

BUCKNER 24000 SERIES

<u>SIZE</u>	<u>MODEL NO</u>
3/4"	24000
1"	24001
1 1/4"	24002
1 1/2"	24003
2"	24004

DESCRIPTION

This is a reduced pressure assembly. It was produced from 1990-1994. It is a wye pattern bronze body plastic poppet style check assembly. Check covers are screwed into the body. The assembly has two style of check seats. One with replaceable, one without replaceable check seats. A seat removal tool is needed in order to replace the seats. The check springs are not contained when the covers are removed. The relief valve does have a contained spring when the cover is removed. Relief valve seat is not replaceable. This assembly utilizes an internal relief valve sensing line. Note there is a different model number for each size.

BASIC REPAIR KIT

Repair kit contains all rubber discs, diaphragm, and O-rings.

<u>SIZE</u>	<u>KIT NO</u>	<u>AIR GAP DRAIN</u>
3/4"	24000100* ◆	520158
1"	24000100* ◆	520158
1 1/4"	24000200* ◆	520158
1 1/2"	24000200* ◆	520158
2"	24000200* ◆	520158

IMPORTANT FEATURES

~Bronze body

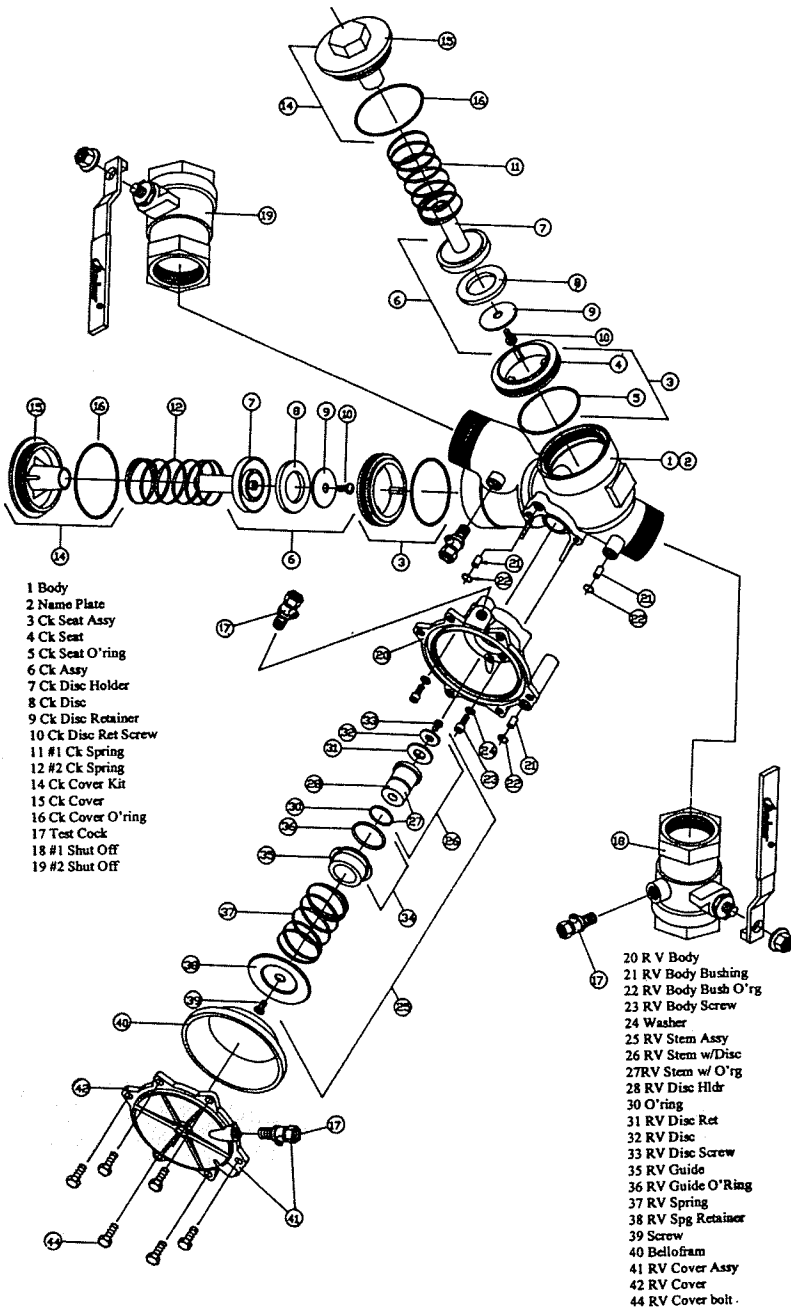
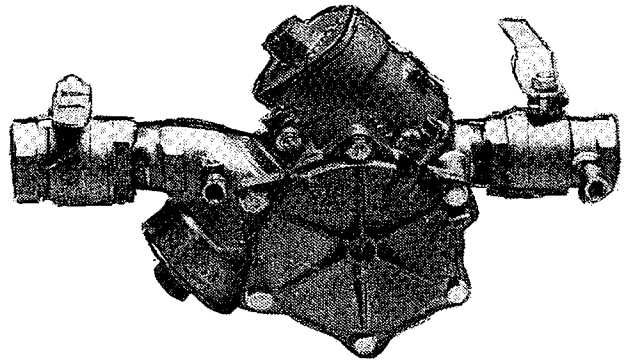
~Replaceable check seats version is available

