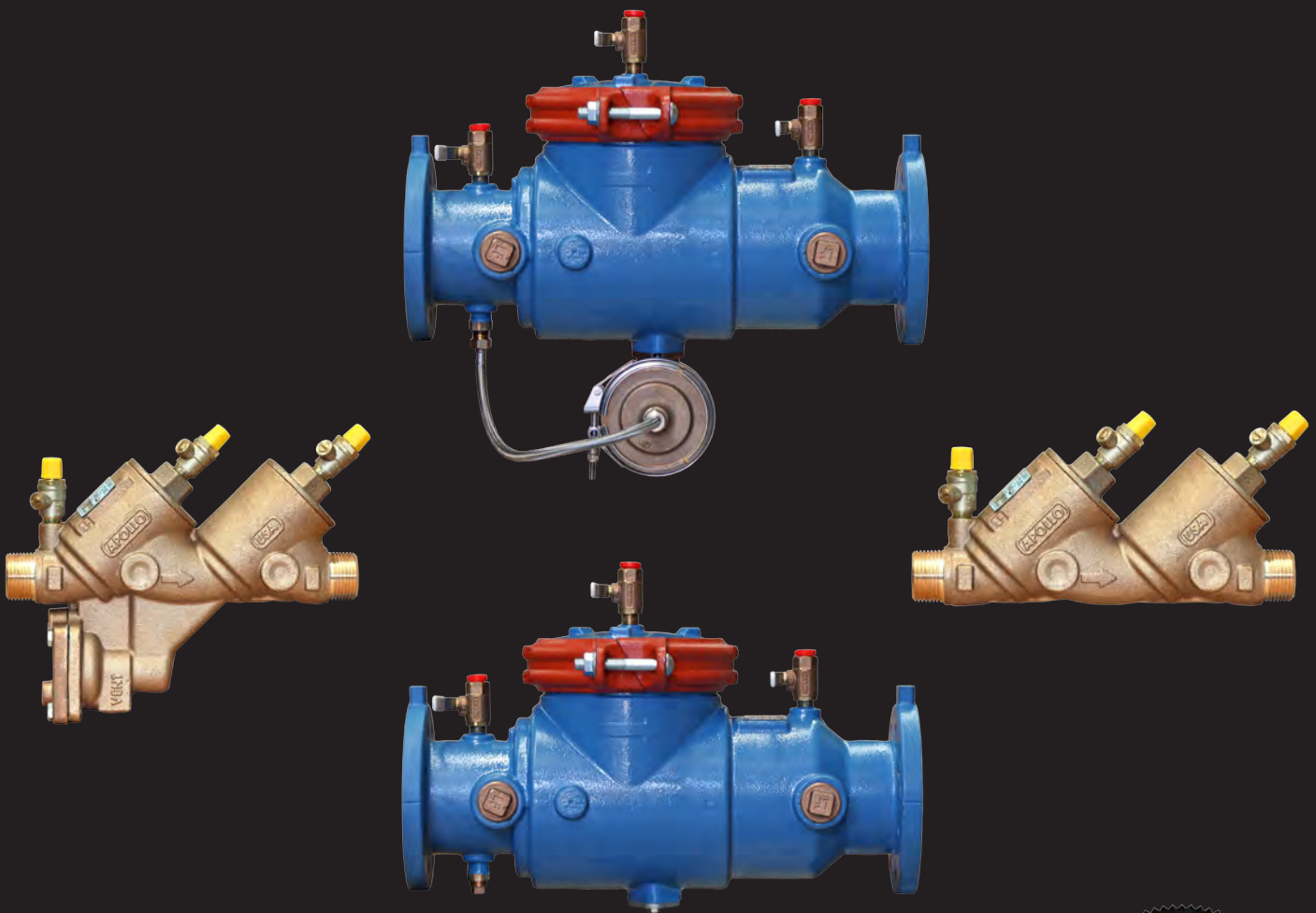




AQUALINE




WaterMark
AS2845.1 WM-022183


"Apollo" Valves
manufactured in the USA



www.aqualine.co.nz



AQUALINE

Now in its ninth decade, Conbraco Industries, Inc. is a leading manufacturer of flow control products for U.S. and international markets. The company's headquarters is based in Matthews, North Carolina with manufacturing plants and foundries located in Pageland and Conway, South Carolina.

Conbraco has a history of new product development and innovation that dates back to the company's inception in 1928. Today, the Conbraco line of products is marketed under the "Apollo Valves" brand.

Conbraco's vertically integrated manufacturing ensures a consistency of production, testing, quality and availability. You can be assured that Conbraco flow control products will deliver long term reliability. All Conbraco plants are registered to ISO 9001:2008 quality standards.

The Conbraco line continues to expand with new products, designs and advanced materials to better serve the needs of our customers. Markets served include: chemical processing, pulp and paper, petroleum, residential and commercial plumbing and heating, OEM, irrigation, water works, and fire protection.



PAGELAND, SC
Bronze Foundry and Manufacturing Plant



PAGELAND, SC
Final Assembly and Distribution Center



CONWAY, SC
Steel Foundry and Manufacturing Plant



MATTHEWS, NC
Corporate Headquarters



Product Approvals

Conbraco Apollo backflow valves are Australian Standards approved to AS2845.1:2010 (Water supply - Mechanical backflow prevention devices)



AQUALINE

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ISO9001 and ISO 140001 Accredited

Plumbing ☯ Drainage ☯ Roofing ☯ Gas
☯ Solar ☯ Backflow ☯ AVG Valves

DCV Backflow Preventers 4A-100 SERIES

ADC

TOP ENTRY DOUBLE CHECK VALVE ASSEMBLY LEAD FREE

The Apollo Series 4A-100 Double Check Valves are designed to prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are objectionable, but non-health hazards. The modular check valve captured spring cartridges have replaceable seats and reversible silicone seat discs.

OPERATION

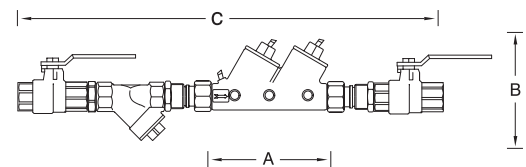
During normal flow conditions, the two check valves are held off their seats, supplying water downstream. Each check valve is designed to maintain a minimum of 7 kPa across the valve during normal operation. Should the downstream pressure increase to within 7 kPa of supply pressure, both check valves will close to prevent a backflow condition.

FEATURES

- Low pressure loss
- Modular check valve cartridges with easily replaced parts
- Top access for fast testing and easy maintenance
- Testcock protectors
- Corrosion resistant
- No special tools required
- 5 year warranty
- AS2845.1 approved
- Horizontal or vertical installation
- Maximum working pressure 1,200kPa
- Temperature range 1°C - 85°C
- Designed, manufactured, assembled and tested in South Carolina, USA



Sizes 20mm - 50mm



DIMENSIONS

Complete Valve Code* Size	ADC15 15mm.	ADC20 20 mm.	ADC25 25mm.	ADC32 32 mm.	ADC40 40 mm.	ADC50 50 mm.
A (DCV device length)	216	216	241	298	298	324
B (Height)	139	139	170	184	195	235
C (Overall assembly length)	380	355	400	680	720	820
Width of assembly	65	65	70	82	82	92
Weights	kg.	kg.	kg.	kg.	kg.	kg.
Net Wt. (Device Only)	1.7	1.7	2.2	3.6	3.6	5.2

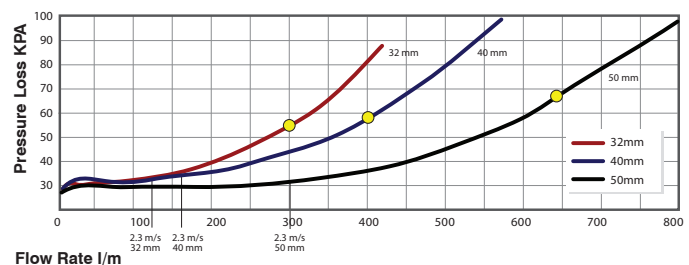
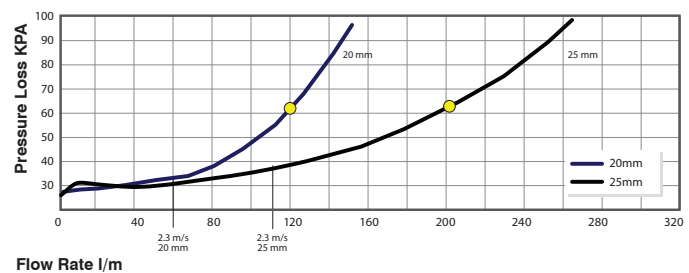
*Complete with ball valves, strainer and nipple

PRODUCT CODES

Code	Description
ADC15	DCV 15mm Complete
ADC20	DCV 20mm Complete
ADC25	DCV 25mm Complete
ADC32	DCV 32mm Complete
ADC40	DCV 40mm Complete
ADC50	DCV 50mm Complete

MATERIALS

Part	Material
Body , Caps	Bronze LF C89836
Check Valves	Glass-Filled PPO
Springs	300 Series Stainless Steel
Seat Discs	Chloramine-Resistant Silicone
O-rings	Chloramine-Resistant EPDM

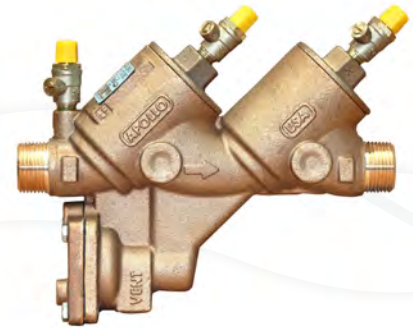


Reduced Pressure Principle LEAD FREE

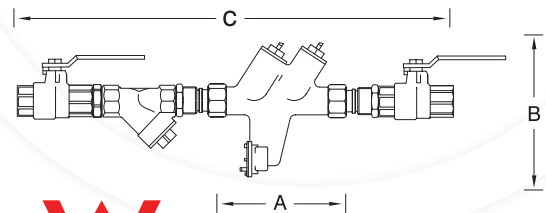
The Apollo Series 4A-200 Reduced Pressure Principle Backflow Preventer is designed to give maximum protection against backflow caused by either back-pressure or back-siphonage from substances that are hazardous. The durable but economical device is easily maintained in the line with modular check cartridge 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 with easily replaced parts
- Reversible/removable chloramine-resistant silicone seat discs
- Low head pressure loss
- Internal sensing passage
- Corrosion resistant
- AS2845.1 approved
- Maximum pressure 1,200kPa
- Temperature range 1°C - 85°C
- Horizontal installation
- Designed, manufactured, assembled and tested in South Carolina, USA
- 5 year warranty



