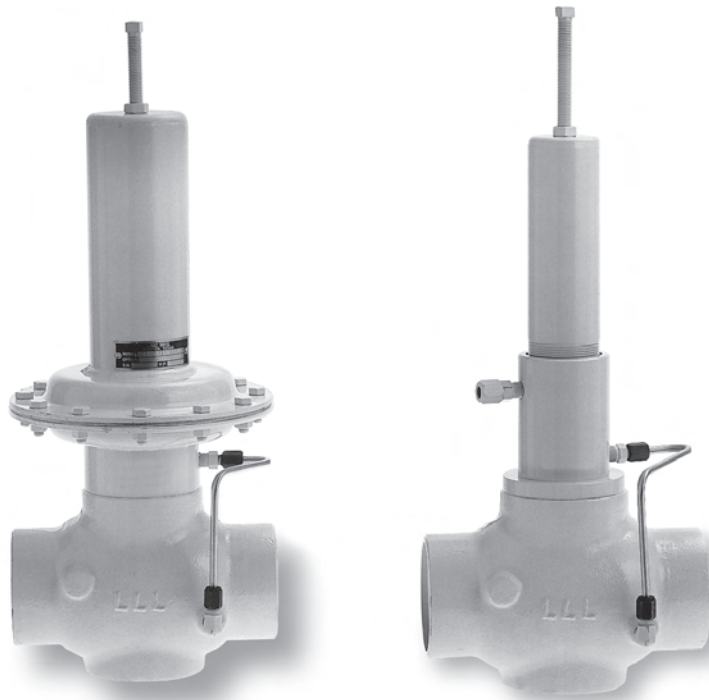
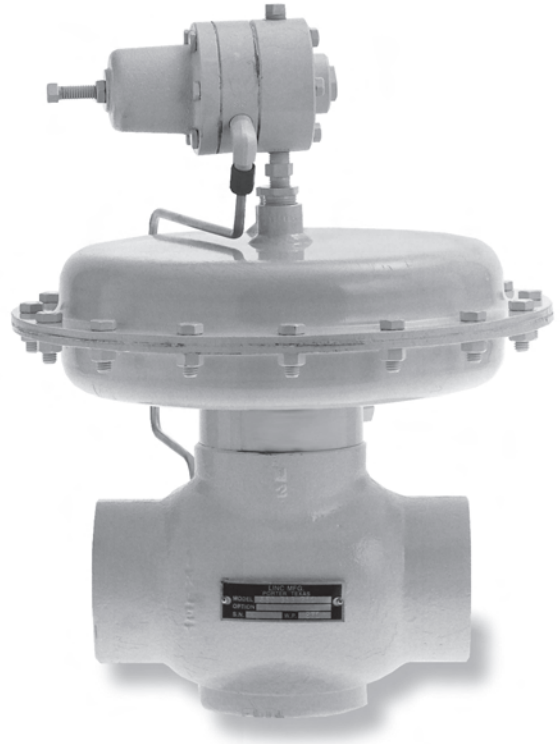
The 550 Series are used on any installation where the pressure upstream must be kept in a preset range. These valves can be used as a pressure relief valve, custody transfer dump valve to hold a certain back pressure or a separator back pressure valve on the gas or liquid side.

### Operation:

Upstream pressure is applied to the bottom of the diaphragm, piston or to the pilot through connecting tubing. An adjustable spring tension opposes this pressure. When this pressure exceeds the pressure setting on the spring, the plug is raised off the seat. By varying the spring tension with the adjustment screw, the pressure setting can be varied.

### Features:

- The nitrile soft seat provides a bubble tight shut off even if foreign particles are present.
- All internal parts can be removed without taking the valve body from the line.
- Long packing life is provided due to the stainless steel stem working in a replaceable bushing.
- Self contained or pilot operated.