~Check springs are not contained

~Internal R.V. sensing line



24000 Series Reduced Pressure Backflow Preventer



- 1 Body
- 2 Name Plate
- 3 Ck Seat Assy
- 4 Ck Seat
- 5 Ck Seat O'ring
- 6 Ck Assy
- 7 Ck Disc Holder
- 8 Ck Disc
- 9 Ck Disc Retainer
- 10 Ck Disc Ret Screw
- 11 #1 Ck Spring
- 12 #2 Ck Spring
- 14 Ck Cover Kit
- 15 Ck Cover
- 16 Ck Cover O'ring
- 17 Test Cock
- 18 #1 Shut Off
- 19 #2 Shut Off

- 20 R V Body
- 21 RV Body Bushing
- 22 RV Body Bush O'rg
- 23 RV Body Screw
- 24 Washer
- 25 RV Stem Assy
- 26 RV Stem w/Disc
- 27 RV Stem w/O'rg
- 28 RV Disc Hldr
- 30 O'ring
- 31 RV Disc Ret
- 32 RV Disc
- 33 RV Disc Screw
- 35 RV Guide
- 36 RV Guide O'Ring
- 37 RV Spring
- 38 RV Spg Retainer
- 39 Screw
- 40 Bellofram
- 41 RV Cover Assy
- 42 RV Cover
- 44 RV Cover bolt.

FEATURES AND BENEFITS

- Certification in process by USC Foundation for Cross Connection Control and Hydraulic Research, ASSE, AWWA, IAPMO, City of New York and CSA.
- Replaceable bronze valve seats for improved serviceability.
- Spring loaded "Y" check valves for reduced friction loss.
- All internal parts are easily serviceable without removing the valve body.
- Available with or without resilient seated ball valves.
- Internal sensing passages for relief valve, eliminating the damage that occurs to external tubing.
- Pressure rated to 175 PSI and hydrostatically tested to 350 PSI.
- Temperature rated to 180 degrees F.
- Corrosion resistant internal parts.
- All test cocks are blowout resistant.

