



LEAD FREE PRODUCTS CATALOG



Ball Valves
Mixing Valves
Water Pressure Reducing Valves
Strainers
Backflow Preventers
Gate, Globe & Check Valves
APOLLOXPRESS® Valves & Fittings
and much more!



NEW! The very latest Autodesk Revit BIM Models



For more information visit our website: www.apollovalves.com/lead_free

COMMITTED TO A BETTER ENVIRONMENT



WE MAKE
LEAD FREE
EASY

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'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 manufacturing facilities are ISO 9001:2008 certified.

Our Valves have always conformed to Federal and State lead level requirements. Now, that new lead reduction initiatives have taken effect, Apollo® Valves is committed to providing our customers with Lead Free alternatives for valves intended for potable water service.



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APOLLO® VALVES

LEAD FREE PRODUCTS CATALOG

Prepared for the
Reduction of Lead in Drinking Water Act
JANUARY 4, 2014

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WHAT IS DRIVING THE CHANGE TO “LEAD FREE”?

The Safe Drinking Water Act (SDWA) is the principal federal law in the United States intended to ensure safe drinking water for the public. The 1996 amendment established a maximum lead content of 8% for plumbing products.

The Reduction of Lead in Drinking Water Act, also referred to as Federal Public law 111-380 amends the SDWA to reduce the allowable lead content of the wetted surfaces of plumbing products to a weighted average of 0.25% or less, with an effective date of January 4, 2014.

It should be noted that several states had previously implemented similar legislation, with Lead in Plumbing laws in effect in California, Vermont, Maryland and Louisiana.

HOW WILL THIS AFFECT YOUR BUSINESS?

Effective January 4, 2014 it is illegal in the United States to sell or install any plumbing product intended to convey or dispense water for human consumption (through drinking or cooking) that is not Lead Free. Violations are subject to penalties ranging from fines to imprisonment, as well as the possibility of civil lawsuits.

The most important consideration therefore is to prepare and implement an effective Lead Free transition plan well in advance of the effective date of the legislation. Your plan should make provision for managing inventories to ensure availability of Lead Free products while depleting non-compliant inventory.

Apollo® Valves has the products, experience and personnel to help you plan and implement your transition objectives.

WHAT IS LEAD FREE?

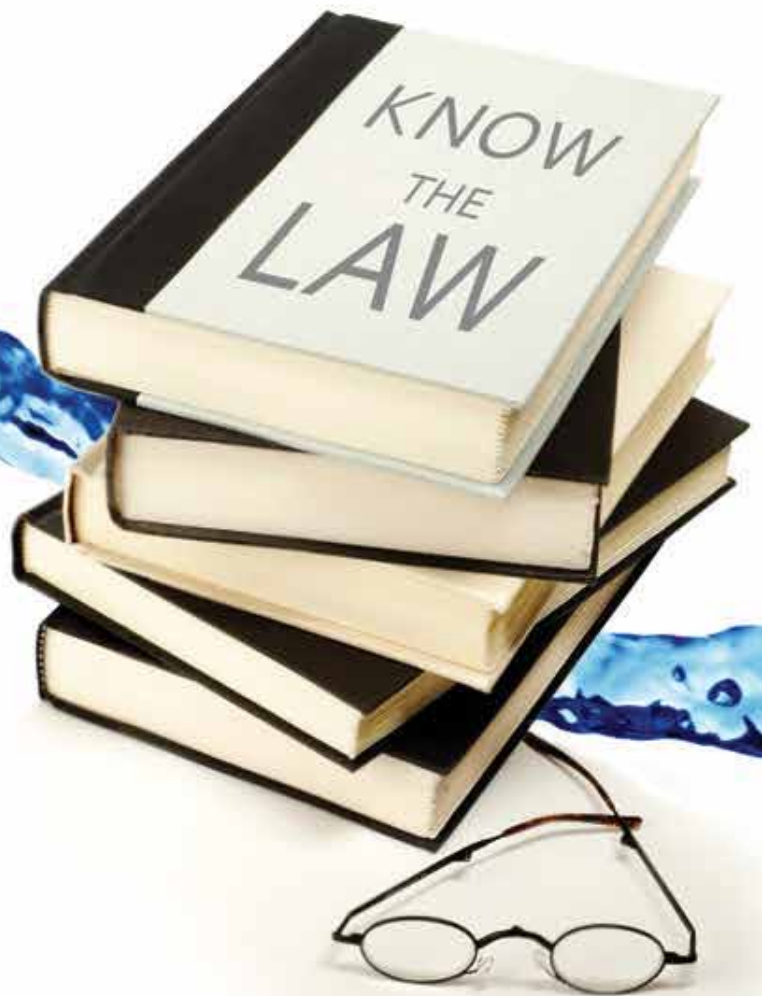
The wetted surfaces of the product shall contain no more than 0.25% lead by weighted average.

Legislation

Complies with California AB1953, Vermont Act 193, Maryland HB372, Louisiana HB471 and Federal Public Law 111-380 (Amendment to Safe Drinking Water Act). All Apollo® Lead Free valves are ANSI third party approved and listed.



Certified by
Truesdail Laboratories



PRODUCT AVAILABILITY

Apollo was one of the first manufacturers to market with lead free valves, commencing shipments in October 2009. Today we offer over 7,000 SKU's of certified Lead Free product, with new additions added regularly.

"Apollo"
LEAD FREE



Ball Valves | [Mixing Valves](#) | Strainers | [Backflow Preventers](#) | APOLLOXPRESS® | [and more](#)

HOW CAN APOLLO® VALVES HELP?

TRANSITION PLANNING

Apollo sales representatives and factory personnel are trained and ready to help you with your Lead Free Transition planning. Your transition plan should include the following steps:

- 1 Decide upon dual-use or Lead-Free only stocking program.
- 2 Identify products to be converted.
- 3 Qualify vendor partners based upon breadth of product line, product quality, Lead Free experience and ANSI 3rd party approvals.
- 4 Determine part numbers for new / replacement items.
- 5 Confirm pricing and availability.
- 6 Update purchasing specifications, literature, website, catalogs and price sheets.
- 7 Manage inventory to reduce / deplete non-compliant products.
- 8 Order new Lead Free products.
- 9 Training of staff and customers.
- 10 When to start? Why not contact your Apollo® Valves representative **today** to start the process!

SOLDERING CONSIDERATIONS

Many brass and bronze lead free alloys are in use in the market today. Several common alloys require special preparation, qualified fluxes and significantly more heat in order to produce a sound solder joint. In fact, the installers are being asked to “re-learn” how to solder!

Apollo lead free brass and EZ-Solder™ bronze alloys on the other hand have been carefully selected and thoroughly tested to ensure a trouble-free soldering experience for the installer. The same preparation, materials and heat as is used for our standard brass and bronze valves means a no-hassle conversion to lead free for you!



Over 90% of our Lead Free products are Made in the USA. The same great Apollo® products you've come to know and trust, now available with a Lead Free option using proven and reliable materials.

Our state-of-the-art foundries in South Carolina are ISO 9001:2008 certified and have 10 years of experience casting and machining Lead Free alloys.

All Apollo® Valves products are 100% factory tested. Our standard Apollo 5 year warranty (2 years for Apollo International products) is your assurance of quality.

All Apollo® Lead Free products are ANSI 3rd party certified and meet both state and federal 0.25% lead content requirements.

WILL ALL VALVES BE CONVERTING TO LEAD FREE MATERIALS?

No. In addition to plumbing products, Apollo® Valves manufactures valves for a wide range of markets and applications, including HVAC, industrial, process, petrochemical, fire protection, irrigation and OEM. Non-potable applications are outside the scope of the new regulations.

Lead Free materials are more costly and difficult to machine than standard alloys, with the result that Lead Free valves can be priced on average 30% or more above comparable “standard” valves. For this reason, we intend to continue to offer a “dual inventory” system with separate product lines for potable and non-potable applications.

HOW DO I IDENTIFY APOLLO® VALVES LEAD FREE PRODUCTS?

Apollo® Valves Lead Free products are differentiated from standard products in a number of ways, depending upon the size and style of the product.



- Most Lead Free products contain an "LF" in their part number. For example: a 36C10401 water pressure regulator becomes a 36CLF10401 in Lead Free.
- Valve bodies are identified with the letters "LF" cast into the product, as size allows.
- Where tags or nameplates are used, these will be a distinctive light blue color to indicate Lead Free materials and approvals.
- Box labels and sealing tape will be a distinctive light blue color and clearly identify the products as "Lead Free".
- Lead Free ball valves now include white handle grips with blue graphics.

1

Blue hang tags and nameplates for easy identification.



2

LF symbol on valve bodies.



3

New Lead Free handle graphics on Ball Valves and Backflow Products.



4

Box labels and sealing tape in distinctive Lead Free blue.



5



"Certified Lead Free" and "Lead Free Option Available" logos can be found throughout our literature for easy identification of Lead Free status.

LEAD FREE PRODUCTS CATALOG

ADDITIONAL FAQs | FREQUENTLY ASKED QUESTIONS

Regarding Lead Free Products and Legislation

1 Are any products or applications exempt from the Lead Free legislation?

Yes. Section 1417(a) of the amended Safe Drinking Water Act includes the following exemptions:

- a) Pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or
- b) Toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

2 If “water distribution main gate valves that are 2 inches in diameter or larger” are exempt, does that mean that all valves 2” and larger are exempt?

Apollo® Valves does not interpret this specific exemption to extend to any valves beyond water distribution main gate valves that are 2 inches in diameter or larger. Ultimately the EPA will need to provide interpretations on such matters. In the meantime, in order to protect our customers Apollo is taking the conservative approach and certifying larger valves up to and including 24” depending upon the style and model.

3 Do the Lead Free laws apply to brass and bronze products only?

Section 1417(a)(3) makes it unlawful for any person to “introduce into commerce any pipe, pipe or plumbing fitting, or fixture intended to convey or dispense water for human consumption through drinking or cooking that is not “lead free”. No reference is made to materials of construction, and it appears the legislation is intended to apply to all applicable products regardless of material.

4 Are Apollo® Valves Lead Free products “Made in the USA”?

95% of our current 7,000 lead free items are proudly manufactured in the USA and meet the requirements of the American Reconstruction and Reinvestment Act of 2009 (ARRA). Apollo® Valves brand products are cast, machined, assembled and tested in our South Carolina foundries and machining operations and carry a 5 year warranty. Import items are identified by the “Apollo International” brand and carry a 2 year warranty.

5 Are special soldering procedures required for Lead Free alloys?

Our Lead Free brass and EZ-Solder™ bronze alloys have been carefully selected and thoroughly tested in order to make the transition as simple and trouble free for our customers as possible. Our Lead Free C89836 bronze and C27451 brass alloys are intended to be soldered in exactly the same way as our standard bronze and brass alloys, using the same flux, solder and amount of heat.

6 Do Lead Free Valves carry Steam Ratings?

Apollo® Lead Free bronze valves, including ball, gate, globe and check valves carry the same steam working pressure (SWP) ratings as their standard bronze counterparts, up to 150 SWP maximum. Please refer to the product submittal sheets for further information.

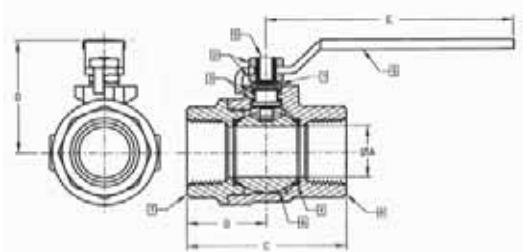
For more information please visit our website:
www.apollovalves.com/lead_free

Conbraco Industries offers a wide range of Apollo® products for potable and non-potable applications. When the use of lead free valves is required by code, specification or legislation, it is the sole responsibility of our customers to ensure that only Lead Free Apollo® products are installed in systems intended for potable water service. Further information related to our product offering and the federal Reduction of Lead In Drinking Water Act is available at www.apollovalves.com/lead_free, or by contacting Conbraco Customer Service at (704) 841.6000.

BALL VALVES

Full-Port Bronze Ball Valves

77CLF-100/200 SERIES



CONTRACTOR SERIES FULL PORT BRONZE BALL VALVE WITH SOLID BALL

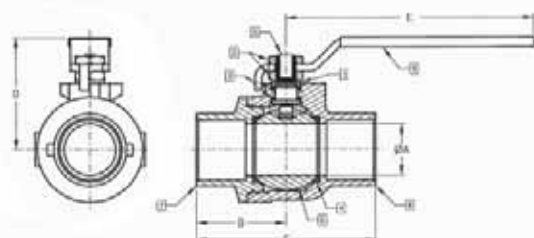
Apollo's® solid ball design delivers true full-port performance with 100 percent American construction.

FEATURES

- EZ-Solder™ Lead Free Bronze
- Solid brass ball, chrome plated
- 600 psig CWP, non-shock
- 150 SWP steam rating
- Premium multi-fill MTFE seats and stem packing
- Adjustable stem packing
- Blow-out proof stem design
- Vacuum service to 29 in. Hg
- Full-port design through 2-1/2"
- Reversible handle orientation
- ANSI/NSF61 Section 8, Annex F & G listed. ANSI/NSF 372.
- Available with stainless steel vented ball and stem as 77CLF-140 Series (threaded), 77CLF-240 Series (solder).
- ANSI B16.18 solder end version available as 77CLF-200 Series

OPTIONS

- 2-1/4" stem extension (-04)
- CS tee handle (-07)
- Therma-Seal™ insulating tee handle (-11)
- SS Latch-lock handle (-27),
- Stem extension and balancing stop (-94)
- SS vented ball and stem (77CLF-140 and 77CLF-240 series)
- Other handle options available

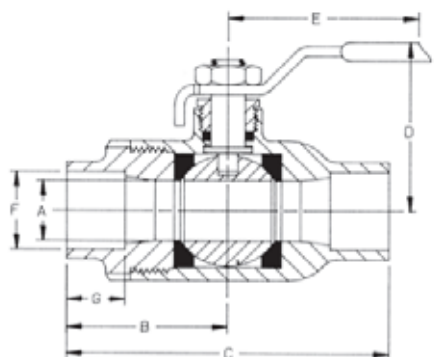
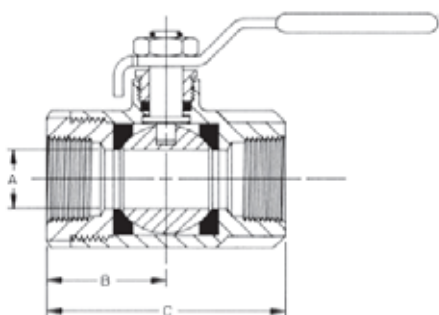


LF Model Number	Size (in.)	Dimensions (in.)					Cv	Wt. (lbs.)
		A	B	C	D	E		
Threaded Connection								
77CLF-101-01	1/4	0.37	0.95	1.97	1.76	3.74	4.5	0.6
77CLF-102-01	3/8	0.37	1.07	2.09	1.76	3.74	7.2	0.6
77CLF-103-01	1/2	0.50	1.15	2.25	1.79	3.74	15.5	0.6
77CLF-104-01	3/4	0.75	1.32	2.65	2.00	4.88	35.6	1.1
77CLF-105-01	1	1.00	1.53	3.07	2.19	4.88	68.1	1.8
77CLF-106-01	1-1/4	1.25	2.04	4.08	3.13	7.06	125.0	4.2
77CLF-107-01	1-1/2	1.50	2.21	4.43	3.29	7.06	177.0	4.6
77CLF-108-01	2	2.00	2.76	5.29	3.83	7.06	389.0	8.1
77CLF-109-01	2-1/2	2.50	3.12	6.37	4.51	8.06	503.0	16.2
Solder Connection								
77CLF-202-01	3/8	0.37	1.30	2.21	1.76	3.74	7.2	0.6
77CLF-203-01	1/2	0.50	1.41	2.58	1.79	3.74	15.5	0.6
77CLF-204-01	3/4	0.75	1.64	3.03	2.00	4.88	35.6	1.0
77CLF-205-01	1	1.00	1.92	3.61	2.19	4.88	68.1	1.6
77CLF-206-01	1-1/4	1.25	2.36	4.44	3.13	7.06	125.0	3.9
77CLF-207-01	1-1/2	1.50	2.63	4.89	3.29	7.06	177.0	5.8
77CLF-208-01	2	2.00	3.17	6.06	3.83	7.06	389.0	10.2
77CLF-209-01	2-1/2	2.50	3.77	7.14	4.51	8.06	503.0	14.8

LEAD FREE PRODUCTS CATALOG

General Purpose Ball Valves

70LF-100/200 SERIES



BRONZE BALL VALVE

The Apollo® 70LF series has the same rugged features as the industry standard 70 Series valves with the added advantage of Lead Free materials. The 70LF is ideal for plumbing and heating systems, including potable water. Trusted Apollo® performance with a wide range of popular options.

FEATURES

- EZ-Solder™ Lead Free Bronze
- Rated 600 psig CWP, non-shock
- 150 psig for saturated steam
- 100% factory tested
- Vacuum service to 29 in. Hg
- NSF/ANSI 61 Section 8
- NSF/ANSI 372 Lead Free
- Adjustable packing gland
- Multiple options available

LF Model Number	Size (in.)	Dimensions (in.)*		
		A	B	C
NPT				
70LF-101-01	1/4	0.37	1.03	2.06
70LF-102-01	3/8	0.37	1.03	2.06
70LF-103-01	1/2	0.50	1.12	2.25
70LF-104-01	3/4	0.68	1.50	3.00
70LF-105-01	1	0.87	1.68	3.37
70LF-106-01	1-1/4	1.00	2.00	4.00
70LF-107-01	1-1/2	1.25	2.18	4.37
70LF-108-01	2	1.50	2.34	4.68
70LF-109-01A	2-1/2	2.00	3.12	6.25
70LF-100-01	3	2.50	3.37	6.75
70LF-10A-01	4	3.12	3.68	7.37

* Body only. Total will vary with handle and end connection options. Contact Conbraco Customer Service for additional dimensions.

NOTE: 1/4", 3/8", and 1/2" are full port.

LF Model Number	Size (in.)	Dimensions (in.)*						
		A	B	C	D	E	F	G
Solder								
70LF-202-01	3/8	0.37	1.28	2.56	1.75	3.87	0.505	0.37
70LF-203-01	1/2	0.50	1.43	2.87	1.75	3.87	0.63	0.50
70LF-204-01	3/4	0.68	1.93	3.87	2.12	4.87	0.88	0.75
70LF-205-01	1	0.87	2.25	4.50	2.25	4.87	1.13	0.90
70LF-206-01	1-1/4	1.00	2.31	4.62	2.62	5.50	1.38	0.96
70LF-207-01	1-1/2	1.25	2.62	5.25	3.06	8.00	1.63	1.09
70LF-208-01	2	1.50	3.18	6.37	3.25	8.00	2.13	1.34
70LF-209-01A	2-1/2	2.00	3.74	7.51	3.72	8.00	2.63	1.48
70LF-200-01	3	2.50	4.12	8.25	4.12	8.00	3.13	1.67
70LF-20A-01	4	3.12	4.61	9.22	5.22	9.94	4.13	2.16

* Based on 70LF-200-01 – Dimensions may vary with options.

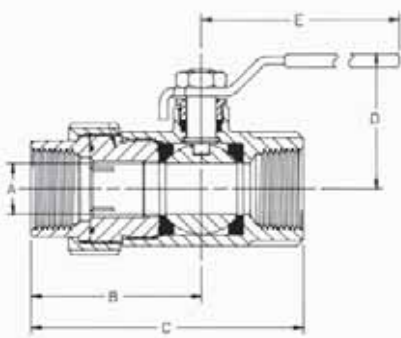
Soldering temperature: Intended for use with solders having a melting temperature of 500°F or less.

NOTE: 1/4", 3/8", and 1/2" are full port.

BALL VALVES

General Purpose Bronze Ball Valves

70LF-300/400 SERIES



BALL VALVE WITH FNPT x UNION END

This valve combines a pipe union with ball valve shut-off; it saves time and labor by eliminating the need for extra connections. Viton O-ring sealed union requires light torque for proper seal.

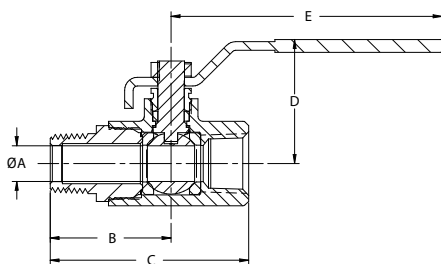
FEATURES

- EZ-Solder™ Lead Free Bronze
- Blowout-proof stem design
- Adjustable packing gland
- NSF/ANSI 372 Lead Free
- NSF/ANSI 61 Section 8
- 600 psig CWP, non-shock
- NPT and solder union connection
- Vacuum service to 29 in. Hg

LF Model Number	Size (in.)	Dimensions (in.)				
		A	B	C	D	E
NPT						
70LF-303-01	1/2	0.50	2.01	3.14	1.81	3.87
70LF-304-01	3/4	0.68	2.46	3.96	2.12	4.87
70LF-305-01	1	0.87	2.78	4.46	2.25	4.87
70LF-306-01	1-1/4	1.00	2.68	4.68	2.62	5.50
70LF-307-01	1-1/2	1.25	2.87	5.06	3.05	8.00
70LF-308-01	2	1.50	3.25	5.59	3.24	8.00
Solder						
70LF-404-01	3/4	0.68	2.62	4.56	2.06	4.78
70LF-405-01	1	0.87	2.81	5.06	2.25	4.78
70LF-406-01	1-1/4	1.00	2.87	5.18	2.62	5.50
70LF-407-01	1-1/2	1.25	2.92	5.53	3.10	8.00
70LF-408-01	2	1.50	3.50	6.75	3.24	8.00

NOTE: 1/4", 3/8", and 1/2" are full port.

70LF-800 SERIES



MALE NPT LEAD FREE BRONZE BALL VALVE

The Apollo® 70LF-800 Series is a standard port ball valve that eliminates the need for an extra nipple when connecting to female connections.

FEATURES

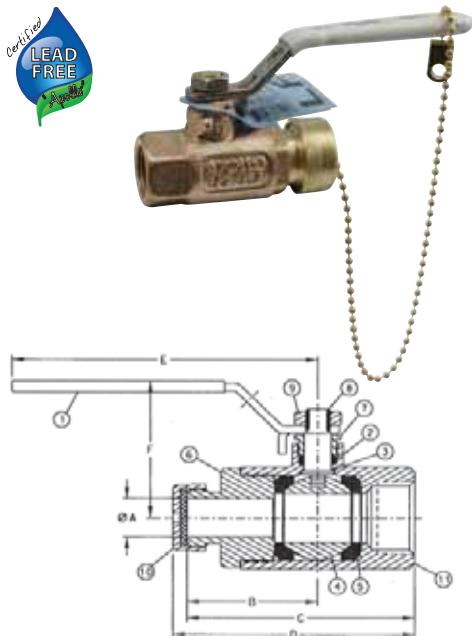
- Adjustable Packing Gland
- Blow-Out Proof Stem Design
- RPTFE Seats and Stuffing Box Ring
- Max. Pressure: 600 psi CWP, 150 psi SWP
- Vacuum Service to 29 in. Hg
- Max. Temp (RPTFE): 425°F at 100 psig
- MSS SP-110; Ball Valves
- Federal Specifications: WW-V-35C, Type II
- CRN: 0C10908.5C
- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free

LF Model Number	Size (in.)	Dimensions (in.)					Wt. (lbs.)
		A	B	C	D	E	
70LF-803-01	1/2	0.50	1.68	2.81	1.81	3.87	0.72
70LF-804-01	3/4	0.68	2.00	3.50	2.12	4.87	1.42
70LF-805-01	1	0.87	2.31	4.00	2.25	4.87	1.93

LEAD FREE PRODUCTS CATALOG

Specialty Valves

70LF-HC SERIES



CAP & CHAIN VALVE WITH 3/4 INCH HOSE CONNECTION, HEAVY BRASS CAP AND REVERSE HANDLE

The Apollo® 70LF-HC models are ideally suited for direct connection to hoses. Valves feature a heavy duty machined hose thread cover with chain to prevent loss. Standard lever and nut are stainless steel.

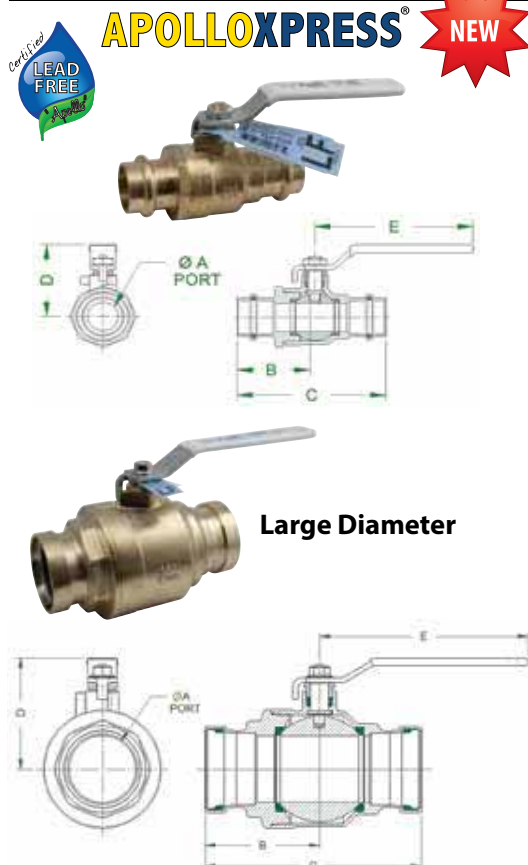
FEATURES

- Reverse lever is standard for easier installation
- Stainless steel lever & nut is standard
- NPT and solder connections
- EZ-Solder™ Lead Free Bronze
- Blowout-proof stem design
- RPTFE seats and stuffing box ring
- Adjustable packing gland
- Vacuum Service to 29 in. Hg
- Maximum pressure: 600 psi CWP
- Temperature rating: 200°F
- Full pressure rated brass hose cap
- Therma-Seal® insulating lever option (-11)
- Stainless Steel ball and stem option (70LF-14X-HC)
- NSF/ANSI 372 Lead Free
- NSF/ANSI 61 Section 8

LF Model Number	Size (in.)	Dimensions (in.)					
		A	B	C	D	E	F
70LF-103-HC	1/2 NPT x 3/4 Hose	0.50	1.68	2.81	2.97	3.87	1.75
70LF-104-HC	3/4 NPT x 3/4 Hose	0.68	1.96	3.50	3.67	4.87	2.12
70LF-105-HC	1 NPT x 3/4 Hose	0.87	2.24	3.92	4.16	5.28	2.43
70LF-203-HC	1/2 Solder x 3/4 Hose	0.50	1.68	3.14	3.28	3.89	1.75
70LF-204-HC	3/4 Solder x 3/4 Hose	0.68	1.96	3.94	4.09	4.89	2.12

APOLLOXPRESS® Ball Valves

77VLF SERIES



LEAD FREE APOLLOXPRESS® PRESS END BRASS BALL VALVE

The APOLLOXPRESS® 77VLF Series Lead Free two-piece press end brass ball valve is ideal for installation in most plumbing and heating systems, including potable water. Now with Leak Before Press® feature and 250 psig maximum working pressure. Proudly Made in the USA.

FEATURES

- Lead Free forged brass, ANSI 3rd Party Certified and Listed
- 2 piece, heavy pattern forged design
- Full-Port Flow
- Superior RPTFE Seats and Packing
- Adjustable Stem Packing
- Ridgid® XL Press Tool Compatible
- 2-1/2" - 4" are XLC jaw compatible
- Blow-Out Proof Stem
- Dezincification Resistant Materials
- Silicone Free Assembly
- 100% Factory Tested
- **Made in the USA**, ARRA Compliant
- Maximum Operating Pressure 250 psi
- Temperature Range: 0°F - 250°F
- MSS SP-110 Ball Valves
- NSF/ANSI 61 Section 8
- NSF/ANSI 372 Lead Free
- IAPMO IGC-157 Ball Valves
- Directive 2002/95/CE (RoHS) Compliant

Model Number	Size (in.)	Dimensions (in.)					Wt.
		A	B	C	D	E	
77VLF-103-01	1/2"	0.50	1.57	2.89	1.66	2.85	0.4
77VLF-104-01	3/4"	0.75	1.90	3.63	1.91	3.86	0.9
77VLF-105-01	1"	1.00	2.20	3.88	2.11	3.86	1.2
77VLF-106-01	1-1/4"	1.25	2.23	4.22	2.44	4.75	2.3
77VLF-107-01	1-1/2"	1.50	2.84	5.45	2.91	5.42	3.4
77VLF-108-01	2"	2.00	3.40	6.57	3.69	7.77	6.0
77VLF-109-01	2-1/2"	2.50	4.26	8.04	4.13	7.77	12.0
77VLF-100-01	3"	3.00	5.10	9.45	5.03	9.92	19.5
77VLF-14A-01	4"	4.00	5.20	10.35	5.70	14.78	26.0

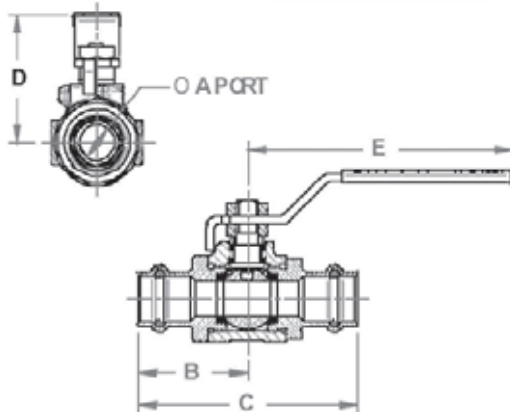
BALL VALVES

APOLLOXPRESS® Ball Valves

77WLF SERIES



APOLLOXPRESS®



APOLLOXPRESS® BRONZE FULL PORT BALL VALVES

Apollo 77WLF Series APOLLOXPRESS® ball valves install in seconds, but the valve and connections are made to last. Ideal for most plumbing and heating systems including potable water. Not for use with natural gas.

