



22262 Cuttler Road • New Caney, TX 77357 • *ph* 281-354-3699 • *fx* 281-354-4475
www.PathwayControl.com

8500 Series Three-Way, Two Position, High Pressure Valve

Application:

This valve is used for diverting, blending or metering. One port is common while a plug travels from the lower to the upper seat to divert the flow between the upper and lower ports. Ideal for well test manifolds and other high pressure applications. Available in a 2" 316L stainless steel body.

Operation:

Applying supply pressure to the diaphragm causes the stem and plug to move from the upper to the lower seat, diverting flow. When supply pressure is removed, the spring moves the stem and plug to the upper seat. Topworks are available with the spring in the top position, spring under or pressure balanced providing a choice of which port is normally closed. This valve may also be used with a hydraulic electric actuator.

Features:

- Long packing life provided due to stainless steel stem operating in a replaceable bushing.
- Available in a 2" 316L stainless steel body to CF8M specification.
- Stainless steel seats are removable for easier servicing.
- Soft trim for bubble tight shut off.
- Durability and dependability built into every component.



8500 Series

Three-Way, Two Position, High Pressure Valve

Specifications:

Size:	1"	2"
Working Pressure:	6000 psig	3000 psig
Temperature:	-20°F to +180°F, std.; available to +240°F	
Topworks:	Pressed steel with nylon reinforced nitrile diaphragm. 50 psig max supply pressure.	
Effective Area:	45 sq. in.	62 sq. in.
C_v Factor:		
C to U	16	48
C to L	21	70
Trim:		
Seat:	Stainless steel, removable.	
Plug:	Fabricated acetal, polyurethane or TFE inserts.	
Material:		
Body:	Steel standard; available 316L stainless steel (2" size)	
Stem:	Stainless steel	
Packing:	TFE V	

Ordering Chart:

8500 Series: Three-way, two position valve

Size:

- 1 - 1"
- 2 - 2"

Connection:

- 1 - Threaded
- 3 - Flanged, *specify type**
- 6 - 2" threaded 316L ss (CF8M)
- 8 - 2" flanged 316L ss (CF8M), *specify type**
- 9 - 2" beveled for weld, 316L ss (CF8M)

Topworks:

- 1 - Spring top (62 sq. in.)
- 2 - Spring under (62 sq. in.)
- 3 - Pressure balanced (62 sq. in.)
- 6 - Spring top (45 sq. in.)
- 7 - Spring under (45 sq. in.)
- 8 - Pressure balanced (45 sq. in.)

Trim Seat:

- 1 - Removable, stainless steel

Trim Plug:

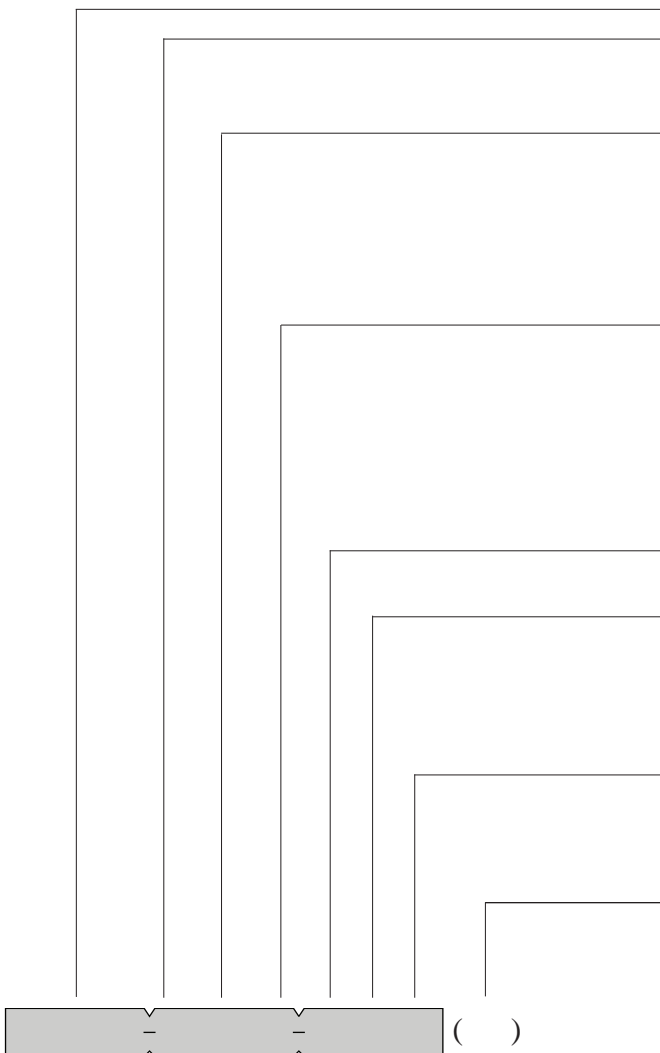
- 2 - Acetal
- 3 - Polyurethane
- 4 - TFE plug (fluorocarbon o-rings)
- 5 - Other (*see common options list*)

