

**"Apollo"® Valves**

waterworks solutions



[aalberts-ips.us](http://aalberts-ips.us)  
customer service 704.841.6000

**aalberts** integrated  
pipng systems



## about "Apollo"



Now in its tenth decade, the "Apollo" brand is manufactured under the company name, Aalberts integrated piping systems, in 3 locations throughout South Carolina.

"Apollo" has a history of new product development and innovation that dates back to the company's inception in 1928. Today, the "Apollo" line of products includes ball valves; butterfly valves; backflow prevention devices; ground key cocks for gas, air gasoline, steam and water; safety relief valves; water gauges; pipeline strainers; vacuum breakers; valves actuators and more.

"Apollo" has vertically integrated manufacturing to ensure a consistency of production, testing, quality and availability. Its assurance that "Apollo" products will deliver long term performance advantages. All "Apollo" manufacturing sites are registered to ISO 9001 quality standards.

The "Apollo" line continues to expand with new products, designs and advanced materials to better serve the needs of our customers in chemical processing, pulp and paper, petroleum, residential and commercial plumbing and heating, manufacturing and other markets.







# waterworks and backflow prevention

innovative products that help protect the clean potable water supply; offering superior pressure drop ratings, best-in-class ease of maintenance, minimal size and shape, and proudly made in the USA.

- American iron & steel options
- factory tested
- industry leading 5 year warranty
- unmatched flow performance
- designed for ease of maintenance
- complete solutions for waterworks & backflow
- low cost of ownership
- stainless steel options for harsh conditions
- multiple agency approvals and listings
- large selection of products



## DCLF 4A

double check assembly



the 2-1/2" – 12" backflow preventer shall be an Apollo model DCLF4A lead free\* double check valve. the assembly shall be manufactured in america and carry a 5-year Apollo factory warranty. the TriForce™ center stem guided check valves shall feature reversible silicone rubber seat discs. the check valves shall be held in place by stainless steel snap-in retainers (2-1/2" – 6") or stainless steel studs & nuts (8" – 12"). access to the check valves shall be by an Apollo quick-connect stainless steel coupling (2-1/2" – 6") or grooved couplings (8" – 12"). the bodies shall be stainless steel in 2-1/2" – 8" sizes and FDA epoxy coated ductile iron in 10" & 12" sizes. the lead free\* Apollo ball valve test cocks shall have stainless steel handles. the assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. the pressure drop across the assembly shall be documented by ASSE or USC FCCC&HR approval curves.

### 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 approval laboratory
- center stem guided triforce™ check valves
- approved for horizontal and vertical flow up
- chloramine-resistant elastomers
- lead free standard
- US patent Nos. 6,443,184; 7,025,085; 7,533,699
- made in the USA (D Option)
- 5 year warranty

### • approvals

- ASSE 1015-2011
- CSA B64.5
- approved by the foundation for cross-connection control and hydraulic research at the university of southern california (2-1/2" - 12")
- AWWA C-510
- IAPMO
- UL, ULC classified
- FM approved
- NSF/ANSI 61 water quality (2-1/2" - 12")
- NSF/ANSI 372 lead free (2-1/2" - 12")

### performance rating

- maximum working pressure: 175 psi
- temperature range: 33°F - 140°F
- hydrostatic test pressure: 350 psi

## DCLF 4AN

double check valve backflow preventer



the 2-1/2" – 12" backflow preventer shall be an Apollo model DCLF4AN lead free\* double check valve. the assembly shall be manufactured in America and carry a 5-year Apollo factory warranty. the TriForce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. the check valves shall be held in place by drop-in retainers (2-1/2" – 6") or SS studs & nuts (8" – 12"). access to the check valves shall be by an Apollo quick-connect SS coupling (2-1/2" – 6") or grooved couplings (8" – 12"). the bodies shall be domestic SS in 2-1/2" – 8" sizes and FDA epoxy coated ductile iron in 10" & 12" sizes. the lead free\* Apollo ball valve test cocks shall have SS handles. the assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. the pressure drop across the assembly shall be documented by an independent laboratory.