FEATURES

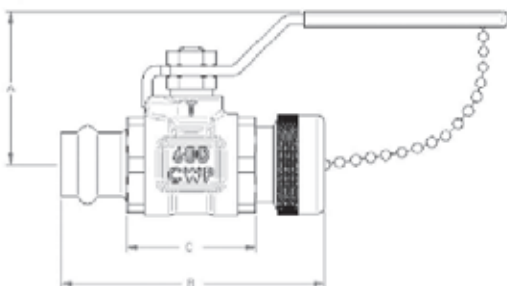
- Lead Free cast bronze
- Full port
- Ridgid® "XL" Press Tool compatible
- Leak Before Press® technology
- MSS SP-110 ball valves
- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free
- Adjustable stem packing
- 250 CWP, non-shock to 250°F max.
- Excellent for hydronic heating (90% glycol max)
- Compatible with most 77CLF Series options
- **Made in the USA**

LF Model Number	Size (in.)	Dimensions (in.)					Wt.
		A	B	C	D	E	
77WLF-103-01	1/2	0.50	1.54	3.08	1.50	3.74	0.6
77WLF-104-01	3/4	0.75	1.78	3.55	2.01	4.78	1.1
77WLF-105-01	1	1.00	1.93	3.86	2.20	4.78	1.8
77WLF-106-01	1-1/4	1.25	2.44	4.87	3.13	7.04	4.3
77WLF-107-01	1-1/2	1.50	2.91	5.81	3.10	7.04	4.6
77WLF-108-01	2	2.00	3.74	7.47	3.48	7.04	8.2

77WLF-HC SERIES



APOLLOXPRESS®



APOLLOXPRESS® x HOSE CAP & CHAIN BRONZE BALL VALVE

The APOLLOXPRESS® 77WLF-HC Series Lead Free two-piece press ball valve is ideal for installation in most plumbing and heating systems, including potable water. Valves feature a 3/4" hose thread connection with heavy brass cap to protect the threads and is full pressure rated. Not for use with natural gas.

FEATURES

- Lead Free cast bronze
- Full port
- Ridgid® "XL" Press Tool compatible
- Leak Before Press® technology
- MSS SP-110 ball valves
- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free
- Adjustable stem packing
- 250 CWP, non-shock to 250°F max.
- Heavy brass cap is full pressure rated
- Excellent for hydronic heating (90% glycol max)
- Available with most 77CLF Series options
- **Made in the USA**

LF Model Number	Size (in.)	Dimensions (in.)			Wt. (lbs.)
		A	B	C	
77WLF-103-HC	1/2	1.80	3.12	1.54	0.61
77WLF-104-HC	3/4	2.01	3.45	1.72	1.09

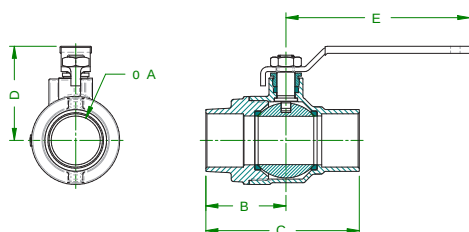
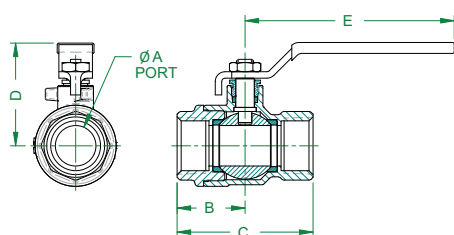
LEAD FREE PRODUCTS CATALOG

Two Piece Ball Valves

77FLF SERIES



NEW



FULL PORT BRASS BALL VALVES

The Apollo 77FLF Series is a full port forged brass ball valve suitable for a wide range of plumbing and heating applications, including potable water. These NPT threaded or solder, 2-piece valves combine reliable operation with maximum economy. Valves include most pertinent agency approvals. Proudly Made in the USA.

FEATURES

- Lead Free Materials and Approvals
- Heavy Pattern Forged Design
- 600 CWP 150 SWP
- Superior RPTFE Seats and Packing
- Adjustable Stem Packing
- Blow-Out Proof Stem
- Dezinification Resistant Materials
- 100% Factory Tested
- Silicone Free Assembly
- Vacuum Service to 29 in. Hg
- Made in USA, ARRA Compliant
- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free
- **Made in the USA**

OPTIONS

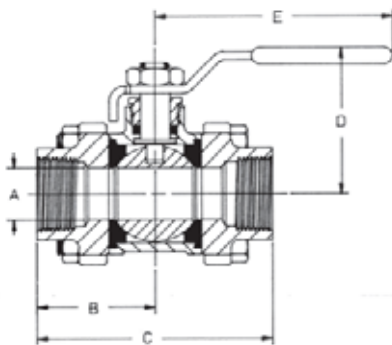
- (-01) Standard Lever
- (-04) 2-1/4" Stem Extension (1/4" – 2-1/2")
- (-07) Tee Handle (1/4" – 2")
- (-11) Therma-Seal™ Insulating Tee Handle (1/4" – 2")
- (-27) Locking Handle SS (1/4" – 2-1/2")
- 77FLF140 Series – SS Ball & Stem

LF Model Number	Size (in.)	Dimensions (in.)					Wt.
		A	B	C	D	E	
NPT							
77FLF-101-01	1/4"	0.38	0.81	1.62	1.61	2.85	0.3
77FLF-102-01	3/8"	0.38	0.85	1.70	1.61	2.85	0.3
77FLF-103-01	1/2"	0.50	1.14	2.25	1.66	2.85	0.5
77FLF-104-01	3/4"	0.75	1.26	2.51	1.91	3.86	0.8
77FLF-105-01	1"	1.00	1.60	3.20	2.11	3.86	1.3
77FLF-106-01	1-1/4"	1.25	1.73	3.46	2.44	4.75	2.1
77FLF-107-01	1-1/2"	1.50	2.00	4.00	2.91	5.42	3.2
77FLF-108-01	2"	2.00	2.37	4.47	3.69	7.77	5.6
77FLF-109-01	2-1/2"	2.50	2.99	5.98	4.14	7.77	12.8
77FLF-100-01	3"	3.00	3.52	7.05	5.03	9.92	19.7
77FLF-14A-01	4"	4.00	3.83	7.65	5.70	14.78	25.5
Solder							
77FLF-203-01	1/2"	0.50	1.37	2.37	1.66	2.85	0.4
77FLF-204-01	3/4"	0.75	1.72	3.13	1.91	3.86	0.9
77FLF-205-01	1"	1.00	2.01	3.73	2.11	3.86	1.3
77FLF-206-01	1-1/4"	1.25	2.07	3.97	2.44	4.75	2.0
77FLF-207-01	1-1/2"	1.50	2.42	4.69	2.91	5.42	3.3
77FLF-208-01	2"	2.00	2.91	5.82	3.69	7.77	5.6
77FLF-209-01	2-1/2"	2.50	3.68	7.05	4.14	7.77	11.6
77FLF-200-01	3"	3.00	4.26	8.15	5.03	9.92	19.3
77FLF-24A-01	4"	4.00	4.82	9.57	5.70	14.78	25.6

BALL VALVES

Three-Piece Full Port Valves

82LF-100 SERIES



FULL PORT BRONZE NPT THREE-PIECE VALVE

This inline-repairable threaded ball valve offers RPTFE seats and seals and a 600 CWP, non-shock rating.

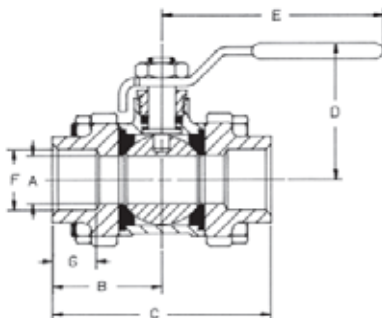
FEATURES

- ASTM Grade Lead Free Bronze body and ends
- SAE Grade 8 body bolts
- Adjustable packing nut
- Full port flow
- 600 CWP, 150 SWP
- Numerous options available
- 82LF-14X with SS ball and stem option
- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free



LF Model Number	Size (in.)	Dimensions (in.)				
		A	B	C	D	E
82LF-101-01	1/4	0.43	1.28	2.56	1.81	3.87
82LF-102-01	3/8	0.50	1.28	2.56	1.81	3.87
82LF-103-01	1/2	0.62	1.40	2.81	1.93	4.87
82LF-104-01	3/4	0.81	1.71	3.43	2.18	4.87
82LF-105-01	1	1.00	1.93	3.87	2.62	5.50
82LF-106-01	1-1/4	1.25	2.37	4.75	2.87	5.50
82LF-107-01	1-1/2	1.50	2.62	5.25	3.37	8.00
82LF-108-01	2	2.00	3.01	6.03	3.68	8.00
82LF-109-01	2-1/2	2.50	3.62	7.25	5.14	9.75

82LF-200 SERIES



FULL PORT BRONZE THREE-PIECE SOLDER END VALVE

Valve features full port and is easily repaired inline. Designed for soft soldering installation.

FEATURES

- ASTM grade EZ-Solder™ Lead Free Bronze
- SAE Grade 8 body bolts
- RPTFE seats and seals.
- 600 CWP, non-shock
- 82LF-24X with SS ball and stem option
- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free



LF Model Number	Size (in.)	Dimensions (in.)						
		A	B	C	D	E	F	G
82LF-202-01	3/8	0.50	1.28	2.56	1.81	3.87	0.50	0.37
82LF-203-01	1/2	0.62	1.40	2.81	1.93	4.87	0.63	0.50
82LF-204-01	3/4	0.81	1.71	3.43	2.18	4.87	0.88	0.75
82LF-205-01	1	1.00	1.93	3.87	2.62	5.50	1.13	0.90
82LF-206-01	1-1/4	1.25	2.37	4.75	2.87	5.50	1.38	0.96
82LF-207-01	1-1/2	1.50	2.60	5.25	3.37	8.00	1.63	1.09
82LF-208-01	2	2.00	3.01	6.03	3.68	8.00	2.13	1.34
82LF-209-01	2-1/2	2.50	3.62	7.25	5.14	9.38	2.63	1.47

* Model 82LF suitable for soft soldering only.

LEAD FREE PRODUCTS CATALOG

Lead Free Forged Brass Economy Valves

94ALF-A SERIES



APOLLO INTERNATIONAL™ ECONOMY FULL PORT BALL VALVES

These Lead Free ball valves with forged brass body are UL listed, CSA approved and ideal for HVAC and plumbing applications including potable water.

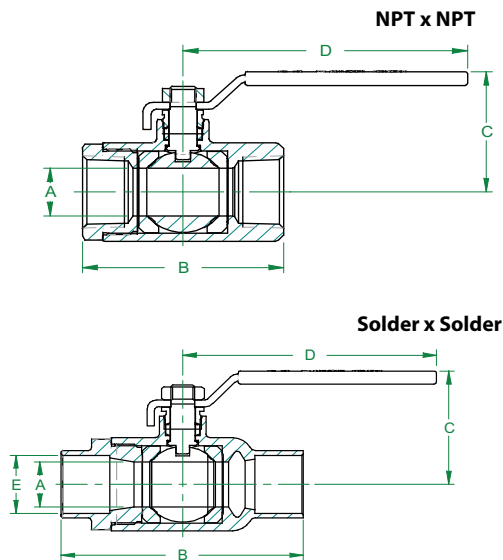
FEATURES

- Lead Free materials and certification
- Distinctive white "Lead Free" handle grip and blue "Lead Free" hang tag
- 2-Piece, Full-Port design
- DZR Naval Brass
- No special solder techniques required
- Blow-out Proof Stem
- Adjustable Stem Packing Nut
- Multiple agency approvals
- Valve Design Rating: 600 CWP – 1/4 to 2", 400 CWP – 2-1/2" to 4"
- Temperature Range: -20°F to 300°F

APPROVALS

- MSS SP-110 - Ball Valves, Threaded and Solder joints
- ANSI/NSF 61-8, Annex F & G
- ANSI/NSF 372 Lead Free
- IAPMO IGC 157 (cUPC)
- ANSI Z21.15 (1/2 psi) (CSA 9.1) (1/4" – 2")
- ASME B16.44 (5 psi) (CR91-002) (1/4" – 2")
- ASME B16.33 (125 psi) (CGA 3.16) (1/4" – 2")
- UL: Guides YQNZ, YRBX, YRPV, YSDT and MHKZ (1/4" - 4" NPT only)
- UL 258 – VQGU Trim & Drain 175# max (1/4" – 2")
- FM 1140 (1/4" - 2" NPT & Solder)

Note: Gas approvals apply to NPT valves only



94ALF-A OPTION KITS

Size	Replacement Handles	2-1/4" Stem Extension + Memory Stop
1/4"-3/8"	W234700	78217101
1/2"	W234800	78217201
3/4"	W234900	78217301
1"	W235000	78217401
1-1/4"	W235100	78217501
1-1/2"-2"	W235200	78217601
2-1/2"-3"	W235300	78217701
4"	W273800	78217801

- Replacement Handle Kits include stem nut
- Replacement handles are not UL marked



LF Model Number	Size (in.)	Dimensions (in.)					Wt.
		A	B	C	D	E	
NPT							
94ALF-101-01A	1/4"	0.39	1.76	1.73	3.54	-	0.29
94ALF-102-01A	3/8"	0.39	1.76	1.73	3.54	-	0.30
94ALF-103-01A	1/2"	0.59	2.05	1.94	3.54	-	0.44
94ALF-104-01A	3/4"	0.75	2.36	2.11	3.78	-	0.71
94ALF-105-01A	1"	0.95	2.76	2.58	4.53	-	1.10
94ALF-106-01A	1-1/4"	1.26	3.31	2.96	4.53	-	1.63
94ALF-107-01A	1-1/2"	1.58	3.66	3.37	5.51	-	2.41
94ALF-108-01A	2"	1.97	4.18	3.70	5.51	-	3.66
94ALF-109-01A	2-1/2"	2.52	5.38	4.76	8.66	-	7.60
94ALF-100-01A	3"	2.95	6.04	5.08	8.66	-	9.60
94ALF-10A-01A	4"	3.90	7.39	5.86	9.61	-	21.00
Solder							
94ALF-203-01A	1/2"	0.59	2.05	1.84	3.54	0.63	0.40
94ALF-204-01A	3/4"	0.75	2.75	2.00	3.78	0.88	0.68
94ALF-205-01A	1"	0.95	3.23	2.45	4.53	1.13	1.15
94ALF-206-01A	1-1/4"	1.26	3.82	2.86	4.53	1.38	1.53
94ALF-207-01A	1-1/2"	1.57	4.43	3.17	5.51	1.63	2.31
94ALF-208-01A	2"	1.96	5.38	3.49	5.51	2.13	3.77
94ALF-209-01A	2-1/2"	2.52	6.28	4.76	8.66	2.63	6.79
94ALF-200-01A	3"	2.92	7.15	5.08	8.66	3.13	8.67
94ALF-20A-01A	4"	3.90	9.28	5.87	9.61	4.13	16.67

BALL VALVES

Lead Free PEX Brass Ball Valve

94XLF SERIES



APOLLOPEX™

NEW



STANDARD PORT BRASS BALL VALVE

The Apollo® International 94XLF Lead Free DZR forged brass ball valves combine reliable operation with maximum economy. Ideal for plumbing and heating applications including potable water. Valves are ANSI 3rd party Lead Free certified and listed to NSF 14, NSF 61 and NSF 372.

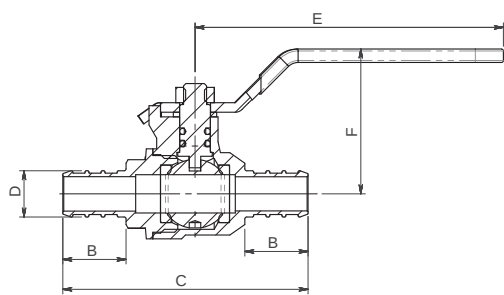
FEATURES

- Lead Free DZR materials and certification
- ASTM F1807 Pex design
- White Handle Grip identifies Lead Free construction
- Standard Port design
- Double O-ring stem seal
- Blow-out Proof Stem Design
- Silicone Free assembly

APPROVALS

- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free
- NSF/ANSI 14
- ASTM F1807 Conformance

Refer to Pex Piping Guidelines

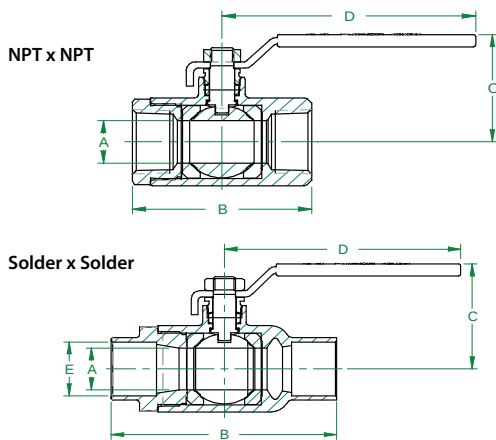


LF Model Number	Size (in.)	Dimensions (in.)					Wt.
		B	C	D	E	F	
94XLF-103-01	1/2	0.65	2.52	.47	3.17	1.49	.25
94XLF-104-01	3/4	0.65	2.62	.67	3.17	1.57	.41
94XLF-105-01	1	0.80	2.91	.86	3.17	1.57	.57

LEAD FREE PRODUCTS CATALOG

Stop & Waste Ball Valves

95ALF SERIES



FULL-PORT BRASS BALL VALVE

The Apollo® International 95ALF Lead Free forged brass ball valves combine reliable stop and waste operation with maximum economy. Ideal for plumbing or hydronic systems where draining is required.

FEATURES

- Lead Free materials and certification
- Blow-out proof stem design
- Adjustable stem packing nut
- Drain port with finger tight shut-off
- Fast, quarter-turn operation
- Valve Design Rating: 600 CWP
- Temperature Range: -20°F to 250°F
- IAPMO certified NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free
- IAPMO IGC 157
- IGC 157

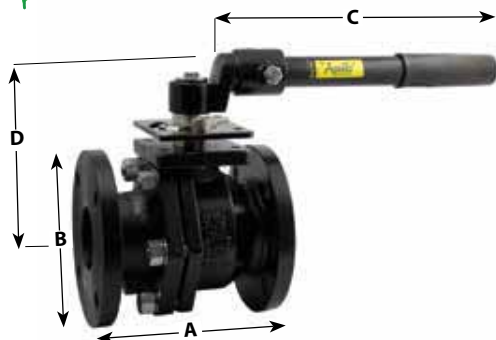
LF Model Number	Size (in.)	Dimensions (in.)				
		A	B	C	D	E
NPT						
95ALF-103-01	1/2	0.59	2.24	1.78	3.74	-
95ALF-104-01	3/4	0.79	2.53	2.09	3.94	-
95ALF-105-01	1	0.98	3.15	2.36	4.33	-
Solder						
95ALF-203-01	1/2	0.59	2.12	1.78	3.74	0.63
95ALF-204-01	3/4	0.79	2.87	1.94	3.94	0.88
95ALF-205-01	1	0.98	3.53	2.36	4.33	1.13

Cast Iron Flanged Ball Valve

6PLF SERIES



Now Available!



CAST IRON CLASS 125 FLANGED BALL VALVE

The cast iron/epoxy coated, Class 125 Apollo International™ 6PLF Series Lead Free Ball Valves offer unobstructed turbulence-free flow that gate and butterfly valves can't match. Compact design and low profile handle for easy installation in tight areas.

FEATURES

- A126 Class B Cast Iron Body with FDA food-grade epoxy powder coat
- Stainless Steel Ball & Stem
- PTFE Seats
- ISO 5211 Mounting Pad for Easy Actuation
- Adjustable stem packing
- Full Port through 6"
- NSF/ANSI 61 water quality
- NSF/ANSI 372 Lead Free
- 200 CWP/125 SWP

LF Model Number	Size (in.)	Dimensions (in.)				Wt.
		A	B	C	D	
6PLF-208-01	2	7.00	6.00	12.20	6.50	22.70
6PLF-209-01	2-1/2	7.50	7.00	13.78	7.42	36.73
6PLF-200-01	3	8.00	7.50	13.78	8.17	46.63
6PLF-20A-01	4	9.00	9.00	15.75	9.00	71.83
6PLF-20C-01	6	10.50	11.00	30.00	11.32	111.99
6PLF-20E-01*	8	11.50	13.50	30.00	11.32	210.54
6PLF-20G-01*	10	13.00	16.00	33.00	13.05	294.10

* Gear Operated

BALL VALVES

Two Piece Stainless Steel Valves

76 SERIES



TWO PIECE STAINLESS STEEL BALL VALVES

Trusted Apollo-brand "Made in USA" quality, now with the added benefit of ANSI 3rd Party Lead Free approvals. Ideal for potable water, food processing and related applications requiring documented compliance with Federal Public Law 111-380 and the U.S. Safe Drinking Water Act.

FEATURES

- NSF/ANSI 372 0.25% Lead Free and NSF 61-8 Water Quality approvals

Visit our website www.ApolloValves.com or click on the QR code for more detailed information.

76-100 SERIES



STAINLESS STEEL BALL VALVE WITH MOUNTING PAD

Threaded, 2-Piece, Std. Port, Stainless Steel Ball Valve, 2000 CWP to 1", 1500 CWP to 2", 1000 CWP to 3", Sizes: 1/4" to 3" (DN 8 to DN 75).



76-300 SERIES



DOUBLE UNION END STAINLESS STEEL BALL VALVE

Threaded, Double Union End, Std. Port, Stainless Steel Ball Valve, 2000 CWP to 1", 1500 CWP to 2", Sizes: 1/4" to 2" (DN 8 to DN 50).



76-400 SERIES



STAINLESS STEEL DOUBLE UNION END SOCKET WELD BALL VALVE

Socket Weld, Double Union End, Std. Port, Stainless Steel Ball Valve, 2000 CWP to 1", 1500 CWP to 2", Sizes: 1/4" to 2" (DN 8 to DN 50).



76-500 SERIES



STAINLESS STEEL BALL VALVE WITH SPRING RETURN HANDLE

Threaded, 2-Piece, Std. Port, Stainless Steel Ball Valve, Spring Return Handle, 2000 CWP to 1", 1500 CWP to 2", Sizes: 1/4" to 2" (DN 8 to DN 50).



76-600 SERIES



3-WAY DIVERSION STAINLESS STEEL BALL VALVE

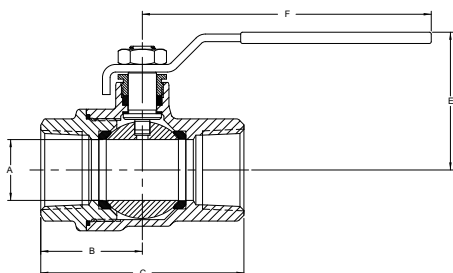
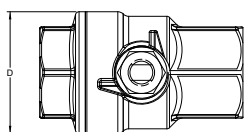
Threaded, 3-Way, Std. Port, Stainless Steel Ball Valve, 800 CWP, Sizes: 1/4" to 2" (DN 8 to DN 75).



LEAD FREE PRODUCTS CATALOG

Stainless Steel Full Port Ball Valves

76F-100-A SERIES



STAINLESS STEEL FULL PORT BALL VALVE

Threaded, 2 piece design, 1/2"-2" 1000 psig CWP Cold Non-Shock, 150 psig. Saturated Steam, Vacuum Service to 29 inches Hg.

FEATURES

- 316 SS Investment cast components
- RPTFE seats
- Two-piece body
- Blow-out-proof stem design
- Adjustable packing gland
- (-24) Certified to API 607, 6th Edition, Class 600 burn
- Meets NACE MR-01-75-2000
- SS lever and nut
- Available with SS latch lock lever (-27)
- Therma Seal tee handle option (-11)
- Standard valve is certified **Lead Free**
- NSF/ANSI-61-G, NSF/ANSI 372 Lead Free

Model Number	Size (in.)	Dimensions (in.)						Wt.
		A	B	C	D	E	F	
76F-103-01A	1/2"	.50	1.21	2.35	1.27	1.73	3.85	0.57
76F-104-01A	3/4"	.75	1.39	2.77	1.62	1.96	3.85	0.91
76F-105-01A	1"	1.00	1.67	3.34	2.00	2.27	4.75	1.38
76F-106-01A	1-1/4"	1.25	1.96	3.92	2.73	3.21	7.77	4.17
76F-107-01A	1-1/2"	1.50	2.05	4.10	2.92	3.31	7.77	4.69
76F-108-01A	2"	2.00	2.37	4.74	3.75	3.69	7.77	6.90

BALL VALVES

Three Piece Stainless Steel Valves

86A SERIES



3-PIECE STAINLESS STEEL BALL VALVES

Trusted Apollo-brand "Made in USA" quality, now with the added benefit of ANSI 3rd Party Lead Free approvals. Ideal for potable water, food processing and related applications requiring documented compliance with Federal Public Law 111-380 and the U.S. Safe Drinking Water Act.

FEATURES

- NSF/ANSI 372 0.25% Lead Free and NSF 61-8 Water Quality approvals

Visit our website www.ApolloValves.com or click on the QR code for more detailed information.

86A-100 SERIES



3-PIECE FULL PORT STAINLESS STEEL 1500 CWP NPT BALL VALVE

Threaded, Full Port, Stainless Steel Ball Valve, 1500 CWP, Sizes: 1/4" to 2" (DN 8 to DN 50).



86A-200 SERIES



3-PIECE FULL PORT STAINLESS STEEL 1500 CWP SOCKET-WELD BALL VALVE

Socket-weld, Full Port, Stainless Steel Ball Valve, 1500 CWP, Sizes: 1/4" to 2" (DN 8 to DN 50).



86A-300 SERIES



3-PIECE FULL PORT STAINLESS STEEL 1500 CWP SCHEDULE 5 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, 1500 CWP, Sch 5, Sizes: 1/2" to 2" (DN 15 to DN 50).



86A-400 SERIES



3-PIECE FULL PORT STAINLESS STEEL 1500 CWP SCHEDULE 10 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, 1500 CWP, Sch 10, Sizes: 1/2" to 2" (DN 15 to DN 50).



86A-500 SERIES



3-PIECE FULL PORT STAINLESS STEEL 1500 CWP SCHEDULE 40 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, 1500 CWP, Sch 40, Sizes: 1/2" to 2" (DN 15 to DN 50).



86A-600 SERIES



3-PIECE FULL PORT STAINLESS STEEL 1500 CWP SCHEDULE 80 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, 1500 CWP, Sch 80, Sizes: 1/2" to 2" (DN 15 to DN 50).



LEAD FREE PRODUCTS CATALOG

Three Piece Stainless Steel Valves

86B SERIES



THREE PIECE STAINLESS STEEL BALL VALVES

Trusted Apollo-brand "Made in USA" quality, now with the added benefit of ANSI 3rd Party Lead Free approvals. Ideal for potable water, food processing and related applications requiring documented compliance with Federal Public Law 111-380 and the U.S. Safe Drinking Water Act.

FEATURES

- NSF/ANSI 372 0.25% Lead Free and NSF 61-8 Water Quality approvals

Visit our website www.ApolloValves.com or click on the QR code for more detailed information.

86B-100 SERIES



3-PIECE FULL PORT STAINLESS STEEL CLASS 600 NPT BALL VALVE

Threaded, Full Port, Stainless Steel Ball Valve, ASME Class 600, Sizes: 1/4" to 2" (DN 8 to DN 50).



86B-200 SERIES



3-PIECE FULL PORT STAINLESS STEEL CLASS 600 SOCKET-WELD BALL VALVE

Socket-weld, Full Port, Stainless Steel Ball Valve, ASME Class 600, Sizes: 1/4" to 2" (DN 8 to DN 50).



86B-300 SERIES



3-PIECE FULL PORT STAINLESS STEEL CLASS 600 SCHEDULE 5 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, ASME Class 600, Sch 5, Sizes: 1/2" to 2" (DN 15 to DN 50).



86B-400 SERIES



3-PIECE FULL PORT STAINLESS STEEL CLASS 600 SCHEDULE 10 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, ASME Class 600, Sch 10, Sizes: 1/2" to 2" (DN 15 to DN 50).



86B-500 SERIES



3-PIECE FULL PORT STAINLESS STEEL CLASS 600 SCHEDULE 40 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, ASME Class 600, Sch 40, Sizes: 1/2" to 2" (DN 15 to DN 50).



86B-600 SERIES



3-PIECE FULL PORT STAINLESS STEEL CLASS 600 SCHEDULE 80 BUTT-WELD BALL VALVE

Buttweld, Full Port, Stainless Steel Ball Valve, ASME Class 600, Sch 80, Sizes: 1/2" to 2" (DN 15 to DN 50).



BALL VALVES

Flanged Stainless Steel Valves

87A SERIES



FLANGED STAINLESS STEEL BALL VALVE

Trusted Apollo-brand "Made in USA" quality, now with the added benefit of ANSI 3rd Party Lead Free approvals. Ideal for potable water, food processing and related applications requiring documented compliance with Federal Public Law 111-380 and the U.S. Safe Drinking Water Act.

FEATURES

- NSF/ANSI 372 0.25% Lead Free and NSF 61-8 Water Quality approvals

Visit our website www.ApolloValves.com or click on the QR code for more detailed information.

87A-100 SERIES



STAINLESS STEEL ASME CLASS 150 FLANGED STD. PORT BALL VALVE

Flanged, Std. Port, Stainless Steel Ball Valve, ASME Class 150RF, Sizes: 1-1/2" to 10" (DN 40 to DN 250).



87A-200 SERIES



STAINLESS STEEL ASME CLASS 150 FLANGED FULL PORT BALL VALVE

Flanged, Full Port, Stainless Steel Ball Valve, ASME Class 150RF, Sizes: 1/2" to 12" (DN 15 to DN 300).



87A-700 SERIES



STAINLESS STEEL ASME CLASS 300 FLANGED STD. PORT BALL VALVE

Flanged, Std. Port, Stainless Steel Ball Valve, ASME Class 300RF, Sizes: 1-1/2" to 10" (DN 40 to DN 250).



87A-900 SERIES



STAINLESS STEEL ASME CLASS 300 FLANGED FULL PORT BALL VALVE

Flanged, Full Port, Stainless Steel Ball Valve, ASME Class 300RF, Sizes: 1/2" to 12" (DN 15 to DN 300).