Sizes 15mm - 50mm



WaterMark
AS2845.1 WM-022183

DIMENSIONS

Complete Valve Code* Size	ARP15 15 mm.	ARP20 20 mm.	ARP25 25mm.	ARP32 32 mm.	ARP40 40 mm.	ARP50 50 mm.
A (RPZ device length)	187	216	241	298	298	324
B (Height)	181	187	203	251	251	279
C (Overall assembly length)	450	490	570	680	720	820
Width of assembly	65	70	70	102	102	120
Weights	kg.	kg.	kg.	kg.	kg.	kg.
Net Wt. (Device Only)	2.2	2.8	3.5	.0	6.0	8.0

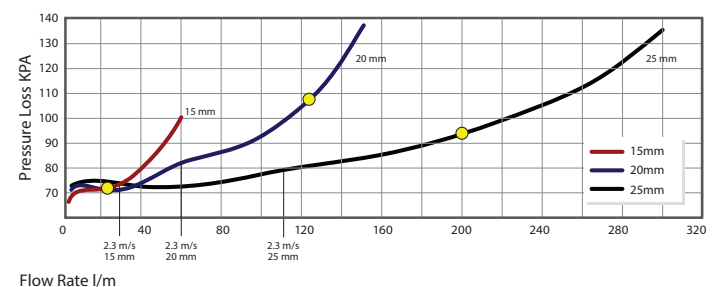
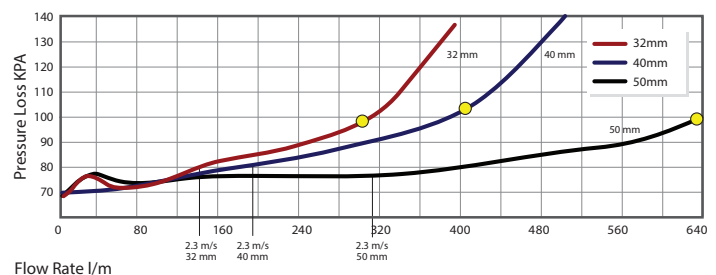
*Complete with ball valves, strainer and nipple

PRODUCT CODES

Code	Description
ARP15	RPZ Valve 15mm Complete
ARP20	RPZ Valve 20mm Complete
ARP25	RPZ Valve 25mm Complete
ARP32	RPZ Valve 32mm Complete
ARP40	RPZ Valve 40mm Complete
ARP50	RPZ Valve 50mm Complete

MATERIALS

Part	Material
Body	Bronze LF C89836
Springs	300 Series SS
Seat Discs	Chloramine-resistant Silicone
Diaphragm	Nitrile and Nylon
Check Modules	Glass-Filled PPO
O-rings	Chloramine-resistant EPDM



RPL4AN SERIES

THE APOLLO MODEL RPLFAN LEAD FREE* REDUCED PRESSURE BACKFLOW PREVENTERS

provide maximum protection of the potable water supply due to back-siphonage or back pressure from substances that are hazardous to the potable water supply. The easily accessible modular check valve cartridges provide captures springs, replaceable seats and reversible silicone seat discs.

FEATURES

- Smallest footprint eliminates elbows for compact and economical installation simplifying testing
- Low pressure loss documented by independent approval agencies
- Captures stainless steel springs
- Ball Valves and strainer
- Modular relief valve
- Modular check valve cartridges with easily replaced parts
- Chloramine-resistant elastomers
- No special tools required
- Designed, cast, machined, assembled and tested IN THE USA
- 5 year warranty

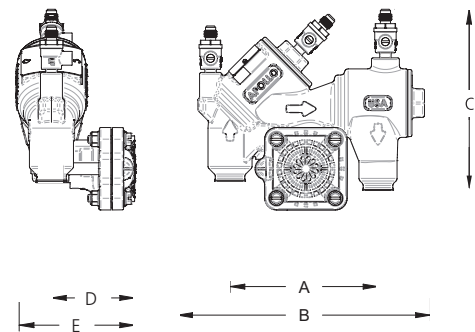
PERFORMANCE RATING

- Maximum Working Pressure: 1000kpa
- Temperatures Range: 0.5°C - 60°C

PRODUCT CODE: ARPA20

APPROVALS

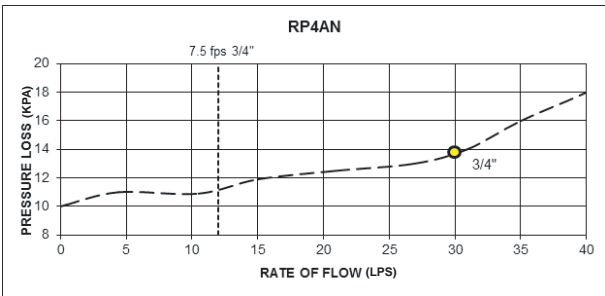
- ASSE 1013
- CSA B64.4
- IAPMO Listed



MATERIALS

Part	Material
Body, Caps	C89836 Lead Free*
Relief Valves	Glass-Filled Nylon
Check Valve Cartridges	Glass-Filled PPO
Springs	300 Series Stainless Steel
Seat Discs	Chloramine-Resistant Silicone
O-rings	Chloramine-Resistant EPDM

FLOW CURVES



DIMENSIONS

SIZE (MM)	DIMENSIONS (MM)					NEW WT. (KG)
	A	B	C	D	E	
20mm (BSP)	127	216	175	73	100	3.6KG

RPL4AN SERIES

ABCA (INSULATED ENCLOSURE)

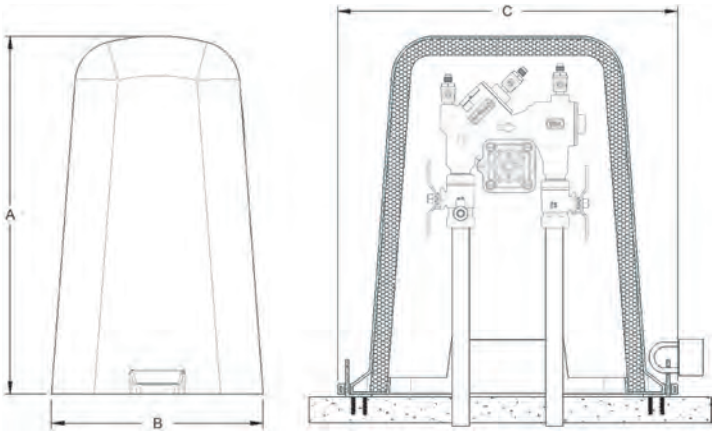
Thermally insulated security cover for "angle series" provides frost protection for backflow device.
Fixings included.

PRODUCT CODE: ABCA



DIMENSIONS

DIMENSIONS (MM)			NEW WT. (KG)
A	B	C	
534	315	508	3.175KG



Plumbing ⊖ Drainage ⚙ Roofing ⌚ Gas
⚙ Solar ⚙ Backflow ⊕

DCV Backflow Preventers 4AE-100 SERIES

ADC

DOUBLE CHECK VALVES

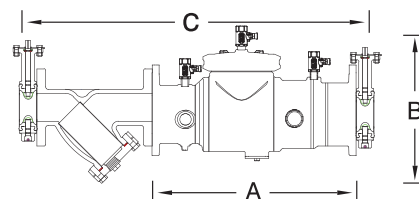
The Apollo® MODEL 4AE-100 Double Check Valves are designed to prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are objectionable, but non-health hazards. The TriForce™ center stem guided check valves feature replaceable and reversible silicone seat discs. Table E Flange.

FEATURES

- Medium hazard protection against back-pressure/back-siphonage
- Easy maintenance - no special tools required
- Snap-in check retainers; 65-150mm
- Bolted-in checks: 200 - 250mm
- Low head loss
- Stem guided TriForce™ check valves
- Corrosion resistant
- Maximum working pressure 1,200kPa
- Horizontal or vertical installation
- Operating temp. range 1°C - 60°C
- AS2845.1 approved
- Designed, manufactured, assembled and tested in South Carolina, USA
- 5 year warranty



Sizes 65mm - 250mm



AS2845.1 WM-022183

DIMENSIONS

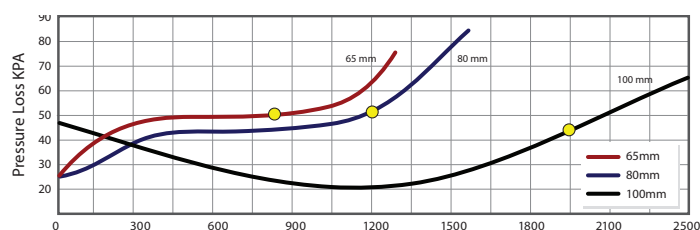
Complete Valve Code Size	ADC65 65mm	ADC80 80mm	ADC100 100mm	ADC150 150mm
A (DCV device length)	550	550	623	877
B (Height of assembly)	399	423	501	671
C (Length w/ bfly valves)	914	938	1079	1461
C (Length w/ gate valves)	1204	1252	1433	1881
Width of assembly	254	254	339	447
Weights	kg.	kg.	kg.	kg.
Net Wt. (Device Only)	40	42	62	158

PRODUCT CODES

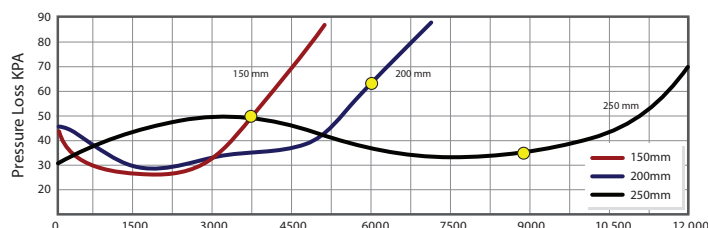
Code	Description
ADC65	DCV 65mm Complete
ADC80	DCV 80mm Complete
ADC100	DCV 100mm Complete
ADC150	DCV 150mm Complete

MATERIALS

Part	Material
Body and covers	Epoxy Coated DI
Springs	Stainless Steel
Check Valves	PPO / Bronze / SS
Seat Discs	Silicone
Test Cocks	Bronze / SS handles



Flow Rate l/m



Flow Rate l/m



REDUCED PRESSURE PRINCIPLE

The Apollo® MODEL 4AE 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 epoxy coated ductile iron valves 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 ASSE or USC FCCC&HR approval curves. Table E Flange.