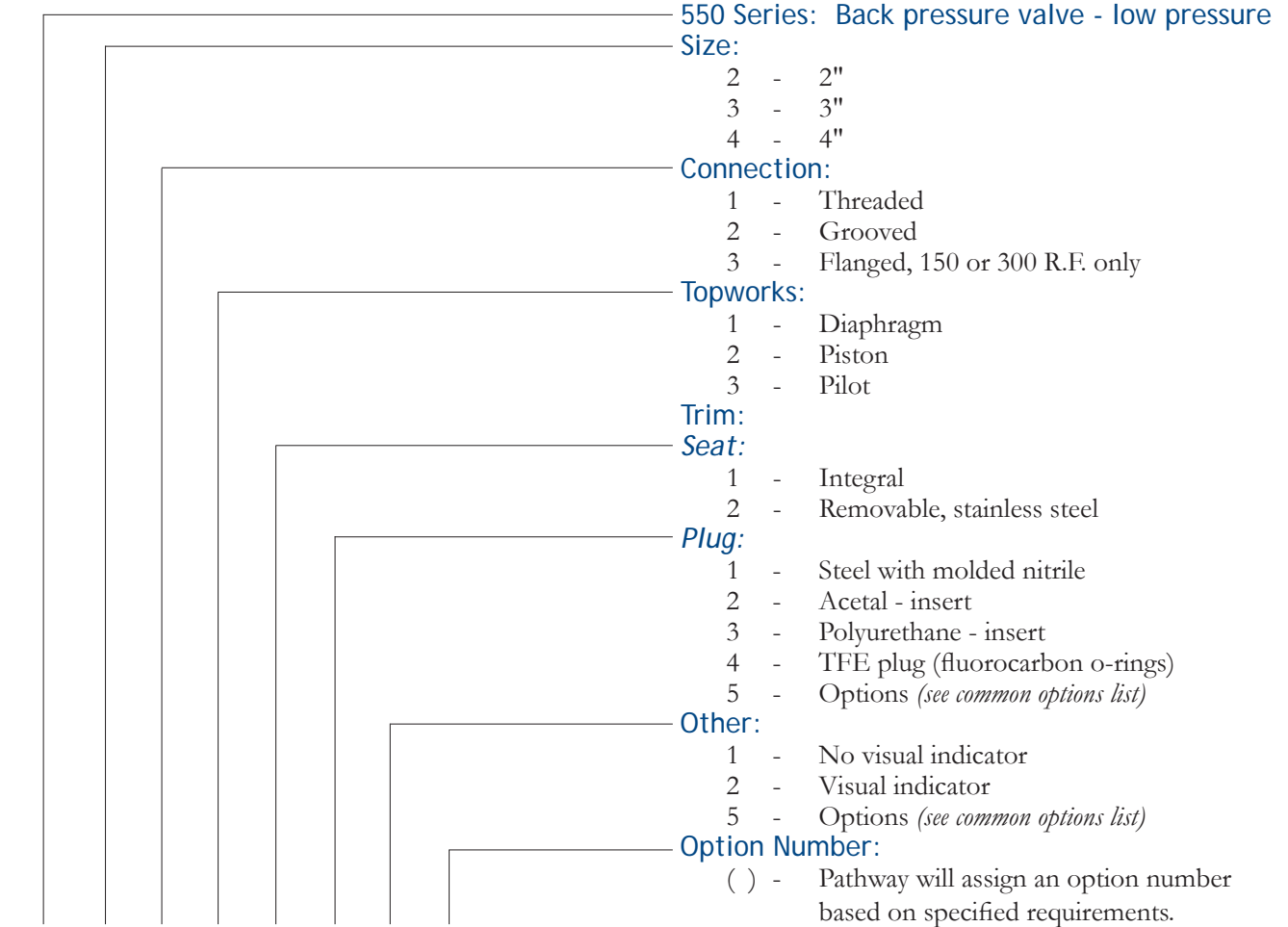
## 550 Series

### Back Pressure, Low Pressure Valve

**Specifications:**

Size:	2"	3"	4"
<b>Working Pressure:</b>			
<i>Diaphragm Operated:</i>	100 psig	90 psig	50 psig
<i>Piston Operated:</i>	200 psig	150 psig	N/A
<i>Pilot Operated:</i>	350 psig	300 psig	200 psig
<b>Temperature:</b> -20°F to + 180°F; available to +240°F			
<b>Topworks:</b> Pressed steel housing with nylon reinforced nitrile diaphragm; 50 psig maximum supply pressure.			
<b>C<sub>v</sub> Factor:</b>	45	80	111
<b>Trim:</b>			