LEAD FREE PRODUCTS CATALOG

Butterfly Valves

141/145 SERIES

APOLLO INTERNATIONAL™



**WD 141
Wafer
2" – 12"**

**LD 141
Lug
2" – 24"**

MADE IN AMERICA



**WD 145
Wafer
2" – 12"**

**LD 145
Lug
2" – 12"**

GENERAL PURPOSE BUTTERFLY VALVES

Apollo International™ 141 Series butterfly valves are available in wafer body design (WD141) or single flange body design (LD141). Stainless Steel disc and EPDM seat.

FEATURES

- Compatible with ANSI 125# & 150# flanges
- ISO 5211 top plate allows choice of Apollo pneumatic actuators and manual operators
- Conforms to MSS SP-67 & API 609
- LD141 Series suitable for end of line service to rated pressure
- 3"-12" meet performance requirements of AWWA C-504

PRESSURE-TEMPERATURE RATING AT 100°F (37.8°C)

All Body, Disc, Seat Combinations

2"-12" (DN50 - DN300)

200 psi (13.8 bar)

All Sizes – Vacuum Rating

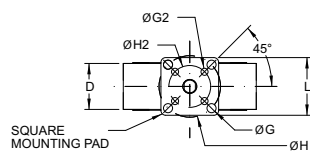
29 inches of Hg

APPROVALS

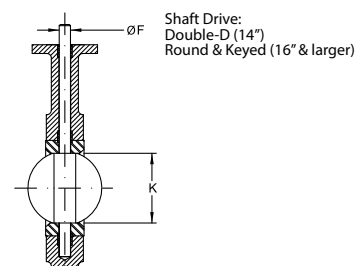
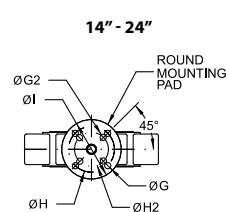
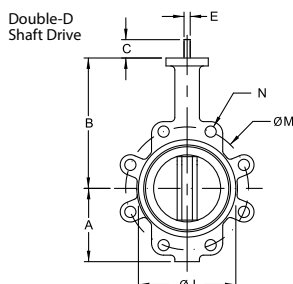
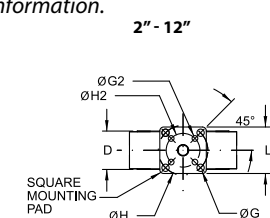
- NSF/ANSI 372 Lead Free
(Does not include 145 Series with Viton seat)

141 LD Series Lug Style LF Model Number	141 WD Series Wafer Style LF Model Number	145 LD Series Lug Style LF Model Number	145 WD Series Wafer Style LF Model Number	Size (in.)
LD141-02-SE1-X	WD141-02-SE1-X	LD145-02-SE1-X	WD145-02-SE1-X	2
LD141-25-SE1-X	WD141-25-SE1-X	LD145-25-SE1-X	WD145-25-SE1-X	2.5
LD141-03-SE1-X	WD141-03-SE1-X	LD145-03-SE1-X	WD145-03-SE1-X	3
LD141-04-SE1-X	WD141-04-SE1-X	LD145-04-SE1-X	WD145-04-SE1-X	4
LD141-05-SE1-X	WD141-05-SE1-X	LD145-05-SE1-X	WD145-05-SE1-X	5
LD141-06-SE1-X	WD141-06-SE1-X	LD145-06-SE1-X	WD145-06-SE1-X	6
LD141-08-SE1-X	WD141-08-SE1-X	LD145-08-SE1-X	WD145-08-SE1-X	8
LD141-10-SE1-X	WD141-10-SE1-X	LD145-10-SE1-X	WD145-10-SE1-X	10
LD141-12-SE1-X	WD141-12-SE1-X	LD145-12-SE1-X	WD145-12-SE1-X	12
LD141-14-SE1-X	WD141-14-SE1-X	—	—	14
LD141-16-SE1-X	WD141-16-SE1-X	—	—	16
LD141-18-SE1-X	WD141-18-SE1-X	—	—	18
LD141-20-SE1-X	WD141-20-SE1-X	—	—	20
LD141-24-SE1-X	WD141-24-SE1-X	—	—	24

Consult factory for availability. See Butterfly Valve Catalog (ABBR141G) for more detailed information.



**WD MODEL
2" – 12"**



BUTTERFLY VALVES

Contractor Grade Butterfly Valves – 149 Series

LC-149 SERIES



APOLLO INTERNATIONAL™

The LC149 Series Cast Iron Butterfly Valves are ideal for use in Industrial and HVAC/Mechanical applications. The LC149 Series is a lug style valve designed to be economical yet full featured.

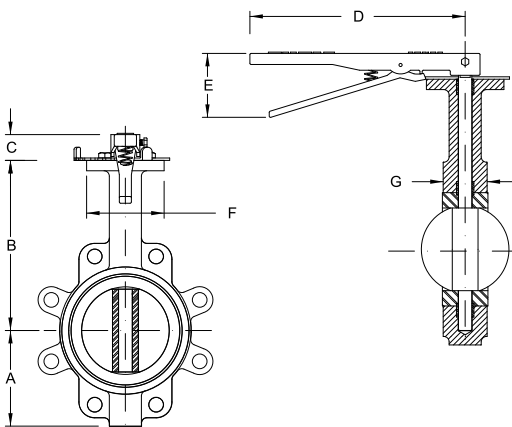
PERFORMANCE RATING

- Max Operating Pressure: 200 psi (13.8 bar)
- Temperature Range: -30°F (-34°C) to 275°F (135°C)
- Cast iron body, EPDM seats and aluminum bronze disc is standard

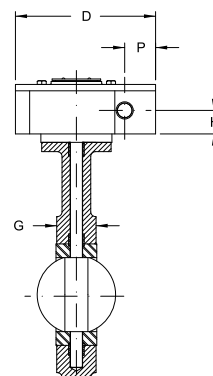
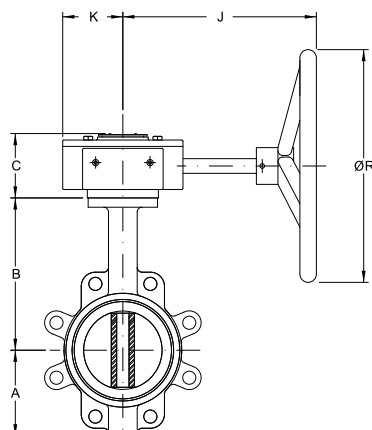
APPROVALS

- NSF/ANSI 372 Lead Free

Size (in)	LF Model Number	Dimensions in Inches – 149 Series with Handle						
		A	B	C	D	E	F	G
2	LC149021	3.25	6.38	1.25	10.5	3.1	2.70	1.75
2-1/2	LC149251	3.75	6.88	1.25	10.5	3.1	2.70	1.88
3	LC149031	4.00	7.13	1.25	10.5	3.1	2.70	1.88
4	LC149041	4.88	7.88	1.25	10.5	3.1	2.70	2.13
5	LC149051	5.38	8.38	1.25	10.5	3.1	2.70	2.25
6	LC149061	5.88	8.88	1.25	10.5	3.1	2.70	2.25
8	LC149081	7.13	10.25	1.75	14.3	3.5	4.61	2.50
10	LC149101	8.25	11.50	1.88	14.3	3.5	4.61	2.75
12	LC149121	9.75	13.25	1.88	14.3	3.5	4.61	3.13



Size (in)	LF Model Number	Dimensions in Inches – 149 Series with Optional Gear Operator									
		A	B	C	D	G	H	J	K	P	ØR
8	LC149082	7.13	10.25	3.38	8.00	2.50	1.62	9.48	3.25	1.50	11.88
10	LC149102	8.25	11.50	3.38	8.00	2.75	1.62	9.48	3.25	1.50	11.88
12	LC149122	9.75	13.25	3.38	8.00	3.13	1.62	9.48	3.25	1.50	11.88



LEAD FREE PRODUCTS CATALOG

Water Heater Accessories

EXP (40-XT) SERIES



EXPANSION TANKS FOR POTABLE SYSTEMS

Designed to protect closed water supply systems, appliances and piping from the hazards of thermal expansion, such as premature water heater failure. Installs easily on direct fired gas, oil and electric hot water heaters and storage tanks. Their pre-pressurized steel design includes an expansion membrane that stops any contact between the water and air in the tank.

FEATURES

- Ideal for use in dorms, apartments, office buildings and hospitals
- Compatible with most standard water heaters and storage tanks
- Maximum working pressure: 150 psig
- Food quality Chlorobutyl diaphragm
- 100 percent non-metallic non-corrosive water reservoir
- Pre-charge pressure 40 psig
- Field adjustable pre-charge
- ANSI/NSF 61-8, Annex G (**Lead Free**)
- IAPMO approved
- **Made in USA**

Series Number	Capacity (gal.)	Exp. Vol. (gal.)	Connection	Dimensions (in.)		Net Wt. (lbs.)
				Height	Diameter	
40-XT1-03	2	1.27	3/4 NPT	12.5	8.25	5.5
40-XT3-03	5	3.05	3/4 NPT	14.0	11.25	8
40-XT5-03	10	7.80	3/4 NPT	15.75	15.25	20

Water Heater Accessories

EXV (78LF-RV) SERIES



BRONZE SHUT-OFF VALVE WITH THERMAL EXPANSION CONTROL VALVE

The Apollo® 78LF-RV combines thermal expansion protection and water heater shut-off in a single, simple installation. They're space saving and a less costly alternative to large expansion tanks.

FEATURES

- Ball valve available in Solder, NPT, and Pex connections
- ASTM grade EZ-Solder™ Bronze
- Chrome plated ball
- Thermal relief valve is factory preset and sealed
- Relief valve features soft seat and Stainless Steel spring
- Relief valve discharge available with hose barb fitting, 1/2" F1807 Pex fitting, 3/8" compression fitting or 1/2" combination sweat/thread fitting
- IAPMO IGC 128 approval
- Temperature rating: 210°F max
- Meets CSA B125.1 & B125.3 requirements
- City of Los Angeles registered
- Multiple relief pressure kit options
- NSF/ANSI 372 Lead Free

NUMBERING SYSTEM

78LF	-X	-X	-X	- RV
SERIES	SIZE/STYLE	SET PRESSURE	RELIEF VALVE CONNECTION	
78LF = Lead Free	3 = 3/4 SWT 4 = 3/4 THD 7 = 3/4 PEX	0 = 125 psig 1 = 100 psig 2 = 80 psig	4 = 3/8" Hose barb 5 = 1/2" Pex 6 = 3/8" Compression fitting 7 = 1/2" NPT/SWT fitting	

EXAMPLE:

78LF-414-RV = Lead Free, 3/4" Threaded Connections, 100 psig Set Pressure, 3/8" Hose Barb Connection on Relief Valve.

MIXING VALVES

ASSE 1017 Point of Source Mixing Valves

MVA (34ALF) SERIES



THERMOSTATIC MIXING VALVES

34ALF Series are ASSE 1017 certified mixing valves designed for hot water distribution systems; or "point of source" applications. High temperature versions are designed for radiant heat applications, to provide better control of hot water supply. Numbered indicator control allows easy setup and fingertip control. Available in standard or high temperature range options depending on application. Inlet check valves and Stainless Steel screens provide added protection of thermostat and cross flow control.

FEATURES

- EPDM/SS strainer washer
- Standard temperature range (85°-140°F)
- High temperature range (120°-180°F)
- DZR Lead Free bronze body
- Supply pressures to 150 psig
- Union NPT, Solder, CPVC, Press and PEX connections
- Inlet check valves
- 30 mesh SS screens on both inlets
- High flow capacity
- Broad temperature adjustment range
- Hot and cold water failure protection
- CSA B125.3 approval
- Calibrated max 120°F setpoint option available
- Chloramine resistant elastomers
- Maximum flow 19 gpm @ 30 psid
- NSF/ANSI 372 Lead Free

Size (in.)	Connection	Standard Temp (85° - 140°F)		Limit Stop Max. Temp (120°F)		High Temp (120° - 180°F)*	
		Model	Series	Model	Series	Model	Series
1/2"	Solder inlets X Solder outlet	MVAS12LF	34ALF213S	MVABS12LF	34ALF213BS	MVAHS12LF	34ALF213HS
	FNPT inlets X FNPT outlet	MVA12LF	34ALF213T	MVAB12LF	34ALF213BT	MVAHT12LF	34ALF213HT
	CPVC inlets X CPVC outlet	MVAC12LF	34ALF213C	MVABC12LF	34ALF213BC		
	PEX inlets X PEX outlet	MVAX12LF	34ALF213X	MVABX12LF	34ALF213BX		
	Solder inlets X CPVC outlet	MVASC12LF	34ALF213SC	MVABSC12LF	34ALF213BSC		
	FNPT inlets X CPVC outlet	MVATC12LF	34ALF213TC	MVABTC12LF	34ALF213BTC		
	PEX inlets X CPVC outlet	MVAXC12LF	34ALF213XC	MVABXC12LF	34ALF213BXC		
	CPVC inlets X PEX outlet	MVACX12LF	34ALF213CX	MVABCX12LF	34ALF213BCX		
	PRESS inlets X PRESS outlet	MVAPR12LF	34ALF213PR	MVABPR12LF	34ALF213BPR		
3/4"	Solder inlets X Solder outlet	MVAS34LF	34ALF214S	MVABS34LF	34ALF214BS	MVAHS34LF	34ALF214HS
	FNPT inlets X FNPT outlet	MVA34LF	34ALF214T	MVAB34LF	34ALF214BT	MVAHT34LF	34ALF214HT
	CPVC inlets X CPVC outlet	MVAC34LF	34ALF214C	MVABC34LF	34ALF214BC		
	PEX inlets X PEX outlet	MVAX34LF	34ALF214X	MVABX34LF	34ALF214BX		
	Solder inlets X CPVC outlet	MVASC34LF	34ALF214SC	MVABSC34LF	34ALF214BSC		
	FNPT inlets X CPVC outlet	MVATC34LF	34ALF214TC	MVABTC34LF	34ALF214BTC		
	PEX inlets X CPVC outlet	MVAXC34LF	34ALF214XC	MVABXC34LF	34ALF214BXC		
	CPVC inlets X PEX outlet	MVACX34LF	34ALF214CX	MVABCX34LF	34ALF214BCX		
	PRESS inlets X PRESS outlet	MVAPR34LF	34ALF214PR	MVABPR34LF	34ALF214BPR		
1"	Solder inlets X Solder outlet	MVAS1LF	34ALF215S	MVABS1LF	34ALF215BS	MVAHS1LF	34ALF215HS
	FNPT inlets X FNPT outlet	MVA1LF	34ALF215T	MVAB1LF	34ALF215BT	MVAHT1LF	34ALF215HT
	CPVC inlets X CPVC outlet	MVAC1LF	34ALF215C	MVABC1LF	34ALF215BC		
	PEX inlets X PEX outlet	MVAX1LF	34ALF215X	MVABX1LF	34ALF215BX		
	Solder inlets X CPVC outlet	MVASC1LF	34ALF215SC	MVABSC1LF	34ALF215BSC		
	FNPT inlets X CPVC outlet	MVATC1LF	34ALF215TC	MVABTC1LF	34ALF215BTC		
	PEX inlets X CPVC outlet	MVAXC1LF	34ALF215XC	MVABXC1LF	34ALF215BXC		
	CPVC inlets X PEX outlet	MVACX1LF	34ALF215CX	MVABCX1LF	34ALF215BCX		
	PRESS inlets X PRESS outlet	MVAPR1LF	34ALF215PR	MVABPR1LF	34ALF215BPR		

To order Repair Kits use part numbers 34A200HRK (high temp.), 34A200RK (std. temp.)

* High temperature models are not ASSE certified.

LEAD FREE PRODUCTS CATALOG

Mixing Valves

MVC (34CLF) SERIES



COMMERCIAL HIGH CAPACITY MIXING VALVES

34CLF Series ASSE 1017 listed, high-capacity mixing valves are thermostatically controlled regulating valves designed for use in large commercial potable and non-potable hot water systems or "point of source" applications. Simple adjustment of water temperature from 90°-140°F or 130°-180°F.

FEATURES

- Sizes: 3/4", 1", 1-1/4", 1-1/2", 2"
- Standard temp range (90°-140°F)
- High temp range (130°-180°F)
- Threaded connections
- Installs easily on heating source
- Chloramine resistant elastomers
- Patented design for easy in-line maintenance
- Supply pressures to 150 psig
- U. S. Patent No. 6,328,219
- CSA B125.3

Size (in.)	Connection	Standard Temp (90° - 140°F)		High Temp (130° - 180°F)*	
		Model	Series	Model	Series
3/4"		MVCLF34	34CLF10401	MVCLFH34	34CLF104H1
1"		MVCLF1	34CLF10501	MVCLFH1	34CLF105H1
1-1/4"		MVCLF114	34CLF10601	MVCLFH114	34CLF106H1
1-1/2"		MVCLF112	34CLF10701	MVCLFH112	34CLF107H1
2"		MVCLF2	34CLF10801	MVCLFH2	34CLF108H1

To order Repair Kits:

- 3/4" - 1" - 34C104RK (std. temp)
 - 34C104R1 (high temp)
 1-1/4" - 2" - 34C106RK (std. temp)
 - 34C106RK1 (high temp)

* High temperature models are not ASSE certified.

Point of Use Mixing Valves

MVD (34DLF) SERIES



**34DLF Single Outlet
"Point Of Use" Mini Mixer**

MINI-MIXER MIXING VALVES

ASSE 1070 certified, "point of use" mixing valves are designed to sense and maintain preset outlet temperature compensating for fluctuations in hot and cold water supply temperatures and pressures. The mixed water temperature adjustment range is 85°F to 120°F and will hold a desired temperature within ±2°F. The 34DLF also features an adjustable temperature limit stop to prevent the valve from being set above 120°F.

FEATURES

- DZR Lead Free bronze body
- 3/8" compression connections
- Easy maintenance
- Elevated temperature thermal element protection
- CSA B125.3 approval
- Mounting kit included
- Chrome plate option
- Can be used with 3/8" braided hose
- Tamper resistant locking cap
- Scald protection
- Inlet check valves to prevent cross connection
- Bypass tee option for cold water connections
- Chloramine resistant elastomers
- Hot & cold water failure protection
- NSF/ANSI 61-8 approval
- NSF/ANSI 372 Lead Free

Size (in.)	Connection	Finish	Single Inlet		By-Pass Inlet	
			Model	Series	Model	Series
3/8"	Compression inlets X Compression outlet	Bronze	MVDLF	34DLF30201	MVDBLF	34DLF302B1
		Chrome Plated	MVDRLF	34DLF30217	MVDRBLF	34DLF302B17

To order Repair Kits use part number 34D300RK.

MIXING VALVES

Dual Purpose Mixing Valves

MVB (34BLF) SERIES



SCALD PROTECTION MIXING VALVES

ASSE 1017 and 1070 certified mixing valves are designed for “point of source” or “point of use” applications with high flow. These valves use a thermostatic element that senses outlet temperature and will compensate for fluctuating inlet temperature and pressure. The mixed water temperature range is 85°-120°F and will hold a desired temperature within $\pm 3^\circ\text{F}$. The 34BLF also features adjustable temperature limit stop to prevent the valve from being set above 120°F.

FEATURES

- ASTM C89836 Lead Free bronze
- High flow rates
- Stainless steel spring
- Corrosion and DZR resistant bronze body
- NPT, Solder, Pex, CPVC, and Press connections
- CSA B125.3 approval
- ASSE 1017 for hot water source apps.
- ASSE 1070 for multiple fixture apps.
- Inlet check valves
- Flat EPDM union washers with 20 mesh screen
- Cold water failure protection
- Adjustable temperature limit stop
- Supply pressures to 150 psig
- Tamper resistant locking cap
- Chloramine resistant elastomers
- 1.5 GPM minimum flow rate
- For lower flow applications recirculation pump downstream is recommended
- NSF/ANSI 372 Lead Free



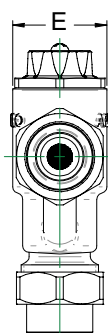
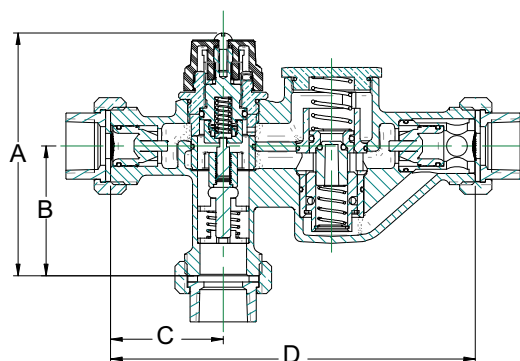
Size (in.)	Connection	Model	LF Series
1/2"	Solder inlets X Solder outlet	MVBS12LF	34BLF213S
	FNPT inlets X FNPT outlet	MVB12LF	34BLF213T
	CPVC inlets X CPVC outlet	MVBC12LF	34BLF213C
	PEX inlets X PEX outlet	MVBX12LF	34BLF213X
	Solder inlets X CPVC outlet	MVBS12LF	34BLF213SC
	FNPT inlets X CPVC outlet	MVB12LF	34BLF213TC
	PEX inlets X CPVC outlet	MVBX12LF	34BLF213XC
	CPVC inlets X PEX outlet	MVBC12LF	34BLF213CX
	Press inlets X Press outlet	MVBPR12F	34BLF213PR
3/4"	Solder inlets X Solder outlet	MVBS34LF	34BLF214S
	FNPT inlets X FNPT outlet	MVB34LF	34BLF214T
	CPVC inlets X CPVC outlet	MVBC34LF	34BLF214C
	PEX inlets X PEX outlet	MVBX34LF	34BLF214X
	Solder inlets X CPVC outlet	MVBS34LF	34BLF214SC
	FNPT inlets X CPVC outlet	MVB34LF	34BLF214TC
	PEX inlets X CPVC outlet	MVBX34LF	34BLF214XC
	CPVC inlets X PEX outlet	MVBC34LF	34BLF214CX
1"	Press inlets X Press outlet	MVBPR34LF	34BLF214PR
	Solder inlets X Solder outlet	MVBS1LF	34BLF215S
	FNPT inlets X FNPT outlet	MVB1LF	34BLF215T
	PEX inlets X PEX outlet	MVBX1LF	34BLF215X
	Press inlets X Press outlet	MVBPR1LF	34BLF215PR

To order Repair Kits use part number 34B200RK.

LEAD FREE PRODUCTS CATALOG

Emergency Eye Wash/Face Wash Mixing Valve

MVE (34ELF) SERIES



MVE 34ELF EMERGENCY MIXING VALVE

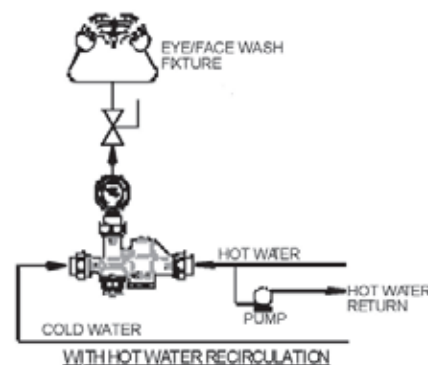
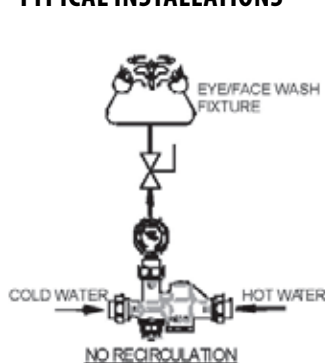
Designed to mix the cold and hot water temperature to deliver tepid water at a predetermined temperature to emergency eyewash/facewash fixtures. The device provides a precise temperature and flow control in the event of cold water, hot water and thermostatic element failures.

FEATURES

- ASTM grade Lead Free C89836 Bronze
- Patented hot & cold water supply failure protection
- Tepid water temperature limit control and adjustment
- Tepid water temperature adjustment handle with locking mechanism for tamper-resistant protection
- Integral inlet check valves and strainers
- Superior thermostatic element technology for optimum reliability and dependability
- Thermostatic element failure and over travel protection
- In-line accessibility and serviceability
- ASSE 1071 approved
- Meets ANSI/ISEA Z358.1-2009
- Corrosion and DZR resistant materials
- NSF/ANSI 372 Lead Free

LF Model Number	LF Series Number	Connection	Dimensions (in.)					Wt.
			A	B	C	D	E	
MVE-12LF	34ELF103T	1/2" NPT	4.72	2.52	2.19	7.09	1.87	3.30
MVES-12LF	34ELF103S	1/2" Solder	4.72	2.52	2.19	7.09	1.87	3.30
MVE-34LF	34ELF104T	3/4" NPT	4.72	2.52	2.19	7.09	1.87	3.30
MVES-34LF	34ELF104S	3/4" Solder	4.72	2.52	2.19	7.09	1.87	3.30

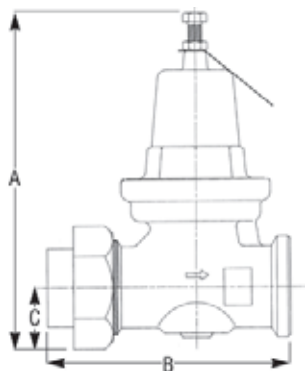
TYPICAL INSTALLATIONS



PRESSURE REDUCING VALVES

Water Pressure Reducing Valves

PR (36LF) SERIES



RESIDENTIAL AND COMMERCIAL APPLICATIONS

The Apollo® 36LF pressure reducing valves reduce wasteful high supply pressures to lower manageable pressures. Factory set at 50 psig.

FEATURES

- Nitrile diaphragm (FDA grade) rated to 180°F Max.
- Corrosion resistant bronze body and cover construction
- No cage screws to rust
- Meets ASSE and CSA standards
- Listed with IAPMO
- Integral high-capacity SS strainer
- Maximum supply pressure 300 psi
- City of Los Angeles approved
- Replaceable cartridge
- Available in sizes from 1/2" to 2"
- Integral thermal expansion by-pass
- **Made in USA**
- NSF/ANSI 372 Lead Free

Pipe Thread Union x FNPT	Solder Joint Union x FNPT	CPVC Union x FNPT	Size (in.)	Dimensions (in.)			Wt./100 (lbs.)
				A	B	C	
36LF-103-01	36LF-303-01		1/2	6.12	4.62	1.00	350
36LF-104-01	36LF-304-01	36LF-3C4-01	3/4	6.12	4.62	1.00	340
36LF-105-01	36LF-305-01	36LF-3C5-01	1	6.50	5.12	1.12	450
36LF-106-01	36LF-306-01		1-1/4	8.62	6.37	1.37	1020
36LF-107-01	36LF-307-01		1-1/2	8.62	6.62	1.37	1045
36LF-108-01	36LF-308-01		2	11.75	8.44	1.81	2250
FNPT x FNPT (no union)							
36LF-203-01			1/2	6.12	3.69	1.00	311
36LF-204-01			3/4	6.12	3.69	1.00	305
36LF-205-01			1	6.50	4.06	1.12	415
36LF-206-01			1-1/4	8.62	5.19	1.37	910
36LF-207-01			1-1/2	8.62	5.31	1.37	909
36LF-208-01			2	11.75	7.12	1.81	1880
Double Union FNPT x FNPT	Double Union Solder x Solder	Double Union CPVC x CPVC	Size (in.)	Dimensions (in.)			Wt./100 (lbs.)
				A	B	C	
36LF-403-01	36LF-503-01		1/2	6.12	5.81	1.00	389
36LF-404-01	36LF-504-01	36LF-5C4-01	3/4	6.12	5.81	1.00	372
36LF-405-01	36LF-505-01		1	6.50	6.50	1.12	495
36LF-406-01	36LF-506-01		1-1/4	8.62	7.69	1.37	1090
36LF-407-01	36LF-507-01		1-1/2	8.62	8.00	1.37	1183
36LF-408-01	36LF-508-01		2	11.75	10.06	1.81	2472
36LF-904-01	Double Union Pex x Pex		3/4	6.12	5.81	1.00	372
36LF-9C4-01	Double Union CPVC x Pex		3/4	6.12	5.81	1.00	372

PART NUMBER MATRIX

36LF	X	X	X	X	X	X
CONNECTION	OPTIONS	SIZE	GAUGE	PRESSURE (RANGE)	OPTION	
1 - Single Union NPT	0 - Standard	03 - 1/2"	0 - No Gauge	1 - 25-75 psig	PR - Press (applies to model 36LF20x only)	
2 - No Union NPT	C - CPVC Tailpiece	04 - 3/4"	P - With Gauge Port & Plug	2 - 10-35 psig		
3 - Single Union Solder x NPT	S - Sealed Cage*	05 - 1"	G - With Pressure Gauge	3 - 75-125 psig		
4 - Double Union NPT	X - Pex Tailpiece	06 - 1-1/4"				
5 - Double Union Solder		07 - 1-1/2"				
6 - Single Union Meter x NPT		08 - 2"				
8 - Double Union CPVC						
9 - Double Union Pex						

* S option = Sealed cage with stainless steel adjusting screw for vault installation.

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® Water Pressure Reducing Valves

PR-PRLF (36LF-PR) SERIES



APOLLOXPRESS®



APOLLOXPRESS® RESIDENTIAL AND COMMERCIAL APPLICATIONS

The Apollo® 36LF pressure reducing valves reduce wasteful high supply pressures to lower manageable pressures. Factory set at 50 psig.