### 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
- lead free standard
- small installation space required - small footprint
- chloramine-resistant elastomers
- optional valve setters eliminate need for thrust blocks
- US patent Nos.: 6,443,184; 7,025,085; 7,533,699
- 5 year warranty
- made in the USA (D Option)

### approvals

- approved by the foundation for cross-connection control and hydraulic research at the university of southern california (2-1/2" - 12")
- ASSE 1015-2011
- AWWA C-510 (2-1/2" - 12")
- UL, ULC classified
- FM approved
- CSA B64.5
- NSF/ANSI 61 water quality (2-1/2" - 12")
- NSF/ANSI 372 lead free (2-1/2" - 12")

### performance rating

- maximum working pressure: 175 psi
- temperature range: 33°F - 140°F, 180°F intermittent

## DCDALF4A / DCDA4LF4A

double check detector assembly



the 2-1/2" - 12" double check detector assembly shall be an Apollo model DCDALF 4A or DCDA2LF 4A. the assembly shall be manufactured in America and carry a 5-year Apollo factory warranty. the TriForce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. the check valves shall be held in place by SS snap-in retainers (2-1/2" - 6") or SS studs & nuts (8" - 12"). Access to the check valves shall be by an Apollo quick-connect SS coupling (2-1/2" - 6") or grooved couplings (8" - 12"). The bodies shall be domestic SS in 22-1/2" - 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. the assembly consists of a mainline double check valve with a type 2 bypass (Type 1 optional) consisting of a lead free\* single check (SCV) and meter bypassing the mainline second check to prevent backflow while accurately measuring all flows up to 2 gpm while the mainline 2nd check remains closed. assemblies with the optional type 1 bypass consist of a lead free\* double check valve and meter which bypass both mainline checks and accurately meter all flows up to 2 gpm with the mainline checks closed. the Apollo lead free\* ball valve test cocks shall have SS handles. the pressure drop across the assembly shall be documented by an independent laboratory. the assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards.

### 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™ check valves
- approved for horizontal (2-1/2"-12") and vertical flow up (2-1/2" - 8")
- US patent Nos. 6,443,184; 7,025,085; 7,533,699
- made in the USA (D option)
- 5 year warranty

### performance rating

- maximum working pressure: 175 psi
- temperature range: 33° F - 140° F
- hydrostatic test pressure: 350 psi

### approvals

- ASSE 1048\*, CSA B64.5, FM, UL\*, cUL\*
- NSF/ANSI 61 - water quality
- NSF/ANSI 372 - lead free
- approved by the foundation for cross-connection control and hydraulic research at the university of southern california (2-1/2" - 8" Type 1 & Type 2, 10" - 12" type 2 only)

\*ASSE, UL, and cUL installations must include indicating-type shut-off valves

## DCDALF4A / DCDA4LF4A

double check detector assembly



the 2-1/2" - 12" lead free double check detector assembly shall be an Apollo model DCDALF4AN or DCDA2LF4AN. the assembly shall be manufactured in America and carry a 5-year Apollo factory warranty. the TriForce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. the check valves shall be held in place by drop-in retainers (2-1/2" - 6") or SS studs & nuts (8" - 12"). access to the check valves shall be by an Apollo quick-connect SS coupling (2-1/2" - 6") or grooved couplings (8" - 12"). the bodies shall be domestic SS in 2-1/2" - 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. the assembly is a mainline double check valve with a type 2 bypass consisting of a lead free\* single check (SCV) and meter bypassing the mainline second check to prevent backflow while accurately measuring all flows up to 2 gpm with the mainline 2nd check remaining closed. assemblies with the optional Type 1 bypass consist of a lead free\* double check valve and meter which bypasses both mainline checks and accurately meters all flows up to 2 gpm with both mainline checks closed. the Apollo ball valve test cocks shall have SS handles. the assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. the pressure drop across the assembly shall be documented by an independent laboratory.

### 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
- 5 year warranty
- small installation space required - small footprint
- chloramine-resistant elastomers
- lead free standard
- optional valve setters eliminate need for thrust blocks below grade
- us patent nos.: 6,443,184; 7,025,085; 7,533,699
- made in the usa (d option)
- optional mounting of bypass on either side for ease of installation

### approvals

- ASSE 1048 (with meter)
- UL, ULC classified
- CSA B64.5
- approved by the foundation for cross-connection control and hydraulic research at the university of southern california (2-1/2" - 8" type 1 bypass, 10" - 12" type 2 only)
- FM approved
- NSF/ANSI 61 water quality
- NSF/ANSI 372 lead Ffree

### performance rating

- maximum working pressure: 175 psi
- temperature range: 33°F - 140°F, 180°F intermittent



## RPLF 4A series

reduced pressure principle backflow preventer assembly



the Apollo model RPLF 4A lead free 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.

