#### **Reduced Pressure Backflow Preventers**

#### RP 44



Sizes 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

#### REDUCED PRESSURE PRINCIPLE

The Apollo® Series RP 4A Reduced Pressure Principle Backflow Preventer is designed to give maximum protection against backflow caused by either back-pressure or back-siphonage from substances that are hazardous. The durable but economical device is easily maintained in the line with modular check cartridge assemblies that require no special tools. It consists of two independently acting spring-loaded check valves with an automatic differential relief valve located between the check valves. All testcocks are mounted at the top of the unit to assure easy access during repair and maintenance when unit is installed in tight places.

#### **FEATURES**

- Maximum protection against back-pressure/back-siphonage
- Modular check valve cartridges w/easily replaced parts
- Reversible/removable chloramineresistant silicone seat discs
- Low head pressure loss
- Top mounted test cocks
- Threaded testcock protectors
- Internal sensing passage
- ASSE 1013
- CSA B64.4
- Lead-Free option
  - NSF 61/8/G/372
  - Federal Public Law 111-380
- AWWA C511

- UL Classified (less shut-offs)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- Standard with full port ball valves with stainless steel handles
- Corrosion resistant
- Maximum working pressure 175 psig
- Operating temperature range 33°F-180°F
- Horizontal installation approvals on 1/2" through 2"
- Designed, cast, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

#### **MATERIALS**

Part	Material
Body and Caps	Bronze (C84400, LF C89836)
BV Shut-offs, Testcocks	Bronze C84400 or C87800 Lead Free
Springs	300 Series SS
Seat Discs	Chloramine-resistant Silicone
Diaphragm	Nitrile and Nylon
Check Modules	Glass-Filled PPO
0-rings	Chloramine-resistant EPDM
Ball Valve Handles	Stainless Steel

Contact local water authorities for installation/service requirements.

#### **FACTORY CODE**

4A [X]	2 X	X	AX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
4A = Non-Lead Free 4ALF = Lead Free	0 = Standard 1 = With Y-Strainer (Shipped loose)	3 = 1/2" 4 = 3/4" 5 = 1" 6 = 1-1/4"	2 = w/ball valves (Standard) 4 = w/union ball valves (3/4" - 2")	F = SAE threaded test cocks (standard 1/2, 3/4", 1") L = Lever handle (3/4" & 1" only) LL = Locking lever handles PR = Press Connection
		7 = 1-1/2" 8 = 2"		P = Push Connection

Example

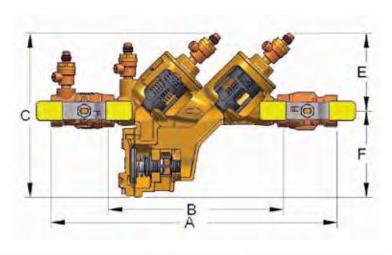
**4A 215 A4LL** = 1" Reduced Pressure Backflow Preventer with strainer, union ball valves and locking lever handles