Other:

- 1 - No visual indicator
- 2 - Visual indicator
- 5 - Options (*see common options list*)

Option Number:

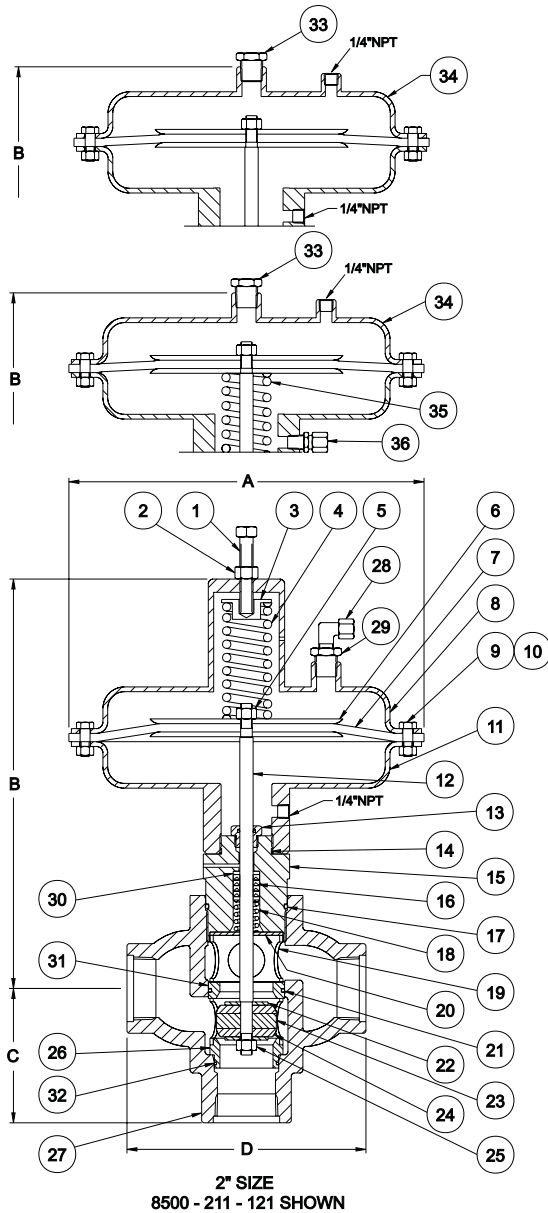
- () - Pathway will assign an option number based on specified requirements.