MATERIALS OF CONSTRUCTION

COMPONENTS	MATERIALS
Body/Bonnets	Cast Bronze
Zone Valve Base & Bonnet	Cast Bronze
Poppets	Engineered Polymer
Springs	Stainless Steel
Bolts	Stainless Steel
Diaphragm	Buna N Rubber, Nylon Sheet Reinforced
Rubber Seats	EPDM
Piston	Acetal
Cylinder	Acetal
Replaceable Seats	Cast Bronze

MODEL IDENTIFICATION MATRIX

CAT. NO.	MOD. NO.	SIZE NPT/BSPT	DIMENSIONS		
			HEIGHT	WIDTH	LENGTH*
24000	075RP	¾"	7 3/8"	5"	12 ¾"
24001	100RP	1"	7¾"	5"	13¾"
24002	125RP	1 ¼"	9 ¼"	7 ½"	17 1/4"
24003	150RP	1 ½"	9¼"	7½"	17¼"
24004	200RP	2"	9 ¼"	7 ½"	18 ½"

*Complete unit including shut off valves.

PERFORMANCE: Valve Pressure Losses - in PSI

CAT. NO.	MOD. NO.	SIZE NPT/BSPT	FLOW IN U.S. GPM																						
			5	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	170	190	210	
24000	075RP	¾"	10.2	9.1	9.1	9.2	10.1	11.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24001	100RP	1"	-	9.1	9.0	9.0	9.1	9.2	9.6	10.0	11.4	13.7	-	-	-	-	-	-	-	-	-	-	-	-	
24002	125RP	1 ¼"	-	-	9.0	9.0	9.1	9.1	9.2	9.3	9.5	10.1	10.4	12.4	-	-	-	-	-	-	-	-	-	-	
24003	150RP	1 ½"	-	-	-	-	9.1	9.1	9.0	9.0	9.0	9.0	9.0	9.2	9.8	10.0	10.7	11.6	-	-	-	-	-	-	
24004	200RP	2"	-	-	-	-	-	-	-	9.0	9.0	9.0	9.0	9.0	9.1	9.1	9.1	9.5	9.7	9.9	10.1	11.3	12.8	14.3	16.0

BUCKNER 24100 SERIES

<u>SIZE</u>	<u>MODEL NO</u>
3/4"	24100
1"	24101
1 1/4"	24102
1 1/2"	24103
2"	24104

DESCRIPTION

This is a double check assembly. It was produced from 1990-1994. It is a wye pattern bronze body plastic poppet style check design. The check covers are screwed into the body. The assembly has two styles of check seats, one with replaceable check seats and one without replaceable check seats. A seat removal tool is needed to replace the seats. The check springs are not contained when the covers are removed. Note there is a different model number used for each size.

BASIC REPAIR KIT

Repair kit contains all rubber discs and O-rings.

<u>SIZE</u>	<u>KIT NO</u>
3/4"	24100100* ◆
1"	24100100* ◆
1 1/4"	24100200* ◆
1 1/2"	24100200* ◆
2"	24100200* ◆

IMPORTANT FEATURES

~Bronze body

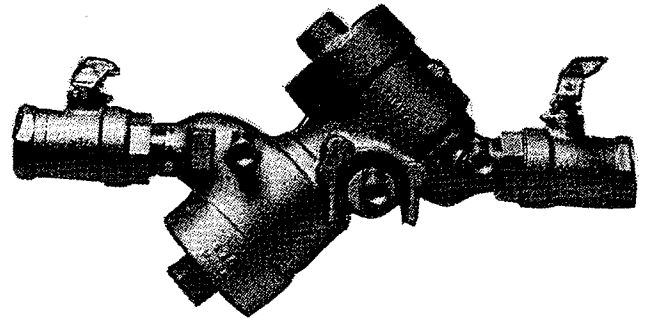
~Replaceable seat option is available

~Springs are not contained





24100 Series Back Flow Preventer Double Check



FEATURES AND BENEFITS

- Bronze body and covers for strength and durability.
- Certification in process by USC Foundation for Cross Connection Control and Hydraulic Research, ASSE, AWWA, IAPMO, City of New York and CSA.
- Replaceable bronze valve seats for improved serviceability.
- Valves hold 1 PSI minimum in each check valve during no flow conditions.
- Spring loaded "Y" check valves for reduced friction loss.
- All internal parts are easily serviceable without removing the valve body.
- Available with or without resilient seated ball valves.
- Operates when installed in any position for convenient installation.
- Pressure rated to 175 PSI and hydrostatically tested to 350 PSI.
- Temperature rated to 180 degrees F.
- Corrosion resistant internal parts.
- Minimum head loss design.
- All test cocks are blowout resistant.