FEATURES

- Maximum protection against back-pressure/back-siphonage
- Easy maintenance - no special tools required
- Snap-in check retainers; 65-150mm
- Bolted-in checks: 200 - 250mm
- Low head loss
- Stem guided TriForce™ check valves
- Corrosion resistant
- Maximum pressure 1,200kPa
- Horizontal installation only
- Operating temp. range 1°C - 60°C
- AS2845.1 approved
- Designed, manufactured, assembled and tested in South Carolina, USA
- 5 year warranty

DIMENSIONS

Complete Valve Code Size	ARP65 65mm	ARP80 80mm	ARP100 100mm	ARP150 150mm
A (RPZ device length)	550	550	623	877
B (Height of assembly)	480	480	551	705
C (Length w/ bfly valves)	914	938	1079	1461
C (Length w/ gate valves)	1204	1252	1433	1881
Width of assembly	254	254	339	447
Weights	kg.	kg.	kg.	kg.
Net Wt. (Device Only)	44	46	66	162

PRODUCT CODES

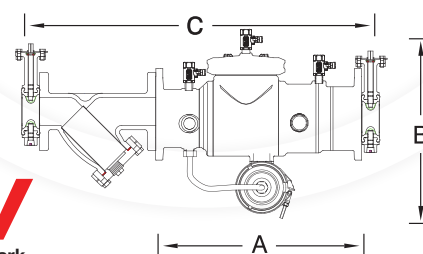
Code	Description
ARP65	RPZ Valve 65mm Complete
ARP80	RPZ Valve 80mm Complete
ARP100	RPZ Valve 100mm Complete
ARP150	RPZ Valve 150mm Complete

MATERIALS

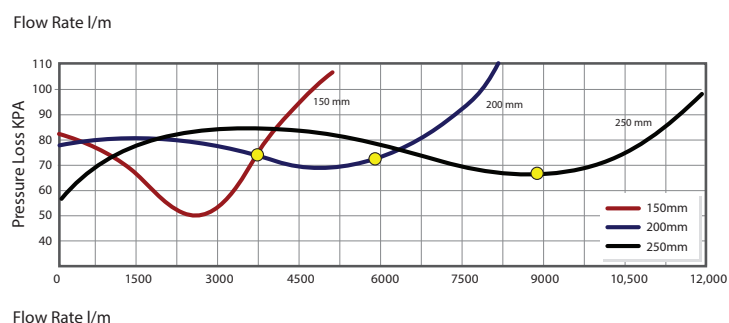
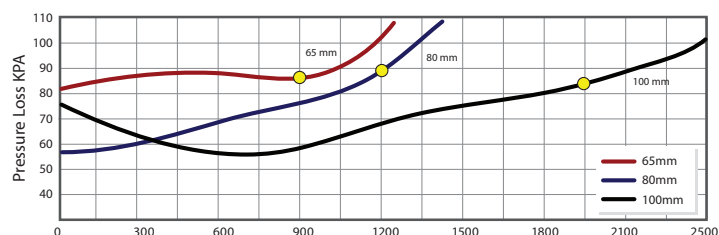
Part	Material
Body and covers	Epoxy Coated DI
Springs	Stainless Steel
Check Valves	PPO / Bronze / SS
Seat Discs	Silicone
Test Cocks	Bronze / SS handles
Relief Valve	Bronze



Sizes 65mm - 250mm



WaterMark
AS2845.1 WM-022183



Accessories - Backflow Preventers

BACKFLOW TEST KITS

BACKFLOW TEST KITS

The Backflow Preventer Test Kits are compact, lightweight and portable testing devices. They come equipped with a gauge, hoses (with integral filters) and all required adapter fittings. Also included is a laminated test procedure and a moulded plastic carrying case with foam inserts.

Code	Application
TK5V	All DCV and RPZ Devices
TC 1/8"	Test Cock
TC 1/4"	Test Cock



RPZ 4A Backflow Preventers

AIR GAP DRAIN

AIR GAP DRAIN

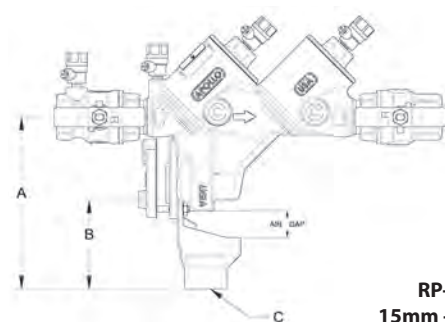
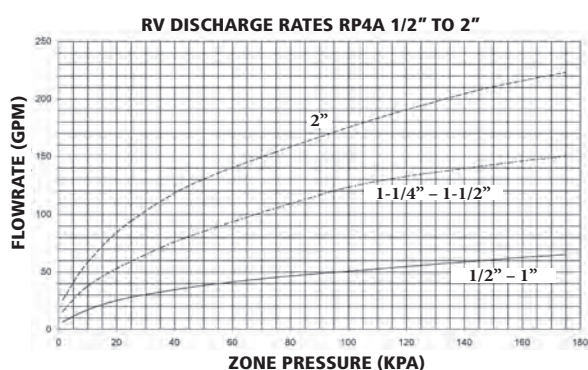
For installation with Apollo's RP 4A Series RPZ backflow preventers.

The Apollo Air Gap Drain (AGD) is designed to funnel minor relief valve discharges, due to line pressure fluctuations and /or minor check valve fouling, into the drainage system. Drain piping is easily attached to the drain's threaded bottom.

Note: The AGD is designed to collect expected minor discharges due to fouled checks or pressure fluctuations but not the full discharge capacity of the relief valve.

DIMENSIONS

RP4A Series	AGD4A Model No.	A (mm.)	B (mm.)	Wt. Kgs.
15mm - 25mm	AGD1525	165	86	.05
32mm - 40mm	AGD3240	216	104	.10

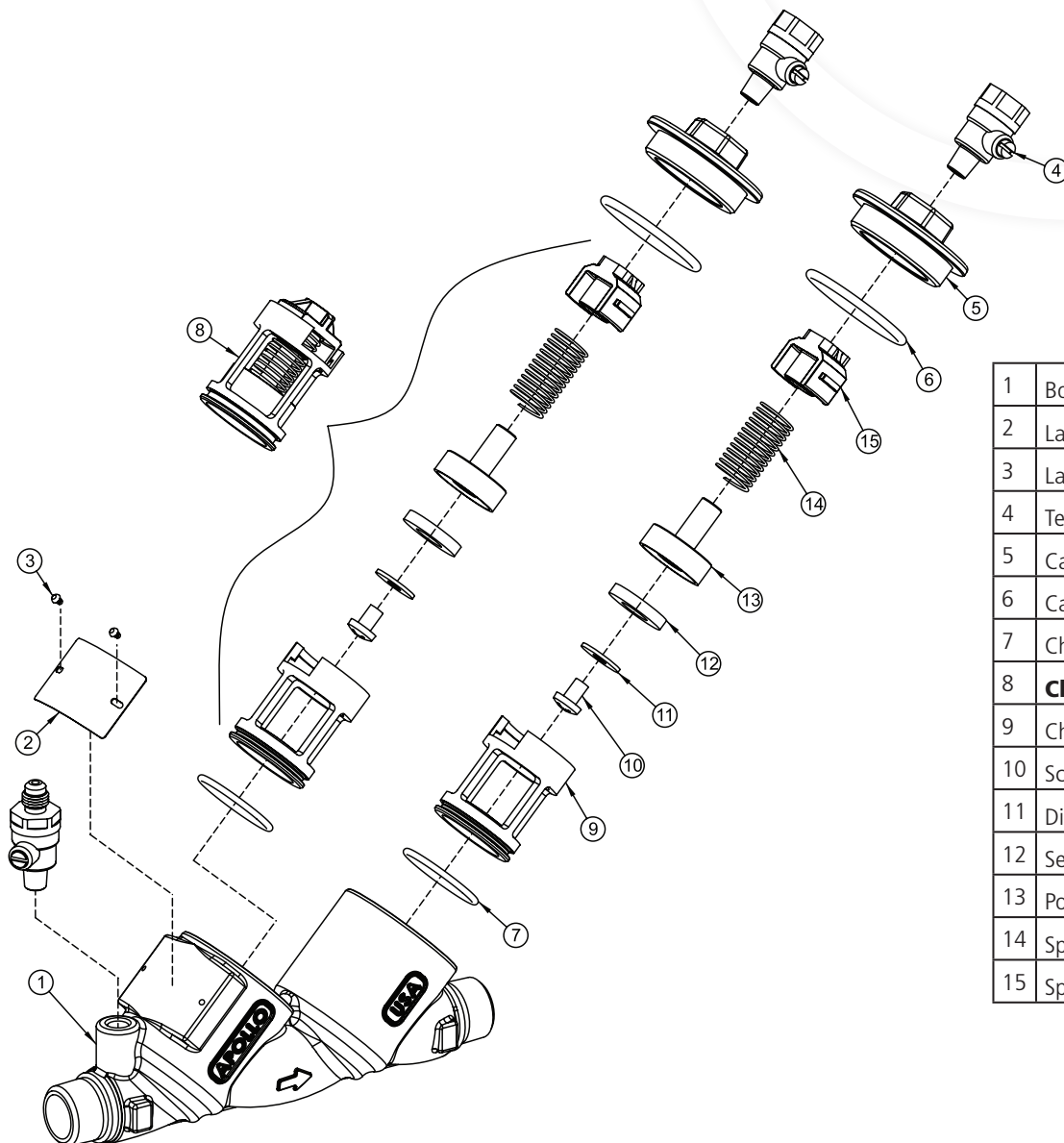


DVC 15mm - 50mm Repair Kits

4A-100 DCV APOLLO

4A-100 DCV APOLLO

Size	15mm	20mm	25mm	32-40mm	50mm
Check Rubber Repair Kit (x1) 6, 7, 11	ACVRK301	ACURK401	ACURK501	ACVRK701	ACURK801
Check Module Repair Kit 6, 7, 8	A2CRK302	A2CRK402	A2CRK502	A2CRK702	A2CRK802
Major Repair Kit 6 (2), 7 (2), 8 (2)	AMRK308	AMRK408	AMRK508	AMRK708	AMRK808