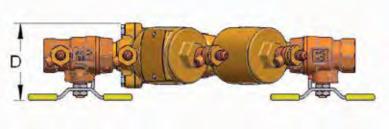




**Reduced Pressure Backflow Preventers** 

RP 4A





## DIMENSIONS See Page 61 For Flow Curves

Model No. Factory No. Size	RP4A12 4A 203 A2F 1/2"	RP4A12 4A 203 A2F 15 mm.	RP4A34 4A 204 A2F 3/4"	RP4A34 4A 204 A2F 20 mm.	RP4A1 4A 205 A2F 1"	RP4A1 4A 205 A2F 25mm.	RP4A114 4A 206 A2 1-1/4"	RP4A114 4A 206 A2 32 mm.	RP4A112 4A 207 A2 1-1/2"	RP4A112 4A 207 A2 40 mm.	RP4A2 4A 208 A2 2"	RP4A2 4A 208 A2 50 mm.
A*	10-7/8	276	12-5/8	321	14-5/8	371	17-1/2	445	18	457	20-1/8	511
В	7-3/8	187	8-1/2	216	9-1/2	241	11-3/4	298	11-5/8	295	12-3/4	324
C	7-1/8	181	7-3/8	187	8	203	9-7/8	251	9-7/8	251	11	279
D	2-7/8	73	3-1/8	79	3-1/4	83	5-1/8	130	5-1/8	130	5-7/8	149
E	3-1/4	83	3-1/2	89	4	100	4-1/2	114	4-1/2	114	5	127
F	3-7/8	98	3-7/8	98	4	100	5-3/8	137	5-3/8	137	6	150
WEIGHTS	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.
Net Wt.	6.9	3.1	8.2	3.7	11.7	5.3	13.6	6.2	17.4	7.9	24.5	11.1

<sup>\*</sup> For Union Ball Valve, Press, and Push connection dimensions, see submittal sheets.

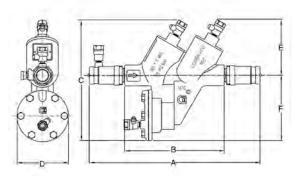


#### **Reduced Pressure Backflow Preventers**

#### **RP 40S SERIES**



Sizes 1/4", 3/8", 1/2", 3/4", 1"



See page 52 for air gap drain information.

#### STAINLESS STEEL REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER

The Apollo Series RP 40S Stainless Steel Reduced Pressure Principle Backflow Preventer is designed to give maximum protection against backflow caused by either backpressure or backsiphonage from a cross-connection wherein a contaminant hazard exists (i.e. a health hazard), or a pollutant hazard exists (i.e. a non-hazard). The assembly is composed of two spring-loaded poppet type check valves and a mechanically independent, hydraulically dependent pressure differential relief valve set in an integral stainless steel body. Three of the testcocks are mounted at the top to assure easy access during repair and maintenance when unit is installed in tight places.

During normal flow conditions, the two check valves are held off their seats, supplying water downstream. The relief valve is held shut by supply pressure acting through the internal sensing passage, on the relief valve diaphragm. In the area between the check valves, called the zone, the pressure is maintained at approximately 7 psi lower than supply pressure. Should a back-pressure or back-siphonage condition occur, the second check valve will seal, prohibiting the backflow of water. Should the second check valve become fouled, the pressure in the zone will increase causing the differential relief valve to open to atmosphere. This will maintain the pressure in the zone at least 2 psi lower than supply pressure.

#### **FEATURES**

- Stainless steel body and covers
- Easy to install and repair
- Internal sensing passage
- Low head loss
- Reversible/Removable seat discs
- Replaceable seats
- Comes standard with Apollo® stainless steel full port ball valves with stainless steel handles
- **Lead-Free** standard
- Maximum working pressure 175 psig

- Temperature range 33°F-180°F
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- **ASSE 1013**
- **CSA**
- Designed, cast, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

#### **MATERIALS**

Part	Material
Body and Covers	316 Stainless Steel (CF8M)
Springs	Stainless Steel
Fasteners	Stainless Steel
Poppets	Glass-Filled Celcon®
Seat Discs	Silicone Rubber
Diaphragm and O-Rings	FDA Fluorocarbon
Replaceable Seats	Glass-Filled PPO
Test Cocks & Handles	Stainless Steel

Contact local water authorities for installation/service requirements.