### 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™ check valves
- approved for horizontal flow
- US Patents: 6,443,184; 7,025,085; 7,533,699; 8,240,333
- **made in the USA** – D option
- 5 year warranty

### performance rating

- maximum working pressure: 175 psi
- temperature range: 33° F – 140° F
- hydrostatic test pressure: 350 psi

### approvals

- sizes 2-1/2" – 12": AWWA C511
- sizes 2-1/2" – 12": ASSE 1013-2011, CSA B64.4, FM, IAPMO, UL\*, cUL\*
- NSF/ANSI 61 water quality (2-1/2" - 12")
- NSF/ANSI 372 lead free (2-1/2" – 12")
- 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**

## RPLF4AN series

reduced pressure principle backflow preventer



the 2-1/2" – 12" lead free reduced pressure principle backflow preventer shall be an Apollo model RPLF4AN lead free\*. the assembly shall be manufactured in america and carry a 5-year Apollo factory warranty. the normally vertical up / vertical down (n-shape) oriented body shall incorporate an internal swivel connection providing the ability to pivot the second check 180°, producing a vertical up rp assembly. the triforce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. the check valves shall be held in place by drop-in retainers (2-1/2" – 6") or ss studs & nuts (8" – 12"). access to the check valves and relief valve internals shall be by an Apollo quick-connect ss coupling (2-1/2" – 6") or grooved couplings (covers) and ss bolts (relief valves) (8" – 12"). the bodies shall be domestic ss in 2-1/2" – 8" sizes and fda epoxy coated ductile iron in 10" & 12" sizes. the lead free\* Apollo ball valve test cocks shall have ss handles. the assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are health or non-health hazards. the pressure drop across the assembly shall be documented by an independent laboratory.

### 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™ check valves
- small installation space required – small footprint
- approved for n-flow (2-1/2" – 12") and vertical flow up (2-1/2" – 8")
- US patents: 6,443,184; 7,025,085; 7,533,699; 8,240,333
- made in the USA (D option)

### performance rating

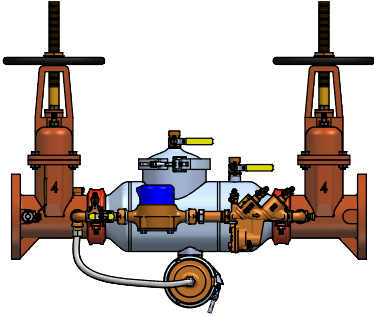
- maximum working pressure: 175 psi
- temperature range: 33° F – 140° F
- hydrostatic test pressure: 350 psi

### approvals

- sizes 2-1/2 - 12": AWWA C511
- sizes 2-1/2 - 12": ASSE 1013-2011, CSA B64.4, FM, IAPMO, UL\*, cUL\*
- NSF/ANSI 61 lead free (sizes 2-1/2 - 12")
- NSF/ANSI 372 water quality (sizes 2-1/2 - 12")
- 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**

## RPDALF4A/RPDA2LF4A series reduced pressure detector assembly



### description

the 2-1/2" - 12" lead free reduced pressure detector assembly shall be an Apollo model RPDALF4A or RPDA2LF4A. the assembly shall be manufactured in America and carry a 5-year Apollo factory warranty. the TriForce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. the check valves shall be held in place by SS snap-in retainers (2-1/2" - 6") or SS studs & nuts (8" - 12"). access to the check valves and relief valve internals shall be by an Apollo quick-connect SS coupling (2-1/2" - 6") or grooved couplings (covers) and SS bolts (relief valves) (8" - 12"). the bodies shall be SS in 2-1/2" - 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. the assembly is a mainline RP with a Type 2 bypass consisting of a lead free\* single check valve (SCV) and meter bypassing the mainline second check to prevent backflow while accurately measuring all flows up to 2 gpm with the mainline 2nd check remaining closed. assemblies with the optional type 1 bypass consist of a lead free\* RP and meter which bypasses both mainline checks and accurately meters all flows up to 2 gpm with both mainline checks closed. the Apollo ball valve test cocks shall have SS handles. both RP relief valves shall be positioned at the bottom of their respective assemblies with separate center-access covers. the pressure drop across the assembly shall be documented by an independent laboratory. the assembly shall prevent contamination of the potable water supply due to back-siphonage or back pressure from substances that are health or non-health hazards.

### 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 approval laboratory
- center stem guided triforce™ check valves
- modular captured spring relief valve
- optional air gap drains
- lead-free standard
- US patent Nos. 6,443,184; 7,025,085; 7,533,699
- made in the USA (D option)
- 5 year warranty
- optional mounting of bypass on either Side for ease of installation
- **Made in USA** (D Option)

### performance rating

- maximum working pressure: 175 psi
- temperature range: 33°F - 140°F, 180°F intermittent

### approvals

- approved for horizontal flow
- ASSE 1047 (with meter)
- CSA B64.4
- NSF/ANSI 61 - water quality
- NSF/ANSI 372 - lead free
- approved by the foundation for cross-connection control and hydraulic Research at the University of Southern California (2-1/2" - 8" types 1 & 2, 10" - 12" type 2)
- UL, ULC classified
- FM approved