1	Body
2	Label Plate
3	Label Plate Tacks
4	Test Cock M x F
5	Cap
6	Cap O-Ring
7	Check Module O-Ring
8	Check Sub Assembly
9	Check Seat
10	Screw
11	Disc Retaining Washer
12	Seat Disc
13	Poppet
14	Spring
15	Spring Retainer

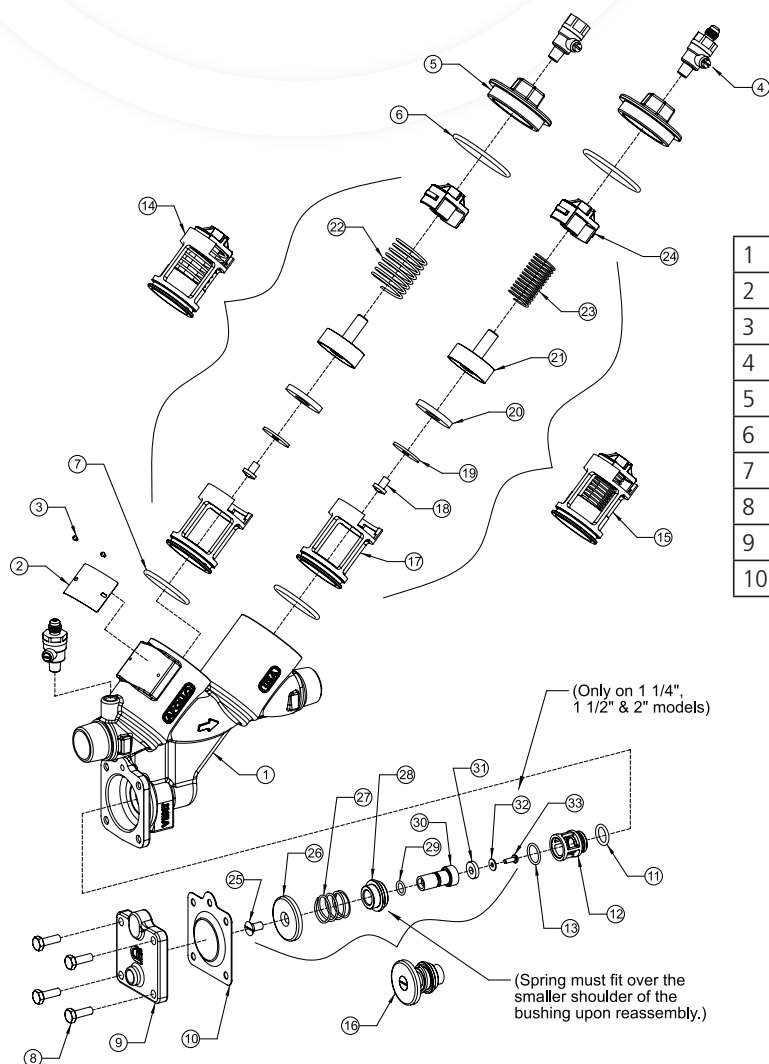
Plumbing ☯ Drainage ☯ Roofing ☯ Gas
☯ Solar ☯ Backflow ☯

RPZ 15mm - 50mm Repair Kits

4A-200 RPZ APOLLO

4A-200 RPZ APOLLO

Size	15mm	20mm	25mm	32-40mm	50mm
Check Rubber Repair Kit (x1) 6, 7, 20	ACVRK301	ACVRK401	ACVRK501	ACVRK701	ACVRK801
1st Check Complete Kit 6, 7, 14	A1CRK303	A1CRK403	A1CRK503	A1CRK703	A1CRK803
2nd Check Complete Kit 6, 7, 15	A2CRK302	A2CRK402	A2CRK502	A2CRK702	A2CRK802
Relief Valve Complete Kit 10, 11, 12, 13, 16	ARVK505	ARVK505	ARVK505	ARVK705	ARVK805
Rubber Repair Kit 6 (2), 7 (2), 10, 11, 13, 20 (2), 29, 31	ARRK309	ARRK409	ARRK509	ARRK709	ARRK809
Major Repair Kit 6 (2), 7 (2), 10, 11, 12, 13, 14, 15, 16	AMRK310	AMRK410	AMRK510	AMRK710	AMRK810



1	Body
2	Label Plate
3	Label Plate Tacks
4	Test Cock
5	Cap
6	Cap O-Ring
7	Check Module O-Ring
8	RV Cover Bolts
9	RV Cover
10	RV Diaphragm

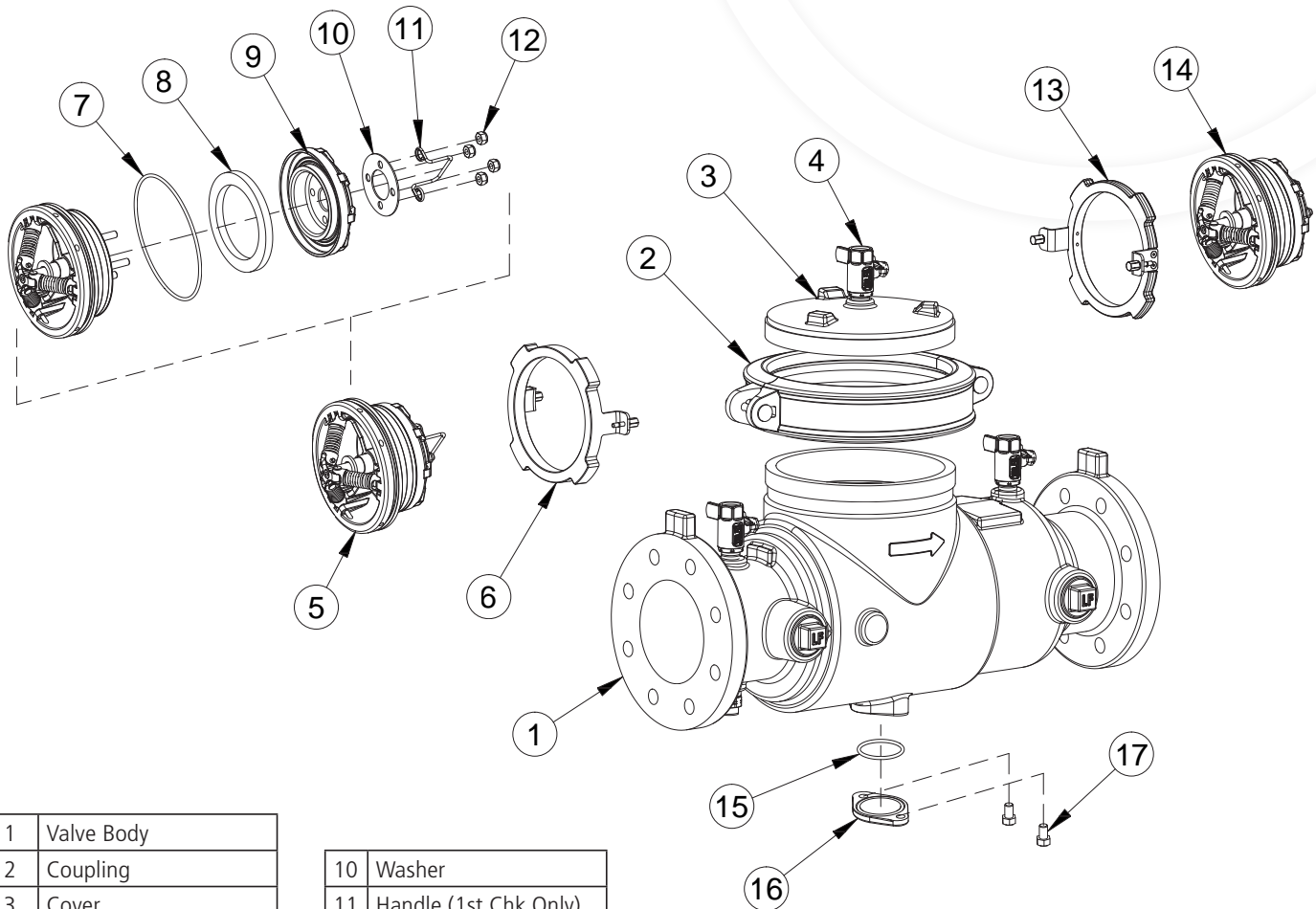
11	RV Seat O-Ring
12	RV Seat
13	RV Bushing Face O-Ring
14	1st Chk Sub Assembly
15	2nd Chk Sub Assembly
16	RV Sub Assembly
17	Check Seat
18	Screw
19	Disc Retaining Washer
20	Seat Disc
21	Poppet
22	Spring 1st Check
23	Spring 2nd Check
24	Spring Retainer
25	RV Diaph. Plate Screw
26	RV Diaphragm Plate
27	RV Spring
28	RV Bushing (Standard)
29	RV Stem O-Ring
30	RV Stem
31	RV Seat Disc
32	RV Seat Disc Washer
33	RV Seat Disc Screw

DCV 65mm - 150mm Repair Kits

4A-100 DCV APOLLO

4A-100 DCV APOLLO

Size	65-80mm	100mm	150mm
RPZ / DCV Check Rubber Repair Kit (single) 7, 8, 15	4A00001	4A00A01	4A00C01
DCV 1st Check Module 5	4A00000	4A00A00	4A00C00
RPZ / DCV 2nd Check Module 14	4A00002	4A00A02	4A00C02



1	Valve Body
2	Coupling
3	Cover
4	Test Cock, FxF
5	First Check Module
6	1st Check Retainer
7	Check Seat O-ring
8	Seat Disc
9	Disc Retainer

10	Washer
11	Handle (1st Chk Only)
12	Locknut
13	2nd Check Retainer
14	Second Check Module
15	O-ring, RV Port
16	RV Port Cover
17	Screw, 3/8-16 x .63"