## **FACTORY CODE**

40 2 X	X	ТX	S X
Y-STRAINER	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
0 = Standard 1 = w/SSY-strainer (shipped loose)	1 = 1/4" 2 = 3/8" 3 = 1/2" 4 = 3/4" 5 = 1"	1 = Less ball valves (UL classified-3/4",1") 2 = w/SS ball valves, w/SS Tee Handles (Standard)	LL =Locking lever handles
DIMENCIONS	3 - 1		I and the second

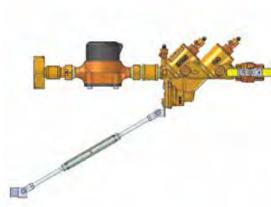
	· .									
DIMENSIONS					(x = Sh	ut-off valve	configuratio	n) See	Page 62 For I	Flow Curves
Model No. Factory No. Size	RP40S14 40 201 TxS 1/4"	RP40S14 40 201 TxS 6 mm.	RP40S38 40 202 TxS 3/8"	RP40S38 40 202 TxS 10 mm.	RP40S12 40 203 TxS 1/2"	RP40S12 40 203 TxS 12 mm.	RP40S34 40 204 TxS 3/4"	RP40S34 40 204 TxS 20 mm.	RP40S1 40 205 TxS 1"	RP40S1 40 205 TxS 25 mm.
A	10-1/2	267	10-1/2	267	10-1/2	267	13-1/2	343	15-1/4	387
В	5-3/4	146	5-3/4	146	5-3/4	146	7-15/16	202	7-15/16	202
C	6-7/8	175	6-7/8	175	6-7/8	175	9	229	9	229
D	2-5/8	68	2-5/8	68	2-5/8	68	4-1/16	103	4-1/16	103
E	3-3/16	81	3-3/16	81	3-3/16	81	4-3/8	111	4-3/8	111
F	3-3/4	95	3-3/4	95	3-3/4	95	5-1/8	130	5-1/8	130
Test Cocks	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT
WEIGHTS	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.
Net Wt. (w/o Ball Valves)	4.3	2.0	4.3	2.0	4.1	1.9	8.1	3.8	8.1	3.7
Net Wt. (with Ball Valves)	5.5	2.5	5.5	2.5	5.4	2.4	10.8	4.9	11	5.0
Shpg. Wt. (w/o Ball Valves)	5.2	2.4	5.1	2.3	5	2.3	9.8	4.4	9.6	4.3
Shpg. Wt. (with Ball Valves)	6.4	2.9	6.4	2.9	6.3	2.8	12.3	5.6	12.8	5.8

www.apollovalves.com



#### **Reduced Pressure Backflow Preventers**

#### **RPFHB 4A SERIES**



Size 1" Contact local water authorities for installation/service requirements.

#### FIRE HYDRANT BACKFLOW METER

The Apollo Series RP 4A Fire Hydrant Backflow Meter shall measure potable water flow from a fire hydrant or other non-permanent installation. At the same time it shall protect against backflow by either back-pressure or back-siphonage from a cross-connection between potable water system and substances that are non-health and health hazards. The unit shall consist of a 3/4" Short Water Meter, 1"4A-205 RP device, 1" resilient-seated full port ball valve with locking device, 2 1/2"-7 1/2" NST threaded hose couplings, strainer on inlet of meter and adjustable support rod assembly.

The Fire Hydrant Backflow Meter is connected directly to a fire hydrant with a 2 1/2"-7 1/2" NST fire hose female swivel coupling. The device operates like a standard Reduced Pressure device except the flow through the device is measured by a Water Meter connected to the inlet of the backflow preventer. Support rod assembly is adjustable to accommodate fire hydrants at different heights from the ground.

- Normal operating flow range 2-30 gpm
- Accuracy  $100\% \pm 1.5\%$  of actual thruput
- Low flow registration 95% at 1/2 gpm
- Maximum pressure loss 11.0 psi at 30 gpm
- Maximum operating pressure 150 psi
- Measuring element oscillating piston
- Register is straight reading, hermetically sealed magnetic drive
- Meter maincase is bronze, measuring chamber is Rocksyn, a corrosion resistant thermoplastic material, maincase bottom plate is bronze, gears are self-lubricating, molded plastic for long life and minimum friction, magnets are Alnico, trim and casing bolts are stainless steel and strainer is thermoplastic.
- Tamperproof locking system inside the meter
- 2 1/2"-7 1/2" NST fire hose swivel couplings, female inlet, male outlet
- Maximum rate listed is for intermittent flow only. Maximum continuous flow rate as specified by AWWA is 15 gpm.
- Designed, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