FEATURES

- Nitrile diaphragm (FDA grade) rated to 180°F Max.
- Corrosion resistant bronze body and cover construction
- Leak Before Press® technology
- No cage screws to rust
- Meets ASSE and CSA standards
- Listed with IAPMO
- Integral high-capacity SS strainer
- Maximum supply pressure 250 psi
- Regulator max temperature is 180°F
- Press connections rated 250 psi max.
- City of Los Angeles approved
- Replaceable cartridge
- Available in sizes from 1/2" to 2"
- Integral thermal expansion by-pass
- **Made in USA**
- NSF/ANSI 372 Lead Free

Pipe Thread Union x FNPT	Size (in.)			Wt./100 (lbs.)
		Length	Height from CL	
36LF-203-01PR	1/2	5.78"	4.75"	3.1
36LF-204-01PR	3/4	6.09"	4.75"	3.1
36LF-205-01PR	1	6.65"	5.9"	4.1
36LF-206-01PR	1-1/4	7.88"	7.49"	9.0
36LF-207-01PR	1-1/2	8.62"	7.49"	9.0
36LF-208-01PR	2	10.76"	9.76"	21.0

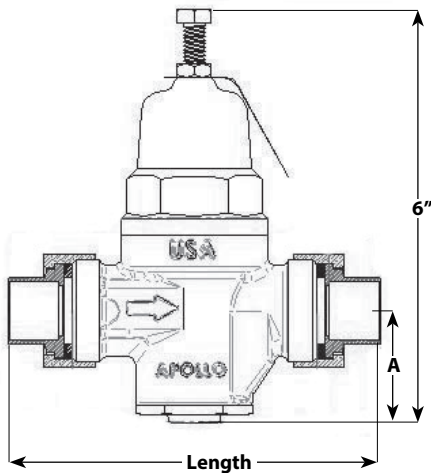
PART NUMBER MATRIX

36LF	X	X	X	X	X
CONNECTION	OPTIONS	SIZE	GAUGE	PRESSURE (RANGE)	OPTION
2 - Press X Press Unions	0 - Standard	03 - 1/2" 04 - 3/4" 05 - 1" 06 - 1-1/4" 07 - 1-1/2" 08 - 2"	0 - No Gauge P - With Gauge Port & Plug G - With Pressure Gauge	1 - 25-75 psig 2 - 10-35 psig 3 - 75-125 psig	PR - Press (applies to model 36LF20x only)

PRESSURE REDUCING VALVES

Water Pressure Reducing Valves

PRC (36CLF) SERIES



RESIDENTIAL AND COMMERCIAL APPLICATIONS

The Apollo® 36CLF reduces wasteful high supply pressures to lower manageable pressures. All-bronze body, dielectric polymer cage, stainless steel strainer and trim. In line repairable with bottom access without disturbing pressure setting.

FEATURES

- EPDM FDA grade diaphragm
- Standard factory setting: 50 psi
- Adjusts from 25 to 75 psi (standard)
- Sealed cage with stainless steel adjusting screw
- Balanced piston design
- Built-in thermal expansion by-pass
- Integral SS strainer
- 400 psi max. supply pressure
- Single or double union, female NPT, PEX, CPVC, Press, or solder-joint connections
- ASSE 1003 & CSA B356
- IAPMO listed
- City of Los Angeles approved
- **Made in USA**
- NSF/ANSI 372 Lead Free

LF Series Number	Size (in.)	Dimensions (in.)		Wt./100 (lbs.)
		Length	A	
FNPT Inlet x Outlet (no union)				
36CLF-203	1/2	3.50	1.62	200
36CLF-204	3/4	3.50	1.62	200
36CLF-205	1	3.75	1.50	225
FNPT Union Inlet x FNPT Outlet				
36CLF-103	1/2	4.41	1.62	240
36CLF-104	3/4	4.41	1.62	240
36CLF-105	1	4.75	1.50	270
Sweat Union Inlet x FNPT Outlet				
36CLF-303	1/2	4.41	1.62	240
36CLF-304	3/4	4.75	1.62	240
36CLF-305	1	4.41	1.50	270
CPVC Union Inlet x FNPT Outlet				
36CLF-304-01C	3/4	4.75	1.62	240
36CLF-305-01C	1	4.41	1.50	270
Double Union/Threaded Inlet x Threaded Outlet				
36CLF-403	1/2	5.37	1.62	280
36CLF-404	3/4	5.37	1.62	280
36CLF-405	1	5.87	1.50	310
Double Union/Sweat Inlet x Sweat Outlet				
36CLF-503	1/2	5.37	1.62	280
36CLF-504	3/4	5.37	1.62	280
36CLF-505	1	5.87	1.50	310
Double Union CPVC Inlet x CPVC Outlet				
36CLF-504-01C	3/4	5.37	1.62	280
36CLF-505-01C	1	5.87	1.50	310
Double Union/Pex Inlet x Pex Outlet				
36CLF-903	1/2	5.625	1.62	280
36CLF-904	3/4	5.625	1.62	280
36CLF-905	1	6.125	1.62	285

PART NUMBER MATRIX

36CLF	X	X	X	X	X
CONNECTION	SIZE	GAUGE	PRESSURE	OPTION	
1 - Single Union NPT	03 - 1/2"	0 - No Gauge	1 - 25-75 psig	C - CPVC Tailpiece	
2 - No Union NPT	04 - 3/4"	P - With Gauge Port Plugged	2 - 10-35 psig	X - Extended Union	
3 - Single Union Solder x NPT	05 - 1"	G - With Pressure Gauge	3 - 75-125 psig		
4 - Double Union NPT					
5 - Double Union Solder					
6 - Single Union Meter					
9 - Double Union Pex					

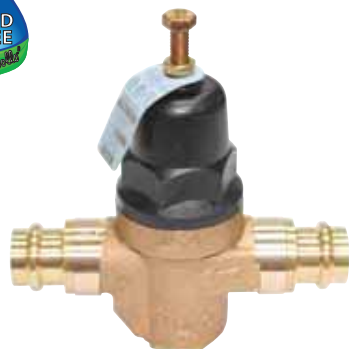
LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® Water Pressure Reducing Valves

PRC-PRLF (36CLF-PR) SERIES



APOLLOXPRESS®



APOLLOXPRESS® RESIDENTIAL AND COMMERCIAL APPLICATIONS

The Apollo® 36CLF reduces wasteful high supply pressures to lower manageable pressures. All-bronze body, dielectric polymer cage, stainless steel strainer and trim. In line repairable with bottom access without disturbing pressure setting.

FEATURES

- EPDM FDA grade diaphragm
- Standard factory setting: 50 psi
- Adjusts from 25 to 75 psi (standard)
- Leak Before Press® technology
- Sealed cage with stainless steel adjusting screw
- Balanced piston design
- Built-in thermal expansion by-pass
- Integral SS strainer
- Press connections rated 250 psi max.
- Diaphragm temperature limit 180°F
- APOLLOXPRESS® press direct connectors are factory installed
- ASSE 1003 & CSA B356
- IAPMO listed
- City of Los Angeles approved
- **Made in USA**
- NSF/ANSI 372 Lead Free

LF Series Number	Size (in.)	Length	Height from CL	Wt./100 (lbs.)
36CLF-203-01PR	1/2	5.48"	4.75"	2.1
36CLF-204-01PR	3/4	5.79"	4.75"	2.3
36CLF-205-01PR	1	6.16"	4.75"	2.9

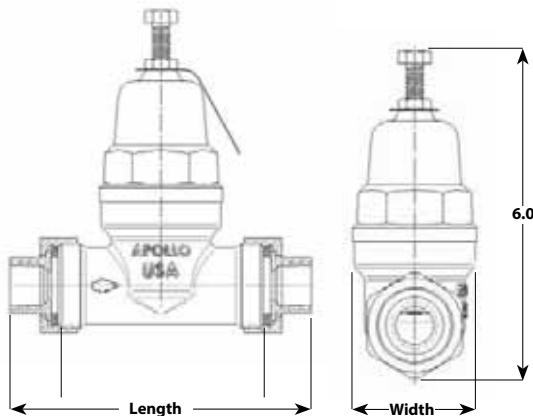
PART NUMBER MATRIX

36CLF	X	X	X	X
CONNECTION	SIZE	GAUGE	PRESSURE	OPTION
2 - Press X Press Unions	03 - 1/2"	0 - No Gauge	1 - 25-75 psig	PR - Press
	04 - 3/4"	P - With Gauge Port Plugged	2 - 10-35 psig	
	05 - 1"	G - With Gauge	3 - 75-125 psig	

PRESSURE REDUCING VALVES

Water Pressure Reducing Valves

PRE (36ELF) SERIES



SUPER EFFICIENT RESIDENTIAL AND COMMERCIAL APPLICATIONS

The Apollo® 36ELF is designed to protect residential and commercial water supplies by automatically reducing elevated supply pressures. The streamlined dezincification resistant bronze body and dielectric polymer cage provide maximum corrosion resistance. Designed for easy in-line servicing with simple cartridge removal.

FEATURES

- High efficiency flow
- Balanced piston design
- Sealed cage for vault installations
- SS adjusting screw and nut
- Built-in thermal expansion by-pass
- Integral stainless steel strainer
- Control pressure ranges: 15-75 psi and 75-150 psi
- Maximum supply pressure: 400 psig
- Working temperature range: 33°F - 180°F
- **100% manufactured in USA**
- NSF/ANSI 372 Lead Free

Size	Connection	No Union Length (in.)	Single Union Length (in.)	Double Union Length (in.)	Width (in.)	WT. (Union) (lbs)
1/2	Thread	3.63	4.50	5.38	2.75	2.4
	Solder	3.63	4.50	5.50	2.75	2.4
	PEX	3.63	4.50	5.50	2.75	2.4
	CPVC	3.63	4.25	5.00	2.75	2.4
	XPress	5.46	—	—	2.75	2.4
3/4	Thread	3.63	4.50	5.50	2.75	2.4
	Solder	3.63	4.50	5.50	2.75	2.4
	PEX	3.63	4.63	5.63	2.75	2.4
	CPVC	3.63	4.50	5.50	2.75	2.4
	XPress	5.79	—	—	2.75	2.4
1	Thread	3.63	4.63	5.75	3.38	2.7
	Solder	3.63	4.63	5.75	3.38	2.7
	PEX	3.63	4.75	6.00	3.38	2.7
	CPVC	3.63	4.75	6.00	3.38	2.7
	XPress	5.91	—	—	3.38	2.7

Pipe Size (in.)	Fall Off* (PSI)	Pressure Differential (PSI)		
		25	50	75
		Water Capacity (GPM)		
1/2"	10	10	13	16
	15	13	18	22
	20	17	23	29
	30	22	29	36
3/4"	10	16	21	26
	15	20	27	32
	20	24	32	40
	30	29	38	48
1"	10	25	33	41
	15	30	42	52
	20	34	45	56
	30	35	47	59

* Fall Off is the difference between the PRV's set pressure and the flowing pressure at any given demand.

PART NUMBER MATRIX

36ELF -	1	X	X	X	X
	STYLE	UNION	SIZE	PRESSURE	CONNECTION
36ELF - Lead Free	1	0 - No Union (NPT) 1 - Single Union 2 - Double Union	3 - 1/2" 4 - 3/4" 5 - 1"	01 - 15-75 psig 03 - 75-150 psig	T - FNPT Thread S - Solder C - CPVC P - Push X - PEX PR - Press

EXAMPLES:

36ELF-114-01T = 3/4" Single Union with NPT Connections, Pressure Range 15-75 psig.

36ELF-124-01S = 3/4" Double Union with Solder Connections, Pressure Range 15-75 psig.

LEAD FREE PRODUCTS CATALOG

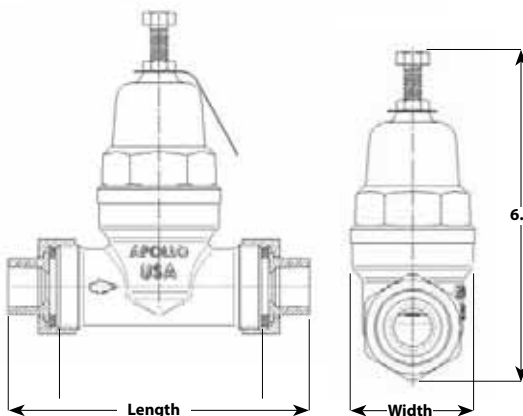
Water Pressure Reducing Valves

PRE (36ELF) SERIES



Coming Soon!

NEW



Pipe Size (in.)	Fall Off* (PSI)	Pressure Differential (PSI)		
		25	50	75
		Water Capacity (GPM)		
1-1/4"	10	35	47	59
	15	58	77	96
	20	85	113	141
	30	99	132	165
1-1/2"	10	66	88	110
	15	81	108	135
	20	96	128	160
	30	104	138	172
2"	10	81	108	135
	15	109	145	181
	20	116	155	194
	30	128	170	212

* Fall Off is the difference between the PRV's set pressure and the flowing pressure at any given demand.

PART NUMBER MATRIX

36ELF -	1	X	X	X	X	X	X
	STYLE	UNION	SIZE	GAUGE	PRESSURE	CONNECTION	OPTION
36ELF -Lead Free	1	0 - No Union (NPT) 1 - Single Union 2 - Double Union	6 - 1-1/4" 7 - 1-1/2" 8 - 2"	0 - No gauge P - Tapped & Plugged G - With gauge	1 - 15-75 psig 3 - 75-150 psig	T - FNPT Thread S - Solder	Blank - Polymer Cap B - Bronze Cap

SUPER EFFICIENT RESIDENTIAL AND COMMERCIAL APPLICATIONS

The new Apollo® Lead Free* Pressure Reducing Valve Model PRE (36ELF Series) is designed to protect residential and commercial water distribution systems by automatically reducing excessive 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

- NSF 61 section 8 and Annex F & G approved
- Balanced Piston Design
- Sealed Cage for vault installations
- Built-in Thermal Expansion By-Pass
- 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
- Factory tested and preset at 60 psi
- **100% Manufactured in USA – ARRA Compliant**

OPTIONS

- Bronze cover housing
- Tapped & plug gauge port
- With dial pressure gauge

Size	Connection	No Union Length (in.)	Single Union Length (in.)	Double Union Length (in.)	Width (in.)	WT. (Union) (lbs)
1-1/4	Thread	5.50	4.63	5.75	3.38	4.5
	Solder	5.50	4.63	5.75	3.38	4.4
1-1/2	Thread	5.50	4.63	6.00	3.38	4.3
	Solder	5.50	4.63	6.00	3.38	4.0
2	Thread	5.50	4.63	5.75	3.38	4.5
	Solder	5.50	4.63	5.75	3.38	4.4

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances.

EXAMPLE:

36ELF-116-01T = Lead Free 1-1/4" Single Union with NPT Connections, Pressure Range 15-75 psig.

PRESSURE REDUCING VALVES

APOLLOXPRESS® Water Pressure Reducing Valves

PRE-PRLF (36ELF-PR) SERIES



APOLLOXPRESS®



APOLLOXPRESS® SUPER EFFICIENT RESIDENTIAL AND COMMERCIAL APPLICATIONS

The Apollo® 36ELF is designed to protect residential and commercial water supplies by automatically reducing elevated supply pressures. The streamlined dezincification resistant bronze body and dielectric polymer cage provide maximum corrosion resistance. Designed for easy in-line servicing with simple cartridge removal.

FEATURES

- High efficiency flow
- Balanced piston design
- SS adjusting screw and nut
- Sealed cage for vault installations
- Built-in thermal expansion by-pass
- Integral stainless steel strainer
- Control pressure ranges: 15-75 psi and 75-150 psi
- Press connections rated 250 psi
- Working temperature range: 33°F - 180°F
- **100% manufactured in USA**
- NSF/ANSI 372 Lead Free

Pipe Size (in.)	Fall Off* (PSI)	Pressure Differential (PSI)		
		25	50	75
		Water Capacity (GPM)		
1/2"	10	10	13	16
	15	13	18	22
	20	17	23	29
	30	22	29	36
3/4"	10	16	21	26
	15	20	27	32
	20	24	32	40
	30	29	38	48
1"	10	25	33	41
	15	30	42	52
	20	34	45	56
	30	35	47	59

LF Series Number	Size (in.)	Length	Height from CL	Wt./100 (lbs.)
36ELF-103-01PR	1/2	5.46"	4.75"	1.5
36ELF-104-01PR	3/4	5.79"	4.75"	1.7
36ELF-105-01PR	1	5.91"	4.75"	2.3

PART NUMBER MATRIX

36ELF	X	X	X	X	X
CONNECTION	SIZE	Gauge	PRESSURE	OPTION	
2 - Press X Press Unions	03 - 1/2"	0 - No Gauge	1 - 15-75 psig	PR - Press	
	04 - 3/4"	P - With Gauge Port Plugged	3 - 75-150 psig		
	05 - 1"	G - With Gauge			

LEAD FREE PRODUCTS CATALOG

APOLLOPUSH™ Water Pressure Reducing Valves

PRE-PLF (36ELF-P) SERIES



Pipe Size (in.)	Fall Off* (PSI)	Pressure Differential (PSI)		
		25	50	75
		Water Capacity (GPM)		
1/2"	10	10	13	16
	15	13	18	22
	20	17	23	29
	30	22	29	36
3/4"	10	16	21	26
	15	20	27	32
	20	24	32	40
	30	29	38	48
1"	10	25	33	41
	15	30	42	52
	20	34	45	56
	30	35	47	59

* Fall Off is the difference between the PRV's set pressure and the flowing pressure at any given demand.

SUPER EFFICIENT RESIDENTIAL AND COMMERCIAL APPLICATIONS

The Apollo 36ELF water pressure reducing valve is now available with Apollo-Push™ direct connectors. Combining the features, performance and economy of the Apollo 36E family together with proven TECTITE push-fit technology, these lead free regulators feature fast and simple "push to connect" installation. Suitable for use with copper, CPVC and PEX tubing. 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

- "Push to connect" installation requires no special tools.
- Apollo-Push™ incorporates proven TECTITE™ technology
- Direct Connectors are permanently installed
- Pushed connections are removable using optional demounting tools
- DZR Lead Free Bronze Body
- Balanced Piston Design
- Sealed Cage for vault installations
- Built-in Thermal Expansion By-Pass
- Large Area Integral Stainless Steel Strainer
- Modular Seat Disc and Strainer Cartridge
- Adjustment Ranges: 15-75 psi (-01) and 75-150 psi (-03)
- Factory tested and preset at 50 psi or 100 psi
- **Manufactured in USA – ARRA Compliant**

LF Series Number	Size (in.)	Length	Height from CL	Wt./100 (lbs.)
36ELF-103-01P	1/2"	5.75"	4.75"	
36ELF-104-01P	3/4"	6"	4.75"	
36ELF-105-01P	1"	6.5"	4.75"	

OPTIONAL DEMOUNT TOOLS

Size	Part Number
1/2"	D518700
3/4"	D518800
1"	D518900



PRESSURE REDUCING VALVES

Water Pressure Reducing Valves

PRH (36HLF) SERIES

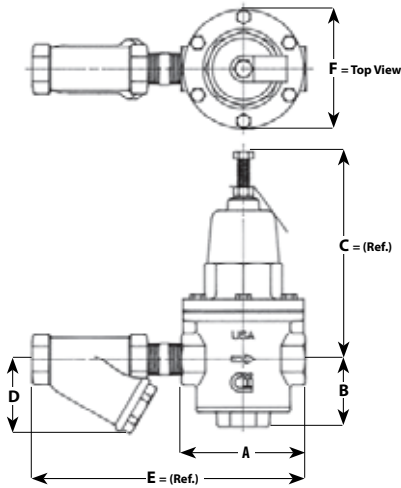


HIGH FLOW DESIGN FOR LARGE COMMERCIAL APPLICATIONS

The Apollo® 36HLF reduces wasteful elevated supply pressures to a lower manageable pressure. Available with threaded or flange connections and optional rugged Y strainer.

FEATURES

- Approved to ASSE and CSA standards; listed with IAPMO
- Large yoke-type design aids flow and reduces pressure loss
- Initial pressure up to 400 psig
- Maximum temperature 180°F
- Integral by-pass relief protects against thermal expansion
- Bronze body & cage, stainless steel replaceable seat
- Sizes: 1/2" to 3" NPT and 2-1/2" & 3" Flanged
- Bottom access for easy inline repair
- Sealed cage is standard
- Stainless steel bolts, adjustment screws and spring
- **Made in USA**
- NSF/ANSI 372 Lead Free



Size (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Wt. w Strainer (lbs.)	Wt. w/o Strainer (lbs.)
NPT								
1/2"	4.13	2.25	7.00	1.88	8.38	4.00	7.0	6.00
3/4"	4.13	2.25	7.00	2.44	9.00	4.00	8.0	6.00
1"	4.81	2.31	7.50	4.00	10.25	4.69	12.0	8.00
1-1/4"	6.75	3.81	10.00	3.38	12.50	6.50	29.0	24.00
1-1/2"	6.75	3.19	10.00	3.88	13.13	6.50	29.0	23.00
2"	8.13	3.50	12.50	4.63	16.00	7.63	47.0	38.00
2-1/2"	8.13	3.50	12.50	5.94	16.69	7.63	49.0	37.00
3"	10.38	3.94	15.13	6.94	20.50	9.75	87.0	70.00
Flanged - ANSI 150#								
2-1/2"	10.38	3.50	12.50	7.13	21.69	7.63	105.0	55.00
3"	12.50	3.94	15.13	8.13	24.50	9.75	136.0	92.00

PART NUMBER MATRIX

36HLF - X	X	X	- OX
END CONNECTIONS	OPTIONS	SIZE	PRESSURE RANGE
2 - FNPT x FNPT (Standard)	0 - Standard	3 - 1/2"	01 - 25-75 psig (Standard)
7 - Flanged (2-1/2" - 3" only)	1 - With Y-Strainer	4 - 3/4"	02 - 10-35 psig
		5 - 1"	03 - 75-125 psig**
		6 - 1-1/4"	
		7 - 1-1/2"	
		8 - 2"	
		9 - 2-1/2"	
		0 - 3"	** Can be adjusted to 75-165 psig

LEAD FREE PRODUCTS CATALOG

Water Pressure Reducing Valves

A127 SERIES



LARGE COMMERCIAL AND INDUSTRIAL APPLICATIONS

Apollo pilot 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 trouble shooting
- Each valve is 100% factory tested and can be pre-set to your requirements
- NSF/ANSI 372 Lead Free
- Wide range of control pilots and functions
- Opening speed control is standard
- Automatically reduces a higher up stream pressure to a constant lower downstream pressure
- Constant outlet pressure regardless of variations in upstream pressure or flow
- Adjustable opening speed
- Pilot operated main valve is not subject to pressure fall-off
- Outlet pressure is adjustable with a single screw
- Optional low-flow bypass, Model A127-LF when wide extremes in flow demand are anticipated

MATERIAL OPTIONS

- Carbon Steel
- Stainless Steel
- Bronze
- Aluminum
- Nickel aluminum bronze
- Viton and Buna-N elastomers
- Stainless steel pilots and tubing
- Stainless steel internals

OTHER CONTROL FUNCTIONS

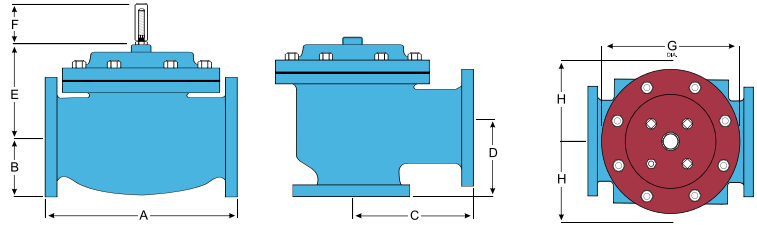
Valve Sizes	
Globe Flanged	1 1/4" - 24"
Angle Flanged	1 1/4" - 16"
Globe / Angle Threaded	1 1/4" - 3"
Globe / Angle Grooved	1 1/2" - 4"
Service Ratings - Ductile Iron	
150# Flanged	250 psi MAWP
300# Flanged	640 psi MAWP
Threaded	640 psi MAWP
Grooved	300 psi MAWP

A94	Diaphragm Check Valve
A108-2	Pressure Relief/Pressure Sustaining
A110	Differential Control
A115-2	Solenoid Control
A115-4	Solenoid Control/high capacity pilot
A120	Rate of Flow Control
A127LF/727LF	Low flow bypass
A800	Float Controlled On/Off Service
A810	Float Controlled, Modulating
A22 / A88	Digital Electronic Control, regulates pressure, flow or level

PRESSURE REDUCING VALVES

Water Pressure Reducing Valves

A127 SERIES (CONT.)



Size (in.)	End Connections A				End Connections C				End Connections D				E	H
	Screwed	Grooved	150# FLGD	300# FLGD	Screwed	Grooved	150# FLGD	300# FLGD	Screwed	Grooved	150# FLGD	300# FLGD	All	All
1-1/4 - 1-1/2	8-3/4	8-3/4	8-1/2	8-3/4	4-3/8	4-3/8*	4-1/4	4-3/8	3-1/8	3-1/8*	3	3-1/8	6	10
2	9-7/8	9-7/8	9-3/8	9-7/8	4-3/4	4-3/4	4-3/4	5	3-7/8	3-7/8	3-7/8	4-1/8	6	11
2-1/2	10-1/2	10-1/2	10-1/2	11-1/8	6	6	6	6-3/8	4	4	4	4-3/8	7	11
3	13	13	12	12-3/4	6-1/2	6-1/2	6	6-3/8	4-1/2	4-1/2	4	4-3/8	6 1/2	11
4	—	15 1/4	15	15-5/8	—	7-5/8	7-1/2	7-13/16	—	5-5/8	5-1/2	5-13/16	8	12
6	—	—	17-3/4	18-5/8	—	—	10	10-1/2	—	—	6	6-1/2	10	13
8	—	—	25-3/8	26-3/8	—	—	12-11/16	13-3/16	—	—	8	8-1/2	11 7/8	14
10	—	—	29-3/4	31-1/8	—	—	14-7/8	15-9/16	—	—	11-3/8	12-1/16	15 3/8	17
12	—	—	34	35-1/2	—	—	17	17-3/4	—	—	11	11-3/4	17	18
14	—	—	39	40-1/2	—	—	—	—	—	—	—	—	18	20
16	—	—	40-3/8	42	—	—	20-13/16	21-5/8	—	—	15-11/16	16-1/2	19	20
24	—	—	62	63-3/4	—	—	—	—	—	—	—	—	27	28-1/2

*Grooved End Not Available in 1-1/4"

For further information request catalog ACVBR9000

Water Pressure Reducing Valves Accessories

W-8078-00 SERIES



W-2799-00

PRESSURE GAUGES

These pressure gauges include a high pressure memory indicator that is used for testing water pressure. Temp. range: 50°F to 130°F.

LF Model Number	Connection	Pressure Range	Net Wt. (lbs.)
W-2799-00	1/4" NPT	0-160 psig	.70

LEAD FREE PRODUCTS CATALOG

Double Check Valve Backflow Preventers

DCLF 4A SERIES



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

TOP ENTRY DOUBLE CHECK VALVE ASSEMBLY

The Apollo MODEL 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 cartridge valves have replaceable seats and reversible silicone seat discs. Apollo ball valve shut-offs with stainless steel handles and nuts are standard.

FEATURES

- Low pressure loss
- Captured spring cartridge check valves
- Compact yet easy to maintain
- Apollo ball valves w/ SS handles & nuts standard
- Top access for fast testing and maintenance
- Threaded testcock protectors
- Corrosion resistant
- No special tools required
- 5 year, domestic warranty
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- UL, ULC Classified
- NSF/ANSI 372 Lead Free
- ASSE 1015
- IAPMO
- CSA B64.5
- Chloramine-resistant elastomers
- Patent pending
- Horizontal and vertical up approvals
- Maximum working pressure 175 psi
- Temperature range 33°F - 180°F
- Designed, manufactured, assembled and tested in South Carolina, USA

BACKFLOW PREVENTERS

Double Check Valve Assemblies

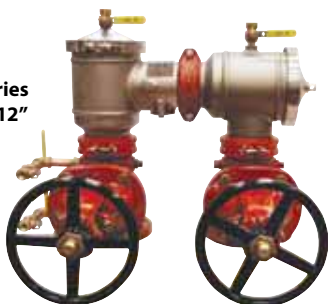
DCLF 4A AND DCLF 4An SERIES



DCLF 4A Series
Sizes 2-1/2"-12"



DCLF 4An Series
Sizes 2-1/2"-12"



Optional Valve Setter



TriForce™ Check

DOUBLE CHECK VALVE ASSEMBLIES

The Apollo® DCLF 4A and DCLF 4An 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. The body is stainless steel from 2-1/2"-8" and FDA epoxy coated ductile iron in the 10" and 12". Available with a wide variety of shutoff valve options. The DCLF 4An normally vertical up/vertical down oriented body incorporates an internal swivel connection providing the ability to pivot the second check.

FEATURES

- Stainless steel body: 2-1/2"-8"
- FDA epoxy coated ductile iron body: 10" & 12"
- Easy maintenance - no special tools required
- Low pressure loss as documented by an independent laboratory.
- Chloramine-resistant elastomers
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (DCLF 4A: 2-1/2", 3", 4", 6") (DCLF 4An: 4", 8")
- ASSE 1015
- UL, ULC Classified
- FM approved
- CSA B64.5
- NSF/ANSI 372 Lead Free
- 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
- Made in the USA
- 5 year, domestic warranty
- 4A- Approved for horizontal and vertical up flow
- 4An - Small installation space required - small footprint

** Contact factory for approval details*

DC 4SG SERIES



DOUBLE CHECK VALVE ASSEMBLY

The Apollo® DC 4SG Series Double Check Valve is designed to prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. The modular check valves have replaceable seats and reversible EPDM seat discs. Grooved connections on an epoxy-coated ductile iron body allow for easy connection to butterfly valves or gate valves.

FEATURES

- Short lay length
- Low pressure loss
- Modular check valves
- Reversible/replaceable seat discs
- Approved for vertical (up) and horizontal installations
- Gate valves epoxy coated (FDA)
- Corrosion resistant epoxy-coated ductile iron body
- NSF/ANSI 372 Lead Free
- ASSE 1015
- CSA B64.5
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- AWWA C-510
- UL Classified
- FM approved
- US Patents #5,711,341 and #6,343,618
- Lead Free available in 2-1/2" - 6" only

LEAD FREE PRODUCTS CATALOG

Double Check Detector Assemblies

DCDALF 4A AND DCDALF 4An SERIES



DCDALF 4A Series
Sizes 2-1/2"-12"



DCDALF 4An Series
Sizes 2-1/2"-12"



Optional Valve Setter



TriForce™ Check

DOUBLE CHECK DETECTOR ASSEMBLY

The Apollo® DCDALF 4A and DCDALF 4An Double Check Detector Assemblies 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. The by-pass assembly serves to accurately measure water use of up to 2 GPM. Available in a wide variety of shut-off options. The DCDA 4An normally vertical up/vertical down oriented body incorporates an internal swivel connection providing the ability to pivot the second check. The grooved connections on the bodies from 2-1/2" to 10" allow for easy connection to butterfly or gate shut-off valves. The 12" DCDA 4An has flanged connections for gate shut-off valves.