## RPDALF4AN

### Reduced Pressure Detector Assembly



The **2-1/2" - 12" Reduced Pressure Detector Assembly** shall be an Apollo® Model RPDALF4AN or RPDALF4AN. The assembly shall be manufactured in America and carry a 5-year Apollo® factory warranty. The normally vertical up / vertical down oriented body shall incorporate an internal swivel connection providing the ability to pivot the second check 180°, producing a vertical up RPDA assembly (2-1/2" - 8" only). The TriForce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. The check valves shall be held in place by drop-in retainers (2 1/2" - 6") or SS studs & nuts (8" - 12"). Access to the check valves and relief valve internals shall be by an Apollo® quick-connect SS coupling (2-1/2" - 6") or grooved couplings (covers) and SS bolts (relief valves) (8" - 12"). The bodies shall be domestic SS in 2-1/2" - 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. The assembly is a mainline RP with a Type 2 bypass consisting of a lead free\* single check (SCV) and meter bypassing the mainline second check to prevent backflow while accurately measuring all flows up to 2 gpm with the mainline 2nd check remaining closed. Assemblies with the optional Type 1 bypass consist of a lead free\* RP and meter which bypasses both mainline checks and accurately meters all flows up to 2 gpm with both mainline checks closed. The Apollo® domestic ball valve test cocks shall have SS handles. The assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are health and non-health hazards. The pressure drop across the assembly shall be documented by an independent laboratory.

#### 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 - Small Footprint
- Approved for n-Flow and Vertical Up Flow
- Chloramine-Resistant Elastomers
- Made in the USA (D Option)
- Lead Free Standard
- Optional Valve Setters Eliminate Need for Thrust Blocks Below Grade
- US Patent Nos.: 6,443,184; 7,025,085;

7,533,699

- 5 Year Warranty
- Optional Mounting of Bypass on Either Side for Ease of Installation

#### PERFORMANCE RATING

- Maximum Working Pressure: 175 psi
- Temperature Range: 33°F - 140°F, 180°F intermittent

#### APPROVALS

- CSA B64.4
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 8" Type 1 Bypass, 10" - 12" Type 2 only)
- ASSE 1047 (with Meter)
- UL, ULC Classified
- FM Approved
- NSF/ANSI 372 Lead Free (2-1/2" - 12")

## VALVE SETTERS

FS, MJFS, MJS



Apollo® 4An Setters are specifically designed to match the mounting dimensions of the 4An products. The three-piece configuration simplifies installation and eliminates the need for thrust blocks between the elbows. All hardware is stainless steel and the entire unit is FDA Epoxy coated inside and out. The mechanical joint connections are to AWWA C153 and the flanges are to ANSI B16.1 Class 125.

The Apollo® 4An Valve Setter is shown in a typical installation. It is shipped in three separate pieces along with four nuts and four bolts (for Center Brace). Mechanical Joint accessories such as those shown are for reference only and are not included with the 4An Valve Setter.

#### PERFORMANCE RATING

- Maximum Working Pressure: 175 psi
- Temperature Range: 33°F - 140°F, 180°F intermittent

#### APPROVALS

- AWWA C153
- ANSI B16.1 Class 125





## DC 4A / DCLF 4A series

double check valve backflow preventer assembly



the “Apollo” model DC 4A or DCLF 4A 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. ball valve shut-offs with stainless steel handles and nuts are standard.

### 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 1 PSI across the valve during normal operation. should the downstream pressure increase to within 1 PSI of supply pressure, both check valves will close to prevent a backflow condition.

### features

- low pressure loss
- captured spring cartridge check valves
- compact, yet easy to maintain
- **ball valve shut-offs w/ SS handles & nuts standard**
- top access for fast testing & maintenance
- threaded testcock protectors
- corrosion resistant
- no special tools required
- **5 year warranty**
- lead-free option
- chloramine-resistant elastomers
- **designed, cast, machined, ASSEmbed and tested in the USA**

### performance rating

- maximum working pressure: 175 PSI
- temperature range: 33° to 180°F

### approvals

- horizontal and vertical up approvals
- AWWA C510
- UL, ULC classified (T2ST option or less shutoffs)
- approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- ASSE 1015
- IAPMO
- CSA
- NSF/ANSI/CAN 61 - water quality (4ALF only)
- NSF/ANSI 372 - lead free (4ALF only)



## DCDA24A & DCDA2LF4A

Double Check Detector Assembly with Slow-Close Ball Valves



The **Apollo® Model DCDA24A or DCDA2LF4A Lead Free\* 1-1/2”- 2” Double Check Detector Assembly** consists of a mainline double check valve with a Type 2 bypass consisting of a single check (SCV) and meter bypassing the mainline second check to prevent backflow while accurately measuring all flows up to 2 gpm while the mainline 2nd check remains closed. The pressure drop across the assembly shall be documented by independent approval agencies. The assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. This Made in America assembly features Apollo® UL® Listed, slow-close, full open port, gear operated ball valves with integral tamper switches and carries the five-year Apollo® factory warranty.