<i>Seat:</i>	Integral in the valve body or removable stainless steel.		
<i>Plug:</i>	Steel with molded nitrile standard; optional fabricated acetal, polyurethane or TFE inserts.		
<b>Materials:</b>			
<i>Body:</i>	Ductile ASTM A395		
<i>Stem:</i>	Stainless steel		
<i>Packing:</i>	Poly Pak and/or o-rings		

**Ordering Chart:**



550- ( )

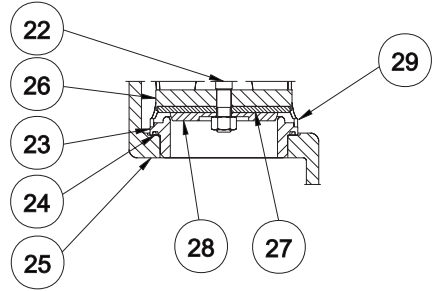
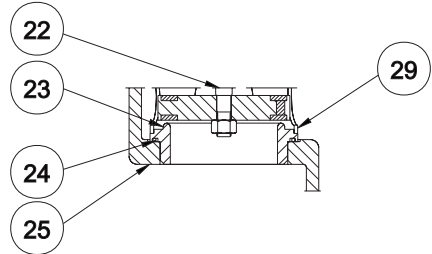
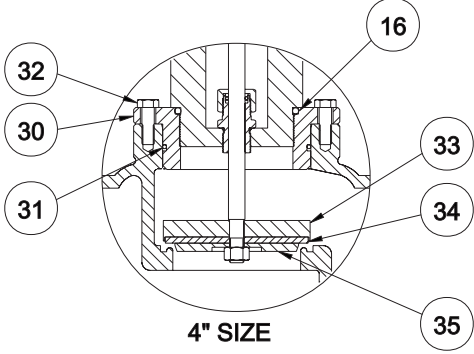
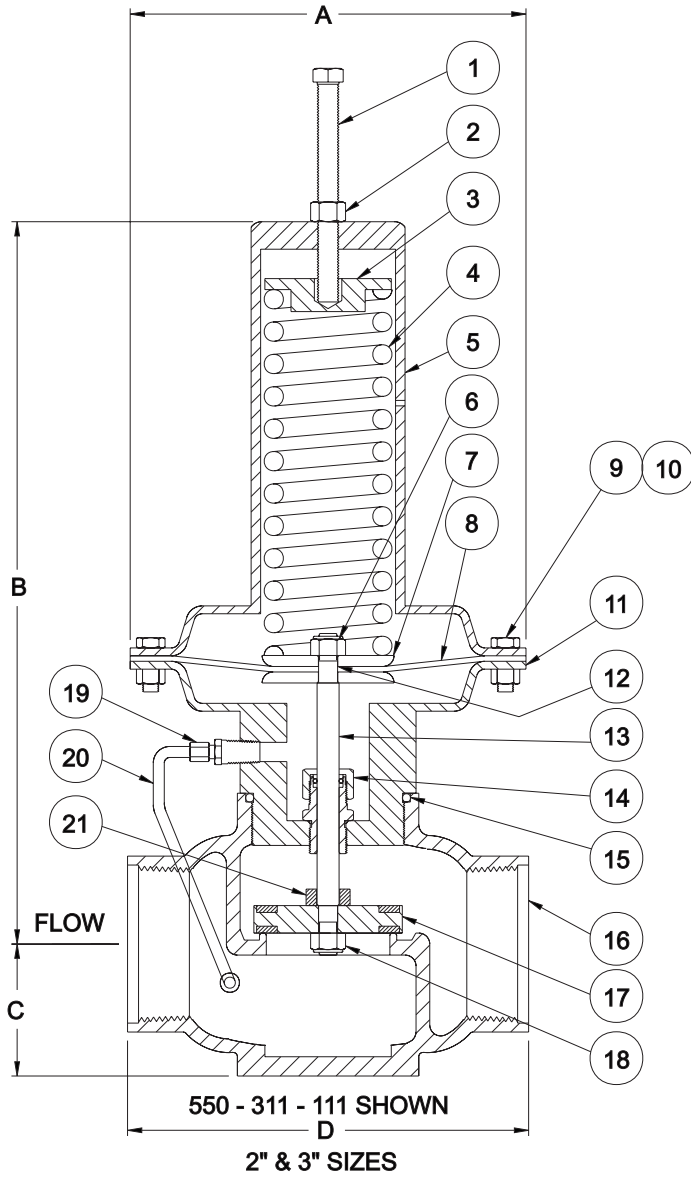
**Example: 550-211-121**