FEATURES

- Stainless steel body: 2-1/2"-8"
- FDA epoxy coated ductile iron body: 10" & 12"
- Easy maintenance - no special tools required
- Low pressure loss as documented by an independent laboratory
- Chloramine-resistant elastomers
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (DCDALF 4A: 2-1/2" Type 1, 3" Type 1, 4" Type 1, 6" Type 1) (DCDALF 4An: 4" Type 1, 8" Type 1)
- ASSE 1048
- UL, ULC Classified
- FM approved
- CSA B64.5
- Maximum working pressure 175 psi
- Temperature range 33°F - 140°F, 180°F intermittent
- NSF/ANSI 372 Lead Free
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Made in the USA
- 5 year, domestic warranty
- Optional mounting of bypass on either side for ease of installation
- DCDALF 4An - Small installation space required - small footprint
- DCDALF 4An - Optional valve setters eliminate need for thrust blocks below grade

BACKFLOW PREVENTERS

Reduced Pressure Backflow Preventers

RPLF 4A SERIES



RPLF 4A Series
Sizes 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

REDUCED PRESSURE PRINCIPLE

The Apollo Series 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 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 chloramine-resistant silicone seat discs
- Low head pressure loss
- Top mounted test cocks
- Threaded testcock protectors
- Internal sensing passage
- ASSE 1013
- CSA B64.4
- Available with APOLLOXPRESS press connections
- NSF/ANSI 372 Lead Free
- UL Classified (less shut-offs)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- Standard with Apollo® full port ball valves with stainless steel handles
- Corrosion resistant
- Maximum working pressure 175 psig
- Operating temp. range 33°F-180°F
- Horizontal installation approvals on 1/2" through 2"
- Designed, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

APOLLOXPRESS® Reduced Pressure Backflow Preventers

RPLF 4A SERIES



APOLLOXPRESS®



REDUCED PRESSURE PRINCIPLE

The Apollo Series 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 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

- APOLLOXPRESS press connections
- 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
- ASSE 1013
- CSA B64.4
- NSF/ANSI 372 Lead Free
- UL Classified (less shut-offs)
- Corrosion resistant
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- Standard with Apollo® full port ball valves with stainless steel handles
- Maximum working pressure 175 psig
- Operating temperature range 33°F-180°F
- Horizontal installation approvals on 1/2" through 2"
- Designed, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

LEAD FREE PRODUCTS CATALOG

Reduced Pressure Backflow Preventers

RP 40S SERIES



RP 40S Series
Sizes 1/4", 3/8", 1/2", 3/4", 1"

STAINLESS STEEL REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER

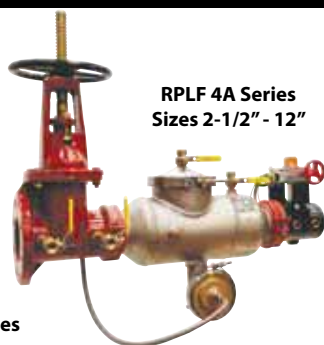
The Apollo Series RP 40S Stainless Steel Reduced Pressure Principle Backflow Preventer is designed to give maximum protection against backflow caused by either backpressure or back-siphonage from a cross-connection wherein a contaminant hazard exists (i.e. a health hazard), or a pollutant hazard exists (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.

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
- 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, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

Reduced Pressure Backflow Preventers

RPLF 4A AND RPLF 4An SERIES



RPLF 4A Series
Sizes 2-1/2" - 12"

RPLF 4An Series
n Flow



RPLF 4An Series
Vertical Up Flow



Optional Valve Setter



TriForce™ Check

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTERS

The Apollo® RPLF 4A and RPLF 4An 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. These units are designed to give maximum protection against backflow of health or non-health hazard fluids by either back-pressure or back-siphonage. The durable 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. The RP 4An 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.

FEATURES

- Stainless steel body: 2-1/2"-8"
- FDA epoxy coated ductile iron body: 10" & 12"
- Easy maintenance - no special tools required
- Low pressure loss as documented by an independent laboratory
- RP-4A - Approved for horizontal flow
- RP-4An - Small installation space required - small footprint
- Chloramine-resistant elastomers
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" RPLF 4A, 3" RPLF 4A, 4" RPLF 4A, 6" RPLF 4A)
- ASSE 1013
- CSA B64.4
- UL, ULC Classified
- NSF/ANSI 372 Lead Free
- 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
- Made in the USA
- Optional Air Gap Drains
- Optional valve setters eliminate need for thrust blocks between elbows
- 5 year, domestic warranty

BACKFLOW PREVENTERS

Reduced Pressure Detector Assemblies

RPDALF 4A AND RPDALF 4An SERIES



RPDALF 4A Series
Type 2 Bypass
(Standard)



RPDALF 4An Series



RPDALF 4An Series
Sizes 2-1/2"-12"



Optional Valve Setter



TriForce™ Check

REDUCED PRESSURE DETECTOR ASSEMBLIES

The Apollo® RPDALF 4A and RPDALF 4An Reduced Pressure Detector Assemblies consists of two independently acting, TriForce™ center stem guided check valves with a differential pressure relief valve located between the check valves. These units are designed to give maximum protection against backflow of health or non-health hazard fluids by either back-pressure or back-siphonage and at the same time detect leakage or unauthorized use of water from fire or automatic sprinkler systems. The durable stainless steel units (2-1/2" to 8") and the FDA epoxy coated ductile iron units (10" and 12") are easily maintained in line without any special tools. The TriForce™ check valves operate with a spring assist in the flowing condition to provide low flow rates which are documented by an independent laboratory. The RPDALF 4An 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.

FEATURES

- Stainless steel body: 2-1/2"-8"
- FDA epoxy coated ductile iron body: 10" & 12"
- Easy maintenance - no special tools required
- Low pressure loss as documented by an independent laboratory
- 4ALF Approved for horizontal flow
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (4" RPDALF 4A Type 1, 6" RPDALF 4A Type1)
- ASSE 1047
- CSA B64.4
- RPDALF 4AnLF - Small installation space required - small footprint
- UL, ULC Classified
- NSF/ANSI 372 Lead Free
- FM approved
- Maximum working pressure 175 psi
- Temperature range 33°F - 140°F, 180°F intermittent
- Optional air gap drains
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- **Made in the USA**
- 5 year, domestic warranty
- Optional mounting of bypass on either side for ease of installation

LEAD FREE PRODUCTS CATALOG

Vacuum Breaker Backflow Preventers

AVB1LF SERIES



AVB1LF
Sizes 1/4", 3/8", 1/2", 3/4",
1", 1-1/4", 1-1/2", 2"

ATMOSPHERIC TYPE VACUUM BREAKERS

The Apollo Series Atmospheric Type Vacuum Breakers are designed to prevent back-siphonage of polluted water into a potable water system. They should only be installed in areas where spillage of water could not cause damage and where it can be accessible for periodic maintenance. These devices are not designed for continuous pressure application. Should be installed a minimum of 6" above all downstream piping with no downstream shutoffs.

FEATURES

- Corrosion resistant
- Bronze body (AVB1)
- Suitable for hot or cold water service: (up to 212°F at 125 psig) for up to 1" (up to 180°F at 125 psig) for 1-1/4" thru 2"
- NSF/ANSI 372 Lead Free
- Heat resistant silicone seat disc
- Rough brass or rough chrome
- Easy to maintain
- Compact and lightweight
- Durable
- ASSE1001

Dual Check Backflow Preventers

DUCLF-4N SERIES



Dimensions (In.) – Weight (Lbs.)

DUAL CHECK VALVE

The Apollo DUCLF-4N 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.

FEATURES

- Low Head Loss
- Independently-acting Check Valves
- Compact and Lightweight
- Corrosion Resistant
- Replaceable Check Modules
- Available in Standard and Swivel Types
- Industry Lay Lengths
- Maximum Working Pressure 175 psi
- Operating Temperature Range 33°F-180°F
- ASSE1024
- CSA B64.6
- 5 year, domestic warranty
- NSF/ANSI 372 Lead Free

BACKFLOW PREVENTERS

Dual Check Backflow Preventers

DUCLF 40 SERIES



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

DUAL CHECK VALVE

The Apollo Series DUCLF 40 Dual Check Valve prevents backflow by either backpressure or back-siphonage resulting from a cross-connection between potable water lines and substances that are objectionable, but not health-hazards.

FEATURES

- In-line repairable
- Low pressure loss
- Corrosion resistant
- Compact and lightweight
- Independently-acting check valves
- ASSE 1024
- CSA B64.6
- Available in standard and swivel types
- **Made in the USA**
- 5 year, domestic warranty
- NSF/ANSI 372 Lead Free

PERFORMANCE RATING

Maximum Operating Pressure 175 psi

Temperature Range 33° F - 180° F

APPROVALS

ASSE® 1024 and CSA® B64.6

Freeze Protection Valve

FPVLF SERIES



FREEZE PROTECTION VALVE

The Apollo Series FPV Freeze Protection Valve protects backflow preventers from freezing when installed in accordance with manufacturer's instructions. All internal parts of the Freeze Protection Valve are replaceable.

FEATURES

- Installs easily on all backflow preventers
- Ease of repair with available repair kit
- 175 psig maximum operating pressure
- Corrosion resistant
- 1/4" male pipe thread inlet port
- Available with 1/8" male x 1/4" female test cock
- Discharge port accommodates 5/8" I.D. hose
- Mechanical operating principle
- Nominal start to open temperature of 35°F
- Maximum temperature of 180°F
- Compact design
- Patented design
- IAPMO listed
- US patent #6,374,849
- 5 year, domestic warranty
- NSF/ANSI 372 Lead Free

LEAD FREE PRODUCTS CATALOG

Hose Connection Vacuum Breakers Backflow Preventers

HBV2 SERIES



Optional Satin Chrome
Finish (shown)

3/4"
Apollo International

3/4" HOSE CONNECTION VACUUM BREAKERS

Apollo's HBV Hose Connection Vacuum Breakers are designed to prevent cross-connection caused by back-siphonage. They consist of a single check valve with atmospheric vacuum breaker vent. They feature a break-away set-screw for tamper-proof protection. They are not suitable for continuous pressure applications.

FEATURES

- Maximum Working Pressure 125 psig
- Maximum Temperature 180°F.
- ASSE1011
- CSA B64.2

HBVAF2 SERIES



3/4"
Apollo International

3/4" ANTI-FREEZE HOSE CONNECTION VACUUM BREAKERS

The Apollo Series HBVB Anti-Freeze Hose Connection Vacuum Breaker is especially designed to prevent back-siphonage on wall and yard hydrants. It features a break-away set-screw for tamper-proof protection and automatic drain for protection against freezing conditions when hose is removed. It is not suitable for continuous pressure applications.

FEATURES

- Maximum Working Pressure 125 psig
- Maximum Temperature 180°F.
- ASSE1011

Hose Connection Dual Check / Lab Faucet Dual Check Backflow Preventers

HBDUC SERIES



38-304-02
Size 3/4"

3/4" HOSE CONNECTION DUAL CHECK

The Apollo Series HBDUC is designed to provide an in-line testable hose connection that will prevent backflow due to back-siphonage or low head back-pressure. Each device consists of two independent checks, forced loaded in the closed position with an atmospheric vent between the checks. The device is threaded for hose connection at both the inlet and outlet with a break-away set screw on the inlet for tamper proof installations. These devices are not suitable for continuous pressure applications.

FEATURES

- Corrosion resistant body and checks
- Low Head loss
- Easy to install with break-away set screw
- Protects against back siphonage and low-head back pressure
- ASSE1052

LFDUC SERIES



Sizes 1/4", 3/8"

LABORATORY FAUCET DUAL CHECK BACKFLOW PREVENTER

The Apollo Series LFDUC is designed to provide protection against back-siphonage wherever a hose is connected to a faucet. The device consists of two independently acting checks with an intermediate relief port or vent. It is suitable for supply pressure up to 150 psig and a temperature range of 33°F-212°F. Not suitable for constant pressure conditions.

FEATURES

- Corrosion resistant
- Forged brass body
- Suitable for hot or cold water service up to 212°F and 125 psi
- Easy to maintain
- Polished (-CP2 and -CP3 are rough brass only)
- Compact and lightweight
- ASSE 1035

GATE, GLOBE & CHECKS



Bronze Gate Valves – Made in USA

MODEL 101SLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

SOLDER END RISING STEM GATE VALVE

FEATURES

- Threaded Bonnet
- Solid Bronze Disc
- 200 CWP
- Max. Temp: 406°F
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
30LF-083-01	1/2	1.88	4.85	1.00
30LF-084-01	3/4	2.43	5.71	1.30
30LF-085-01	1	2.96	6.71	2.20
30LF-086-01	1-1/4	3.14	8.10	3.20
30LF-087-01	1-1/2	3.44	9.08	4.40
30LF-088-01	2	4.11	11.28	7.00
30LF-089-01	2-1/2	4.79	14.58	13.80
30LF-080-01	3	5.43	19.07	17.70

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

MODEL 101TLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

CLASS 125 NPT END RISING STEM GATE VALVE

FEATURES

- Threaded Bonnet
- Solid Bronze Disc
- 200 CWP
- 125 SWP
- Max. Temp: 406°F
- NSF/ANSI 61 and NSF/ANSI 372

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
30LF-001-01	1/4	1.76	4.57	0.80
30LF-002-01	3/8	1.76	4.51	0.77
30LF-003-01	1/2	2.03	4.85	1.00
30LF-004-01	3/4	2.07	5.71	1.30
30LF-005-01	1	2.45	6.71	2.16
30LF-006-01	1 1/4	2.63	8.10	3.20
30LF-007-01	1 1/2	2.88	9.08	4.36
30LF-008-01	2	3.06	11.28	7.01
30LF-009-01	2 1/2	4.13	14.58	13.79
30LF-000-01	3	4.48	19.07	17.70

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

MODEL 101T-PRLF



APOLLOXPRESS®



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

APOLLOXPRESS® CLASS 125 NPT END RISING STEM GATE VALVE

FEATURES

- Threaded Bonnet
- Solid Bronze Disc
- 200 CWP
- 15 SWP
- Max. Temp: 250°F
- NSF/ANSI 61 and NSF/ANSI 372

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
30LF-003-01PR	1/2	3.9	4.85	1.3
30LF-004-01PR	3/4	4.3	5.71	1.8
30LF-005-01PR	1	4.7	6.71	2.6
30LF-006-01PR	1-1/4	5.13	8.1	3.8
30LF-007-01PR	1-1/2	6.12	9.08	5.4
30LF-008-01PR	2	6.70	11.28	8.5

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

LEAD FREE PRODUCTS CATALOG



Bronze Gate Valves – Made in USA

MODEL 102SLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

SOLDER END NON RISING STEM GATE VALVE FEATURES

- Threaded Bonnet
- Solid Bronze Disc
- 200 CWP
- Max. Temp: 406°F
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
30LF-043-01	1/2	1.88	3.56	0.85
30LF-044-01	3/4	2.43	4.05	1.19
30LF-045-01	1	2.96	4.55	1.98
30LF-046-01	1-1/4	3.14	5.14	2.80
30LF-047-01	1-1/2	3.44	6.02	3.95
30LF-048-01	2	4.11	7.09	5.88
30LF-049-01	2-1/2	4.79	9.11	12.19
30LF-040-01	3	5.43	12.61	16.84

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

MODEL 102TLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

CLASS 125 NPT NON RISING STEM GATE VALVE FEATURES

- Threaded Bonnet
- Solid Bronze Disc
- 200 CWP
- 125 SWP
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
30LF-031-01	1/4	1.76	3.29	0.74
30LF-032-01	3/8	1.76	3.29	0.71
30LF-033-01	1/2	2.03	3.56	0.85
30LF-034-01	3/4	2.07	4.05	1.19
30LF-035-01	1	2.45	4.55	1.98
30LF-036-01	1-1/4	2.63	5.14	2.80
30LF-037-01	1-1/2	2.88	6.02	3.95
30LF-038-01	2	3.06	7.09	5.88
30LF-039-01	2-1/2	4.13	9.11	12.19
30LF-030-01	3	4.48	12.61	16.84

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

MODEL 102T-PRLF



APOLLOXPRESS®



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

APOLLOXPRESS® CLASS 125 NPT NON RISING STEM GATE VALVE

FEATURES

- Threaded Bonnet
- Solid Bronze Disc
- 200 CWP
- 15 SWP
- Max. Temp: 250°F
- NSF/ANSI 61 and NSF/ANSI 372

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
30LF-033-01PR	1/2	3.9	4.85	1.3
30LF-034-01PR	3/4	4.3	5.71	1.8
30LF-035-01PR	1	4.7	6.71	2.6
30LF-036-01PR	1-1/4	5.13	8.1	3.8
30LF-037-01PR	1-1/2	6.12	9.08	5.4
30LF-038-01PR	2	6.70	11.28	8.5

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

GATE, GLOBE & CHECKS

Iron Gate Valves – Apollo International™

MODEL 610F



CLASS 125 FLANGED GATE VALVE FEATURES

- Compatible with ANSI 125# & 150# Flanges
- Full Port
- Bronze Mounted Seat Rings
- Solid Wedge
- Adjustable Graphite Stem Packing
- Non-Rising Stem
- Bolted Bonnet
- Back Seat Protection
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-70

"Gray Iron Gate Valves Flanged and Threaded"

ASME B16.10

"Face-to-Face and End-to-End Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6GA-108-B1	2	7.00	14.57	36.0
6GA-109-B1	2 1/2	7.50	16.34	48.0
6GA-100-B1	3	8.00	18.90	59.0
6GA-10A-B1	4	9.00	20.67	104
6GA-10B-B1	5	10.00	24.61	150
6GA-10C-B1	6	10.50	28.74	192
6GA-10E-B1	8	11.50	32.48	260
6GA-10G-B1	10	13.00	37.40	434
6GA-10H-B1	12	14.00	43.31	606
6GA-10J-B1	14	15.00	37.01	926
6GA-10K-B1	16	16.00	42.52	1098
6GA-10M-B1	18	17.00	46.46	1543
6GA-10N-B1	20	18.00	54.33	1638
6GA-10P-B1	24	20.00	57.48	2756

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

NOTE: Flat face mating flanges and full face gaskets must be installed to avoid damage to the cast iron body.

MODEL 620F



CLASS 250 FLANGED GATE VALVE FEATURES

- Compatible with ANSI 250# & 300# Flanges
- Full Port
- Bronze Mounted Seat Rings
- Solid Wedge
- Adjustable Graphite Stem Packing
- Non-Rising Stem
- Flanged Connection
- Bolted Bonnet
- Rugged Iron Hand Wheel
- Back Seat Protection
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-70

"Gray Iron Gate Valves Flanged and Threaded"

ASME B16.10

"Face-to-Face and End-to-End Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6GA-208-B1	2	8.50	11.28	42.0
6GA-209-B1	2 1/2	9.50	12.72	55.0
6GA-200-B1	3	11.00	13.31	66.0
6GA-20A-B1	4	12.00	16.18	115
6GA-20C-B1	6	16.00	22.00	205
6GA-20E-B1	8	16.50	25.59	278
6GA-20G-B1	10	18.00	30.31	456
6GA-20H-B1	12	19.75	33.90	633

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

NOTE: Class 250 flanges and flanged fittings have a 0.06 inch raised face in accordance with MSS SP-6.

LEAD FREE PRODUCTS CATALOG

Iron Gate Valves – Apollo International™

MODEL 611F



CLASS 125 FLANGED OS&Y GATE VALVE FEATURES

- Compatible with ANSI 125# & 150# Flanges
- Full Port
- Bronze Mounted Seat Rings
- Solid Wedge
- Adjustable Graphite Stem Packing
- Outside Screw and Yoke
- Bolted Bonnet
- Back Seat Protection
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-70

"Gray Iron Gate Valves Flanged and Threaded"

ASME B16.10

"Face-to-Face and End-to-End Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6GA-118-B1	2	7.00	14.96	38.0
6GA-119-B1	2 1/2	7.50	16.93	51.0
6GA-110-B1	3	8.00	19.09	62.0
6GA-11A-B1	4	9.00	24.21	110
6GA-11B-B1	5	10.00	27.56	154
6GA-11C-B1	6	10.50	32.87	203
6GA-11E-B1	8	11.50	37.76	284
6GA-11G-B1	10	13.00	48.03	459
6GA-11H-B1	12	14.00	56.50	637
6GA-11J-B1	14	15.00	65.16	966
6GA-11K-B1	16	16.00	71.85	1135
6GA-11M-B1	18	17.00	79.53	1753
6GA-11N-B1	20	18.00	90.16	2238
6GA-11P-B1	24	20.00	132.28	3197

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

NOTE: Flat face mating flanges and full face gaskets must be installed to avoid damage to the cast iron body.

MODEL 621F



CLASS 250 FLANGED OS&Y GATE VALVE FEATURES

- Compatible with ANSI 250# & 300# Flanges
- Full Port
- Bronze Mounted Seat Rings
- Solid Wedge
- Adjustable Graphite Stem Packing
- Outside Screw and Yoke
- Flanged Connection
- Bolted Bonnet
- Back Seat Protection
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-70

"Gray Iron Gate Valves Flanged and Threaded"

ASME B16.10

"Face-to-Face and End-to-End Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6GA-218-B1	2	8.50	14.96	44.0
6GA-219-B1	2 1/2	9.50	16.93	57.0
6GA-210-B1	3	11.12	19.09	71.0
6GA-21A-B1	4	12.00	24.21	121
6GA-21B-B1	5	15.00	27.56	165
6GA-21C-B1	6	15.88	32.87	216
6GA-21E-B1	8	16.50	39.76	302
6GA-21G-B1	10	18.00	48.03	481
6GA-21H-B1	12	19.75	56.50	642

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

NOTE: Class 250 flanges and flanged fittings have a 0.06 inch raised face in accordance with MSS SP-6.

GATE, GLOBE & CHECKS



Bronze Globe Valves – Made in USA

MODEL 120SLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

SOLDER ENDS GLOBE VALVE

FEATURES

- Threaded Bonnet
- PTFE Disc
- 200 CWP
- Max. Temp: 353°F
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
33LF-143-01	1/2	2.97	3.47	1.00
33LF-144-01	3/4	3.83	4.75	1.90
33LF-145-01	1	4.57	5.40	2.80
33LF-146-01	1-1/4	5.95	7.80	7.30
33LF-147-01	1-1/2	5.95	7.80	6.80
33LF-148-01	2	7.18	8.43	10.60

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

MODEL 120TLF



NEW

MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

CLASS 125 NPT GLOBE VALVE

FEATURES

- Threaded Bonnet
- PTFE Disc
- 200 CWP
- 125 SWP
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
33LF-132-01	3/8	2.39	3.37	1.00
33LF-133-01	1/2	2.70	3.47	1.10
33LF-134-01	3/4	3.20	4.75	1.90
33LF-135-01	1	3.75	5.40	3.00
33LF-136-01	1-1/4	4.74	7.78	7.30
33LF-137-01	1-1/2	4.74	7.78	7.00
33LF-138-01	2	5.72	8.43	10.70

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

MODEL 120T-PRLF



APOLLOXPRESS®



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

APOLLOXPRESS® CLASS 125 NPT GLOBE VALVE

FEATURES

- Threaded Bonnet
- PTFE Disc
- 200 CWP
- 15 SWP
- Max. Temp: 250°F
- NSF/ANSI 61 and NSF/ANSI 372

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
33LF-133-01PR	1/2	2.70	3.47	1.1
33LF-134-01PR	3/4	3.20	4.75	1.9
33LF-135-01PR	1	3.75	5.40	3.0
33LF-136-01PR	1-1/4	4.74	7.78	7.3
33LF-137-01PR	1-1/2	4.74	7.78	7.0
33LF-138-01PR	2	5.72	8.43	10.7

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

LEAD FREE PRODUCTS CATALOG

Bronze Globe Valves – Made in USA



MODEL 121TLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

CLASS 125 NPT GLOBE VALVE FEATURES

- Threaded Bonnet
- Bronze Disc
- 200 CWP
- 125 SWP
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
33LF-161-01	1/4	2.39	3.46	1.00
33LF-162-01	3/8	2.39	3.46	1.00
33LF-163-01	1/2	2.70	3.56	1.10
33LF-164-01	3/4	3.20	4.75	1.90
33LF-165-01	1	3.75	5.40	3.00
33LF-166-01	1-1/4	4.74	7.78	7.30
33LF-167-01	1-1/2	4.74	7.78	7.00
33LF-168-01	2	5.72	8.43	11.00

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

Iron Globe Valves – Apollo International™

MODEL 711F



CLASS 125 FLANGED GLOBE VALVE FEATURES

- Compatible with ANSI 125# & 150# Flanges
- Full Port
- Bronze Mounted Seat Rings
- Positive Shut-Off
- Throttling Capabilities
- Adjustable Graphite Stem Packing
- Outside Screw and Yoke
- Bolted Bonnet
- Back Seat Protection
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-85

"Gray Iron Globe & Angle Valves
Flanged & Threaded Ends"

ASME B16.10

"Face-to-Face and End-to-End
Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6GB-118-B1	2	8.00	11.61	36.0
6GB-119-B1	2 1/2	8.50	12.99	49.0
6GB-110-B1	3	9.50	14.37	64.0
6GB-11A-B1	4	11.50	15.75	94.0
6GB-11B-B1	5	13.00	17.72	137
6GB-11C-B1	6	14.00	20.67	195
6GB-11E-B1	8	19.50	23.43	315
6GB-11G-B1	10	24.50	26.97	485

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

NOTE: Flat face mating flanges and full face gaskets must be installed to avoid damage to the cast iron body.

GATE, GLOBE & CHECKS

Iron Globe Valves – Apollo International™

MODEL 721F



CLASS 250 FLANGED GLOBE VALVE

FEATURES

- Compatible with ANSI 250# & 300# Flanges
- Full Port
- Bronze Mounted Seat Rings
- Positive Shut-Off
- Throttling Capabilities
- Adjustable Graphite Stem Packing
- Outside Screw and Yoke
- Flanged Connection
- Bolted Bonnet
- Rugged Iron Hand Wheel
- Back Seat Protection
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-85

"Gray Iron Globe & Angle Valves
Flanged & Threaded Ends"

ASME B16.10

"Face-to-Face and End-to-End
Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6GB-218-B1	2	10.50	14.17	40.8
6GB-219-B1	2 1/2	11.50	15.75	52.9
6GB-210-B1	3	12.50	16.93	70.5
6GB-21A-B1	4	14.00	18.90	99.2
6GB-21C-B1	6	17.50	23.62	203
6GB-21E-B1	8	21.00	27.56	333

Length is measured from end to end. Height is measured from centerline to top of wheel in full open position.

NOTE: Class 250 flanges and flanged fittings have a 0.06 inch raised face in accordance with MSS SP-6.

Bronze Swing Check Valves – Made in USA

MODEL 161SLF



CLASS 125 BRONZE DISC SWING CHECK

FEATURES

- Y-Pattern
- Solder Ends
- Metal Seat
- 200 CWP
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Model Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
61YLF-093-01	1/2	2.53	1.65	0.62
61YLF-094-01	3/4	3.36	1.90	0.91
61YLF-095-01	1	4.07	2.26	1.70
61YLF-096-01	1-1/4	4.68	2.65	2.00
61YLF-097-01	1-1/2	5.28	2.99	2.70
61YLF-098-01	2	6.50	3.74	4.90

Height is measured from centerline to top of unit.

MSS SP-139 Lead Free

Meets performance requirements of MSS SP-80

ASTM B584 Lead Free bronze

LEAD FREE PRODUCTS CATALOG



Bronze Swing Check Valves – Made in USA

MODEL 161TLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

CLASS 125 BRONZE DISC SWING CHECK

FEATURES

- Y-Pattern
- NPT
- Metal Seat
- 200 CWP
- 125 SWP
- NSF/ANSI 61 and NSF/ANSI 372

LF Model Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
61YLF-191-01	1/4	2.14	1.51	0.64
61YLF-192-01	3/8	2.14	1.51	0.62
61YLF-193-01	1/2	2.48	1.65	0.73
61YLF-194-01	3/4	2.94	1.90	1.06
61YLF-195-01	1	3.57	2.26	1.70
61YLF-196-01	1-1/4	4.50	2.99	3.30
61YLF-197-01	1-1/2	4.50	2.99	3.10
61YLF-198-01	2	5.25	3.74	5.50

Height is measured from centerline to top of unit.

MODEL 163SLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

200 CWP PTFE DISC SWING CHECK

FEATURES

- Y-Pattern
- Solder
- PTFE Soft Seat
- 200 CWP
- NSF/ANSI 61
- NSF/ANSI 372 Lead Free

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
61YLF-103-T1	1/2	2.53	1.65	0.62
61YLF-104-T1	3/4	3.36	1.90	0.91
61YLF-105-T1	1	4.07	2.26	1.70
61YLF-106-T1	1-1/4	5.28	2.99	3.20
61YLF-107-T1	1-1/2	5.28	2.99	2.70
61YLF-108-T1	2	6.50	3.74	4.90

Height is measured from centerline to top of unit.

MODEL 163TLF



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

CLASS 125 PTFE DISC SWING CHECK

FEATURES

- Y-Pattern
- NPT
- PTFE Soft Seat
- 200 CWP
- 125 SWP
- NSF/ANSI 61 and NSF/ANSI 372

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
61YLF-203-T1	1/2	2.48	1.65	0.73
61YLF-204-T1	3/4	2.94	1.90	1.06
61YLF-205-T1	1	3.57	2.26	1.70
61YLF-206-T1	1 1/4	4.50	2.99	3.30
61YLF-207-T1	1 1/2	4.50	2.99	3.10
61YLF-208-T1	2	5.25	3.74	5.40

Height is measured from centerline to top of unit.