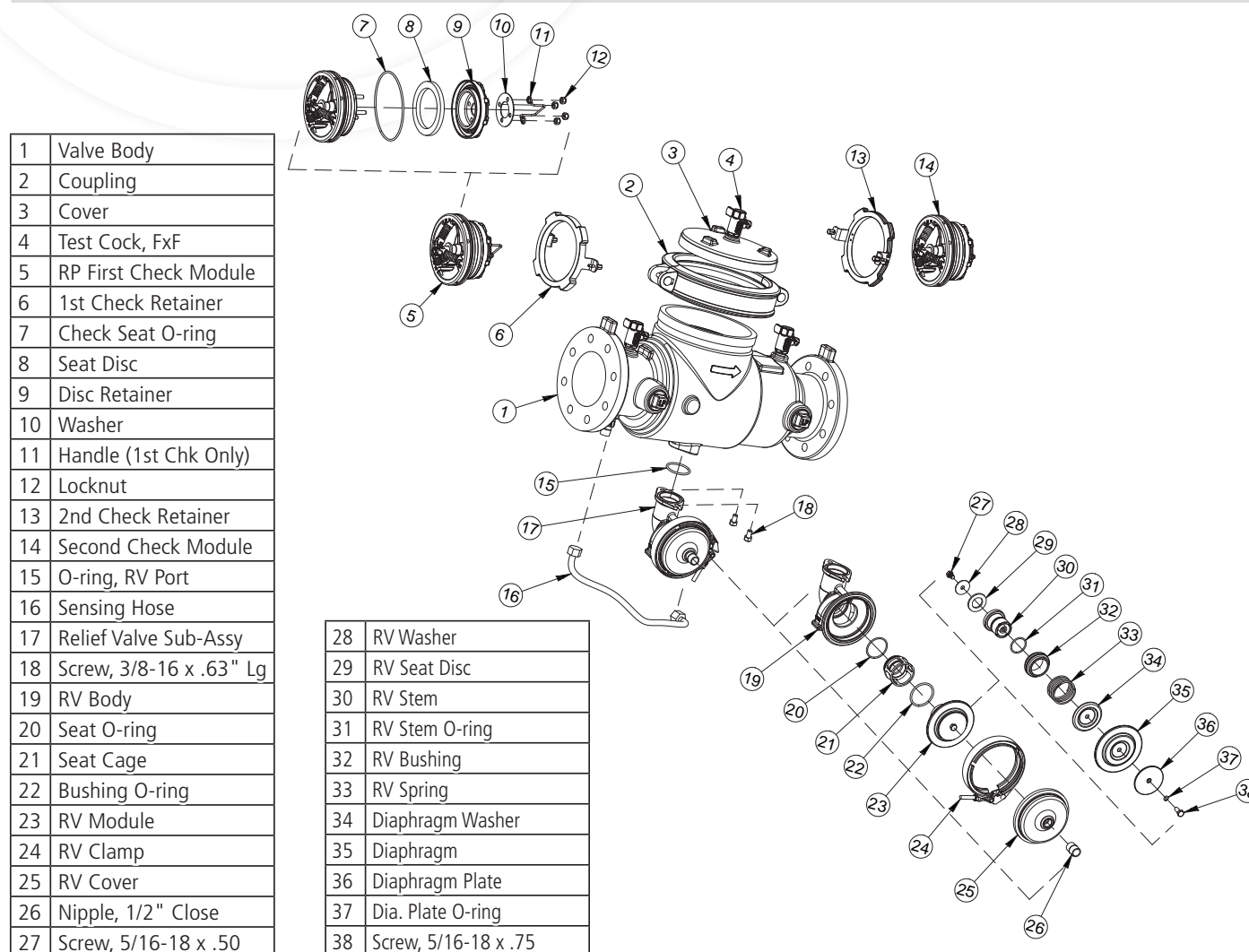
Plumbing ☯ Drainage ☯ Roofing ☯ Gas
☯ Solar ☯ Backflow ☯

RPZ 65mm -150mm Repair Kits

4A-200 RPZ APOLLO

4A-200 RPZ APOLLO

Size	65-80mm	100mm	150mm
RPZ Complete Rubber Repair Kit 7 (2), 8 (2), 15, 20, 22, 29, 31, 35, 37	4A00009	4A00A09	4A00C09
RPZ / DCV Check Rubber Repair Kit (single) 7, 8, 15	4A00001	4A00A01	4A00C01
RPZ 1st Check Module 5	4A00003	4A00A03	4A00C03
RPZ / DCV 2nd Check Module 14	4A00002	4A00A02	4A00C02
RPZ Relief Valve Rubber Kit 15, 20, 22, 29, 31, 35, 37	4A00C04	4A00C04	4A00C04
RPZ Relief Valve Complete Kit 15, 20, 21, 22, 23	4A00C05	4A00C05	4A00C05

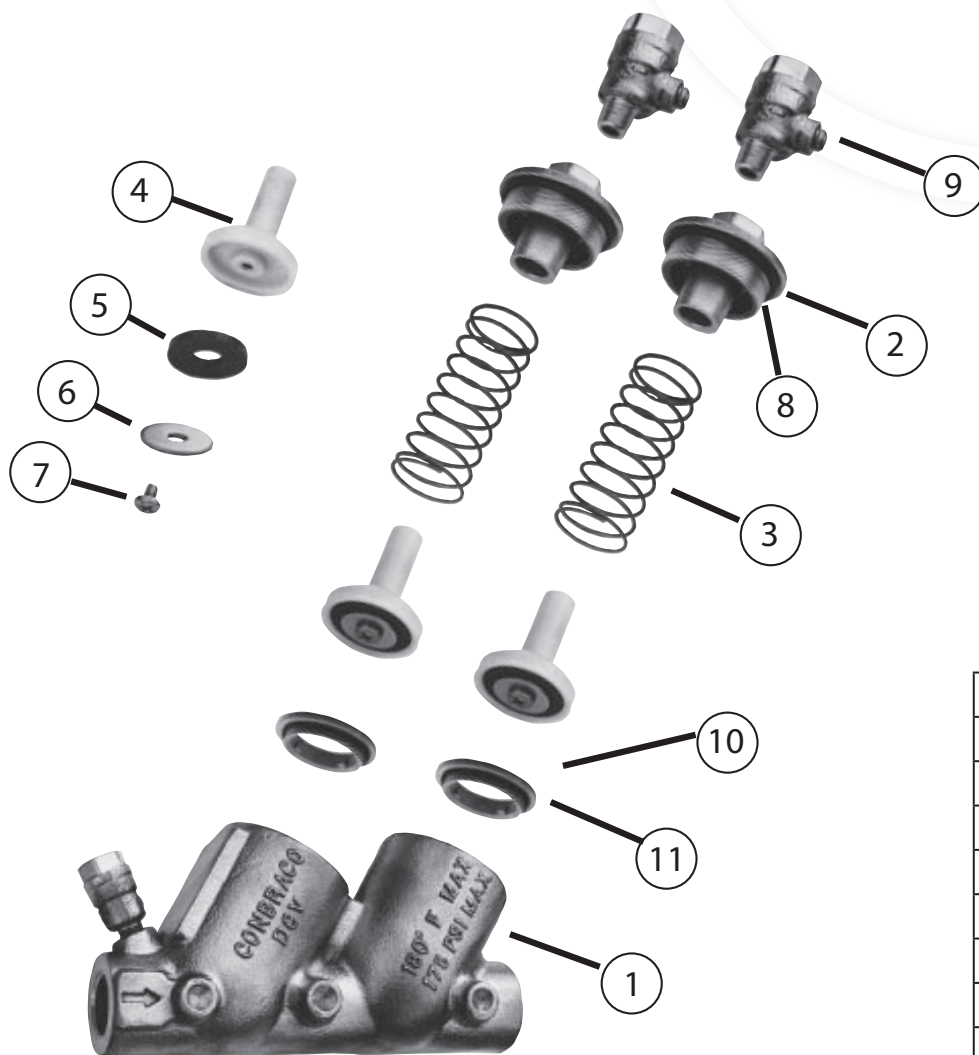


DCV 20mm - 50mm Repair Kits

40-100 DCV CONBRACO

40-100 DCV CONBRACO

Size	20mm-25mm	32mm-50mm
Major Repair Kit 4 (2), 5 (2), 6 (2), 7 (2), 8 (2), 10 (2), 11 (2)	40004A5	40007A5
Check Valve Repair Kit 4, 5, 6, 7, 8, 10, 11	40004A2	40007A2
Rubber Repair Kit 5 (2), 8 (2), 11 (2)	40004A6	40007A6
Seat Repair Kit 10 (2), 11 (2)	40004A8	40007A8



1	Body
2	Cap
3	Spring
4	Poppet
5	Seat Disc
6	Seat Retainer
7	Screw
8	Cap O-Ring
9	Test Cock
10	Check Seat
11	Check O-Ring

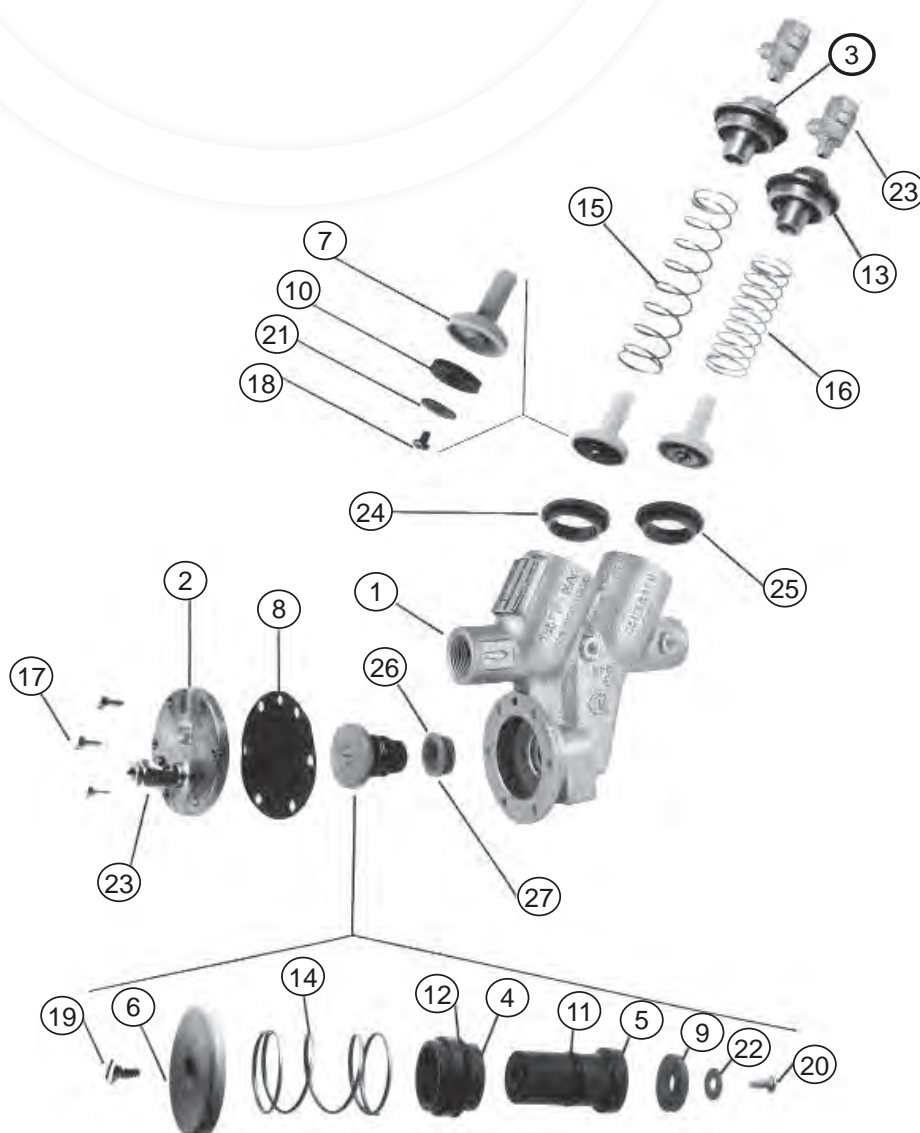
Plumbing ☯ Drainage ☯ Roofing ☯ Gas
☯ Solar ☯ Backflow ☯