## 550 Series

### Diaphragm Operated, Back Pressure, Low Pressure Valve

<b>Dimensions</b>			
Size	2"	3"	4"
A	9"	9"	9"
B	15 7/8"	16 3/8"	17 1/2"
C	2 3/4"	3"	3 3/8"
D	6 1/2"	9 1/8"	11"

<b>Flanged Models</b>			
Flange	Face to Face	W.P. @ 100°F	
2" 150# RF	6 1/2"	100 psig	
2" 300# RF	9 1/8"	100 psig	
3" 150# RF	9 1/8"	90 psig	
3" 300# RF	12"	90 psig	
4" 150# RF	11"	50 psig	



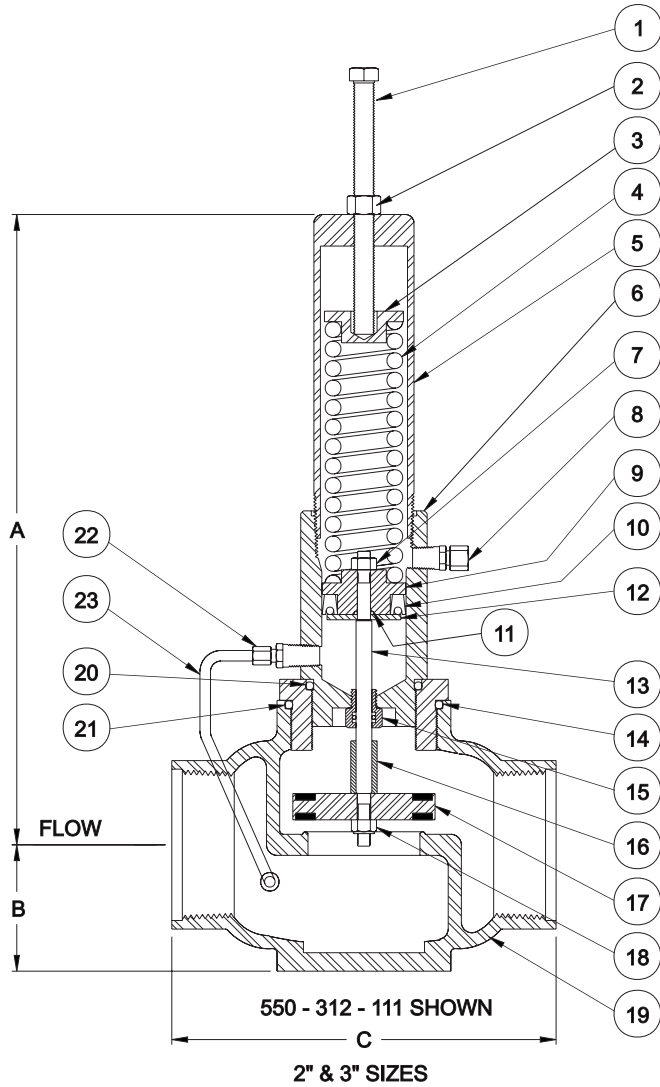
**REMOVABLE SEAT**

**550 Series**  
**Diaphragm Operated, Back Pressure, Low Pressure Valve**

Model	2"	3"	4"	Description	Material	Qty
Item	Part #	Part #	Part #			
1	10216	10215	10215	Adjustment Screw	Plated	1
2	10182	10182	10182	Jam Nut	Plated	1
3	20602	20604	20604	Spring Retainer	Carbon Steel	1
4	10049	10046	10046	Spring, all valves	Oil Tempered Steel	1
		10805		Spring, add'l for 70-100 psi range	Oil Tempered Steel	1
		10049		Spring, add'l for 40-90 psi range	Oil Tempered Steel	1
			10049	Spring, add'l for 30-60 psi range	Oil Tempered Steel	1
5	30046	30053	30053	Upper Diaphragm Housing	Fabricated Carbon Steel	1
	20624			Threaded Spring Housing	Fabricated Carbon Steel	1
6	10172	10180	10180	Lock Nut	Plated	1
7	20623	20603	20603	Diaphragm Plate	Cold Rolled Carbon Steel Plate	2
8	10101	10098	10098	Diaphragm	Nylon Reinforced Nitrile	1
9	10207	10207	10207	Cap Screw	Plated	12
10	10175	10175	10175	Hex Nut	Plated	12
11	30047	30055	30055	Lower Diaphragm Housing	Fabricated Carbon Steel	1
12		10113	10113	O-Ring	Nitrile	1
13	20630	20633	20537	Stem (Integral Seat)	303 ss	1
14	21147	21449	21449	Packing Gland Assembly	Nitrile	1
15	10138	10144	10144	O-Ring	Nitrile	1