WEIGHTS (lbs.)	
NET WEIGHT	24.1
SHIPPING WEIGHT	27.6
SIM FING WEIGHT	27.0

MODEL NUMBER	
4A-205-FHB	(meter in cu. ft.)
4A-205-FHBG	(meter in gallons)



#### **Reduced Pressure Backflow Preventers**

#### **RPLF 4A SERIES**



Sizes 2-1/2"-12"



TriForce<sup>™</sup> Check

#### REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER

The Apollo® MODEL RPLF 4A Reduced Pressure Principle Backflow Preventers consist of two independently acting, TriForce™ center stem guided check valves with a differential pressure relief valve located between the check valves. The unit is designed to give maximum protection against backflow of health or non-health hazard fluids by either back-pressure or back-siphonage. The durable domestic stainless steel units (2-1/2"-8") and the FDA epoxy coated ductile iron units (10" and 12") are easily maintained in the line without any special tools. The TriForce™ check valves operate with a spring assist in the flowing condition to provide excellent flow rates which are documented by an independent laboratory.

#### OPERATION

During normal flow conditions, the two check valves are held off their seats, supplying water downstream. The relief valve is held shut by supply pressure acting through the sensing tube on the relief valve diaphragm. In the area between the check valves, called the zone, the pressure is maintained approximately 7 psi lower than supply pressure. Should a back-pressure or back-siphonage condition occur, the second check valve will seal, prohibiting the backflow of water. Should the second check become fouled, the pressure in the zone will increase causing the differential relief valve to open to atmosphere. This will maintain the pressure in the zone at least 2 psi lower than supply pressure.

#### **FEATURES**

- Domestic Stainless steel body: 2-1/2"-8"
- FDA epoxy coated ductile iron body: 10" & 12"
- Easy maintenance no special tools required
- Snap-in check retainers: 2-1/2"-6"
- Bolted-in checks: 8"-12"
- Low pressure loss as documented by an independent laboratory
- Center stem guided TriForce<sup>™</sup> check valves
- Approved for horizontal flow\*
- · Chloramine-resistant elastomers
- · Made in the USA
- Lead-Free standard
- ASSE 1013
- CSA B64.4

- AWWA C-511
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 6")
- UL, ULC Classified
- · FM approved
- Maximum working pressure 175 psi
- Temperature range 33°F 140°F, 180°F intermittent
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Optional Air Gap Drains (see page 52 for details and discharge rates)
- 5 year, domestic warranty

#### **MATERIALS**

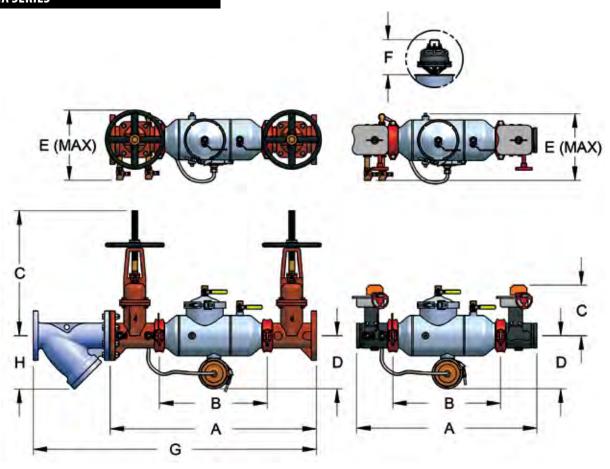
	•
Part	Material
Body (2-1/2"-8")	304 Stainless Steel
Body (10 & 12")	FDA Epoxy Coated Ductile Iron
Covers (2-1/2"-6")	Glass Filled PPO/SS
Covers (8")	304 Stainless Steel
Covers(10 & 12")	FDA Epoxy Coated Ductile Iron
Relief Valve	Bronze C84400/ LF C89836
Check Valves	Bronze/Glass-filled PPO/SS
Springs	Stainless Steel
Seat Discs	Chloramine-resistant Silicone