GATE, GLOBE & CHECKS

APOLLOXPRESS® Bronze Swing Check Valves – Made in USA



MODEL 163T-PRLF



APOLLOXPRESS®



MSS SP-139 Lead Free
Meets performance requirements of MSS SP-80
ASTM B584 Lead Free bronze

APOLLOXPRESS® CLASS 125 PTFE DISC SWING CHECK

FEATURES

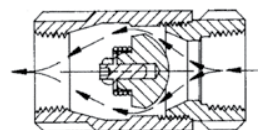
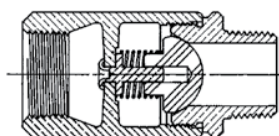
- Leak Before Press® Technology
- Y-Pattern
- PTFE Soft Seat
- 200 CWP
- 15 SWP
- NSF/ANSI 61 and NSF/ANSI 372

LF Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
61YLF-203-T1PR	1/2	4.3	1.65	.78
61YLF-204-T1PR	3/4	5.1	1.9	1.8
61YLF-205-T1PR	1	5.9	2.26	2.5
61YLF-206-T1PR	1 1/4	7.0	2.99	4.4
61YLF-207-T1PR	1 1/2	7.75	2.99	4.5
61YLF-208-T1PR	2	8.9	3.74	7.0

Height is measured from centerline to top of unit.

In-Line Check Valves

CVB (61LF-100) SERIES



Precautionary Note: Not recommended for use with reciprocating pumps and similar applications which may induce repetitious vibrations. Low flow rates which do not fully open the valve, may result in undesirable noise and premature valve failure. Upstream flow disturbances, which create turbulence, may also result in rapid wear. Therefore, it is recommended that a minimum of 10 diameters of straight pipe be provided between the check valve and any upstream flow disturbances such as pumps, control valves, elbows, etc.

BALL CONE® CHECK VALVES

Patented design (U.S. Pat. No. 4,172,465) with reinforced RPTFE ball-cone check and stainless steel springs, these valves offer reliable protection against reverse flow and exceptional resistance to chemicals and corrosion.

FEATURES

- Standard 1/2" psi opening pressure
- Tight shut-off with liquid media
- Male and female NPT inlet options
- 400 psig CWP @ 100°F
- 125 psig steam rating @ 350°F max
- Straight-through design minimizes pressure loss
- ASTM Lead Free Bronze
- **Made in the USA**
- NSF/ANSI 61 and NSF/ANSI 372 Lead Free

LF Bronze FNPT x FNPT	Size (in.)	Wt. Ea.	Cv
61LF-101-01	1/4	.38	.85
61LF-102-01	3/8	.38	1.2
61LF-103-01	1/2	.38	1.4
61LF-104-01	3/4	.75	3.5
61LF-105-01	1	1.45	6.0
61LF-106-01	1-1/4	2.75	44
61LF-107-01	1-1/2	3.94	65
61LF-108-01	2	6.30	81
61LF-109-01	2-1/2	14.00	175
61LF-100-01	3	16.65	265

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® In-Line Check Valves

CVB-PRLF (61LF-100-PR) SERIES



APOLLOXPRESS®



Precautionary Note: Not recommended for use with reciprocating pumps and similar applications which may induce repetitious vibrations. Low flow rates which do not fully open the valve, may result in undesirable noise and premature valve failure. Upstream flow disturbances, which create turbulence, may also result in rapid wear. Therefore, it is recommended that a minimum of 10 diameters of straight pipe be provided between the check valve and any upstream flow disturbances such as pumps, control valves, elbows, etc.

APOLLOXPRESS® BALL CONE® CHECK VALVES

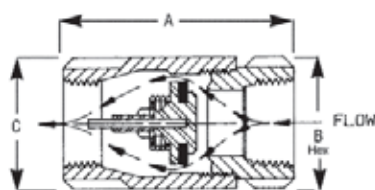
Patented design (U.S. Pat. No. 4,172,465) with reinforced RPTFE ball-cone check and stainless steel springs, these valves offer reliable protection against reverse flow and exceptional resistance to chemicals and corrosion.

FEATURES

- Standard 1/2" psi opening pressure
- Tight shut-off with liquid media
- 250 psig CWP @ 100°F
- 15 psig steam rating @ 250°F max
- Straight-through design minimizes pressure loss
- ASTM Grade B584 Lead Free bronze body
- **Made in the USA**
- NSF/ANSI 61 and NSF/ANSI 372 Lead Free

LF Bronze Press x Press	Size (in.)	Wt. Ea.	Cv
61LF-103-01PR	1/2	.42	1.4
61LF-104-01PR	3/4	1.0	3.5
61LF-105-01PR	1	1.9	6.0
61LF-106-01PR	1-1/4	3.35	44
61LF-107-01PR	1-1/2	4.6	65
61LF-108-01PR	2	7.3	81

CVBE & CVSE (61LF-500) SERIES



Precautionary Note: Not recommended for use with reciprocating pumps and similar applications which may induce repetitious vibrations. Low flow rates which do not fully open the valve may result in undesirable noise and premature valve failure. Upstream flow disturbances, which create turbulence, may also result in rapid wear. Therefore, it is recommended that a minimum of 10 diameters of straight pipe be provided between the check valve and any upstream flow disturbances such as pumps, control valves, elbows, etc.

IN-LINE SOFT SEAT CHECK VALVES

Fabricated with stainless steel springs and elastomeric seats for tighter shut-off. No radial alignment is needed. Exceptional resistance to chemicals and corrosion.

FEATURES

- Female NPT sizes: 1/4" to 2"
- Bubble-tight shut-off, ideally suited for gaseous service
- 400 psig CWP non-shock @ 100°F
- EPDM check disc
- Straight-through design minimizes pressure loss
- 1/2 psi cracking pressure is standard
- RoHS Compliant
- NSF/ANSI 61-8
- NSF/ANSI 372 Lead Free

Bronze FNPT x FNPT	Size (in.)	Dimensions (in.)			61 Series Wt. Ea.	62 Series Wt. Ea.	Cv
		A	B	C			
61LF-501-01	1/4	2.312	1.125	1.125	.38	.38	.75
61LF-502-01	3/8	2.312	1.125	1.125	.38	.38	1.0
61LF-503-01	1/2	2.312	1.125	1.125	.38	.38	1.2
61LF-504-01	3/4	2.875	1.375	1.500	.75	.75	3.0
61LF-505-01	1	3.500	1.750	1.937	1.45	1.50	5.5
61LF-506-01	1-1/4	4.187	2.125	2.375	2.75	—	42
61LF-507-01	1-1/2	4.937	2.500	2.812	3.94	—	60
61LF-508-01	2	6.000	3.000	3.687	6.30	—	75

GATE, GLOBE & CHECKS

APOLLOPUSH™ In-Line Check Valves

CVB-PLF (61LF-100-P) SERIES



APOLLOPUSH™



APOLLOPUSH™ IN-LINE CHECK VALVES

The Lead Free Apollo-Push™ Model CVB-PLF (61LF Series) BALL-CONE® check valves with Push end connection offer reliable protection against reverse flow in a variety of fluids including potable water, using proven ASTM quality materials made in the USA. Valves may be installed in both horizontal and vertical flow with upward flow, but not for use in reciprocating air compressor service. They are designed for easy connection to Copper, CPVC, or PEX tubing.

FEATURES

- Quick Push End Connection
- 1/2 psi spring cracking pressure
- Dezincification resistant Lead Free Materials
- Apollo-Push™ incorporates proven TECTITE™ technology,
- Tight Shut-off With Liquid Media
- Straight-through Flow Design Efficiency
- 100% Cast, Machined and Assembled in the US
- ARRA Compliant
- ASTM Grade B584 Bronze
- **Made in the USA**
- NSF/ANSI 61 and NSF/ANSI 372 Lead Free

OPTIONAL DEMOUNT TOOLS

Size	Part Number
1/2"	D518700
3/4"	D518800
1"	D518900



LF Bronze Press x Press	Size (in.)	Length	Wt. Ea.	Cv
61LF-103-01P	1/2"	4.50	1.4	.42
61LF-104-01P	3/4"	5.24	3.5	1.0
61LF-105-01P	1"	6.31	6.0	1.9

Iron Swing Check Valves – Apollo International™

MODEL 910F



CLASS 125 FLANGED SWING CHECK

FEATURES

- Compatible with ANSI 125# & 150# Flanges
- Full Port
- Minimal Pressure Drop
- Bolted Bonnet
- Integral Bronze Seat
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-71

"Gray Iron Swing Check Valves Flanged and Threaded"

ASME B16.10

"Face-to-Face and End-to-End Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6SC-108-B1	2	8.00	4.41	26.0
6SC-109-B1	2 1/2	8.50	5.24	39.0
6SC-100-B1	3	9.50	5.67	47.0
6SC-10A-B1	4	11.50	6.61	82.0
6SC-10B-B1	5	13.00	7.80	124
6SC-10C-B1	6	14.00	8.54	160
6SC-10E-01	8	19.50	10.28	271
6SC-10G-01	10	24.50	11.30	437
6SC-10H-01	12	27.50	12.56	644
6SC-10J-01	14	31.00	17.50	950
6SC-10K-01	16	36.00	23.45	1160
6SC-10M-01	18	36.00	27.50	1720
6SC-10N-01	20	40.00	29.25	2094

Height is measured from centerline to top of unit.

NOTE: Flat face mating flanges and full face gaskets must be installed to avoid damage to the cast iron body.

LEAD FREE PRODUCTS CATALOG

Iron Swing Check Valves – Apollo International™

MODEL 910FLW



CLASS 125 FLANGED SWING CHECK FEATURES

- Compatible with ANSI 125# & 150# Flanges
- Full Port
- Minimal Pressure Drop
- Bolted Bonnet
- Integral Seat
- Lever and Weight Design
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-71

"Gray Iron Swing Check Valves Flanged & Threaded"

ASME B16.10

"Face-to-Face and End-to-End Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6SC-108-B1L	2	8.00	4.41	38.8
6SC-109-B1L	2 1/2	8.50	5.24	45.2
6SC-100-B1L	3	9.50	5.67	61.7
6SC-10A-B1L	4	11.50	6.61	99.2
6SC-10B-B1L	5	13.00	7.80	132
6SC-10C-B1L	6	14.00	8.54	170
6SC-10E-01L	8	19.50	10.28	282
6SC-10G-01L	10	24.50	11.30	439
6SC-10H-01L	12	27.50	12.56	672

Height is measured from centerline to top of unit.

NOTE: Flat face mating flanges and full face gaskets must be installed to avoid damage to the cast iron body.

MODEL 920F



CLASS 250 FLANGED SWING CHECK FEATURES

- Compatible with ANSI 250# & 300# Flanges
- Full Port
- Minimal Pressure Drop
- Bolted Bonnet
- Integral Seat
- Certified NSF/ANSI 372 Lead Free

STANDARDS

MSS SP-71

"Gray Iron Swing Check Valves Flanged & Threaded"

ASME B16.10

"Face-to-Face and End-to-End Dimensions of Valves"

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6SC-208-B1	2	10.51	4.41	30.0
6SC-209-B1	2 1/2	11.50	5.24	44.0
6SC-200-B1	3	12.50	5.67	55.0
6SC-20A-B1	4	14.00	6.61	90.0
6SC-20C-B1	6	17.50	8.54	172
6SC-20E-01	8	21.00	10.28	289

Height is measured from centerline to top of unit.

NOTE: Class 250 flanges and flanged fittings have a 0.06 inch raised face in accordance with MSS SP-6.

GATE, GLOBE & CHECKS

Iron Wafer Checks – Apollo International™

MODEL 910WB



Cold Working Pressure:

200 psi (13.8 Bar) at 100°F (2-12")

150 psi (10.3 Bar) at 100°F (14-24")

Temperature Range:

10°F to 180°F

CLASS 125 WAFER CHECK - NITRILE (BUNA-N)

FEATURES

- Compatible with ANSI 125# & 150# Flanges
- Full Port
- Minimal Pressure Drop
- Light Weight
- Spring Assisted Closing for Quicker Response
- Certified NSF/ANSI 372 Lead Free

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6WC-108-N1	2	2.21	4.00	5.0
6WC-109-N1	2 1/2	2.38	4.75	7.0
6WC-100-N1	3	2.62	5.25	10.0
6WC-10A-N1	4	2.62	6.75	12.0
6WC-10B-N1	5	3.25	7.50	15.0
6WC-10C-N1	6	3.75	8.50	22.0
6WC-10E-N1	8	5.00	11.00	35.0
6WC-10G-N1	10	5.50	13.25	66.0
6WC-10H-N1	12	7.12	16.00	108
6WC-10J-N1	14	7.25	17.75	172
6WC-10K-N1	16	7.50	20.00	132
6WC-10M-N1	18	8.00	21.50	223
6WC-10N-N1	20	8.38	23.75	333
6WC-10P-N1	24	8.75	28.00	474

MODEL 910WE



Cold Working Pressure:

200 psi (13.8 Bar) at 100°F

Temperature Range:

-30°F to 275°F

CLASS 125 WAFER CHECK - EPDM

FEATURES

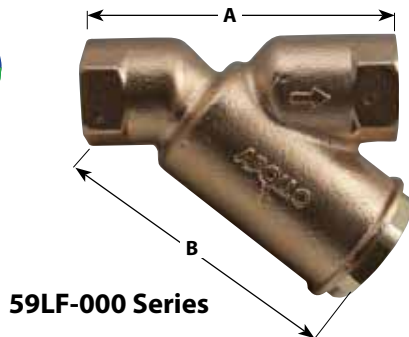
- Compatible with ANSI 125# & 150# Flanges
- Full Port
- Minimal Pressure Drop
- Light Weight
- Spring Assisted Closing for Quicker Response
- Certified NSF/ANSI 372 Lead Free

Series Number	NPS	Length (in.)	Height (in.)	Weight (lb.)
6WC-108-E1	2	2.12	4.00	5.0
6WC-109-E1	2 1/2	2.38	4.75	7.0
6WC-100-E1	3	2.62	5.25	10.0
6WC-10A-E1	4	2.62	6.75	12.0
6WC-10B-E1	5	3.25	7.50	15.0
6WC-10C-E1	6	3.75	8.50	22.0
6WC-10E-E1	8	5.00	11.00	35.0
6WC-10G-E1	10	5.50	13.25	66.0
6WC-10H-E1	12	7.12	16.00	108

LEAD FREE PRODUCTS CATALOG

Bronze "Y" Strainers

YB (59LF) SERIES



Large area design for excellent protection against foreign particles in your fluid system. Dezincification-resistant bronze body and stainless steel screens provide years of service.

FEATURES

- Made in USA, ARRA compliant
- 400 CWP at 150°F (up to 3")
- 125 psig SWP
- Replaceable self-aligning screen
- Large net flow area for longer maintenance intervals
- 59LF-400 Series is female x male NPT (3/4" & 1" only)
- CRN-0E 8959.5
- NSF/ANSI 372 Lead Free
- Multiple screen and cap options
- Blowout ball valve option



STANDARD

Size (in.)	Standard Screen
1/8 to 1/2	50 Mesh
3/4 to 3	20 Mesh
4	.125 Perforation

OPTIONS

Suffix	Option
-01	Plain Cap
-02	Blowout Tap
-P2	Blowout with Plug
-06	Ball Valve
-E1	20 Mesh
-A1	40 Mesh
-B1	60 Mesh
-C1	80 Mesh
-H1	100 Mesh

LF Ordering Number	LF Model Number	Size	Dimensions		Cap Tapping Suffix -02	Wt./Ea. Lbs.	Net Screen Area (in.) ²
			A (in.)	B (in.)			
59LF-001-01	YB14LF	1/4 NPT	2.00	1.25	1/8 NPT	.4	2.3
59LF-002-01	YB38LF	3/8 NPT	2.69	2.00	1/4 NPT	.8	3.2
59LF-003-01	YB12LF	1/2 NPT	2.69	2.00	1/4 NPT	.8	3.2
59LF-004-01	YB34LF	3/4 NPT	3.87	3.25	1/2 NPT	1.9	6.7
59LF-005-01	YB1LF	1 NPT	4.75	4.00	3/4 NPT	2.8	10.8
59LF-006-01	YB114LF	1-1/4 NPT	5.12	4.25	3/4 NPT	3.6	13.5
59LF-007-01	YB112LF	1-1/2 NPT	5.75	5.00	1 NPT	5.4	19.0
59LF-008-01	YB2LF	2 NPT	6.75	6.00	1-1/4 NPT	7.5	27.6
59LF-009-01	YB212LF	2-1/2 NPT	7.94	5.87	1-1/4 NPT	11.3	41.0
59LF-010-01	YB3LF	3 NPT	9.12	6.87	1-1/2 NPT	15.8	56.0
59LF-011-01	YB4LF	4 NPT	11.94	10.12	1-1/2 NPT	30.7	98
59LF-404-01	YBM34LF	3/4 F x MNPT	5.38	3.25	1/2 NPT	2.0	6.7
59LF-405-01	YBM1LF	1 F x MNPT	5.75	4.00	3/4 NPT	3.0	10.8

STRAINERS

APOLLOXPRESS® Bronze "Y" Strainers

YB (59LF) SERIES



APOLLOXPRESS®



STANDARD

Size (in.)	Standard Screen
1/2	50 Mesh
3/4	20 Mesh

OPTIONS

Suffix	Option
-01	Plain Cap
-02	Blowout Tap
-P2	Blowout with Plug
-06	Ball Valve
-E1	20 Mesh
-A1	40 Mesh
-B1	60 Mesh
-C1	80 Mesh
-H1	100 Mesh

Large area design for excellent protection against foreign particles in your fluid system. Dezincification-resistant bronze body and stainless steel screens provide years of service.

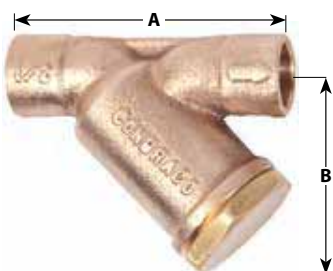
FEATURES

- Made in USA, ARRA compliant
- Blowout ball valve option
- Operating pressure to 250 CWP at 150°F
- 15 psig SWP
- Maximum Temperature: 250°F
- Leak Before Press® technology
- Replaceable self-aligning screen
- Large net flow area for longer maintenance intervals
- CRN-0E 8959.5
- NSF/ANSI 372 Lead Free
- Several screen and cap options

LF Series Number	NPS	Length (in.)	Cv	Weight (lb.)
59LF-003-01PR	1/2	4.75"	5	1.0
59LF-004-01PR	3/4	6.1"	15	2.0
59LF-005-01PR	1	7.25"	28	3.0
59LF-006-01PR	1 1/4	7.62"	55	3.8
59LF-007-01PR	1 1/2	8.25"	70	5.7
59LF-008-01PR	2	10.39"	99	7.7

Bronze "Y" Strainers

YBS (59LF-300) SERIES



STANDARD

Size (in.)	Standard Screen
1/2	50 Mesh
3/4 to 3	20 Mesh

OPTIONS

Suffix	Option
-01	Solid cap (standard)
-02	Blowout Tap
-P2	Blowout with pipe plug

Designed with minimal wall thickness at solder ends to allow ease of installation. Dezincification-resistant bronze bodies, stainless steel screens with large screen area.

FEATURES

- ASTM grade EZ-Solder™ Lead Free Bronze
- Operating pressures to 400 CWP at 150°F
- Sizes: 1/2" to 3" copper tube size
- Optional tapped caps available

LF Series Number	Size (in.)	Dimensions (in.)		Tapped Cap Suffix -02	Wt.	Net Screen Area (in. ²)
		A	B			
59LF-303-01	1/2	2.75	2.0	1/4 NPT	.50	3.19
59LF-304-01	3/4	4.00	3.0	1/2 NPT	1.21	6.7
59LF-305-01	1	4.75	3.5	3/4 NPT	1.89	10.8
59LF-306-01	1-1/4	5.25	4.0	3/4 NPT	2.80	13.5
59LF-307-01	1-1/2	6.00	4.4	1 NPT	4.26	19.0
59LF-308-01	2	7.25	5.1	1-1/4 NPT	6.27	27.6
59LF-309-01	2-1/2	9.50	5.6	1-1/2 NPT	11.00	41.0
59LF-310-01	3	10.50	6.7	1-1/2 NPT	15.0	56.0

LEAD FREE PRODUCTS CATALOG

APOLLOPUSH™ Bronze “Y” Strainers

YB (59LF P) SERIES



APOLLOPUSH™



The Lead Free* Apollo-Push™ YB-PLF Strainers with quick Push direct connections are designed to protect potable water systems from unwanted foreign particles with minimum pressure loss. The valves are built for long reliable service with proven ASTM grade materials including a Lead Free bronze body and a large area stainless steel screen.

FEATURES

- Quick Push End Connections
- Apollo-Push™ incorporates proven TECTITE™ technology,
- Self-Aligning Screen Design
- Blowout Ball Valve Option
- Maximum Pressure: 200 psi
- Maximum Temperature: 250°F
- **100% Cast, Machined and Assembled in the US**
- ARRA Compliant
- Removable with optional demount tool

LF Series Number	Size	Length (in.)	Cv	Weight (lb.)
59LF-003-01P	1/2"	4.9"	5	.75
59LF-004-01P	3/4"	6.2"	15	1.7
59LF-005-01P	1"	7.5"	28	2.7



OPTIONAL DEMOUNT TOOLS

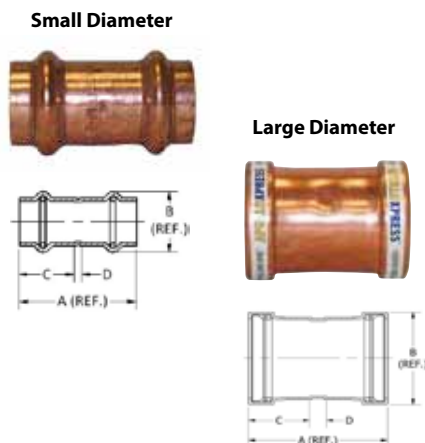
Size	Part Number
1/2"	D518700
3/4"	D518800
1"	D518900

APOLLOXPRESS® Fittings Table of Contents:

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801R..... Reducer Coupling.....	70	8707-3..... 90° Female Elbow	76
803/803R Female Adapter	71	8707-4..... 90° Male Elbow	76
803-2..... Female Street Adapter	71	811/811R Reducing Outlet Tee	77
804/804R Male Adapter	72	811 Tee	78-81
804-2..... Male Street Adapter.....	72	8712..... Female Outlet Tee	81
806 45° Elbow	73	817 Tube Cap	82
806-2..... 45° Street Elbow	73	836 Crossover	82
807 90° Elbow	74	8741/ 8771 Lg Diameter Flange.....	82
807-2..... 90° Street Elbow	75	818 Fitting Reducer	83
807-C..... Close Turn 90° Street Elbow	75	8733..... Union.....	84
807-L Long Turn 90° Street Elbow	75		

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER COUPLING WITH STOP

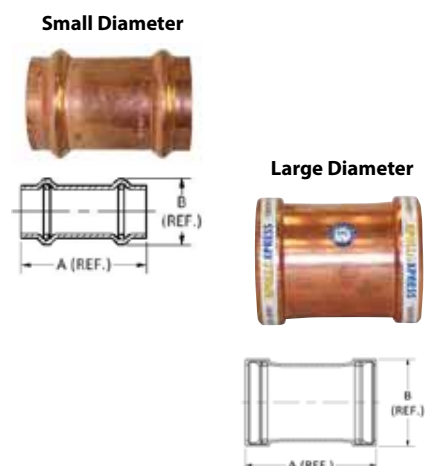


LF Item Number	Description	Dimensions (in.)				Height	Length	Depth
		A	B	C*	D**			
10075500	800 1/2 CxC CPLG W/ ST	1.72	0.95	0.81	0.11	0.95	1.72	0.95
10075502	800 3/4 CxC CPLG W/ ST	1.89	1.24	0.88	0.12	1.24	1.89	1.24
10075504	800 1 CxC CPLG W/ ST	2.06	1.49	0.92	0.23	1.49	2.06	1.49
10075506	800 1 1/4 CxC CPLG W/ ST	2.33	1.75	1.04	0.24	1.75	2.33	1.75
10075508	800 1 1/2 CxC CPLG W/ ST	3.10	2.09	1.43	0.24	2.09	3.10	2.09
10075510	800 2 CxC CPLG W/ ST	3.42	2.56	1.59	0.25	2.56	3.42	2.56
10061947	800 2 1/2 CxC CPLG W/ ST	4.33	3.16	1.90	0.53	3.16	4.33	3.16
10061952	800 3 CxC CPLG W/ ST	4.65	3.68	2.10	0.45	3.68	4.65	3.68
10061957	800 4 CxC CPLG W/ ST	5.53	4.70	2.50	0.53	4.70	5.53	4.70

*Cup Depth (Dim C) Tolerance : Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

**Lay-in (Dim D) Tolerance : Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

LEAD FREE COPPER COUPLING WITHOUT STOP



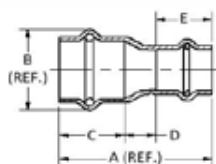
LF Item Number	Description	Dimensions (in.)		Height	Length	Depth
		A	B			
10075513	801 1/2 CxC CPLG W/O ST	1.72	0.95	0.95	1.72	0.95
10075515	801 3/4 CxC CPLG W/O ST	1.89	1.24	1.24	1.89	1.24
10075517	801 1 CxC CPLG W/O ST	2.07	1.49	1.49	2.07	1.49
10075521	801 1 1/4 CxC CPLG W/O ST	2.33	1.75	1.75	2.33	1.75
10075523	801 1 1/2 CxC CPLG W/O ST	3.10	2.09	2.09	3.10	2.09
10075527	801 2 CxC CPLG W/O ST	3.41	2.56	2.56	3.41	2.56
10061932	801 2 1/2 CxC CPLG W/O ST	4.33	3.16	3.16	4.65	3.16
10061937	801 3 CxC CPLG W/O ST	4.65	3.68	3.68	4.70	3.68
10061942	801 4 CxC CPLG W/O ST	5.53	4.70	4.70	5.53	4.70

LEAD FREE PRODUCTS CATALOG

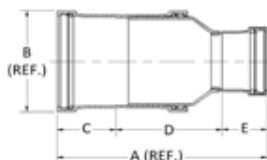
APOLLOXPRESS® FITTINGS

LEAD FREE COPPER REDUCER COUPLING

Small Diameter



Large Diameter

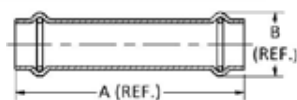


LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C*	D**	E*			
10075900	801R 3/4x1/2 CxC CPLG	2.14	1.24	0.92	0.44	0.79	1.24	2.14	1.24
10075144	801R 1x1/2 CxC CPLG	2.37	1.49	0.93	0.64	0.81	1.49	2.37	1.49
10075898	801R 1x3/4 CxC CPLG	2.30	1.49	0.98	0.39	0.93	1.49	2.30	1.49
10066073	801R 1 1/4x1/2 CxC CPLG	4.27	1.75	1.04	2.38	0.85	1.75	4.27	1.75
10066001	801R 1 1/4x3/4 CxC CPLG	4.13	1.75	1.04	2.24	0.85	1.75	4.13	1.75
10075896	801R 1 1/4x1 CxC CPLG	2.40	1.75	1.06	0.38	0.97	1.75	2.40	1.75
10066380	801R 1 1/2x1/2 CxC CPLG	4.86	2.09	1.43	2.62	0.81	2.09	4.86	2.09
10066381	801R 1 1/2x3/4 CxC CPLG	4.89	2.09	1.43	2.58	0.89	2.09	4.89	2.09
10066003	801R 1 1/2x1 CxC CPLG	4.60	2.09	1.43	2.25	0.93	2.09	4.60	2.09
10075128	801R 1 1/2x1 1/4 CxC CPLG	2.87	2.11	1.20	0.63	1.04	2.11	2.87	2.11
10066082	801R 2x1 1/2 CxC CPLG	5.86	2.56	1.51	3.43	0.85	2.56	5.86	2.56
10066398	801R 2x3/4 CxC CPLG	5.70	2.56	1.59	3.23	0.89	2.56	5.70	2.56
10066005	801R 2x1 CxC CPLG	5.49	2.56	1.59	2.94	0.97	2.56	5.49	2.56
10066072	801R 2x1 1/4 CxC CPLG	5.18	2.56	1.59	2.55	1.04	2.56	5.18	2.56
10075130	801R 2x1 1/2 CxC CPLG	3.50	2.56	1.40	0.90	1.20	2.56	3.50	2.56
10066440	801R 2 1/2x1 CxC CPLG	6.75	3.16	1.90	3.89	0.97	3.16	6.75	3.16
10066441	801R 2 1/2x1 1/4 CxC CPLG	6.62	3.16	1.90	3.68	1.04	3.16	6.62	3.16
10066442	801R 2 1/2x1 1/2 CxC CPLG	6.72	3.16	1.90	3.45	1.38	3.16	6.72	3.16
10066074	801R 2 1/2x2 CxC CPLG	6.68	3.16	1.90	3.38	1.40	3.16	6.68	3.16
10066444	801R 3x3/4 CxC CPLG	7.48	3.68	2.10	4.55	0.83	3.68	7.48	3.68
10066445	801R 3x1 1/2 CxC CPLG	7.26	3.68	2.10	3.79	1.38	3.68	7.26	3.68
10066446	801R 3x2 CxC CPLG	7.11	3.68	2.10	3.55	1.47	3.68	7.39	3.68
10066076	801R 3x2 1/2 CxC CPLG	7.63	3.68	2.10	3.63	1.90	3.68	7.63	3.68
10066447	801R 4x2 CxC CPLG	8.62	4.70	2.50	4.65	1.47	4.70	8.62	4.70
10066151	801R 4x2 1/2 CxC CPLG	8.90	4.70	2.50	4.50	1.90	4.70	8.90	4.70
10066152	801R 4x3 CxC CPLG	8.93	4.70	2.50	4.33	2.10	4.70	8.93	4.70

*Cup Depth (Dim C & E) Tolerance : Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

**Lay-in (Dim D) Tolerance : Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

LEAD FREE COPPER EXTENDED LENGTH COUPLING WITHOUT STOP

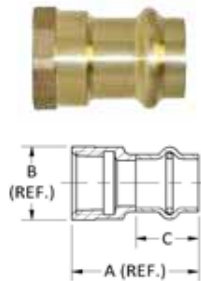


LF Item Number	Description	Dimensions (in.)		Height	Length	Depth
		A	B			
10075030	801 1/2 CXC COUPLING W/O STOP	3.30	0.95	0.95	3.30	0.95
10075032	801 3/4 CXC COUPLING W/O STOP	3.00	1.24	1.24	3.00	1.24
10075034	801 1 CXC COUPLING W/O STOP	3.58	1.49	1.49	3.58	1.49