16	30109	30114	40092	Body, Threaded, Integral Seat	Ductile ASTM A395	1
	30108	30113	40091	Body, Grooved, Integral Seat	Ductile ASTM A395	1
	30079	40095	50027	Body, Flanged, 150# RF, Integral Seat	Ductile ASTM A395	1
	30398	40790		Body, Flanged 300# RF, Integral Seat	Ductile ASTM A395	1
17	20384	20833	20237	Plug	Molded Nitrile	1
18	10173	10181	10181	Lock Nut	18-8 ss	1
19	11456	11456	11456	Tube Fitting (Straight)	Plated	1
19B	11457	11457	11457	Tube Fitting (Elbow)	Plated	1
20	18316	18316	18316	Tubing	316 ss	1
21		20634		Travel Stop	Brass	1
22	20629	20636	20483	Stem (Removable Seat)	303 ss	1
23	20631	20635	30073	Seat	303 ss	1
24	10136	10141	10146	O-Ring	Nitrile	1
25	30112	30116	40094	Body, Threaded, Removable seat	Ductile ASTM A395	1
	30111	30115	40553	Body, Grooved, Removable seat	Ductile ASTM A395	1
	30110	40096	50028	Body, Flanged 150#RF, Removable seat	Ductile ASTM A395	1
	30399	40793		Body, Flanged, 300# RF, Removable seat	Ductile ASTM A395	1
26	20625	20637		Plug Disc	303 ss	1
			20849	Plug Disc	Carbon Steel	1
27	20627	20639	20996	Plug Insert	Polyurethane	1
	21140	21144	20880	Plug Insert	Acetal	1
	21419	21143	20850	Plug Insert	TFE	1
28	20626	20638		Plug Retainer	303 ss	1
			20851	Plug Retainer	Carbon Steel	1
29			30072	Cage	Carbon Steel	1
30			30185	Adapter	Carbon Steel	1
31			10147	O-Ring	Nitrile	1
32			10207	Cap Screw	Plated	8
33			20641	Plug Disc	Carbon Steel	1
34			10559	Plug Insert	Nitrile	1
			20642	Plug Insert	Polyurethane	1
			20884	Plug Insert	Acetal	1
			20995	Plug Insert	TFE	1
35			20643	Plug Retainer	Carbon Steel	1
	10016	10016	10016	Name Plate (not shown)	18-8 ss	1
	10324	10324	10324	Drive Screw (not shown)	18-8 ss	2