### FEATURES

- Low Pressure Loss Documented By Independent Approval Agencies
- Easily Removable Modular Check Valve Cartridges
- Captured Stainless Steel Springs
- Apollo® UL® Listed, Slow-Close, Full Open Port, Gear Operated Ball Valves with Integral Tamper Switches
- Top-Mounted Test Cocks for Easy Testing
- No Special Tools Required
- Chloramine-Resistant Elastomers
- Designed, Cast, Machined, Assembled and tested in the USA
- Short Lay-Length for Small Spaces
- Pre-Wired Tamper (Supervisory) Switches

### PERFORMANCE RATING

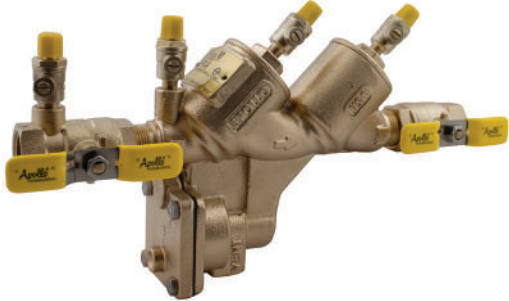
- Maximum Working Pressure: 175 psi
- Temperature Range: 33°F – 140°F
- Hydrostatic Test Pressure: 350 psi

### APPROVALS

- ASSE 1048 (1-1/2” & 2”, Horizontal and Vertical Up)
- UL® Classified (1-1/2” & 2”, Horizontal and Vertical Up)
- C-UL® Classified (1-1/2” & 2”, Horizontal and Vertical Up)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

## RP 4A / RPLF 4A series

reduced pressure principle backflow preventer assembly



the "Apollo" series RP 4A or RPLF 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 test cocks 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 chloramine-resistant silicone seat discs
- low head pressure loss
- top mounted test cocks
- threaded testcock protectors
- internal sensing passage
- modular captured spring relief valve
- lead free option
- standard with full port ball valves with stainless steel handles
- corrosion resistant
- optional air gap drain
- designed, cast, machined, ASSEMBLED and tested in the USA
- **5 year warranty**

### performance rating

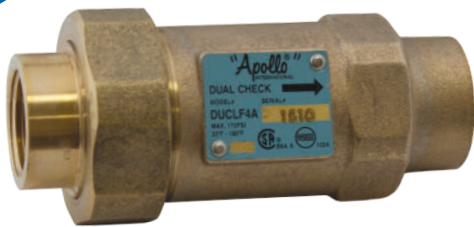
- maximum working pressure: 175 PSI
- operating temperaturerange: 33° to 180°F

### approvals

- ASSE 1013
- CSA B64.4
- federal public law 111-380
- AWWA C511
- UL, ULC classified (T2ST option or less shutoffs)
- approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- horizontal installation approvals on 1/2" thru 2"
- NSF/ANSI/CAN 61 - water quality (4ALF only)
- NSF/ANSI 372 - leadfree (4ALF only)

## DUCLF 4A SERIES

DUAL CHECK VALVE BACKFLOW PREVENTER



The Apollo International™ DUCLF 4A Series Dual Check Valve Backflow Preventer is designed to prevent cross-connections of non-potable water (non-hazardous) into safe drinking water systems. It is a compact and economical device that consists of two independently-acting, spring-loaded check valves in a corrosion-resistant material.

### OPERATION

Each of the two spring-loaded check valves is designed to open at 1 psi differential in the direction of flow. The check valves will remain tightly closed until there is a demand for water downstream. If the downstream pressure of the device increases above the supply pressure or there is a reverse direction of flow, the check valves will close to prevent backflow. If the second check valve is prevented from closing tightly, the first check will close to provide protection from a backflow condition.