APOLLOXPRESS® FITTINGS

LEAD FREE BRASS FEMALE ADAPTER

Female Adapter



Female Reducing Adapter

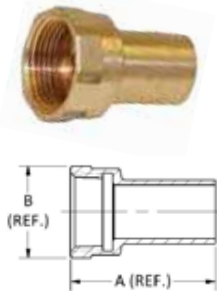


LF Item Number	Description	Dimensions (in.)			Height	Length	Depth
		A	B	C*			
10075750	803 ½ CxF ADAPT	1.52	1.01	0.76	1.01	1.52	1.01
10075752	803 ¾ CxF ADAPT	1.73	1.25	0.92	1.25	1.73	1.25
10075754	803 1 CxF ADAPT	1.76	1.53	0.92	1.53	1.76	1.53
10075756	803 1¼ CxF ADAPT	1.90	1.93	1.04	1.93	1.90	1.93
10075758	803 1½ CxF ADAPT	2.43	2.20	1.43	2.20	2.43	2.20
10075760	803 2 CxF ADAPT	2.44	2.73	1.59	2.73	2.44	2.73
Female Reducing Adapters							
10075780	803R ½x¾ CxF ADAPT	1.34	0.87	0.76	0.87	1.34	0.87
10075782	803R ½x¾ CxF ADAPT	1.62	1.25	0.76	1.25	1.62	1.25
10075784	803R ¾x1 CxF ADAPT	1.50	1.01	0.92	1.01	1.50	1.01
10075796	803R 1x1½ CxF ADAPT	1.55	1.01	1.03	1.01	1.55	1.01
10075798	803R 1x¾ CxF ADAPT	1.56	1.25	0.92	1.25	1.56	1.25
10075800	803R 1x1¼ CxF ADAPT	1.96	1.93	0.92	1.93	1.96	1.93
10075786	803R 1¼x1 CxF ADAPT	1.79	1.75	1.04	1.75	1.79	1.75
10075788	803R 1¼x1 CxF ADAPT	1.80	1.75	1.04	1.75	1.80	1.75
10075790	803R 1¼x1½ CxF ADAPT	1.98	2.20	1.04	2.20	1.98	2.20
10075792	803R 1½x¾ CxF ADAPT	2.03	2.09	1.43	2.09	2.03	2.09
10075794	803R 1½x1¼ CxF ADAPT	2.19	2.09	1.43	2.09	2.19	2.09

*Cup Depth (Dim C) Tolerance : Sizes 1/2"- 2" +/- .045, Sizes 2-1/2"- 4" +/- .015

LEAD FREE BRASS FEMALE STREET ADAPTER

Female Street Adapter



Female Reducing Street Adapter



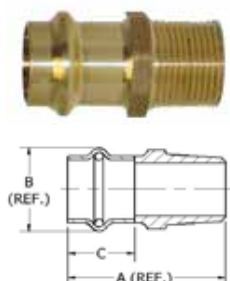
LF Item Number	Description	Dimensions (in.)		Height	Length	Depth
		A	B			
10075762	803-2 ½ FTGxF ADAPT	1.71	1.02	1.02	1.71	1.02
10075768	803-2 ¾ FTGxF ADAPT	1.91	1.25	1.25	1.91	1.25
10075772	803-2 1 FTGxF ADAPT	2.03	1.53	1.53	2.03	1.53
10075774	803-2 1¼ FTGxF ADAPT	2.19	1.93	1.93	2.19	1.93
10075776	803-2 1½ FTGxF ADAPT	2.57	2.20	2.20	2.57	2.20
10075778	803-2 2 FTGxF ADAPT	2.78	2.74	2.74	2.78	2.74
Female Reducing Street Adapters						
10075764	803-2 ½x¾ FTGxF ADAPT	1.56	0.87	0.87	1.56	0.87
10075766	803-2 ½x¾ FTGxF ADAPT	1.79	1.26	1.26	1.79	1.26
10075770	803-2 ¾x1 FTGxF ADAPT	1.84	1.02	1.02	1.84	1.02
10075804	803-2 1x1½ FTGxF ADAPT	1.65	1.13	1.13	1.65	1.13
10075802	803-2 1¼x1½ FTGxF ADAPT	1.90	1.38	1.38	1.90	1.38

LEAD FREE PRODUCTS CATALOG

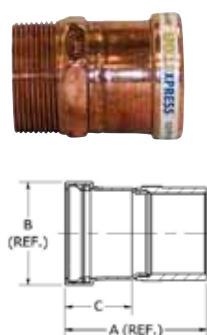
APOLLOXPRESS® FITTINGS

LEAD FREE MALE ADAPTER

Small Diameter



Large Diameter



Reducing Adapter

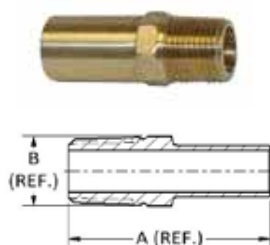


LF Item Number	Description	Dimensions (in.)			Height	Length	Depth
		A	B	C*			
10075806	804 ½ CxM ADAPT	1.92	0.93	0.76	0.93	1.92	0.93
10075808	804 ¾ CxM ADAPT	2.15	1.26	0.92	1.26	2.15	1.26
10075844	804 1 CxM ADAPT	2.39	1.50	0.92	1.50	2.39	1.50
10075810	804 1¼ CxM ADAPT	2.39	1.71	1.04	1.71	2.39	1.71
10075812	804 1½ CxM ADAPT	2.68	2.13	1.43	2.13	2.68	2.13
10075814	804 2 CxM ADAPT	2.97	2.60	1.59	2.60	2.97	2.60
10061982	804 2½ CxM ADAPT	4.11	3.16	1.90	3.16	4.11	3.16
10061987	804 3 CxM ADAPT	4.35	3.68	2.10	3.56	4.35	3.16
10061992	804 4 CxM ADAPT	5.43	4.70	2.50	4.70	5.43	3.16
Male Reducing Adapters							
10075836	804R ½x¾ CxM ADAPT	1.79	0.93	0.76	0.93	1.79	0.93
10075838	804R ½x¾ CxM ADAPT	1.86	1.05	0.76	1.05	1.86	1.05
10075840	804R ¾x1 CxM ADAPT	2.21	1.26	0.92	1.26	2.21	1.26
10075842	804R ¾x1 CxM ADAPT	2.60	1.50	0.92	1.50	2.60	1.50
10075854	804R 1x¾ CxM ADAPT	2.24	1.50	0.92	1.50	2.24	1.50
10075856	804R 1x1¼ CxM ADAPT	2.44	1.71	0.92	1.71	2.44	1.71
10075846	804R 1¼x1 CxM ADAPT	2.42	1.71	1.04	1.71	2.42	1.71
10075848	804R 1¼x1½ CxM ADAPT	2.62	1.90	1.04	1.90	2.62	1.90
10075850	804R 1½x1¼ CxM ADAPT	2.73	2.12	1.43	2.12	2.73	2.12
10075852	804R 1½x2 CxM ADAPT	2.82	2.59	1.43	2.59	2.82	2.59
10075858	804R 2x1½ CxM ADAPT	3.10	2.57	1.59	2.57	3.1	2.57

*Cup Depth (Dim C) Tolerance: Sizes 1/2"- 2" +/- .045, Sizes 2-1/2"- 4" +/- .015

LEAD FREE BRASS MALE STREET ADAPTER

Small Diameter



Reducing Adapter



LF Item Number	Description	Dimensions (in.)		Height	Length	Depth
		A	B			
10075816	804-2 ½ FTGxM ADAPT	2.23	0.84	0.84	2.23	0.84
10075822	804-2 ¾ FTGxM ADAPT	2.40	1.05	1.05	2.40	1.05
10075826	804-2 1 FTGxM ADAPT	2.72	1.31	1.31	2.72	1.31
10075828	804-2 1¼ FTGxM ADAPT	2.82	1.66	1.66	2.82	1.66
10075830	804-2 1½ FTGxM ADAPT	3.27	1.90	1.90	3.27	1.90
10075834	804-2 2 FTGxM ADAPT	3.46	2.37	2.37	3.46	2.37
Male Reducing Street Adapters						
10075818	804-2 ½x¾ FTGxM ADAPT	1.99	0.68	0.68	1.99	0.68
10075820	804-2 ½x¾ FTGxM ADAPT	2.42	1.05	1.05	2.42	1.05
10075824	804-2 ¾x1 FTGxM ADAPT	2.31	0.98	0.98	2.31	0.98
10075832	804-2 1x¾ FTGxM ADAPT	2.55	1.32	1.32	2.55	1.32

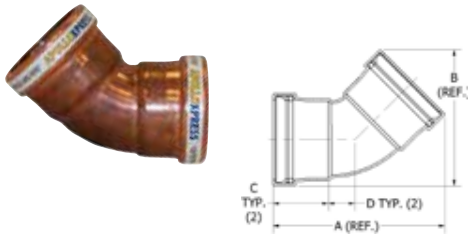
APOLLOXPRESS® FITTINGS

LEAD FREE COPPER 45° ELBOW

Small Diameter



Large Diameter



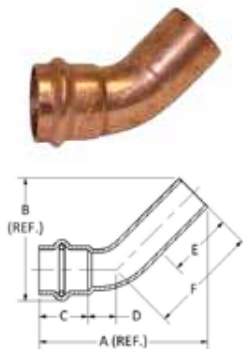
LF Item Number	Description	Dimensions (in.)				Height	Length	Depth
		A	B	C*	D**			
10075060	806 ½ CxC 45 EL	2.14	1.52	0.78	0.32	1.52	2.14	0.95
10075062	806 ¾ CxC 45 EL	2.62	1.91	0.92	0.41	1.91	2.62	1.24
10075064	806 1 CxC 45 EL	3.10	2.28	0.97	0.59	2.28	3.10	1.49
10075090	806 1¼ CxC 45 EL	3.62	2.69	1.09	0.72	2.69	3.62	1.75
10075092	806 1½ CxC 45 EL	4.20	3.16	1.31	0.78	3.16	4.20	2.09
10075094	806 2 CxC 45 EL	5.12	3.88	1.51	1.02	3.73	5.13	2.58
10062052	806 2½ CxC 45 EL	5.89	4.67	1.90	0.91	4.67	5.89	3.16
10062057	806 3 CxC 45 EL	6.58	5.33	2.10	1.00	5.31	6.57	3.68
10062062	806 4 CxC 45 EL	8.10	6.67	2.50	1.28	6.67	8.10	4.70

*Cup Depth (Dim C) Tolerance: Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

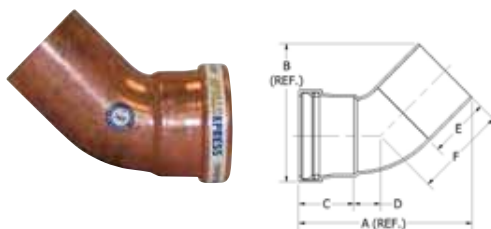
**Lay-in (Dim D) Tolerance: Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

LEAD FREE COPPER 45° STREET ELBOW

Small Diameter



Large Diameter



LF Item Number	Description	Dimensions (in.)						Height	Length	Depth
		A	B	C*	D**	E***	F**			
10075054	806-2 ½ FTGxC 45 ST EL	2.60	1.89	0.76	0.43	1.00	1.69	1.89	2.60	0.95
10075056	806-2 ¾ FTGxC 45 ST EL	2.96	2.25	0.92	0.41	1.38	1.88	2.25	2.96	1.24
10075058	806-2 1 FTGxC 45 ST EL	3.23	2.33	0.93	0.71	1.16	1.69	2.33	3.23	1.49
10075084	806-2 1¼ FTGxC 45 ST EL	3.67	2.73	1.09	0.72	1.19	1.94	2.55	3.61	1.75
10075086	806-2 1½ FTGxC 45 ST EL	4.09	3.06	1.31	0.78	1.16	2.02	3.06	4.09	2.11
10075088	806-2 2 FTGxC 45 ST EL	5.29	3.95	1.59	1.06	1.65	2.72	3.95	5.29	2.55
10062037	806-2 2½ FTGxC 45 EL	5.97	4.74	1.90	0.91	2.09	3.16	4.74	5.97	3.16
10062042	806-2 3 FTGxC 45 EL	6.62	5.36	2.10	1.00	2.25	3.41	5.36	6.62	3.68
10062047	806-2 4 FTGxC 45 EL	8.18	6.74	2.50	1.28	2.63	4.16	6.74	8.18	4.70

*Cup Depth (Dim C) Tolerance: Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

**Lay-in (Dim D&F) Tolerance: Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

***Fit End (Dim E) Tolerance: Sizes 1/2" - 1" +/- .06/- .00, Sizes 1-1/4" - 2" +/- .09/- .00, Sizes 2-1/2" - 4" +/- .12/- .00

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER 90° ELBOW

Small Diameter



Large Diameter
Close Turn



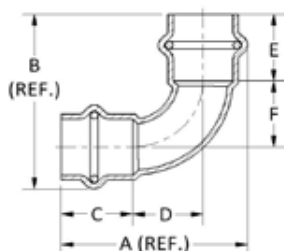
Large Diameter
Close Turn
Reducing



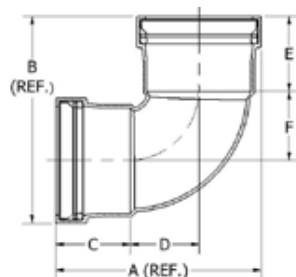
Large Diameter
Long Turn



Small Diameter



Large Diameter



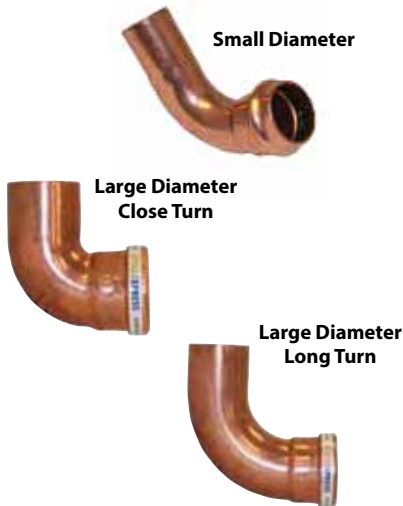
LF Item Number	Description	Dimensions (in.)						Height	Length	Depth
		A	B	C	D	E	F			
10075554	807 ½ CxC 90 DEG. EL	1.97	1.97	0.76	0.75			1.97	1.97	0.95
10075556	807 ¾ CxC 90 DEG. EL	2.58	2.58	0.93	1.03			2.58	2.58	1.24
10075052	807 1 CxC 90 EL	2.97	2.97	0.92	1.31			2.97	2.97	1.49
10075078	807 1¼ CxC 90 EL	3.83	3.83	1.09	1.87			3.83	3.83	1.75
10075080	807 1½ CxC 90 EL	4.37	4.37	1.31	2.02			4.37	4.37	2.11
10075082	807 2 CxC 90 EL	5.35	5.35	1.51	2.56			5.35	5.35	2.58
Reducing Elbow										
10066101	807 ¾x½ CxC 90 EL	2.58	3.67	0.93	1.03	0.81	2.25	3.67	2.58	1.24
10066099	807 1x½ CxC 90 EL	2.97	4.43	0.92	1.31	0.81	2.88	4.43	2.97	1.49
10066083	807 1x¾ CxC 90 EL	2.97	4.27	0.92	1.31	0.85	2.68	4.27	2.97	1.49
Close Turn Elbow - Large Diameter Copper										
10062021	807-C 2½ CxC 90 EL	5.23	5.23	1.90	1.75			5.23	5.23	3.16
10062027	807-C 3 CxC 90 EL	5.94	5.94	2.10	2.00			5.95	5.95	3.68
10062032	807-C 4 CxC 90 EL	7.44	7.44	2.50	2.59			7.44	7.44	4.70
Close Turn Reducing Elbow - Large Diameter Copper										
10066460	807 3x2 CxC 90 EL	5.94	8.41	2.10	2.00	1.51	5.07	8.41	5.94	3.68
10066141	807 3x2½ CxC 90 EL	5.94	8.93	2.10	2.00	1.90	5.19	5.94	8.93	3.68
Long Turn Elbow - Large Diameter Copper										
10062066	807-L 2½ CxC 90 EL	6.67	6.67	1.90	3.19			6.67	6.67	3.16
10062067	807-L 3 CxC 90 EL	8.56	8.56	2.10	4.58			8.56	8.56	3.68
10062069	807-L 4 CxC 90 EL	9.75	9.75	2.50	4.90			9.75	9.75	4.70

*Cup Depth (Dim C) Tolerance : Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

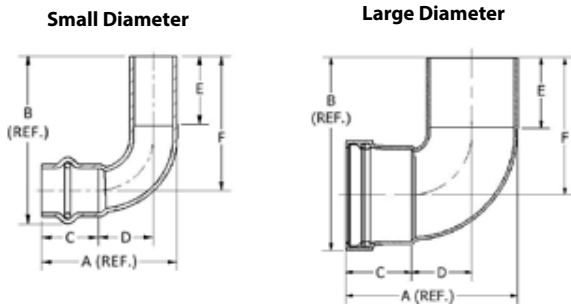
**Lay-in (Dim D&F) Tolerance : Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

APOLLOXPRESS® FITTINGS

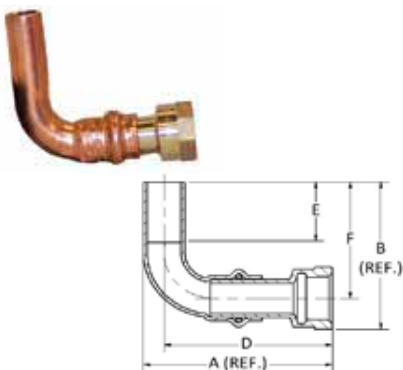
LEAD FREE COPPER 90° STREET ELBOW



LF Item Number	Description	Dimensions (in.)						Height	Length	Depth
		A	B	C*	D**	E***	F**			
10075566	807-2 1/2 FTGXC 90 ST EL	1.80	2.38	0.76	0.73	0.97	1.91	2.38	1.80	0.95
10075568	807-2 3/4 FTGXC 90 ST EL	2.37	2.82	0.93	1.01	1.06	2.20	2.82	2.37	1.24
10075046	807-2 1 FTGxC 90 ST EL	2.87	3.56	0.92	1.40	1.13	2.81	3.56	2.87	1.49
10075072	807-2 1 1/4 FTGxC 90 ST EL	3.64	3.85	1.09	1.87	1.19	2.97	3.85	3.64	1.75
10075074	807-2 1 1/2 FTGxC 90 ST EL	4.14	4.40	1.31	2.02	1.36	3.34	4.40	4.14	2.11
10075076	807-2 2 FTGxC 90 ST EL	5.12	5.56	1.51	2.56	1.56	4.27	5.56	5.12	2.58
Close Turn Street Elbow - Large Diameter Copper										
10062007	807-C-2 2 1/2 CxC 90 EL	4.96	5.54	1.90	1.75	2.03	3.96	5.54	4.96	3.16
10062012	807-C-2 3 CxC 90 EL	5.66	6.25	2.10	2.00	2.25	4.41	6.25	5.66	3.68
10062017	807-C-2 4 CxC 90 EL	7.15	7.89	2.50	2.59	2.75	5.54	7.89	7.15	4.70
Long Turn Street Elbow - Large Diameter Copper										
10062071	807-L-2 2 1/2 CxC 90 EL	6.40	6.92	1.90	3.19	2.03	5.34	6.92	6.40	3.16
10062073	807-L-2 3 CxC 90 EL	8.28	8.71	2.10	4.62	2.25	6.87	8.71	8.28	3.68
10062074	807-L-2 4 CxC 90 EL	10.44	10.98	2.50	5.88	2.75	8.63	10.98	10.44	4.70



LEAD FREE COPPER & BRASS 90° FEMALE ELBOW



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	D*	E**	F*			
10066578	8707-3-2 1/2 FTGxF 90 EL	2.87	2.42	2.16	0.97	1.91	2.42	2.87	1.02

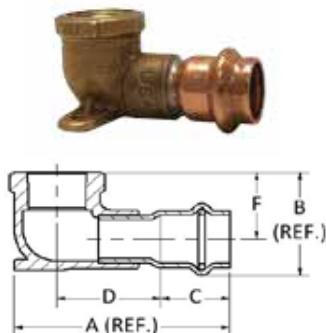
*Lay-in (Dim D&F) Tolerance: Size 1/2" +.07/-0.03

**Fit End (Dim E) Tolerance: Sizes 1/2" +.06/-0.00

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER & BRASS 90° DROP EAR ELBOW



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C*	D**	F**			
10075366	8707-3-5 1/2 CxF 90 DRP EAR EL	2.71	1.35	0.85	1.28	0.88	1.35	2.71	2.12
10075368	8707-3-5 3/4 CxF 90 DRP EAR EL	3.28	1.62	0.89	1.70	1.00	1.62	3.28	2.34
10075369	8707-3-5 1 CxF 90 DRP EAR EL	3.77	1.96	0.97	1.93	1.25	1.96	3.77	2.59
Reducing Drop Ear Elbow									
10075367	8707-3-5 1/2x3/8 CxF 90 DRP EAR EL	2.56	1.09	0.85	1.21	0.71	1.09	2.56	1.59

*Cup Depth (Dim C) Tolerance: Sizes 1/2" - 1" +/- .045

**Lay-in (Dim D) Tolerance: Sizes 1/2" - 3/4" +/- .07/- .03, Size 1" +/- .09/- .03, (Dim F) : +/- .06

LEAD FREE COPPER & BRASS 90° FEMALE ELBOW



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C*	D**	F**			
10066560	8707-3 1/2 CxF 90 EL	2.10	3.00	0.76	0.74	2.44	3.00	2.10	1.02
10066561	8707-3 3/4 CxF 90 EL	2.58	3.54	0.93	1.03	2.92	3.54	2.58	1.25
10066562	8707-3 1 CxF 90 EL	2.99	4.07	0.92	1.31	3.33	4.07	2.99	1.53
10066563	8707-3 1 1/4 CxF 90 EL	3.92	4.91	1.09	1.87	4.04	4.91	3.92	1.93
10066564	8707-3 1 1/2 CxF 90 EL	4.43	5.63	1.31	2.02	4.58	5.63	4.43	2.20
10066565	8707-3 2 CxF 90 EL	5.43	6.60	1.51	2.55	5.32	6.60	5.43	2.74
Reducing Female Elbow									
10066566	8707-3 1/2x3/8 CxF 90 RED EL	1.97	2.76	0.76	0.74	2.29	2.74	1.97	0.94
10066567	8707-3 1/2x3/4 CxF 90 RED EL	2.13	2.99	0.76	0.74	2.52	2.99	2.13	1.26
10066568	8707-3 3/4x1/2 CxF 90 RED EL	2.58	3.47	0.93	1.03	2.85	3.47	2.58	1.24
10066569	8707-3 1x1/2 CxF 90 RED EL	2.97	3.68	0.92	1.31	2.95	3.68	2.97	1.49

*Cup Depth (Dim C) Tolerance: Sizes 1/2" - 2" +/- .045

**Lay-in (Dim D&F) Tolerance: Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03

LEAD FREE COPPER & BRASS 90° MALE ELBOW



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C*	D**	F**			
10066570	8707-4 1/2 CxM 90 EL	1.97	3.43	0.76	0.74	2.96	3.43	1.97	0.94
10066571	8707-4 3/4 CxM 90 EL	2.58	4.00	0.93	1.03	3.58	4.00	2.58	1.24
10066572	8707-4 1 CxM 90 EL	2.97	4.76	0.92	1.31	4.02	4.76	2.97	1.49
10066573	8707-4 1 1/4 CxM 90 EL	3.83	5.54	1.09	1.87	4.67	5.54	3.83	1.75
10066574	8707-4 1 1/2 CxM 90 EL	4.37	6.30	1.31	2.02	5.26	6.30	4.37	2.11
10066575	8707-4 2 CxM 90 EL	5.35	7.25	1.51	2.55	5.97	7.25	5.35	2.58
Reducing Male Elbow									
10066576	8707-4 1/2x3/8 CxM 90 RED EL	2.03	3.62	0.76	0.74	3.15	3.62	2.03	1.05
10066577	8707-4 3/4x1/2 CxM 90 RED EL	2.58	3.94	0.93	1.03	3.32	3.94	2.58	1.24

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER REDUCING OUTLET TEE

Small Diameter



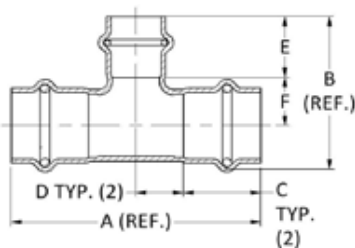
Large Diameter



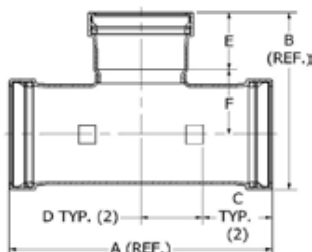
Single Piece



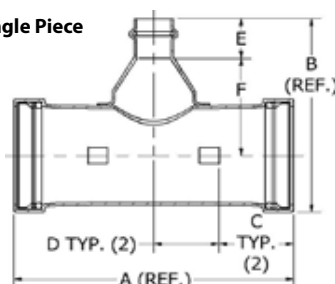
Small Diameter



Large Diameter



Single Piece



LF Item Number	Description	Dimensions (in.)						Height	Length	Depth
		A	B	C*	D**	E*	F**			
10075906	811 3/4x3/4x1/2 CxCxC TEE	3.13	2.07	0.92	0.65	0.76	0.70	2.07	3.13	1.24
10075904	811 1x1x1/2 CxCxC TEE	3.30	2.32	0.93	0.72	0.76	0.82	2.32	3.30	1.49
10075902	811 1x1x3/4 CxCxC TEE	3.67	2.44	0.93	0.86	0.92	0.79	2.44	3.67	1.50
10075106	811 1 1/4x1 1/4x1/2 CxCxC TEE	4.12	3.04	1.09	0.98	0.85	1.44	3.04	4.12	1.75
10075102	811 1 1/4x1 1/4x3/4 CxCxC TEE	4.12	3.16	1.09	0.98	0.89	1.34	3.10	4.12	1.75
10075104	811 1 1/4x1 1/4x1 CxCxC TEE	4.12	3.04	1.09	0.98	0.97	1.20	3.04	4.12	1.75
10066015	811 1 1/2x1 1/2x1/2 CxCxC TEE	4.00	4.22	1.31	0.69	0.81	2.36	4.22	4.00	2.11
10075108	811 1 1/2x1 1/2x3/4 CxCxC TEE	4.00	3.07	1.31	0.69	0.89	1.14	3.07	4.00	2.11
10075110	811 1 1/2x1 1/2x1 CxCxC TEE	4.25	3.16	1.31	0.82	0.97	1.14	3.16	4.25	2.11
10075112	811 1 1/2x1 1/2x1 1/4 CxCxC TEE	4.50	3.28	1.31	0.94	1.09	1.14	3.28	4.50	2.11
10066385	811 2x2x1/2 CxCxC TEE	5.75	6.69	1.51	1.37	0.85	4.56	6.69	5.75	2.58
10075114	811 2x2x3/4 CxCxC TEE	4.39	3.65	1.59	0.61	0.89	1.47	3.65	4.39	2.58
10075116	811 2x2x1 CxCxC TEE	4.75	3.72	1.51	0.87	0.97	1.47	3.72	4.75	2.58
10075118	811 2x2x1 1/4 CxCxC TEE	5.00	3.84	1.51	0.99	1.09	1.46	3.84	5.00	2.58
10075120	811 2x2x1 1/2 CxCxC TEE	5.75	4.35	1.51	1.37	1.31	1.76	4.35	5.75	2.58
10062079	811 3x3x2 1/2 CxCxC TEE	7.95	5.90	2.10	1.88	1.90	2.16	5.90	7.95	3.68
10062078	811 4x4x2 1/2 CxCxC TEE	9.84	6.91	2.50	2.42	1.90	2.66	6.91	9.84	4.70
10062076	811 4x4x3 CxCxC TEE	9.84	7.28	2.50	2.42	2.10	2.83	7.28	9.84	4.70
Single Piece Copper Reducing Outlet Tee										
10068042	811R 2 1/2x2 1/2x1/2 REDUCED TEE	7.15	5.58	1.90	1.67	0.85	3.12	5.58	7.15	3.16
10068045	811R 2 1/2x2 1/2x3/4 REDUCED TEE	7.15	5.42	1.90	1.67	0.89	2.95	5.42	7.15	3.16
10068048	811R 2 1/2x2 1/2x1 REDUCED TEE	7.15	5.21	1.90	1.67	0.97	2.66	5.21	7.15	3.16
10068051	811R 2 1/2x2 1/2x1 1/4 REDUCED TEE	7.15	4.58	1.90	1.67	1.04	1.96	4.58	7.15	3.16
10068054	811R 2 1/2x2 1/2x1 1/2 REDUCED TEE	7.15	4.83	1.90	1.67	1.43	1.82	4.83	7.15	3.16
10068057	811R 2 1/2x2 1/2x2 REDUCED TEE	7.15	5.08	1.90	1.67	1.59	1.92	5.08	7.15	3.16
10068060	811R 3x3x1/2 REDUCED TEE	7.95	6.21	2.10	1.87	0.85	3.53	6.21	7.95	3.68
10068063	811R 3x3x3/4 REDUCED TEE	7.95	6.05	2.10	1.87	0.89	3.33	6.05	7.96	3.68
10068066	811R 3x3x1 REDUCED TEE	7.95	5.84	2.10	1.87	0.97	3.04	5.84	7.95	3.68
10068069	811R 3x3x1 1/4 REDUCED TEE	7.95	5.09	2.10	1.87	1.04	2.21	5.09	7.95	3.68
10068072	811R 3x3x1 1/2 REDUCED TEE	7.95	5.34	2.10	1.87	1.43	2.07	5.34	7.95	3.68
10068075	811R 3x3x2 REDUCED TEE	7.95	5.59	2.10	1.87	1.59	2.17	5.59	7.95	3.68
10068078	811R 4x4x1/2 REDUCED TEE	9.84	7.33	2.50	2.42	0.85	4.13	7.33	9.84	4.70
10068081	811R 4x4x3/4 REDUCED TEE	9.84	7.17	2.50	2.42	0.89	3.93	7.17	9.84	4.70
10068084	811R 4x4x1 REDUCED TEE	9.84	6.96	2.50	2.42	0.97	3.64	6.96	9.84	4.70
10068087	811R 4x4x1 1/4 REDUCED TEE	9.84	6.10	2.50	2.42	1.04	2.71	6.10	9.84	4.70
10068090	811R 4x4x1 1/2 REDUCED TEE	9.84	6.35	2.50	2.42	1.43	2.57	6.35	9.84	4.70
10068093	811R 4x4x2 REDUCED TEE	9.84	6.60	2.50	2.42	1.59	2.67	6.60	9.84	4.70