#### **FACTORY CODE**

4ALF	2 X	X	0 X
	Y-STRAINER	SIZE	SHUT-OFF VALVES
4ALF = Lead Free Standard	0 = Standard	9 = 2-1/2"	1 = Less Shut-off Valves
	1 = w/Y-strainer (shipped loose)	0 = 3"	2 = NRS Flg x NRS Flg
		A = 4"	3 = OS&Y Flg x OS&Y Flg
		C = 6"	4 = OS&Y Flg x Monitored (Mon.) Butterfly Vlv Grv <sup>†</sup>
		E = 8"	6 = OS&Y Flg x Post indicator Flg**
		G = 10"	7 = OS&Y Flg x OS&Y Grv
		H = 12"	8 = OS&Y Grv x OS&Y Grv
			9 = Mon. Butterfly VIv Grv x Mon. Butterfly VIv Grv <sup>†</sup>
			10 = OS&Y Flg x Post Indicator Grv**
*** 0			11 = NRS Grv x NRS Grv
** Post indicator with plate & nut † Butterfly valves not available in	option not available in 2-1/2″ size.		12 = NRS Flg x NRS Grv
T butterny valves not available in	12 3126.		13 = Post Indicator Flg x Mon. Butterfly VIv Grv <sup>†</sup>
Example:			14 = Post Indicator Flg x Post Indicator Flg
<b>4ALF 20A 07</b> = 4" size Lead Free			16 = Mon Butterfly VIv Grv x Post Indicator Flg <sup>†</sup>
Assembly with OS&Y flanged inl	et x OS&Y grooved		17 = Post Indicator Flg x OS&Y Grv
outlet shut-off valves.			18 = OS&Y Grv x Post Indicator Grv
			19 = Mon. Butterfly VIv Grv x Post Indicator Grv
			20 = Post Indicator Flg x OS&Y Flg
			www.apollovalves.com

## **Reduced Pressure Backflow Preventers**

## **RPLF 4A SERIES**



#### **DIMENSIONS**

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ( $\pm$  1/8" (3 mm) per joint) See Page 63 For Flow Curves