### FEATURES

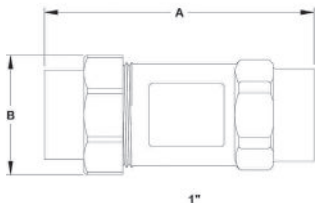
- Low Head Loss
- Independently-Acting Captured Spring Check Valves
- Compact and Lightweight
- Corrosion Resistant
- Replaceable Check Modules
- Industry Lay Lengths
- Available in Standard and Swivel Types

### PERFORMANCE RATING

- Maximum Working Pressure: 175 psi
- Operating Temperature Range: 33° to 180°F

### APPROVALS

- ASSE 1024
- CSA B64.6
- NSF/ANSI 372 - Lead Free (4ALF only)



## 36E/36ELF series large diameter



the new large diameter "Apollo" 36E/36ELF lead free pressure reducing valve is designed to conserve water and protect water distribution systems by automatically reducing elevated supply pressures. the dezincification resistant bronze body, stainless steel adjusting screw and dielectric polymer cage provide maximum corrosion resistance. designed for easy in-line servicing with simple cartridge removal.

### features

- balanced piston design
- **SS adjusting screw & nut**
- sealed cage for vault installations
- built-in thermal expansion bypass
- large area integral stainless steel strainer
- modular seat disc and strainer cartridge
- control pressure ranges: 15-75 PSI and 75-150 PSI
- high flow / high efficiency design
- npt and solder connections
- union press connections: 1-1/4" - 2" (max 300 PSI)
- factory tested and preset at 60 PSI
- single union, double union and less union configurations available
- **proudly made in USA**

## 36C/36CLF series



versatile, all-purpose "Apollo" 36C/36CLF series pressure reducing valves handle pressures up to 400 PSI. compact and with a built-in thermal expansion bypass, they're designed to protect residential and commercial water distribution systems from excessive pressures. the valves' integral thermoplastic cage helps protect the inner adjusting spring from galvanic corrosion. built for reliable, long-term service, these valves offer an all-bronze body, stainless steel strainer and seat. they comply with ASSE 1003 and CSA B356 standards. they are listed with IAPMO and city of los angeles. designed for easy in-line servicing, 36CLF models come standard with a clean-out plug on the housing's bottom. both seat disc and strainer can be maintained via the clean-out plug using a 1-1/2" hex socket. available with or without gauge tapping and gauge.

### features

- dependable cast bronze body
- suitable for supply pressures to 400 PSI
- every valve is 100% factory set and tested
- standard factory setting is 50 PSI
- high and low pressure options
- diaphragm suitable for 33° - 180°f solder, threaded, PEX B/C F1807, CPVC, and press connection options
- **sealed cage with SS adjusting screw for vault installation**
- integral thermal expansion bypass
- integral stainless steel strainer
- single and double union options
- in-line repairable, bottom access
- **proudly made in USA**

## 36/36LF series



"Apollo" 36LF series pressure reducing valves provide automatic control of excessive water pressure and problem supply fluctuations. these models are designed to reduce pressures of up to 300 PSI to a more manageable range.

factory set at 50 PSI, they adjust with a turn of a screw. they feature a built-in bypass and strainer, and comply with ASSE 1003 and CSA B356 standards. they are listed with IAPMO and the city of Los Angeles.

The 36LF series valves are built for long, reliable service with an all-bronze body and cover and high-capacity stainless steel strainer. available with or without optional pressure gauge on tapping.

### features

- all bronze body and cover
- suitable for supply pressures to 300 PSI
- every valve is 100% factory set and tested
- standard factory setting: 50 PSI
- high & low pressure options
- diaphragm suitable for 33° - 180°f
- solder, threaded, PEX, CPVC, press connection options
- integral thermal expansion bypass
- integral stainless steel strainer
- single and double union options
- in-line repairable
- **proudly made in USA**



## 36H/36HLF series high capacity



"Apollo" 36H/36HLF series pressure reducing valves offer high performance in heavy-duty applications. they're designed with a larger diaphragm and orifice area to yield the highest water flow water capacities in the industry.

the 36HLF pressure reducing valves' integral bypass protects against thermal expansion. built for extended service, these models include bronze body construction and stainless steel replaceable seat. they meet ASSE 1003 and CSA B356 standards. they are listed with iampo and city of Los Angeles.

these heavy-duty valves are available with optional in-line strainer and 150 lb. ANSI B16.24 integral bronze flange connections. (2-1/2" and 3" only)

### features

- bronze body and spring cage for superior corrosion resistance and dependability
- **SS fasteners, spring, seat, and adjustment screw**
- sealed spring cage for vault installations
- standard factory setting is 50 PSI
- operating temperature: 33° - 180°F suitable for supply pressures to 400 PSI
- every valve is 100% factory set and tested
- integral thermal expansion bypass
- in-line repairable, bottom access
- **proudly made in USA**

## A127 series pilot operated automatic control valve



"Apollo" pilot operated control valves are ideal for a wide range of commercial and industrial applications, wherever the supply pressure needs to be reduced to a lower constant pressure.

hydraulically operated diaphragm main valve automatically controls non-corrosive, non-abrasive fluids by means of a wide range of pilots.