MATERIALS OF CONSTRUCTION

COMPONENTS	MATERIALS
Body/bonnets	Cast bronze
Poppets	Engineered polymer
Springs	Stainless steel
Test Cocks/Ball Valves	Cast bronze, chrome plated brass, teflon and stainless steel
Replaceable seats	Cast bronze

MODEL IDENTIFICATION MATRIX

CAT. NO.	MOD. NO.	SIZE NPT/BSPT	DIMENSIONS		
			HEIGHT	WIDTH	LENGTH*
24100	075DC	3/4"	7 3/8"	4"	12 1/2"
24101	100-DC	1"	7 3/8"	4"	13 3/8"
24102	125DC	1 1/4"	9 1/4"	5 1/2"	17 1/4"
24103	150-DC	1 1/2"	9 1/4"	5 1/2"	17 1/4"
24104	200DC	2"	9 1/4"	5 1/2"	18 1/2"

*Complete unit including shut off valves.

PERFORMANCE: Valve Pressure Losses - in PSI

CAT. NO.	MOD. NO.	SIZE NPT/BSPT	FLOW IN U.S. GPM																					
			5	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	170	190	210
24100	075DC	3/4"	4.0	4.1	4.2	4.6	5.1	6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24101	100DC	1"	-	4.0	4.1	4.1	4.2	4.3	4.7	5.0	6.8	9.9	-	-	-	-	-	-	-	-	-	-	-	-
24102	125DC	1 1/4"	-	-	4.0	4.0	4.1	4.1	4.2	4.6	5.3	6.8	8.9	-	-	-	-	-	-	-	-	-	-	-
24103	150DC	1 1/2"	-	-	-	4.0	4.0	4.0	4.0	4.1	4.2	4.3	4.5	4.8	4.5	4.8	5.0	5.1	6.5	-	-	-	-	-
24104	200DC	2"	-	-	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	3.6	3.7	4.0	4.4	5.0	5.7	6.6	7.8	8.9	11.8

BUCKNER 24200 SERIES

<u>SIZE</u>	<u>MODEL NO</u>
1/2"	24199
3/4"	24200
1"	24201
1 1/4"	24202
1 1/2"	24203
2"	24204

DESCRIPTION

This is a pressure vacuum breaker assembly. It was produced from 1990-1994. It is a bronze bodied unit. The assembly has a replaceable check seat option. A seat removal tool is needed to change the check seat. Most internal parts are made of plastic. The check spring is contained on the 1/2"-1" size when the bonnet is removed. Note that each size will have a different model number for each size.

BASIC REPAIR KIT

Repair kit contains all rubber discs and O-rings.

<u>SIZE</u>	<u>KIT NO</u>
1/2"	520137◆
3/4"	520137◆
1"	520137◆
1 1/4"	520138◆
1 1/2"	520138◆
2"	520138◆