DIMENSIONS	2-1/2"	60 mm.	3″	75 mm.	4″	100 mm.	6"	150 mm.	8"	200 mm.	10"	250 mm.	12"	300 mm.
A (Butterfly Valves)	28	711 ±	28-1/2 ±	724 <sup>±</sup>	33-1/4 ±	845 ±	38-7/8 <sup>±</sup>	987 ±	46-3/8 ±	1178 ±	52-1/4 ±	1327 ±	N/A	N/A
A (Gate Valves)	31 ±	787 ±	32 ±	813 ±	38 ±	965 ±	45-7/8 <sup>±</sup>	1165 ±	53-3/8 <sup>±</sup>	1356 ±	62-1/4 $^{\pm}$	1581 ±	62-1/2 <sup>±</sup>	1586 ±
B (Less Shut-off Valves)	15-7/8 <sup>±</sup>	403 ±	15-7/8 <sup>±</sup>	403 ±	19-5/8 <sup>±</sup>	498 ±	24-1/2 <sup>±</sup>	$622 \pm$	30 ±	$762^{\pm}$	36 ±	914 ±	37 ±	940 ±
C (Butterfly Valves)	8	203	8-3/8	213	9-1/8	233	10-1/8	257	12	306	13-3/8	340	N/A	N/A
C (NRS/PI Gate Valves)	11-3/8	289	12-3/8	314	14-3/4	375	19	483	22-1/2	572	26-1/2	673	30	762
C (OS&Y Open)	16-3/8	416	18-7/8	479	22-3/4	578	30-1/8	765	37-3/4	959	45-3/4	1162	53-1/8	1349
D (Centerline to bottom)	9-5/8	238	9-5/8	238	10-3/8	264	11-5/8	295	15-5/8	397	21	533	21	533
E (Width Max)	11-1/2	292	12	305	12-1/2	318	14-3/8	365	17-5/8	449	21	533	22	559
F (Check Removal Clearance)	4-3/4	121	4-3/4	121	6-1/2	165	7 -1/2	191	7-1/2	191	10	254	10	254
G (With Strainer)	41-7/8	1064	43-5/8	1108	52	1321	64-1/2	1638	74-7/8	1902	88-3/8	2245	95-5/8	2429
H (Strainer Clearance)	8	203	8-3/4	222	9-1/2	241	12-5/8	321	16-3/8	416	19	483	22	559
Test Cocks (NPT)	1/2"	15	1/2"	15	1/2"	15	3/4"	20	3/4"	20	3/4"	20	3/4"	20
WEIGHTS	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg
Net Wt. (Less Shut-offs)	31	14	32	5	48	22	84	38	228	103	762	346	865	392
Net Wt. (w/ Butterfly Valves)	58	26	62	28	92	42	152	69	359	163	980	445	N/A	N/A
Net Wt. (w/NRS Gate Valves)	117	53	143	65	197	89	323	147	691	313	1608	729	2003	909
Net Wt. (w/ OS&Y Gate Valves)	127	58	153	69	203	92	333	151	705	320	1648	748	2057	933

#### Notes.

- 1. Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances (1/8" per joint).
- 2. Internal body connections are grooved on  $2 \frac{1}{2}$ " 10" sizes.
- 3. Internal body connections are flanged on 12" size.
- 4. Strainer option only available for flanged-end shut-off options.



#### **Reduced Pressure Backflow Preventers**

#### **RPLF 4An SERIES**



Optional Valve Setter (see pg 50)

**FACTORY CODE** 

#### REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER

The Apollo® MODEL RPLF 4An Reduced Pressure Principle Backflow Preventer consists of two independently acting, TriForce™ center stem guided check valves with a differential pressure relief valve located between the check valves. The unit is designed to give maximum protection against backflow of health or non-health hazard fluids by either back-pressure or back-siphonage. The normally vertical up/vertical down oriented body incorporates an internal swivel connection providing the ability to pivot the second check 180° to a vertical up/vertical up flow. The durable domestic stainless steel units (2-1/2″ to 8″) and the FDA epoxy coated ductile iron units (10″ and 12″) are easily maintained in the line without any special tools. The TriForce™ check valves operate with a spring assist in the flowing condition to provide excellent flow rates which are documented by an independent laboratory.

#### OPERATION

During normal flow conditions, the two check valves are held off their seats, supplying water downstream. The relief valve is held shut by supply pressure acting through the sensing tube on the relief valve diaphragm. In the area between the check valves, called the zone, the pressure is maintained approximately 7 psi lower than supply pressure. Should a back-pressure or back-siphonage condition occur, the second check valve will seal, prohibiting the backflow of water. Should the second check become fouled, the pressure in the zone will increase causing the differential relief valve to open to atmosphere. This will maintain the pressure in the zone at least 2 psi lower than supply pressure.

#### **FEATURES**

- Domestic Stainless steel body: 2-1/2"-8"
- FDA epoxy coated ductile iron body: 10" & 12"
- Easy maintenance no special tools required
- Drop-in check retainers: 2-1/2"-6"
- Bolted-in checks: 8"-12"
- Low pressure loss as documented by an independent laboratory
- Center stem guided TriForce™ check valves
   Optional Air Gap Drains (see page 52 for
- Optional Air Gap Drains (see page 52 fo details and discharge rates)
- Small installation space required small footprint
   Approved for n-flow and vertical up flow\*
- Approved for fi-flow and vertical up flow
   Chloramine-resistant elastomers
- Lead-Free standard
- ASSE 1013
- CSA B64.4