### features

- ductile iron body & bonnet, ASTM A536 grade 65-45-12
- NSF epoxy coated
- bronze / stainless steel internals
- EPDM elastomers 40°F - 180°F
- lead free components used throughout
- lead free WYE strainer protects pilot system from debris
- isolation ball valves simplify maintenance and troubleshooting
- each valve is 100% factory tested and can be set to your requirements
- wide range of control pilots and functions
- opening speed control is standard
- automatically reduces a higher upstream pressure to a constant lower downstream pressure
- constant outlet pressure regardless of variations in upstream pressure or flow
- pilot operated main valve is not subject to pressure falloff
- outlet pressure is adjustable with a single screw
- optional low-flow bypass A127-LF or A727-LF (when wide extremes in flow demand are anticipated)

## YB series WYE strainers



heavy pattern design with large area screens ensures excellent protection against foreign particles in your fluid system. corrosion-resistant bronze body and stainless steel screens provide years of service.

### features

- blow-off ball valve option (3/4" - 2")
- replaceable self-aligning screen
- large net flow area for longer maintenance intervals
- 59-400 series is female x male NPT (3/4" & 1" only)
- several screen and cap options
- **made in USA, ARRA compliant**

### performance rating

- working pressure:  
cwp: 400 PSI (up to 3")  
swp: 125 PSI
- maximum temperature: 350° F

### approvals

- NSF/ANSI 372 - lead free (591f)
- CRN-OE 8959.5

## YCF SERIES

Class 125 Cast Iron Wye Strainer



### DESCRIPTION

The **Apollo International™** YCF Strainers are designed to protect piping systems and process equipment from unwanted foreign particles with minimum pressure loss.

### FEATURES

- Iron Strainer with Flat Face Flanges
- Conforms to ASME/ANSI B16.1 Class 125
- One-Piece Cast Body Meets ASME Standard
- Equipped with Bolted Cover Employing Flat Gasket Seal
- Upper and Lower Machined Seats for Screen for Self-Aligning Screen Design
- Tapped Blow-Off Connection with Plug
- 100% Factory Pressure Tested
- High-Temp Resistant Black Coating

### PERFORMANCE RATING

- Working Pressure (non-shock):  
CWP 200 PSIG  
SWP 125 PSIG @ 352°F

## BASIC INDUSTRIAL CORE PRODUCTS & BASIC APPLICATIONS

### PRODUCT CATEGORY

#### ACTUATION

SERIES AD, AS, AE

Apollo pneumatic and electric actuators are an excellent way to remotely operate quarter turn products like parallel seated ball valves, top entry ball valves and butterfly valves. We also have a robust line of mounting kits to couple our automation to your quarter turn valve of choice.

### INDUSTRIAL SEGMENTS

Throughout all Industrial Segments



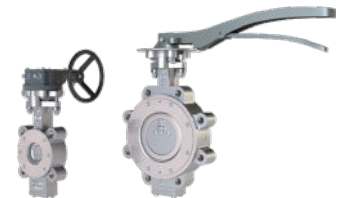
#### HIGH PERFORMANCE BUTTERFLY VALVES

SERIES 215, 230, 260

ASME B16.34, Class 150, 300 and 600 butterfly valves are ideal as shutoff valves as well as throttling applications in a variety of industrial services. RTFM, fire-safe and metal seat options available. Carbon steel and stainless steel bodies available in sizes 2" to 48".