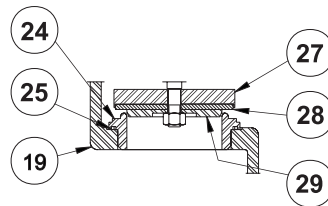
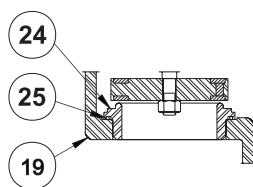
## 550 Series

### Piston Operated, Back Pressure, Low Pressure Valve



Dimensions		
Size	2"	3"
A .....	13 5/8"	14 3/4"
B.....	2 3/4"	3"
C.....	6 1/2"	9 1/8"

Flanged Models		
Flange	Face to Face	W.P. @ 100° F
2" 150# RF .....	6 1/2"	200 psig
2" 300# RF .....	9 1/8"	200 psig
3" 150# RF .....	9 1/8"	150 psig
3" 300# RF .....	12"	150 psig



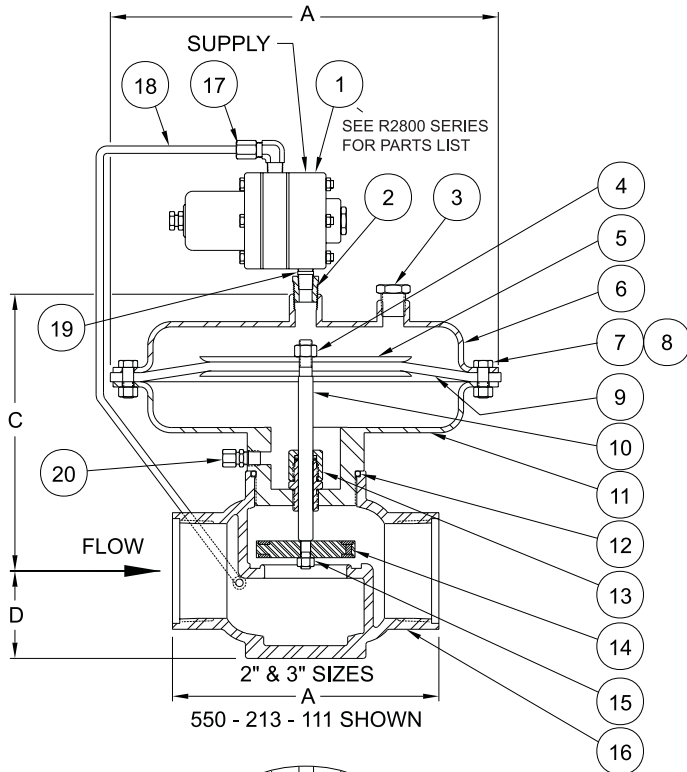
REMOVABLE SEAT

**550 Series**  
**Piston Operated, Back Pressure, Low Pressure Valve**

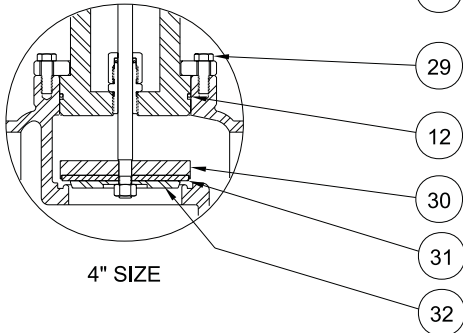
Model 2"		3"		Description	Material	Qty
Item	Part #	Part #	Part #			
1	10214	10216		Adjustment Screw	Plated	1
2	10182	10182		Jam Nut	Plated	1
3	20602	20602		Spring Retainer	Carbon Steel	1
4	10049	10049		Spring	Oil Tempered Steel	1
5	20624	20624		Spring Housing	Fabricated Carbon Steel	2
6	30064	30064		Piston Block	Nickel Plated	1
7	10172	10172		Lock Nut	Plated	1
8	23338	23338		Vent Assembly	Plated	1
9	20344	20344		Piston	Brass	16
10	10164	10164		Packing	Molythane	16
11	10110	10110		O-Ring	Nitrile	1
12	20345	20345		Piston Retainer	303 ss	1
13	20346	20347		Stem	303 ss	1
14	10138	10144		O-Ring	Nitrile	1
15	21409	21409		Packing Gland Assembly	Brass/Nitrile	1
16		20349		Travel Stop	303 ss	1
17	20384	20413		Plug	Molded Nitrile	1
18	10173	10173		Lock Nut	18-8 ss	1