RPZ 15mm - 50mm Repair Kits

40-200 RPZ CONBRACO

40-200 RPZ CONBRACO

Size	15mm	20mm-25mm	32mm-50mm
Major Repair Kit 4, 5, 6, 7 (2), 8, 9, 10 (2), 11, 12, 13 (2), 14, 18 (2), 19, 20, 21 (2), 22, 24 (2), 25 (2), 26, 27	40003A1	40004A1	40007A1
Check Valve Repair Kit 7, 10, 13, 18, 21, 24, 25	40003A2	40004A2	40007A2
Relief Valve Repair Kit 4, 5, 6, 8, 9, 11, 12, 14, 19, 20, 22, 26, 27	40003A3	40004A3	40007A3
Rubber Repair Kit 8, 9, 10 (2), 11, 12, 13 (2), 25 (2), 27	40003A4	40004A4	40007A4
Seat Repair Kit 24 (2), 25 (2), 26, 27	40003A7	40004A7	40007A7



1	Body
2	R.V. Cover
3	Cap
4	R.V. Bushing
5	R.V. Stem
6	Diaphragm Plate
7	Poppet
8	R.V. Diaphragm
9	R.V. Seat Disc
10	Check Seat Disc
11	Stem O-Ring
12	Bushing O-Ring
13	Check Cap O-ring
14	R.V. Spring
15	1st Check Spring
16	2nd Check Spring
17	Hex Head Bolt
18	Screw
19	Screw
20	Screw
21	Retaining Washer
22	Retaining Washer
23	Test Cock
24	Check Seat
25	Check O-Ring
26	R.V. Seat
27	R.V. O-Ring

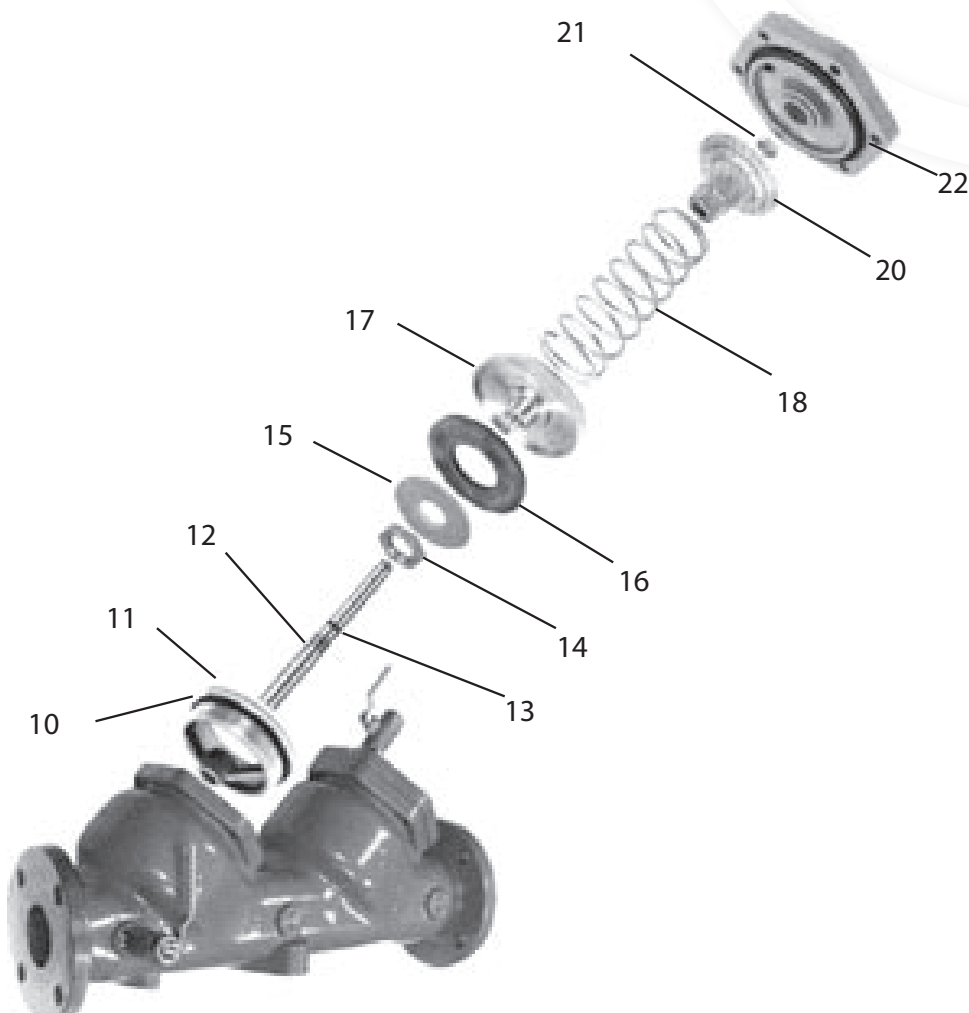


DCV 65mm - 150mm Repair Kits

40-100 DCV CONBRACO

40-100 DCV CONBRACO

Size	65-80mm	100mm	150mm
Check Valve Repair Kit 12, 13, 14, 15, 16, 17, 18, 20, 21, 22	4000902	4000A02	4000C02
Seat Repair Kit (10, 11, 22)	4000903	4000A03	4000C03
Rubber Repair Kit 2 of each (10, 13, 16, 22)	4000904	4000A04	4000C04



10	C.V Seat O-ring
11	C.V. Seat
12	C.V. Stem
13	C.V Stem O-ring
14	Retainer Nut
15	Retainer Washer
16	C.V. Seat Disc
17	Seat Disc Holder
18	1st Check Spring
19	2nd Check Spring
20	Spring Retainer
21	Jam Nut
22	Cap O-Ring

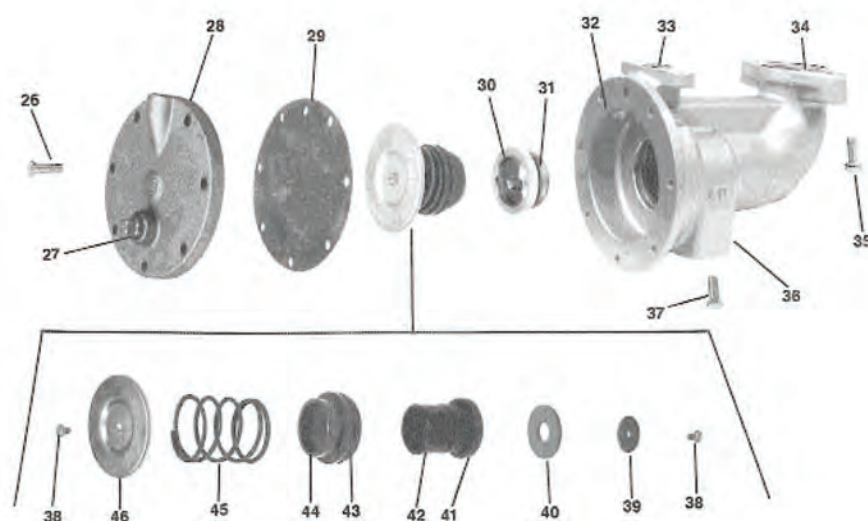
RPZ 65mm - 150mm Repair Kits

40 - 200 RPZ CONBRACO

40-200 RPZ CONBRACO

Size	65 - 80mm	100mm	150mm
1st Check Valve Repair Kit 12, 13, 14, 15, 16, 17, 18, 20, 21, 22	4000901	4000A01	4000C01
2nd Check Valve Repair Kit 12, 13, 14, 15, 16, 17, 19, 20, 21, 22	4000902	4000A02	4000C02
Seat Repair Kit 10, 11, 22	4000903	4000A03	4000C03
Rubber Repair Kit 2 of each (10, 13, 16, 22)	4000904	4000A04	4000C04
Relief Valve Repair Kit 29, 30, 31, 33, 34, 38, 39, 40, 41, 42	4000905	4000A05	4000C05
Relief Valve Rubber Repair Kit 29,31,33,34,40,42,43	4000906	4000A06	4000C06

FOR 65MM - 250MM RPZ VALVE DIAGRAM, REFER TO DOUBLE CHECK VALVE



26	Relief Valve Cover Bolt
27	1/2 NPT Plug
28	3/4 NPT Plug
29	Relief Valve Cover
30	Relief Valve Diaphragm
31	Relief Valve Seat Ring
32	Relief Valve Seat Ring
33	Relief Valve Body
34	Small Relief Valve O-Ring
35	Large Relief Valve O-Ring
36	Relief Valve Flange Bolt
37	1/4 NPT Plug
38	Relief Valve Flange Bolt
39	Pan Head Screw
40	Relief Valve Seat Washer
41	Relief Valve Seat Disc
42	Relief Valve Stem
43	Relief Valve Stem O-Ring
44	Relief Valve Bushing O-Ring
45	Relief Valve Bushing
46	Relief Valve Spring
47	Diaphragm Plate

