

## RPLF 4An SERIES

### n STYLE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY



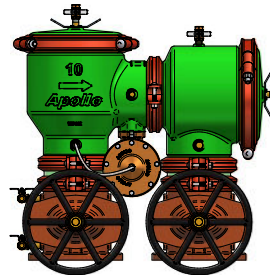
**n FLOW**  
2-1/2" - 8"  
304 STAINLESS  
STEEL BODY



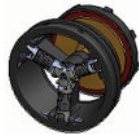
**VERTICAL UP FLOW**  
2-1/2" - 8"  
304 STAINLESS STEEL  
BODY



**n FLOW**  
10" - 12"  
FDA EPOXY  
COATED DUCTILE  
IRON BODY



OPTIONAL VALVE SETTER



TRIFORCE™ CHECK

The Apollo 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 Approval Laboratory
- Center Stem Guided TriForce™ Check Valves
- Modular Captured Spring Relief Valve
- Optional Air Gap Drains
- Small Installation Space Required/Footprint
- Approved for n-Flow and Vertical Up Flow
- Chloramine-Resistant Elastomers
- Lead Free Standard
- Optional Valve Setters
- US Patent Nos.: 6,443,184; 7,025,085; 7,533,699
- Designed, Assembled and Tested in the USA
- 5 Year Warranty

### PERFORMANCE RATING

- Maximum Working Pressure; 175 psi
- Temperature Range; 33° to 140°F, 180°F Intermittent

### APPROVALS

- AWWA C511 (2-1/2" - 12")
- ASSE 1013-2011, CSA B64.4, FM, IAPMO, UL\*, cUL\*
- NSF/ANSI 61 Lead Free
- NSF/ANSI 372 Water Quality
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 12")

\*UL and cUL installations Must Include Indicating-Type Shut-Off Valves

### STANDARD MATERIALS LIST

<b>BODY (2-1/2" - 8")</b>	304 Stainless Steel	<b>RELIEF VALVE</b>	Bronze (C84400/LF C89836)
<b>BODY (10" &amp; 12")</b>	FDA Epoxy Coated Ductile Iron	<b>CHECK VALVES</b>	Bronze/Glass-Filled PPO/SS
<b>COVERS (2-1/2" - 6")</b>	Glass Filled PPO/SS	<b>SPRINGS</b>	Stainless Steel
<b>COVERS (8")</b>	304 Stainless Steel	<b>SEAT DISCS</b>	Chloramine-Resistant Silicone
<b>COVERS (10" &amp; 12")</b>	FDA Epoxy Coated Ductile Iron		

Flow Curves - Page 62

### PART NUMBER MATRIX

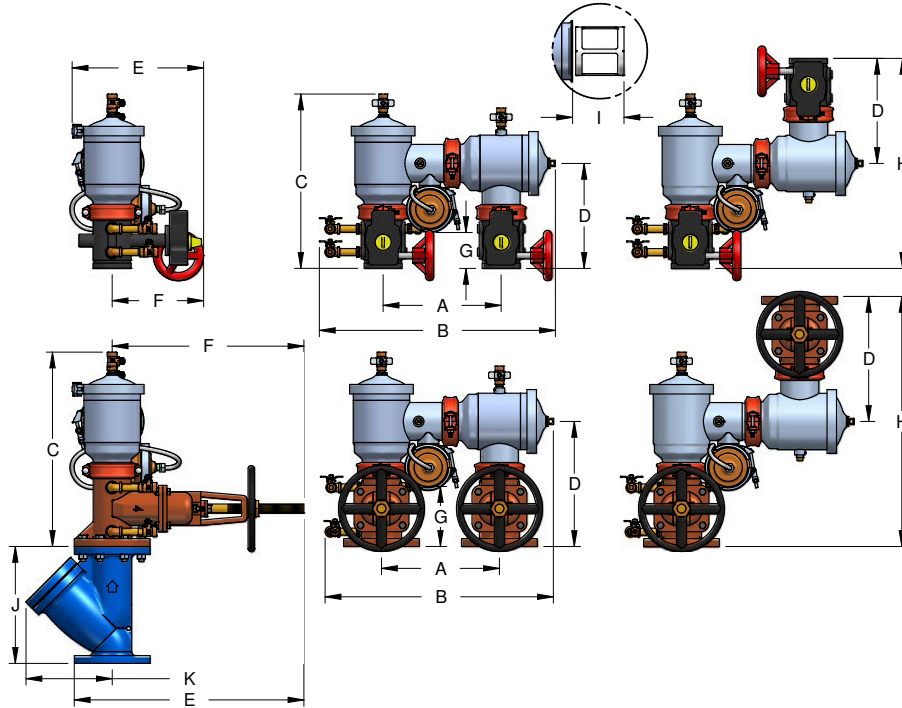
4AnLF	2 X	X	XX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4AnLF - Lead Free	0 - Standard 1 - w/Y-Strainer (Shipped Loose)	9 - 2-1/2" 0 - 3" A - 4" C - 6" E - 8" G - 10" H - 12"	02 - NRS Flange x NRS Flange 03 - OS&Y Flange x OS&Y Flange 04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove† 06 - OS&Y Flange x Post indicator Flange 07 - OS&Y Flange x OS&Y Groove 08 - OS&Y Groove x OS&Y Groove 09 - Mon. Butterfly Valve Groove x Mon. Butterfly Valve Groove† 10 - OS&Y Flange x Post Indicator Groove 11 - NRS Groove x NRS Groove 12 - NRS Flange x NRS Groove 13 - Post Indicator Flange x Mon. Butterfly Valve Groove† 14 - Post Indicator Flange x Post Indicator Flange 16 - Mon Butterfly Valve Groove x Post Indicator Flange† 17 - Post Indicator Flange x OS&Y Groove 18 - OS&Y Groove x Post Indicator Groove 19 - Mon. Butterfly Valve Groove x Post Indicator Groove 20 - Post Indicator Flange x OS&Y Flange 21 - Post Indicator Groove x OS&Y Groove 22 - Post Indicator Groove x Mon. Butterfly Valve Groove† 23 - Mon. Butterfly Valve Groove x OS&Y Flange	D - Domestic Assembly