19	30109	30114		Body, Threaded, 150# RF Integral Seat	Ductile ASTM A395	1
	30108	30113		Body, Grooved, 300# RF Integral Seat	Ductile ASTM A395	1
	30079	40095		Body, Flanged, 150# RF Integral Seat	Ductile ASTM A395	1
	30398	40790		Body, Flanged, 300# RF Integral Seat	Ductile ASTM A395	1
20		10138		O-Ring	Nitrile	2
21		20348		Adapter	Carbon Steel	1
22	11456	11456		Tube Fitting (straight)	Plated	1
	11457	11457		Tube Fitting (elbow)	Plated	1
23	18316	18316		Tubing	316 ss	1
24	20631	20635		Seat	303 ss	1
25	10136	10141		O-Ring	Nitrile	1
26	30112	30116		Body, Threaded, Removable seat	Ductile ASTM A395	1
	30111	30115		Body, Grooved, Removable seat	Ductile ASTM A395	1
	30110	40096		Body, Flanged, 150# RF, Removable seat	Ductile ASTM A395	1
	30398	40793		Body, Flanged, 300# RF, Removable seat	Ductile ASTM A395	1
27	20625	23217		Plug Disc	303 ss	1
28	20627	21832		Plug Insert	Polyurethane	1
	21140	21831		Plug Insert	Acetal	1
	21419	21828		Plug Insert	TFE	1
29	20626	21829		Plug Retainer	303 ss	1
	10016	10016		Name Plate (not shown)	18-8 ss	1
	10324	10324		Drive Screw (not shown)	18-8 ss	2

## 550 Series

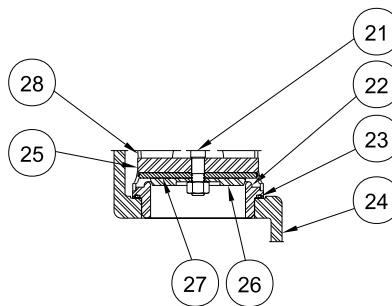
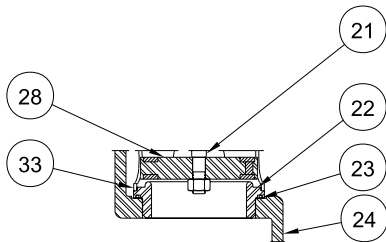
### Pilot Operated, Back Pressure, Low Pressure Valve



550 - 213 - 111 SHOWN



4" SIZE



REMOVABLE SEAT

#### Dimensions

Size	2"	3"	4"
A	6 1/2"	9 1/8"	9 1/8"
B	2 3/4"	3"	3"
C	8"	9 1/4"	9 1/4"
D	10 1/2"	13 1/16"	13 1/16"