IMPORTANT FEATURES

~Replaceable check seat

~Bronze body

~1/2"-1 1/4" has contained spring

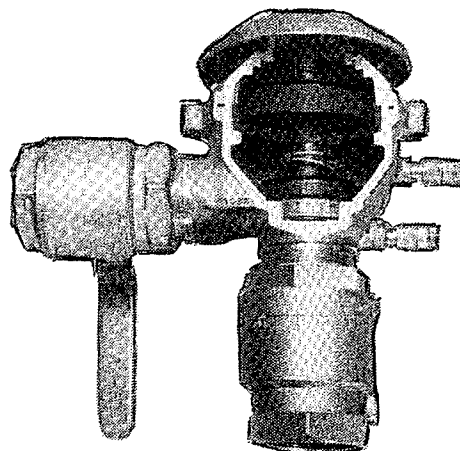


24200 Series Pressure Vacuum Breaker Backflow Preventer

MATERIALS OF CONSTRUCTION

COMPONENT	MATERIAL
24199-24201	
Body	Cast Bronze
Bonnet	Engineered Polymer
Canopy	Engineered Polymer
Check Valve/Guide	Engineered Polymer
Poppet/Retainer Plate	Engineered Polymer
Bolts/Screws	Stainless Steel
Seats	EPDM/Buna N
Test Cocks/Ball Valves	Cast Bronze, Chrome Plated Brass, Teflon, Stainless Steel
Replaceable Seats	Cast Bronze

COMPONENT	MATERIAL
24202-24204	
Body	Cast Bronze
Bonnet	Cast Bronze
Canopy	Cast Bronze
Check Valve/Guide	Engineered Polymer
Poppet/Retainer	Engineered Polymer
Bolts/Screws	Stainless
Rubber Seats	EPDM/Buna N
Replaceable Seats	Cast Bronze



Model #24203

FEATURES AND BENEFITS

- Bronze body for strength and durability.
- Certification in process by USC Foundation for Cross Connection Control and Hydraulic Research, ASSE, AWWA, IAPMO, City of New York and CSA.
- Replaceable bronze valve seats for improved serviceability.
- All internal parts are easily serviceable without removing the valve body.
- Pressure rated to 175 PSI and hydrostatically tested to 350 PSI.
- Temperature rated to 180 degrees F.
- All test cocks are blowout resistant.
- Minimum head loss design.
- Available with or without resilient seat ball valves.

OPTIONS:

Without ball valves (/60)

BSPT without ball valves (/55)

MODEL IDENTIFICATION MATRIX

CAT. NO.	MODEL NO.	SIZE NPT	DIMENSIONS - in inches (cm)		
			Height	Width	Length
24199	050PVB	1/2"	6-1/2"(16.5)	4"(10.2)	6-3/4"(17.1)
24200	075PVB	3/4"	6-3/4"(17.1)	4"(10.2)	7"(17.8)
24201	100PVB	1"	8-1/2"(21.6)	4"(10.2)	9"(22.8)
24202	125PVB	1-1/4"	10"(25.4)	5-1/2"(14.0)	10-1/2"(26.6)
24203	150PVB	1-1/2"	10-1/4"(26.0)	5-1/2"(14.0)	10-3/4"(27.3)
24204	200PVB	2"	10-3/4"(27.3)	5-1/2"(14.0)	11-1/4"(28.5)