EXAMPLE: 4ALF 20A 07 = 4" size lead free reduced pressure assembly with OS&Y flanged inlet x OS&Y grooved outlet shut-off valves.

† Butterfly valves not available in 12" size.

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DRAWING SHOWN DEPICTS 2-1/2" - 8" ASSEMBLIES.  
SEE SUBMITTAL SS1274 FOR DETAILED DRAWINGS FOR EACH SIZE.

## DIMENSIONS

DIMENSIONS	2-1/2"	65MM	3"	80MM	4"	100MM	6"	150MM	8"	200MM	10"	250MM	12"	300MM
A (Centerline to Centerline)	12.5	318	12.5	318	14.0	356	16.0	406	18.5	470	21.0	533	26.8	679
B (Butterfly Valves)	25.5	648	25.6	651	28.1	714	33.3	845	38.1	968	N/A	N/A	N/A	N/A
B (Gate Valves)	24.5	622	24.5	622	27.0	686	32.0	813	40.8	1035	49.0	1245	55.8	1416
C (Butterfly Valves)	18.8	476	19.0	483	20.8	527	25.0	635	29.5	749	34.8	883	N/A	N/A
C (Gate Valves)	19.6	498	20.0	508	22.5	572	27.8	705	32.1	816	40.0	1016	44.0	1118
D (Butterfly Valves)	11.5	292	11.8	298	12.5	318	14.6	371	17.9	454	N/A	N/A	N/A	N/A
D (Gate Valves)	13.0	330	13.5	343	14.9	378	18.0	457	21.3	542	24.8	629	28.8	730
E (Butterfly Valves)	12.1	308	13.1	333	14.8	375	18.3	465	25.9	657	N/A	N/A	N/A	N/A
E (OS&Y Open)	21.9	556	23.9	606	25.6	651	35.5	902	45.1	1146	56.8	1441	62.8	1594
E (NRS/PI)	15.6	397	16.9	429	18.6	473	23.8	603	29.1	740	36.3	921	40.0	1016
F (Butterfly Valves)	8.6	219	9.6	244	10.9	276	12.5	318	16.5	419	N/A	N/A	N/A	N/A
F (OS&Y Open)	18.0	457	20.0	508	21.0	533	29.5	749	37.0	940	45.0	1143	53.1	1349
F (NRS/PI)	11.8	298	13.0	330	14.0	356	17.8	451	21.0	533	24.5	622	30.0	762
G (Butterfly Valves)	3.0	76	3.3	83	4.3	110	5.1	130	4.8	121	N/A	N/A	N/A	N/A
G (Gate Valves)	5.3	133	6.0	152	6.0	152	9.0	229	9.0	229	9.0	229	10.0	254
H (Butterfly Valves)	23.0	584	23.5	597	25.0	635	29.3	743	35.8	908	N/A	N/A	N/A	N/A
H (Gate Valves)	26.0	660	27.0	686	29.8	756	36.0	914	42.8	1086	N/A	N/A	N/A	N/A
I (Check Removal Clearance)	6.0	152	6.0	152	6.0	152	8.0	203	8.5	216	12.0	305	12.0	305
J (Strainer Length)	10.9	277	11.6	295	14.0	356	18.6	472	25.5	648	26.1	663	30.1	765
K (Strainer Clearance)	8.0	203	8.8	224	9.5	241	12.6	320	16.4	417	19.0	483	22.0	559
Test Cocks (NPT)	1/2"	13	1/2"	13	1/2"	13	3/4"	20	3/4"	20	3/4"	20	3/4"	20
<b>WEIGHTS</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>
Net Wt. (w/ Butterfly Valves)	100.0	45	104.0	47	129.0	59	172.0	78	492.0	223	N/A	N/A	N/A	N/A
Ship Wt. (w/ Butterfly Valves)	161.0	73	165.0	75	190.0	86	252.0	114	627.0	284	N/A	N/A	N/A	N/A
Net Wt. (w/ NRS/Post Indicator Valves)	125.0	57	150.0	68	197.0	89	322.0	146	788.0	357	1487.0	674	2103.0	954
Ship Wt. (w/ NRS/Post Indicator Valves)	186.0	84	211.0	96	258.0	117	402.0	182	923.0	419	1677.0	761	2293.0	1040
Net Wt. (w/ OS&Y Valves)	135.0	61	160.0	73	203.0	92	332.0	151	802.0	364	1509.0	684	2157.0	978
Ship Wt. (w/ OS&Y Valves)	196.0	89	221.0	100	264.0	120	412.0	187	937.0	425	1699.0	771	2347.0	1065

Notes:  
Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances.  
Internal body connections are grooved on 2 1/2" - 10" sizes.  
Internal body connections are flanged on 12" size.  
Strainer option only available for flanged-end shut-off options.