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (4" - 6")
- AWWA C-511
- · UL, ULC Classified
- FM approved
- Maximum working pressure 175 psi
- Temperature range 33°F 140°F, 180°F intermittent
- Optional valve setters eliminate need for thrust blocks between elbows
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Made in the USA
- 5 year, domestic warranty

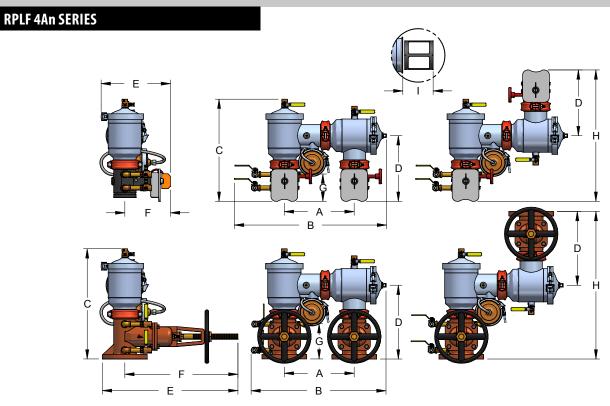
### **MATERIALS**

Part	Material
Body (2-1/2"-8")	304 Stainless Steel
Body (10 & 12")	FDA Epoxy Coated Ductile Iron
Covers (2-1/2"-6")	Glass Filled PPO/SS
Covers (8")	304 Stainless Steel
Covers(10 & 12")	FDA Epoxy Coated Ductile Iron
Relief Valve	Bronze C84400/ LF C89836
Check Valves	Bronze/Glass-filled PPO/SS
Springs	Stainless Steel
Seat Discs	Chloramine-resistant Silicone

4AnLF	2 X	X	0 X
	Y-STRAINER	SIZE	SHUT-OFF VALVES
** Post indicator with plate & nut of Butterfly valves not available in 1  Example:  4AN 20A 07 = 4" size Reduced Prewith OS&Y flanged inlet x OS&Y glashut-off valves	0 = Standard 1 = w/Y-strainer (shipped loose)  ption not available in 2-1/2" size. 2" size.	9= 2-1/2" 0= 3" A= 4" C= 6" E= 8" G= 10" H= 12"	1 = Less Shut-off Valves 2 = NRS Flg x NRS Flg 3 = OS&Y Flg x OS&Y Flg 4 = OS&Y Flg x Monitored (Mon.) Butterfly Vlv Grv† 6 = OS&Y Flg x Post indicator Flg** 7 = OS&Y Flg x OS&Y Grv 8 = OS&Y Grv x OS&Y Grv 9 = Mon. Butterfly Vlv Grv x Mon. Butterfly Vlv Grv† 10 = OS&Y Flg x Post Indicator Grv** 11 = NRS Grv x NRS Grv 12 = NRS Flg x NRS Grv 13 = Post Indicator Flg x Mon. Butterfly Vlv Grv† 14 = Post Indicator Flg x Post Indicator Flg 16 = Mon Butterfly Vlv Grv x Post Indicator Flg† 17 = Post Indicator Flg x OS&Y Grv 18 = OS&Y Grv x Post Indicator Grv 19 = Mon. Butterfly Vlv Grv x Post Indicator Grv 20 = Post Indicator Flg x OS&Y Flq



## **Reduced Pressure Backflow Preventers**



## **DIMENSIONS**

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ( $\pm$  1/8" (3 mm) per joint) See Page 64 For Flow Curves