Example: 8500-111-121

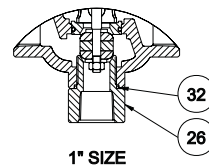
**flanges available
1" or 2"-150# to 1500# RF or RTJ*

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Dimensions

Size	1"	2"
A	10 1/2"	13 1/16"
B	11 1/8"	15 1/4"
C	3 7/8"	5 1/8"
D	6 1/4"	9"
E	9 5/8"	12 1/4"



Flanged Models

Flange	Face to Face	CL to Face	W.P. @ 100°F
1" 150# RF or RTJ	7"	4 1/4"	275 psig
1" 300# RF or RTJ	7 1/4"	4 1/2"	720 psig
1" 600# RF or RTJ	7 3/4"	4 1/2"	1440 psig
1" 900# RF or RTJ	8 5/8"	5"	2160 psig
1" 1500# RF or RTJ	8 5/8"	5"	3600 psig
2" 150# RF or RTJ	9 5/8"	5 5/8"	275 psig
2" 300# RF or RTJ	10 1/4"	5 5/8"	720 psig
2" 600# RF or RTJ	10 3/8"	5 1/2"	1440 psig
2" 900# RF or RTJ	12"	6 3/4"	2160 psig
2" 1500# RF or RTJ	12"	6 3/4"	3000 psig

Special Face to Face available on flanged and beveled connections.

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Model 1"	2"			
Item	Part #	Part #	Description	Material
1	10210	10213	Adjustment Screw	Plated
2	10177	10182	Jam Nut	Plated
3	20628	20602	Spring Retainer	Carbon Steel
4	10075	10061	Spring	Oil Tempered Steel
5	10172	10180	Lock Nut	Plated
6	20696	30071	Diaphragm Plate	Cold Rolled Carbon Steel Plate
7	10094	10028	Diaphragm	Nylon Reinforced Nitrile
8	30045	30051	Upper Diaphragm Housing	Fabricated Carbon Steel
9	10207		Cap Screw	Plated
9		10207	Cap Screw	Plated
10	10175		Hex Nut	Plated
10		10175	Hex Nut	Plated
11	30056	30052	Lower Diaphragm Housing	Fabricated Carbon Steel
12	21229	20610	Stem	303 ss
13	21521	21539	Packing Gland Assembly	Brass/Nitrile
14	10149	10149	O-Ring	Nitrile
15	30021		Packing Block	Plated
		20611	Packing Block	303 ss
16	10153	10154	Packing	TFE
17	10149	10140	O-Ring	Nitrile
18	10076	10076	Packing Spring	316 ss
19	20701		Cage	Carbon Steel
19		20614	Cage	304 ss
20	10082		Packing Retainer	Plated
		20613	Packing Retainer	303 ss
21	10134	10139	O-Ring	Nitrile
22	20244	20616	Plug Retainer	303 ss
23	20703	20618	Plug Spacer	303 ss
24A	20702	20617	Plug	Polyurethane
24B	21347	21542	Plug	Acetal
24C	23969	23725	Plug	Glass filled TFE
25	10173	10181	Lock Nut	18-8 ss
26	20406	20619	Lower Seat	303 ss
27	See Chart Below		Body	Cast Iron
28	23339	23339	Vent Assembly	Plated
29	10748	10748	Bushing	Plated
30	20694	20612	Packing Follower	Brass
31	20700	20615	Upper Seat	303 ss
32	10130	10131	O-Ring	Nitrile
33	10346	10346	Plug	Plated
34	30049	30101	Upper Diaphragm Housing	Fabricated Carbon Steel
35	10074	10044	Spring	Oil Tempered Steel
36	23338	23338	Vent Assembly	Plated
	10016	10016	Name Plate (not shown)	18-8 ss
	10324	10324	Drive Screw (not shown)	18-8 ss

Body Chart #	Description
30062	40119 NPT Threaded
	40062 Beveled or weld
40329	40463 Flanged, 150# RF
42925	40114 Flanged, 300# RF
	40115 Flanged, 600# RF
	40117 Flanged, 600# RTJ
	40118 Flanged, 1500# RF
43995	40118 Flanged, 1500# RTJ

Other Flange Options Available, Contact Pathway