#### Flanged Models

Flange	Face to Face	W.P. @ 100°F
2" 150# RF	6 1/2"	275 psig
2" 300# RF	9 1/8"	350 psig
3" 150# RF	9 1/8"	275 psig
3" 300# RF	12"	350 psig
4" 150# RF	9 1/8"	275 psig
4" 300# RF	12"	300 psig



**550 Series**  
**Pilot Operated, Back Pressure, Low Pressure Valve**

Model	2"	3"	4"			
Item	Part #	Part #	Part #	Description	Material	Qty
1	30222	30222	30222	Pilot - R2800	See R2800 Parts List	1
2	10748	10748	10748	Bushing	Plated	1
3			11458	Plug	Plated	1
4	10172	10180	10180	Lock Nut	Plated	1
5	20696	30071	30071	Diaphragm Plate	Cold Rolled Carbon Steel Plate	2
6	30049	30101	30101	Upper Diaphragm Housing	Fabricated Carbon Steel	1
7	10207			Cap Screw	Plated	12
		10207	10207	Cap Screw	Plated	16
8	10175			Hex Nut	Plated	12
		10175	10175	Hex Nut	Plated	16
9	10094	10028	10028	Diaphragm	Nylon Reinforced Nitrile	1
10	20630	20690	20640	Stem (Integral Seat)	303 ss	1
11	30057	30054	30050	Lower Diaphragm Housing	Fabricated Carbon Steel	1
12	10138	10144	10147	O-Ring	Nitrile	1
13	21212	21348	21348	Packing Gland Assembly	Brass/Nitrile	1
14	20384	20833		Plug	Molded Nitrile	1
15	10173	10181	10181	Lock Nut	18-8 ss	1
16	30109	30114	40092	Body, Threaded, Integral Seat	Ductile ASTM A395	1
	30108	30113	40091	Body, Grooved, Integral Seat	Ductile ASTM A395	1
	30079	40095	50027	Body, 150# RF Flanged, Integral Seat	Ductile ASTM A395	1
	30398	40790		Body, 300# RF Flanged, Integral Seat	Ductile ASTM A395	1
17	11457	11457	11457	Tube Fitting	Plated	2
18	18316	18316	18316	Tubing	316 ss	1
19	11481	11481	11481	Nipple	Plated	1
20	23338	23338	23338	Vent Assembly	Plated	1
21	20629	20690	20483	Stem, Removable Seat	303 ss	1
22	20631	20635	30073	Seat	303 ss	1
23	10136	10141	10146	O-Ring	Nitrile	1
24	30112	30116	40094	Body, Thread, Removable seat	Ductile ASTM A395	1
	30111	30115	40553	Body, Grooved, Removable seat	Ductile ASTM A395	1
	30110	40096	50028	Body, 150 #RF Flange, Removable seat	Ductile ASTM A395	1
	30399	40793		Body, 300# RF Flange, Removable seat	Ductile ASTM A395	1
25	20625	20637		Plug Disc	303 ss	1
			20849	Plug Disc	Carbon Steel	1
26	20626	20638		Plug Retainer	303 ss	1
			20851	Plug Retainer	Carbon Steel	1
27	20627	20639	20996	Plug Insert	Polyurethane	1
	21140	21144	20880	Plug Insert	Acetal	1
	21419	21143	20850	Plug Insert	TFE	1
28			30072	Cage	Carbon Steel	1
29			10207	Cap Screw	Plated	8
30			20641	Plug Disc	Carbon Steel	1
			20851	Plug Retainer	Carbon Steel	1
31			10559	Plug Insert	Nitrile	1
			20642	Plug Insert	Polyurethane	1
			20884	Plug Insert	Acetal	1
32			20995	Plug Insert	TFE	1
33			20237	Plug	Molded Nitrile	1
	10016	10016	10016	Name Plate (not shown)	18-8 ss	1
	10324	10324	10324	Drive Screw (not shown)	18-8 ss	2