DIMENSIONS	2-1/2"	60mm	3″	75mm	4"	100mm	6"	150mm	8″	200mm	10"	250mm	12″	300mm
A (Centerline to Centerline)	12-1/2 ±	318 ±	12-1/2 ±	318 ±	14 ±	356 ±	16 ±	406 ±	18-1/2 ±	470 ±	21 ±	533 ±	26-3/4 ±	675 ±
B (Butterfly Valves)	27-1/2 <sup>±</sup>	699 ±	27-1/2 ±	699 ±	30-3/4 ±	781 <sup>±</sup>	36 ±	914 ±	37-3/8 <sup>±</sup>	949 ±	43 ±	1092 ±	N/A	N/A
B (Gate Valves)	24-1/2 <sup>±</sup>	$622 \pm$	24-1/2 <sup>±</sup>	622 ±	<b>27</b> ±	$686^{\pm}$	32 ±	813 <sup>±</sup>	40-3/4 <sup>±</sup>	1035 ±	49 ±	1245 ±	55-3/4 ±	1416 ±
C (Butterfly Valves)	18-1/4	468	18-1/2	470	20	508	24-3/4	629	28-1/2	724	35	889	N/A	N/A
C (Gate Valves)	19-5/8	498	20	508	22-1/2	572	27-3/4	705	32-1/8	816	40	1016	44	1118
D (Butterfly Valves)	11-1/2	292	11-3/4	298	12-1/2	318	14-1/2	368	17-7/8	454	19-3/4	502	N/A	N/A
D (Gate Valves)	13	330	13 -1/2	343	14-7/8	378	18	457	21-3/8	543	24-3/4	629	28-3/4	730
E (Butterfly Valves)	11-1/2	292	12-1/8	308	12-7/8	327	15-7/8	403	22-1/4	565	23-1/8	587	N/A	N/A
E (OS&Y Open)	19-7/8	505	24-1/2	622	27-1/4	692	32-3/4	832	44-1/2	1130	54	1372	62-3/4	1594
E (NRS/PI)	14-7/8	378	16-1/8	410	19-1/4	489	24-1/2	622	29-1/4	740	36-3/8	924	40	1016
F (Butterfly Valves)	8	203	8-3/8	213	9	229	10-7/8	277	12-7/8	327	13-1/2	343	N/A	N/A
F (OS&Y Open)	16-3/8	416	20-1/2	521	22-3/4	578	28	711	37-3/4	959	46	1168	53-1/8	1349
F (NRS/PI)	11-3/8	289	12-3/8	314	14-3/4	375	19	483	22-1/2	572	26-1/2	673	30	762
G (Butterfly Valves)	4-1/8	105	4-1/2	114	4-3/8	111	6-1/2	165	5-1/4	133	4	102	N/A	N/A
G (Gate Valves)	5-1/2	140	6	152	6	152	9	229	9	229	9	229	10	254
H (Butterfly Valves)	23	584	23-1/2	597	25	635	29	737	35-3/4	908	N/A	N/A	N/A	N/A
H (Gate Valves)	26	660	27	686	29-3/4	756	36	914	42-3/4	1086	N/A	N/A	N/A	N/A
I (Check Removal Clearance)	6	152	6	152	6	152	8	203	8-1/2	216	12	305	12	305
Test Cocks (NPT)	1/2"	15	1/2"	15	1/2"	15	3/4"	20	3/4"	20	3/4"	20	3/4"	20
WEIGHTS	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg
Net Wt. (Less Shut-offs)	39	18	39	18	48	22	83	38	325	147	841	381	966	438
Net Wt. (w/ Butterfly Valves)	66	30	69	31	92	42	151	69	456	207	1019	462	N/A	N/A
Net Wt. (w/NRS Gate Valves)	125	57	150	68	197	89	322	146	788	357	1487	674	2103	954
Net Wt. (w/ OS&Y Gate Valves)	135	61	160	73	203	92	332	151	802	364	1509	684	2157	978

#### Notes:

<sup>2.</sup> Internal body connections are flanged on 12" size.



 $<sup>1. \,</sup> Internal \, body \, connections \, are \, grooved \, on \, 2\text{-}1/2''\text{-}10'' \, sizes.$