Power Generation  
Refining  
Chemical Process  
Ethanol Plants

General Industry  
Gas Processes  
Mining



## BASIC INDUSTRIAL CORE PRODUCTS & BASIC APPLICATIONS

PRODUCT CATEGORY	INDUSTRIAL SEGMENTS	
<p><b>NEEDLE VALVES</b> SERIES 60A, 60B</p> <p>Non-ASME valves, tandem sampling valves, hydraulic isolation valves, metal-to-metal seated, drain valves, instrument isolation valves, air supply isolation, hot well condensate drain, considered disposable valves.</p>	<p>Throughout all Industrial Segments Pressure Range: 500 PSI CWP and 10,000 PSI CWP</p> 	
<p><b>2-PIECE BALL VALVES</b> SERIES 70, 72, 73, 76F, 77</p> <p>Non-ASME valves, tandem drain valves, utility air &amp; water valves, with trim and body material changes can be used in severe services with only pressure and temperature limitations, considered disposable valves. Bronze valves also fit this category.</p>	<p>Throughout all Industrial Segments</p> 	
<p><b>3-PIECE BALL VALVES</b> SERIES 83A, 83B, 84A, 84B, 85A, 85B, 86A, 86B</p> <p>ASME B16.34, Class 600 and 1500 CWP valves, capable of in-line repair, liquid and gaseous fuel services, light duty slurry services, low temperature boiler feed water service, tandem drain service, hot well drain service, with body and trim material changes they are good valves in chemical and petroleum services.</p>	<p>Power Generation Refining Chemical Process Ethanol Plants</p>	<p>General Industry Gas Processes Mining</p>  <p>Available Sizes 1/2" - 2" Full Port, 3/4" - 2 1/2" Standard port</p>
<p><b>FLANGED VALVES</b> SERIES 88A, 87A</p> <p>ASME B16.34, Class 150, 300 and 600 valves, in-line repair very difficult better to repair out-of-line, only available with flanged ends. Fuel systems, liquid systems, with proper body and trim materials is good for corrosive services, short pattern versions allow use as a gate valve replacement, oil and gas processing, low temperature chemical processing, low temperature chemical processing.</p>	<p>Power Generation Refining Chemical Process General Industry</p>	<p>Pulp &amp; Paper Gas Processes Mining</p>  <p>Available Sizes: 1/2" through 12" Full Port</p>
<p><b>TOP ENTRY VALVES</b> SERIES TEV</p> <p>Apollo ASME B16.34 Class 150, 300, &amp; 600 Top Entry Ball Valves are designed to pick up where normal parallel seated floating ball valves fall short. A tapered seating design in which the ball and seats are held tight into the wedge by a spring allows compensation for wear, cold flow, pressure and temperature fluctuations that may cause parallel seated floating balls valve to fail. With an expansive offering of options and seat materials they are our most flexible product. Properly equipped they can handle cryogenic applications up to 1000°F. Soft seats offer positive shutoff while hard seats offer temperature and abrasion resistance. Available in numerous steels and alloys from our South Carolina foundry they are an excellent choice for a wide range of applications. Though top entry ball valves become an integral part of the line when installed, they provide time saving easy access for rebuilding and/or clean out.</p>	<p>Power Generation Refining Chemical Process Pulp &amp; Paper Mining</p>	<p>Mineral Slurry Scrubbers Wall Board Plants General Industry</p> 



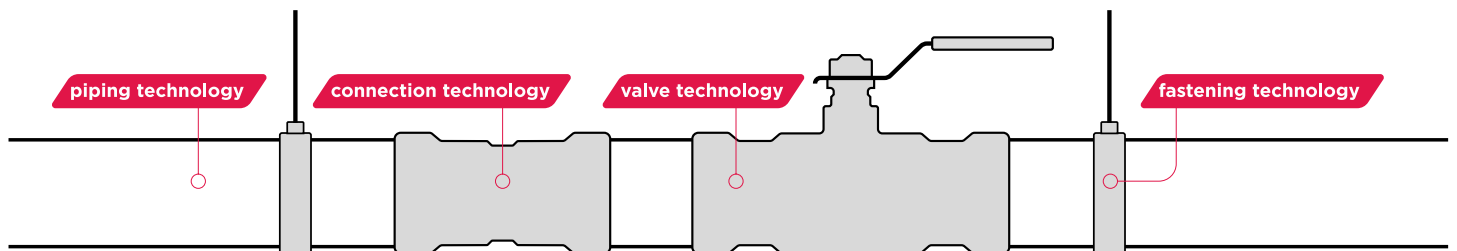


Since the inception in 1975, Aalberts is where technology matters and real progress can be made - humanly, financially and environmentally. At Aalberts, we create mission-critical products surrounding valve and connection technology supporting our brand, "Apollo".

The manufacturing of Consolidated Brass Company (later called Conbraco) began in 1928, in Detroit, Michigan with a focus on ball cocks, air cocks and similar products. In 1955, the manufacturing operation moved to the Carolinas spanning North and South Carolina with 3 facilities. In 2010, Aalberts, a global Dutch company, purchased Conbraco. Today the "Apollo" brand is manufactured under the company name, Aalberts integrated piping systems, in 3 locations throughout South Carolina. Over the last 90 years the product portfolio has continued to grow to encompass ball valves, butterfly valves, safety relief valves, control valves, mixing valves and backflow preventors.

These systems are applicable for key verticals such as residential, commercial, industrial, and utility. Our products are designed and developed by our team of innovators and engineers. Our design services team can assist in helping you determine the best techniques for your application with our products. We are the only company that truly offers customers a complete solution every time that is made and sourced from the same organization.

**Don't just buy products, buy solutions.**



**Aalberts integrated piping systems**

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