Lug Type Butterfly Valves

BUTTERFLY VALVES

7202 LUG TYPE BUTTERFLY VALVES

- Pressure Rating: PN16
- Working Medium: Water, Oil
- Working Temp -20° to 110° (EPDM)
- Comply with ISO 5752 / BSS 155 / BSEN 5931

BILL OF MATERIALS

Description	Material	Spec
Body	Cast Iron	A 126 Class B
Disc	Stainless Steel	AC51-CF8
Shaft	Stainless Steel 304	276 8 410 00
Seat	Carbon Steel	EPDM / NBR



Code	Description	Width (mm)	Height (mm)
BFV65F	Butterfly Valve 65mm Female	45	294
BFV80F	Butterfly Valve 80mm Female	45	307
BFV100F	Butterfly Valve 100mm Female	51	344
BFV150F	Butterfly Valve 150mm Female	56	395

IFY Y-Type Strainer

Y STRAINERS

IFY Y-TYPE STRAINER

- Pressure rating: PN16
- Flange dimension confirm to EN1092-2
- Testing conform to BS6755

BILL OF MATERIALS

Description	Material	Spec
Body	Cast Iron	EN-JL 1040
Cap	Cast Iron	EN-JL 1050 EN-JL 1040
Screen	Stainless Steel 304	BS907 304S15
Blow-Off Plug	Carbon Steel	



Code	Description	Length (mm)	Height (mm)
IFY65	Inline Filter 65mm	273	188
IFY80	Inline Filter 80mm	292	213
IFY100	Inline Filter 100mm	352	226
IFY150	Inline Filter 150mm	470	301

Plumbing ☯ Drainage ☯ Roofing ☯ Gas
☯ Solar ☯ Backflow ☯ AVG Valves

SINGLE JET WATER METER

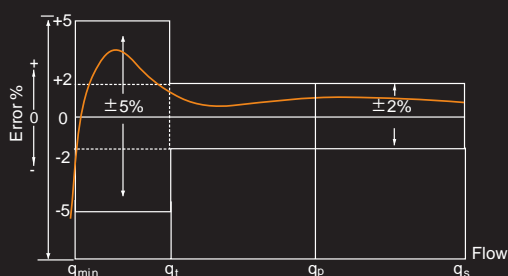
OPERATION:

The water enters the meter from the inlet of the meter body and impacts the vane wheel at the tip of the vane blades to make it rotate. The rotation of the vane wheel (proportional to the velocity of water flow) is transmitted directly to the central gear in the vacuum-sealed register by the magnetic coupling. The sealed register totalizes and indicates the water volume passing through the meter.

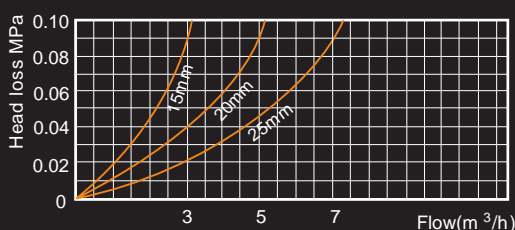
FEATURES

- Wet, dry or liquid sealed register optional
- For hot or cold water
- Small, light
- Brass body or plastic body, optional
- Brass body can be painted or nickel coated
- High accuracy
- Pulse Unit (Reed switch) for remote readout systems
- Standard 1 pulse per 1 litre
- For measuring consumption of individual apartments
- For horizontal and vertical installation
- ISO4064:1993 Class B/Class C
- ISO4064:2005 R80/R160

ERROR CURVE



HEAD LOSS CURVE



Single Jet Water Meter WM15 - 20SJ

WORKING CONDITION:

- Water temperature $\leq 50^{\circ}\text{C}$ (Hot water meter $\leq 90^{\circ}\text{C}$)
- Water pressure $\leq 1\text{MPa}$ (PN: 1.6Pa/16bar)
- $\Delta P \leq 0.1\text{ MPa}$
 $\Delta P \leq 0.063\text{MPa}$ (R80/R100)



Note - Water Meter Tails included.

Nominal Size DN (mm)	Class of measurement	Overload flow-rate $q_s(\text{m}^3/\text{h})$	Permanent flow-rate $q_p(\text{m}^3/\text{h})$	Transitional flow-rate $q_t(\text{l/h})$	Minimum flow-rate $q_{\min}(\text{l/h})$
15	B	3	1.5	120	30
20	B	5	2.5	200	50

OVERALL DIMENSIONS AND WEIGHT

Product Code	Size (mm)	Length (mm) L	Width (mm) W	Height (mm) H	Connecting Thread D	Weight (kg)
WM15SJ	15	80/110	70	72.5	G 3/4" B	0.37
WM20SJ	20	130	70	72.5	G 1" B	0.53

Plumbing ⊖ Drainage ⬆ Roofing ⬆ Gas
⊕ Solar ⊕ Backflow ⊕

MULTI JET WATER METER

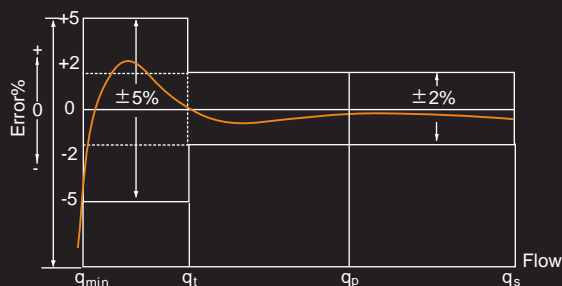
OPERATION:

The water enters the meter from the inlet of the meter body and impacts the vane wheel at the tip of the vane blades to make it rotate. The water flows out from the outlet of the body. The rotation of the vane wheel (proportional to the velocity of water flow) is transmitted directly to the central gear in the vacuum-sealed register by the magnetic coupling. The sealed register totalizes and indicates the water volume passing through the meter.

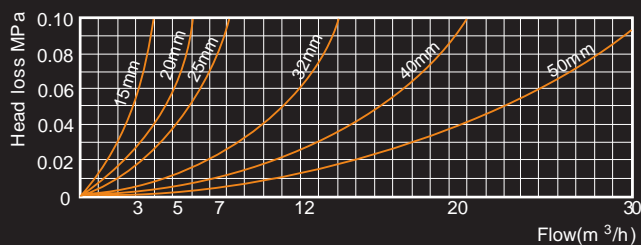
FEATURES

- Wet, dry or liquid sealed
- For hot or cold water
- Small, light
- Brass body or plastic body, optional
- Brass body can be painted or nickel coated
- High accuracy
- Pulse Unit (Reed switch) for remote readout systems
- ISO4064:1993 Class B/Class C
- ISO4064:2005 R80/R160

ERROR CURVE



HEAD LOSS CURVE



LXSY-15E/B~50W (Class C)
LXSG(R)-15E₁~50E₁
LXSG(R)-15E₅~40E₅
LXSG(R)-15E₇~50E₇

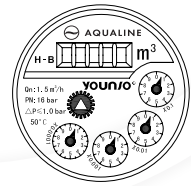
LXSG(R)-15E/S~40E/S
LXSF(R)-15E/F~50E/F
LXSF(R)-15E₅/F~20E₅/F



Multi Jet Water Meter WM25 - 50MJ

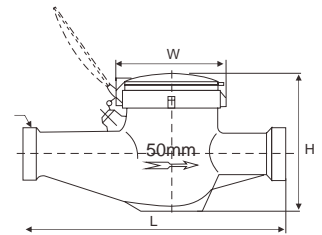
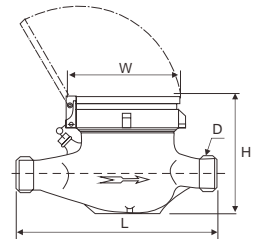
WORKING CONDITION:

- Water temperature 90°C
- Water pressure $\leq 1\text{MPa}$
(PN: 1.6MPa/16bar)
- $\Delta P \leq 0.1\text{ MPa}$ (Class B/Class C)
 $\Delta P \leq 0.063\text{MPa}$ (R80/R100/R160)



Note - Water Meter Tails included.

Nominal Size DN (mm)	Class of measurement	Overload flow-rate $q_s(\text{m}^3/\text{h})$	Permanent flow-rate $q_p(\text{m}^3/\text{h})$	Transitional flow-rate $q_t(\text{l/h})$	Minimum flow-rate $q_{\min}(\text{l/h})$
25	B	7	3.5	280	70
32	B	12	6.0	480	120
40	B	20	10	800	200
50	B	30	15	3000	450



OVERALL DIMENSIONS AND WEIGHT

Product Code	Size (mm)	Length (mm) L	Width (mm) W	Height (mm) H	Connecting Thread D	Weight (kg)
WM25MJ	25	225/260	104	120	G 1/4" B	2.4
WM32MJ	32	230/260	104	120	G 1/2" B	2.8
WM40MJ	40	245/300	120	155	G 2" B	5.1
WM50MJ	50	280/300	125	155	G 2 1/2" B	7.2

Plumbing ⊖ Drainage ⬆ Roofing ⬆ Gas
⊕ Solar ⬆ Backflow ⊕

WOLTMAN WATER METER

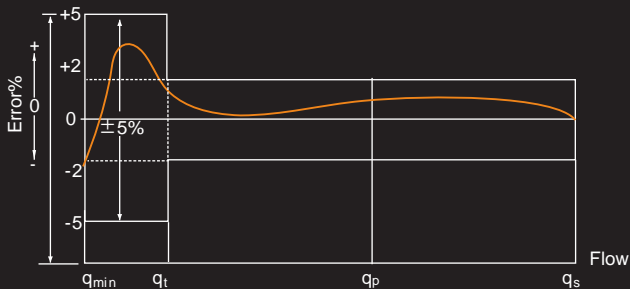
OPERATION:

Woltman meters measure the velocity of the water flowing through with the help of a turbine. The volume is mechanically calculated, through the known volume of the measuring chamber, and indicated with the roller counters in cubic meter.