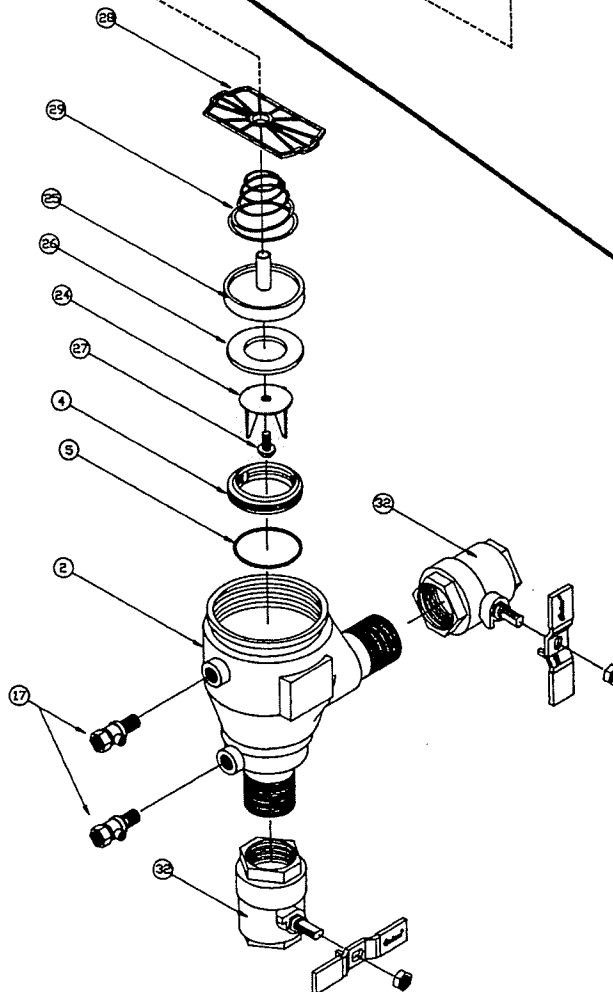
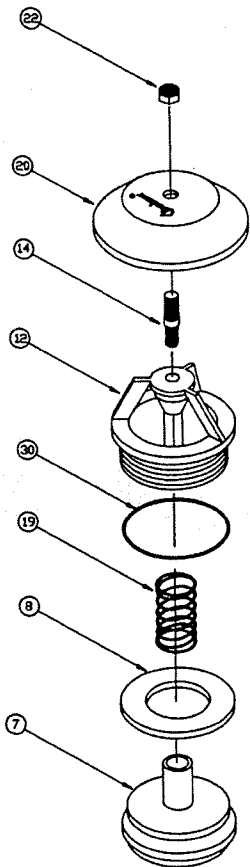
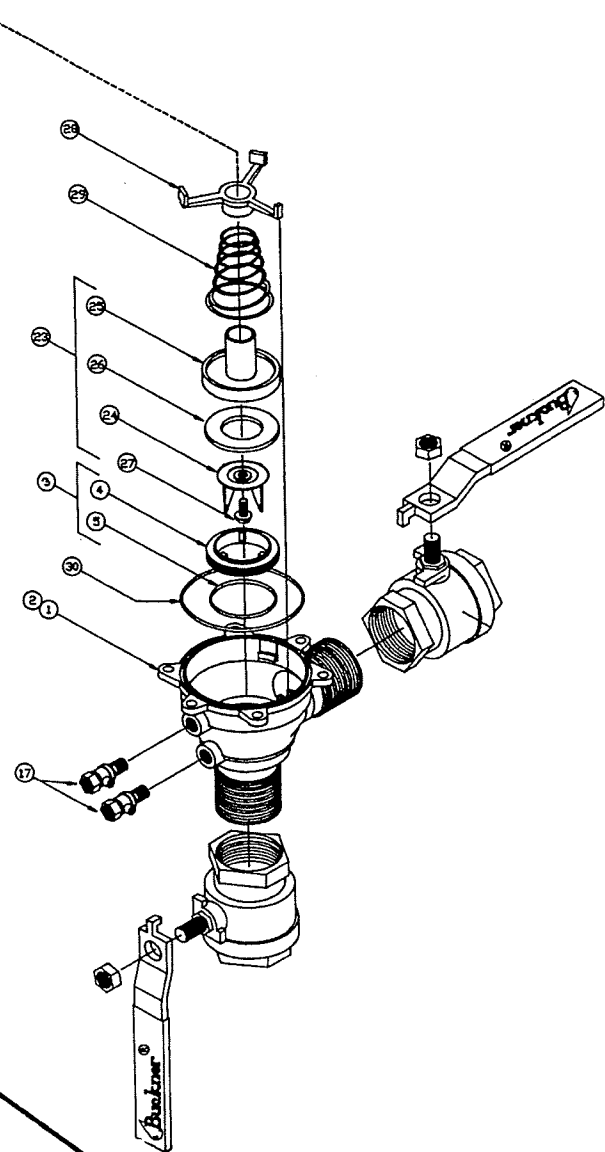
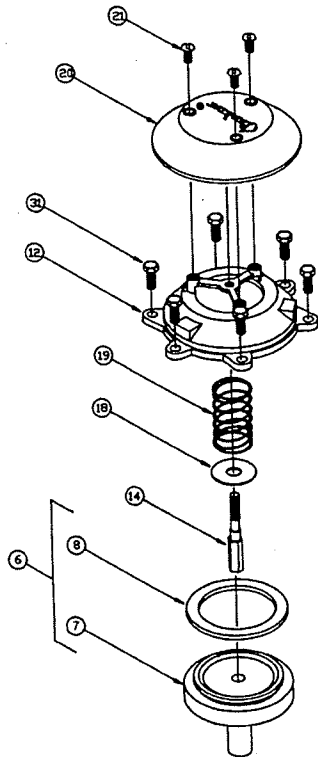
PERFORMANCE: Valve Pressure Loss - in Psi and (Bars)