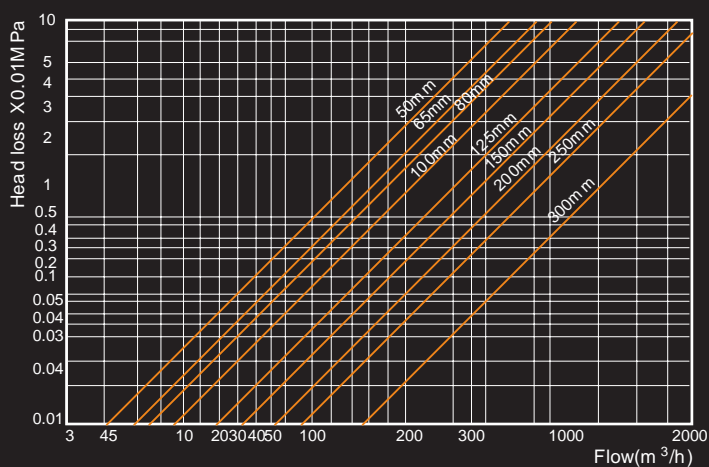
FEATURES

- Fit for big water flow
- Low starting flow
- Stable and high accuracy
- Low pressure loss
- Epoxy coated cast iron body
- Pulse Unit (Reed switch) for remote readout systems
- Long working life
- Fit for hard water
- Types: horizontal, vertical and removable
- For horizontal, vertical and inclined installation positions
- The meters conform to ISO4064 Standard

ERROR CURVE



HEAD LOSS CURVE



Woltman Dynamic Turbine Meter WM50 - 150DT

FEATURES:

- Hermetically sealed register (IP68)
- Hydrodynamically balanced system
- High overload capability
- Pattern approved removable measuring element
- Powder coating affords max. corrosion protection
- Not affected by external magnetic fields

WORKING CONDITION:

- Water temperature $\leq 50^{\circ}\text{C}$ (Hot water meter $\leq 90^{\circ}\text{C}$)
- Water pressure $\leq 1\text{MPa}$ (PN: 1.6MPa/16bar)
- $\Delta P \leq 0.03\text{MPa}$

ACCURACY:

- From minimum flow-rate (q_1) inclusive, to transitional flow-rate (q_2), exclusive: $\pm 5\%$
- From transitional flow-rate (q_2) inclusive, to overload flow-rate (q_4), exclusive: $\pm 2\%$
(Hot water meter: $\pm 3\%$)

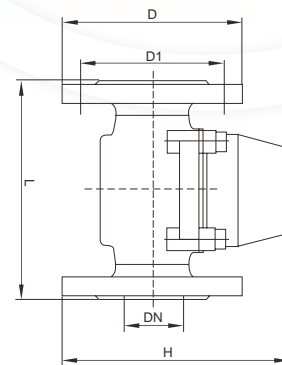
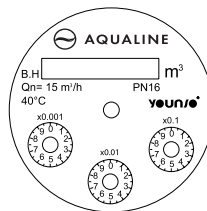
Note - Includes Dressing Set.

TECHNICAL DATA:

Nominal Size DN (mm)	Class of measurement	Overload flow-rate $q_s(\text{m}^3/\text{h})$	Permanent flow-rate $q_p(\text{m}^3/\text{h})$	Transitional flow-rate $q_t(\text{l/h})$	Minimum flow-rate $q_{\min}(\text{l/h})$	Minimum reading $M_{\min}(\text{m}^3)$	Maximum reading $M_{\max}(\text{m}^3)$
50	R100	50	40	0.64	0.4	0.01	9999999
80	R100	78.75	63	1.008	0.63	0.01	9999999
100	R100	125	100	1.6	1	0.01	9999999
150	R100	300	250	4	2.5	0.1	9999999

OVERALL DIMENSIONS AND WEIGHT

Product Code	Size (mm)	Length (mm) L	Width (mm) W	Height (mm) H	Outer diameter of flange D (mm)	Center diameter of connection bolt D1 (mm)	Connecting bolt (Pcs.)	Weight (kg)
WM50DT	50	200	165	200	160	125	4 x M16	19
WM80DT	80	200/225	200	245	195	160	8 x M16	26/27
WM100DT	100	250	200	245	215	180	8 x M16	29
WM150DT	150	285	285	350	285	240	8 x M20	35



Plumbing ☯ Drainage ☯ Roofing ☯ Gas
☯ Solar ☯ Backflow ☯



WARRANTY AND LIMITATIONS OF LIABILITY

Conbraco Industries, Inc. warrants, to its initial purchaser only, that its products which are delivered to this initial purchaser will be of the kind described in the order or price list and will be free of defects in workmanship or material for a period of FIVE years from the date of delivery to you, our initial purchaser. This warranty applies to Apollo brand product with "Made in the USA" markings only.

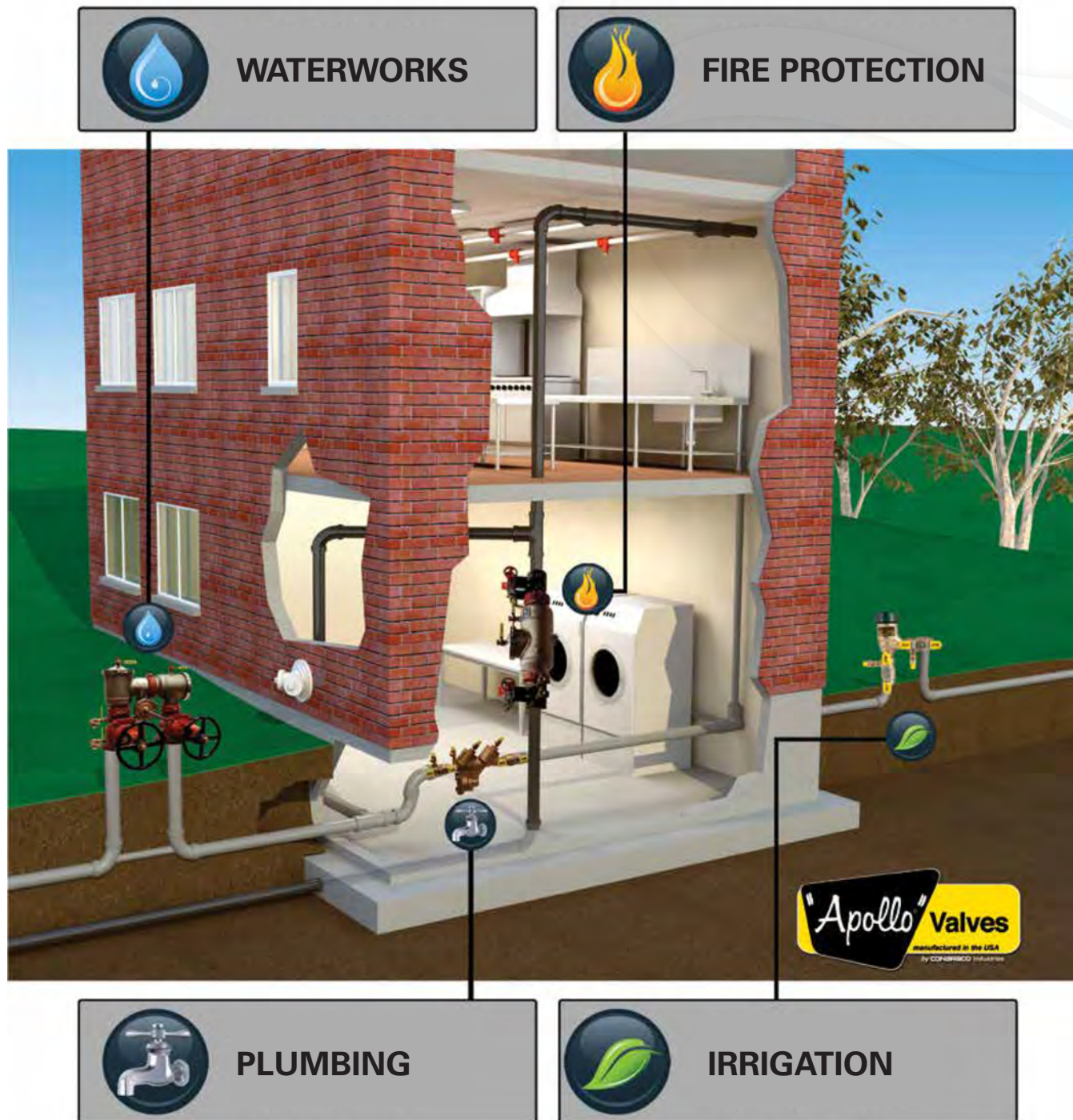
Should any failure to conform to this warranty appear within FIVE years after the date of the initial delivery to our initial purchaser, Conbraco will, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with Conbraco's recommendations and standard industry practice, correct such defects by suitable repair or replacement at Conbraco's own expense.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY, WHETHER EXPRESSED OR IMPLIED, EXCEPT THE WARRANTY OF TITLE AND AGAINST PATENT INFRINGEMENT. Correction of non-conformities, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of Conbraco to our initial purchaser, with respect to the goods, whether based on contract, negligence, strict tort or otherwise. It is the intention of Conbraco Industries, Inc. that no warranty of any kind, whether expressed or implied shall pass through our initial purchaser to any other person or corporation.

LIMITATION OF LIABILITY: Conbraco Industries, inc. SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS, BUT NOT LIMITED TO, DAMAGES OR TO LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, COST OF PURCHASED OR REPLACEMENT GOODS, OR CLAIMS OF CUSTOMERS OF OUR INITIAL PURCHASER. THE REMEDIES OF OUR INITIAL PURCHASER, AND ALL OTHERS, SET FORTH HEREIN, ARE EXCLUSIVE, AND THE LIABILITY OF CONBRACO WITH RESPECT TO SAME SHALL NOT, EXCEPT AS EXPRESSLY PROVIDED HEREIN, EXCEED THE PRICE OF THE GOODS UPON WHICH SUCH LIABILITY IS BASED.

* It is the end user's responsibility to confirm that items intended for use satisfy local codes and standards.





Plumbing ⊖ Drainage ⬆ Roofing ⬆ Gas
 ☼ Solar ⬆ Backflow ⊕



CONSOLIDATED B
DETROIT



AQUALINE



BRASS COMPANY MICHIGAN

Plumbing ⊖ Drainage ⬆ Roofing ⬆ Gas
⊕ Solar ⬆ Backflow ⊕

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NOTES

This image shows a full page of white paper with horizontal blue or grey ruling lines. In the top right area, there is a large, very light, semi-transparent watermark. The watermark appears to be a circular emblem containing some stylized text or a logo, though it is too faded to read clearly. The rest of the page is empty except for the lines.



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