CAT. NO.	MODEL NO.	SIZE NPT	FLOW IN US - GPM and [M ³ /HR]														
			5 [1.1]	10 [2.3]	15 [3.4]	20 [4.5]	30 [5.7]	40 [9.1]	50 [11.4]	60 [13.6]	70 [15.9]	80 [18.2]	100 [22.7]	120 [27.3]	150 [34.1]	170 [38.6]	200 [45.5]
24199	050PVB	1/2"	2.6 (.18)	4.4 (.30)	7.0 (.48)	-	-	-	-	-	-	-	-	-	-	-	-
24200	075PVB	3/4"	2.8 (.19)	3.3 (.22)	3.8 (.26)	4.5 (.31)	6.5 (.44)	-	-	-	-	-	-	-	-	-	-
24201	100PVB	1"	-	2.5 (.17)	2.8 (.19)	3.1 (.21)	4.0 (.27)	4.8 (.33)	5.8 (.39)	6.7 (.46)	-	-	-	-	-	-	-
24202	125PVB	1-1/4"	-	-	2.0 (.14)	2.1 (.14)	2.5 (.17)	2.9 (.20)	3.4 (.23)	3.8 (.26)	4.3 (.29)	5.0 (.34)	-	-	-	-	-
24203	150PVB	1-1/2"	-	-	-	2.0 (.14)	2.2 (.15)	2.5 (.17)	2.8 (.19)	2.9 (.20)	3.1 (.21)	3.6 (.24)	4.5 (.31)	5.3 (.36)	-	-	-
24204	200PVB	2"	-	-	-	-	-	2.5 (.17)	2.6 (.18)	2.7 (.18)	2.8 (.19)	3.1 (.21)	3.5 (.24)	3.9 (.26)	4.8 (.33)	5.7 (.39)	6.1 (.41)

24200

1 1/4", 1 1/2", and 2" Models

- | | |
|------------------|-----------------------|
| 1 Body | 14 Air Inlet Stem |
| 2 Name Plate | 17 Test Cock |
| 3 Ck Seat Assy | 18 Air Inlet Washer |
| 4 Ck Seat | 19 Air Inlet Spring |
| 5 Ck Seat O'ring | 20 Canopy |
| 6 Poppet Assy | 21 Canopy Screw |
| 7 Poppet L/disc | 23 Ck Assy |
| 8 Poppet Disc | 24 Ck Guide |
| 12 Bonnet | 25 Ck Disc Holder |
| | 26 Ck Disc |
| | 27 Ck Disc Screw |
| | 28 Ck Spring Retainer |
| | 29 Ck Spring |
| | 30 Bonnet O'Ring |
| | 31 Bolt |



24200

1/2", 3/4", and 1" Models

- | | |
|---------------------|------------------|
| 2 Body | 22 Canopy Nut |
| 4 Ck Seat | 24 Ck Guide |
| 5 Ck Seat O'Ring | 25 Ck Disc Hldr |
| 7 Air Inlet Poppet | 26 Ck Disc |
| 8 Air Inlet Disc | 27 Ck Disc Screw |
| 12 Bonnet | 28 Ck Spring Ret |
| 14 Canopy stud | 29 Ck Spring |
| 17 Test Cock | 30 Bonnet O'Ring |
| 19 Air Inlet Spring | 32 Shut Off |
| 20 Canopy | |