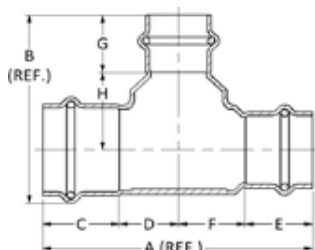
*Cup Depth (Dim C&E) Tolerance: Sizes 1/2"-2" +/- .045, Sizes 2-1/2"-4" +/- .015

**Lay-in (Dim D&F) Tolerance: Sizes 1/2"-3/4" +.07/- .03, Sizes 1"-2" +.09/- .03, Sizes 2-1/2"-3" +.12/- .03, Size 4" +.15/- .03

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER REDUCING RUN/OUTLET TEE - SM DIAMETER



LF Item Number	Description	Dimensions (in.)								Height	Length	Depth
		A	B	C*	D**	E*	F**	G*	H**			
10066590	811 3⁄4x1⁄2x1⁄2 CxCxC TEE	4.25	2.07	0.92	0.65	0.81	1.87	0.76	0.70	2.07	4.25	1.24
10066039	811 3⁄4x1⁄2x3⁄4 CxCxC TEE	4.58	2.17	0.92	0.82	0.81	2.04	0.92	0.64	2.17	4.58	1.24
10066591	811 1x1⁄2x1⁄2 CxCxC TEE	4.74	2.32	0.93	0.72	0.81	2.28	0.76	0.82	2.32	4.74	1.50
10066592	811 1x1⁄2x3⁄4 CxCxC TEE	5.07	2.44	0.98	0.86	0.81	2.42	0.92	0.79	2.44	5.07	1.50
10066066	811 1x1⁄2x1 CxCxC TEE	5.30	2.51	0.98	0.98	0.81	2.54	0.98	0.80	2.51	5.30	1.50
10066593	811 1x3⁄4x1⁄2 CxCxC TEE	4.59	2.32	0.93	0.72	0.85	2.09	0.76	0.82	2.32	4.59	1.50
10066594	811 1x3⁄4x3⁄4 CxCxC TEE	4.91	2.44	0.98	0.86	0.85	2.23	0.92	0.79	2.44	4.91	1.50
10066040	811 1x3⁄4x1 CxCxC TEE	5.14	2.51	0.98	0.98	0.85	2.35	0.98	0.80	2.51	5.14	1.50
10066102	811 1x3⁄4x1 1⁄4 CxCxC TEE	7.04	2.94	0.93	2.45	0.85	2.82	1.09	0.98	2.94	7.04	1.75
10066049	811 1 1⁄4x1⁄2x1⁄2 CxCxC TEE	5.87	3.04	1.09	0.98	0.85	2.96	0.85	1.44	3.04	5.87	1.75
10066080	811 1 1⁄4x1⁄2x1 CxCxC TEE	5.50	3.04	1.09	0.98	0.81	2.64	0.97	1.20	3.04	5.50	1.75
10066392	811 1 1⁄4x1⁄2x1 1⁄4 CxCxC TEE	5.86	2.94	1.09	0.98	0.85	2.96	1.09	0.98	2.94	5.86	1.75
10066051	811 1 1⁄4x3⁄4x1⁄2 CxCxC TEE	5.73	3.04	1.09	0.98	0.85	2.82	0.85	1.44	3.04	5.73	1.75
10066052	811 1 1⁄4x3⁄4x3⁄4 CxCxC TEE	5.73	3.10	1.09	0.98	0.85	2.82	0.89	1.34	3.10	5.73	1.75
10066053	811 1 1⁄4x3⁄4x1 CxCxC TEE	5.73	3.04	1.09	0.98	0.85	2.82	0.97	1.20	3.04	5.73	1.75
10066054	811 1 1⁄4x3⁄4x1 1⁄4 CxCxC TEE	5.73	2.94	1.09	0.98	0.85	2.82	1.09	0.98	2.94	5.73	1.75
10066044	811 1 1⁄4x3⁄4x1 1⁄2 CxCxC TEE	8.04	3.43	1.04	2.72	0.89	3.40	1.31	1.07	3.43	8.04	1.75
10066055	811 1 1⁄4x1x1⁄2 CxCxC TEE	5.44	3.04	1.09	0.98	0.93	2.45	0.85	1.44	3.04	5.44	1.75
10075122	811 1 1⁄4x1x3⁄4 CxCxC TEE	4.10	3.10	1.09	0.98	0.97	1.07	0.89	1.34	3.10	4.10	1.75
10075124	811 1 1⁄4x1x1 CxCxC TEE	4.10	3.04	1.09	0.98	0.97	1.07	1.09	1.20	3.04	4.10	1.75
10066056	811 1 1⁄4x1x1 1⁄4 CxCxC TEE	5.44	2.94	1.09	0.98	0.93	2.45	1.09	0.98	2.94	5.44	2.11
10066395	811 1 1⁄4x1x1 1⁄2 CxCxC TEE	7.75	3.43	1.04	2.72	0.93	3.07	1.31	1.07	3.43	7.75	2.11
10066394	811 1 1⁄2x1⁄2x1 1⁄4 CxCxC TEE	6.38	3.28	1.31	0.94	0.81	3.33	1.09	1.14	3.28	6.38	2.11
10066009	811 1 1⁄2x1⁄2x1 1⁄2 CxCxC TEE	6.63	3.43	1.31	1.07	0.81	3.45	1.31	2.38	3.43	6.63	2.11
10066195	811 1 1⁄2x3⁄4x1⁄2 CxCxC TEE	5.91	4.22	1.31	0.69	0.89	3.02	0.81	2.36	4.22	5.54	2.11
10066383	811 1 1⁄2x3⁄4x3⁄4 CxCxC TEE	5.91	3.07	1.31	0.69	0.89	3.02	0.89	1.14	3.07	5.91	2.11
10066397	811 1 1⁄2x3⁄4x1 CxCxC TEE	6.16	3.16	1.31	0.82	0.89	3.15	0.97	1.14	3.16	6.16	2.11
10066058	811 1 1⁄2x3⁄4x1 1⁄4 CxCxC TEE	5.97	3.28	1.31	0.94	0.85	2.87	1.09	1.14	3.28	5.97	2.11
10066043	811 1 1⁄2x3⁄4x1 1⁄2 CxCxC TEE	6.66	3.43	1.31	1.07	0.89	3.40	1.31	1.07	3.43	6.66	2.11
10066042	811 1 1⁄2x3⁄4x2 CxCxC TEE	10.11	4.17	1.31	3.57	0.89	4.35	1.51	1.37	4.17	10.11	2.11
10066011	811 1 1⁄2x1x3⁄4 CxCxC TEE	5.62	3.07	1.31	0.69	0.93	2.69	0.89	1.14	3.07	5.62	2.11
10066012	811 1 1⁄2x1x1 CxCxC TEE	5.87	3.16	1.31	0.82	0.93	2.82	0.97	1.14	3.16	5.87	2.11
10066081	811 1 1⁄2x1x1 1⁄4 CxCxC TEE	6.12	3.28	1.31	0.94	0.93	2.94	1.09	1.14	3.28	6.12	2.11
10066013	811 1 1⁄2x1x1 1⁄2 CxCxC TEE	6.37	3.43	1.31	1.07	0.93	3.07	1.31	1.07	3.43	6.37	2.11
10066108	811 1 1⁄2x1x2 CxCxC TEE	9.90	4.17	1.31	3.57	0.97	4.06	1.51	1.37	4.17	9.90	2.11
10066059	811 1 1⁄2x1 1⁄4x1⁄2 CxCxC TEE	5.38	4.22	1.31	0.69	1.04	2.34	0.81	2.36	4.22	5.38	2.11
10066060	811 1 1⁄2x1 1⁄4x3⁄4 CxCxC TEE	5.38	3.07	1.31	0.69	1.04	2.34	0.89	2.02	3.07	5.38	2.11
10066014	811 1 1⁄2x1 1⁄4x1 CxCxC TEE	5.63	3.16	1.31	0.82	1.04	2.47	0.97	1.14	3.16	5.63	2.11
10075126	811 1 1⁄2x1 1⁄4x1 1⁄4 CxCxC TEE	4.37	3.26	1.31	0.94	1.09	1.03	1.09	1.14	3.26	4.37	2.11
10066393	811 1 1⁄2x1 1⁄4x1 1⁄2 CxCxC TEE	6.13	3.43	1.31	1.07	1.04	2.72	1.31	1.07	3.43	6.13	2.11
10066109	811 1 1⁄2x1 1⁄4x2 CxCxC TEE	9.59	4.17	1.31	3.57	1.04	3.67	1.51	1.37	4.17	9.59	2.58

*Cup Depth (Dim C,E,G) Tolerance: Sizes 1/2"-2" +/-.045, Sizes 2-1/2"-4" +/-.015

**Lay-in (Dim D,F,H) Tolerance: Sizes 1/2"-3/4" +.07/-.03, Sizes 1"-2" +.09/-.03, Sizes 2-1/2"-3" +.12/-.03, Size 4" +.15/-.03

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER REDUCING RUN/OUTLET TEE - SM DIAMETER (CONT'D)

LF Item Number	Description	Dimensions (in.)								Height	Length	Depth
		A	B	C*	D**	E*	F**	G*	H**			
10066384	811 2x1/2x2 CxCxC TEE	8.28	4.17	1.51	1.37	0.85	4.56	1.51	1.37	4.17	8.28	2.58
10066121	811 2x3/4x3/4 CxCxC TEE	6.67	3.65	1.51	0.61	0.89	3.59	0.89	1.47	3.65	6.67	2.58
10066092	811 2x3/4x1 1/2 CxCxC TEE	8.11	4.35	1.51	1.37	0.89	4.35	1.31	1.76	4.35	8.11	2.58
10066388	811 2x3/4x2 CxCxC TEE	8.11	4.17	1.51	1.37	0.89	4.35	1.51	1.37	4.17	8.11	2.58
10066079	811 2x1x1 1/2 CxCxC TEE	6.46	4.80	1.59	0.61	0.97	3.30	0.81	2.69	4.80	6.46	2.58
10066062	811 2x1x3/4 CxCxC TEE	6.46	3.65	1.59	0.61	0.97	3.30	0.89	1.47	3.65	6.46	2.58
10066017	811 2x1x1 CxCxC TEE	6.90	3.72	1.51	0.87	0.97	3.56	0.97	1.47	3.72	6.90	2.58
10066126	811 2x1x1 1/4 CxCxC TEE	7.15	3.84	1.51	0.99	0.97	3.68	1.09	1.46	3.84	7.15	2.58
10066197	811 2x1x1 1/2 CxCxC TEE	7.90	4.35	1.51	1.37	0.97	4.06	1.31	1.76	4.35	7.90	2.58
10066018	811 2x1x2 CxCxC TEE	7.90	4.17	1.51	1.37	0.97	4.06	1.51	1.37	4.17	7.90	2.58
10066063	811 2x1 1/4x3/4 CxCxC TEE	6.14	3.65	1.59	0.61	1.04	2.91	0.89	1.47	3.65	6.14	2.58
10066129	811 2x1 1/4x1 CxCxC TEE	6.59	3.71	1.51	0.87	1.04	3.17	0.97	1.47	3.71	6.59	2.58
10066019	811 2x1 1/4x1 1/4 CxCxC TEE	6.84	3.84	1.51	0.99	1.04	3.29	1.09	1.46	3.84	6.84	2.58
10066125	811 2x1 1/4x1 1/2 CxCxC TEE	7.59	4.35	1.51	1.37	1.04	3.67	1.31	1.76	4.35	7.59	2.58
10066064	811 2x1 1/4x2 CxCxC TEE	7.59	4.17	1.51	1.37	1.04	3.67	1.51	1.37	4.17	7.59	2.58
10066065	811 2x1 1/2x1 1/2 CxCxC TEE	6.31	4.80	1.59	0.61	1.31	2.81	0.81	2.69	4.80	6.31	2.58
10066020	811 2x1 1/2x3/4 CxCxC TEE	6.31	3.65	1.59	0.61	1.31	2.81	0.89	1.47	3.65	6.31	2.58
10066021	811 2x1 1/2x1 CxCxC TEE	6.75	3.71	1.51	0.87	1.31	3.07	0.97	1.47	3.71	6.75	2.58
10066022	811 2x1 1/2x1 1/4 CxCxC TEE	7.00	3.84	1.51	0.99	1.31	3.19	1.09	1.46	3.84	7.00	2.58
10066023	811 2x1 1/2x1 1/2 CxCxC TEE	7.75	4.35	1.51	1.37	1.31	3.57	1.31	1.76	4.35	7.75	2.58
10066024	811 2x1 1/2x2 CxCxC TEE	7.75	4.17	1.51	1.37	1.31	3.57	1.51	1.37	4.17	7.75	2.58

*Cup Depth (Dim C,E,G) Tolerance : Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

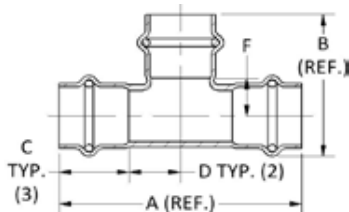
**Lay-in (Dim D,F,H) Tolerance : Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

LEAD FREE COPPER TEE

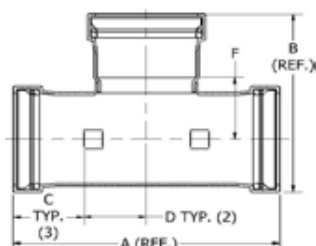
Small Diameter



Small Diameter



Large Diameter



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C*	D**	F**			
10075578	811 1/2 CxCxC TEE	3.04	1.78	0.83	0.70	0.49	1.78	3.04	0.95
10075580	811 3/4 CxCxC TEE	3.47	2.17	0.92	0.82	0.64	2.17	3.47	1.24
10075582	811 1 CxCxC TEE	3.90	2.51	0.98	0.98	0.80	2.51	3.90	1.50
10075096	811 1 1/4 CxCxC TEE	4.12	2.94	1.09	0.98	0.98	2.94	4.12	1.75
10075098	811 1 1/2 CxCxC TEE	4.75	3.43	1.31	1.07	1.07	3.43	4.75	2.11
10075100	811 2 CxCxC TEE	5.75	4.17	1.51	1.37	1.37	4.17	5.75	2.58
10057518	811 2 1/2 CXCXC COPPER TEE	7.15	5.33	1.90	1.67	1.85	5.33	7.15	3.16
10062072	811 3 CXCXC COPPER TEE	7.95	6.39	2.10	1.88	2.24	6.40	7.95	3.68
10062077	811 4 CXCXC COPPER TEE	9.84	7.66	2.50	2.41	2.81	7.66	9.84	4.70

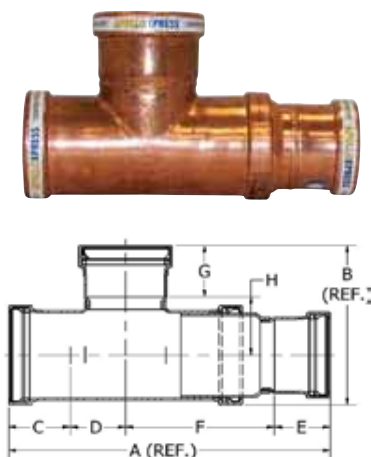
*Cup Depth (Dim C) Tolerance : Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

**Lay-in (Dim D&F) Tolerance : Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER REDUCING RUN/OUTLET TEE - LG DIAMETER



LF Item Number	Description	Dimensions (in.)								Height	Length	Depth
		A	B	C*	D**	E*	F*	G*	H**			
10066499	811 2x1½x2½ CxCxC TEE	11.99	5.33	1.51	4.53	1.31	4.65	1.90	1.85	5.33	11.99	3.16
10066595	811 2½x¾x2 CxCxC TEE	9.74	5.08	1.90	1.67	0.89	5.29	1.59	1.92	5.08	9.74	3.16
10066502	811 2½x¾x2½ CxCxC TEE	9.74	5.33	1.90	1.67	0.89	5.29	1.90	1.85	5.33	9.74	3.16
10066596	811 2½x1x2 CxCxC TEE	9.55	5.08	1.90	1.67	0.97	5.02	1.59	1.92	5.08	9.55	3.16
10066514	811 2½x1½x2½ CxCxC TEE	9.55	5.33	1.90	1.67	0.97	5.02	1.90	1.85	5.33	9.55	3.16
10066504	811 2½x1¼x2½ CxCxC TEE	9.43	5.33	1.90	1.67	1.04	4.81	1.90	1.85	5.33	9.43	3.16
10066597	811 2½x1½x2 CxCxC TEE	9.52	4.83	1.90	1.67	1.31	4.65	1.43	1.82	4.83	9.52	3.16
10066598	811 2½x1½x2 CxCxC TEE	9.52	5.08	1.90	1.67	1.31	4.65	1.59	1.92	5.08	9.52	3.16
10066507	811 2½x1½x2½ CxCxC TEE	9.52	5.33	1.90	1.67	1.31	4.65	1.90	1.85	5.33	9.52	3.16
10066599	811 2½x2x¾ CxCxC TEE	9.60	5.42	1.90	1.67	1.51	4.52	0.89	2.95	5.42	9.60	3.16
10066600	811 2½x2x1 CxCxC TEE	9.60	5.21	1.90	1.67	1.51	4.52	0.97	2.66	5.21	9.60	3.16
10066601	811 2½x2x1¼ CxCxC TEE	9.60	4.58	1.90	1.67	1.51	4.52	1.04	1.96	4.58	9.60	3.16
10066602	811 2½x2x1½ CxCxC TEE	9.60	4.83	1.90	1.67	1.51	4.52	1.43	1.82	4.83	9.60	3.16
10066603	811 2½x2x2 CxCxC TEE	9.60	5.08	1.90	1.67	1.51	4.52	1.59	1.92	5.08	9.60	3.16
10066174	811 2½x2x2½ CxCxC TEE	9.60	5.33	1.90	1.68	1.51	4.52	1.90	1.85	5.33	9.60	3.16
10066515	811 2½x2x3 CxCxC TEE	13.41	6.18	1.90	5.06	1.51	4.94	2.10	2.24	6.18	13.41	3.68
10066522	811 3x¾x2½ CxCxC TEE	10.77	5.90	2.10	1.88	0.89	5.91	1.90	2.16	5.90	10.77	3.68
10066523	811 3x¾x3 CxCxC TEE	10.77	6.18	2.10	1.88	0.89	5.91	2.10	2.24	6.18	10.77	3.68
10066524	811 3x1x2½ CxCxC TEE	10.58	5.90	2.10	1.88	0.97	5.64	1.90	2.16	5.90	10.58	3.68
10066525	811 3x1x3 CxCxC TEE	10.58	6.18	2.10	1.88	0.97	5.64	2.10	2.24	6.18	10.58	3.68
10066526	811 3x1¼x3 CxCxC TEE	10.45	6.18	2.10	1.87	1.04	5.43	2.10	2.24	6.18	10.45	3.68
10066527	811 3x1½x3 CxCxC TEE	10.55	6.18	2.10	1.87	1.31	5.27	2.10	2.24	6.18	10.55	3.68
10066604	811 3x2x2 CxCxC TEE	10.42	5.59	2.10	1.87	1.51	4.94	1.59	2.17	5.59	10.42	3.68
10066529	811 3x2x2½ CxCxC TEE	10.42	5.90	2.10	1.88	1.51	4.94	1.90	2.16	5.90	10.42	3.68
10066530	811 3x2x3 CxCxC TEE	10.42	6.18	2.10	1.87	1.51	4.94	2.10	2.24	6.18	10.42	3.68
10066605	811 3x2½x2 CxCxC TEE	10.93	5.59	2.10	1.87	1.90	5.06	1.59	2.17	5.59	10.93	3.68
10066136	811R 3X2½X2½ CXCXC COPPER TEE	10.93	5.90	2.10	1.88	1.90	5.06	1.90	2.16	5.90	10.93	3.68
10066137	811R 3X2½X3 CXCXC COPPER TEE	10.93	6.18	2.10	1.87	1.90	5.06	2.10	2.24	6.18	10.93	3.68
10066538	811 4x1½x3 CxCxC TEE	13.07	7.28	2.50	2.42	1.31	6.84	2.10	2.81	7.28	13.07	4.70
10066539	811 4x2x4 CxCxC TEE	12.96	7.66	2.50	2.42	1.51	6.54	2.50	2.81	7.66	12.96	4.70
10066138	811R 4X2½X4 CXCXC COPPER TEE	13.23	7.66	2.50	2.42	1.90	6.41	2.50	2.81	7.66	13.23	4.70
10066606	811 4x3x1½ CxCxC TEE	13.24	6.35	2.50	2.42	2.10	6.23	1.43	2.57	6.35	13.24	4.70
10066607	811 4x3x2 CxCxC TEE	13.24	6.60	2.50	2.42	2.10	6.23	1.59	2.67	6.60	13.24	4.70
10066139	811R 4X3X2½ CXCXC COPPER TEE	13.22	6.91	2.50	2.42	2.10	6.20	1.90	2.66	6.91	13.22	4.70
10066096	811 4x3x3 CxCxC TEE	13.22	7.28	2.50	2.42	2.10	6.20	2.10	2.83	7.28	13.22	4.70
10066140	811R 4X3X4 CXCXC COPPER TEE	13.24	7.64	2.50	2.42	2.10	6.23	2.50	2.81	7.64	13.24	4.70

*Cup Depth (Dim C,E,G) Tolerance: Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

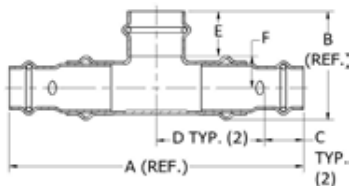
**Lay-in (Dim D,F,H) Tolerance: Sizes 1/2" - 3/4" +/- .07/- .03, Sizes 1" - 2" +/- .09/- .03, Sizes 2-1/2" - 3" +/- .12/- .03, Size 4" +/- .15/- .03

APOLLOXPRESS® FITTINGS

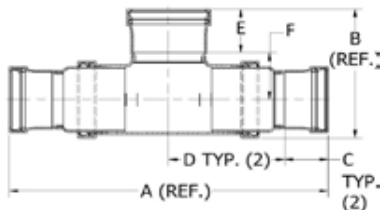
LEAD FREE COPPER BULLHEAD TEE



Small Diameter



Large Diameter

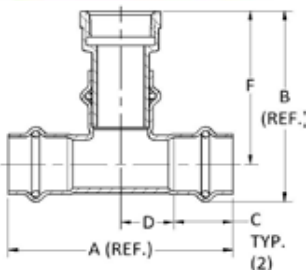


LF Item Number	Description	Dimensions (in.)						Height	Length	Depth
		A	B	C*	D**	E*	F**			
10066070	811 1/2x1/2x3/4 CxCxC BH TEE	5.70	2.17	0.81	2.04	0.92	0.64	2.17	5.70	1.24
10066006	811 1/2x1/2x1 CxCxC BH TEE	6.69	2.51	0.81	2.54	0.98	0.80	2.51	6.69	1.50
10066071	811 3/4x3/4x1 CxCxC BH TEE	6.38	2.51	0.85	2.35	0.98	0.80	2.51	6.38	1.50
10066008	811 1x1x1 1/4 CxCxC BH TEE	6.75	2.94	0.93	2.45	1.09	0.98	2.94	6.75	1.75
10066128	811 1x1x2 CxCxC BH TEE	10.05	4.16	0.97	4.06	1.51	1.37	4.16	10.05	2.58
10066107	811 1 1/4x1 1/4x2 CxCxC BH TEE	9.42	4.16	1.04	3.67	1.51	1.37	4.16	9.42	2.58
10066090	811 1 1/2x1 1/2x2 CxCxC BH TEE	9.75	4.16	1.31	3.57	1.51	1.37	4.16	9.75	2.58
10066550	811 1 1/2x1 1/2x3 CxCxC BH TEE	13.15	6.18	1.31	5.27	2.10	2.24	6.18	13.15	3.68
10066551	811 2x2x3 CxCxC BH TEE	12.89	6.18	1.51	4.94	2.10	2.24	6.18	12.89	3.68
10066135	811 2 1/2x2 1/2x3 CxCxC BH TEE	13.92	6.18	1.90	5.06	2.10	2.24	6.18	13.92	3.68
10066094	811 2 1/2x2 1/2x4 CxCxC BH TEE	16.98	7.66	1.90	6.79	2.50	2.81	7.66	16.98	4.70

*Cup Depth (Dim C&E) Tolerance: Sizes 1/2"-2" +/- .045, Sizes 2-1/2"-4" +/- .015

**Lay-in (Dim D&F) Tolerance: Sizes 1/2"-3/4"+.07/-.03, Sizes 1"-2"+.09/-.03, Sizes 2-1/2"-3"+.12/-.03, Size 4"+.15/-.03

LEAD FREE COPPER & BRASS FEMALE OUTLET TEE



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C*	D**	F			
10066579	8712 1/2 CxCxF TEE	3.04	2.65	0.83	0.70	2.18	2.65	3.04	1.01
10066580	8712 3/4 CxCxF TEE	3.47	3.14	0.92	0.82	2.52	3.14	3.47	1.25
Reducing Female Outlet Tee									
10066581	8712 3/4x3/4x1/2 CxCxF TEE	3.13	3.01	0.92	0.65	2.39	3.01	3.13	1.24
10066582	8712 1x1x1/2 CxCxF TEE	3.67	3.35	0.98	0.86	2.61	3.35	3.67	1.48
10066583	8712 1x1x3/4 CxCxF TEE	3.67	3.42	0.98	0.86	2.67	3.42	3.67	1.48
10066584	8712 1 1/4x1 1/4x1/2 CxCxF TEE	4.12	4.04	1.09	0.98	3.16	4.04	4.12	1.75
10066585	8712 1 1/4x1 1/4x3/4 CxCxF TEE	4.12	4.10	1.09	0.98	3.23	4.10	4.12	1.75
10066586	8712 1 1/2x1 1/2x1/2 CxCxF TEE	4.00	4.01	1.31	0.69	2.96	4.01	4.00	2.11
10066587	8712 1 1/2x1 1/2x3/4 CxCxF TEE	4.00	4.08	1.31	0.69	3.02	4.08	4.00	2.11
10066588	8712 2x2x1/2 CxCxF TEE	4.39	4.57	1.59	0.61	3.30	4.57	4.39	2.58
10066589	8712 2x2x3/4 CxCxF TEE	4.39	4.64	1.59	0.61	3.36	4.64	4.39	2.58

*Cup Depth (Dim C) Tolerance: Sizes 1/2"-2" +/- .045

**Lay-in (Dim D&F) Tolerance: Sizes 1/2"-3/4"+.07/-.03, Sizes 1"-2"+.09/-.03

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® FITTINGS

LEAD FREE COPPER TUBE CAP

Small Diameter



Large Diameter

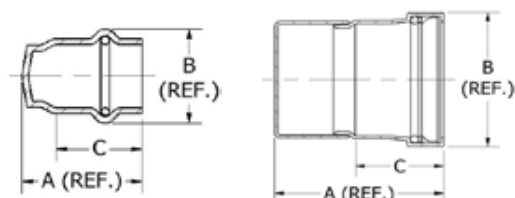


LF Item Number	Description	Dimensions (in.)			Height	Length	Depth
		A	B	C*			
10075166	817 ½ TUBE CAP	1.13	0.95	0.85	0.95	1.13	0.95
10075168	817 ¾ TUBE CAP	1.19	1.24	0.89	1.24	1.19	1.24
10075170	817 1 TUBE CAP	1.35	1.49	0.97	1.49	1.35	1.49
10075172	817 1¼ TUBE CAP	1.53	1.75	1.09	1.75	1.53	1.75
10075174	817 1½ TUBE CAP	1.80	2.11	1.22	2.11	1.80	2.11
10075176	817 2 TUBE CAP	2.15	2.58	1.51	2.58	2.15	2.58
10062142	817 2½ COPPER TUBE CAP	3.64	3.16	1.90	3.16	3.64	3.16
10062147	817 3 COPPER TUBE CAP	4.07	3.68	2.10	3.68	4.07	3.68
10062152	817 4 COPPER TUBE CAP	4.96	4.70	2.50	4.70	4.96	4.70

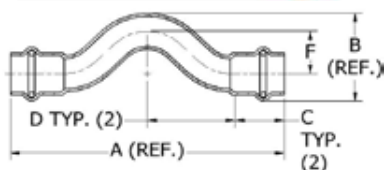
*Cup Depth (Dim C) Tolerance : Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

Small Diameter

Large Diameter

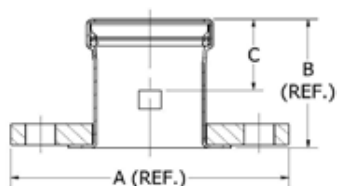


LEAD FREE COPPER CROSSOVER



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C	D**	F**			
10075370	836 ½ CxC CROSSOVER	4.50	1.54	0.81	1.44	0.75	1.54	4.50	0.95
10075372	836 ¾ CxC CROSSOVER	5.50	2.06	0.84	1.91	1.00	2.06	5.50	1.24

LEAD FREE COPPER LARGE DIAMETER FLANGE

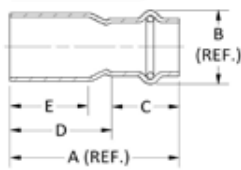


LF Item Number	Description	Dimensions (in.)			Height	Length	Depth
		A	B	C			
125 Lb.							
10075702	8741 2 Copper 125 lb.	6.00	3.67	1.59	3.67	6.00	6.00
10061761	8741 2½ Copper 125 lb.	7.00	3.62	1.90	3.62	7.00	7.00
10061767	8741 3 Copper 125 lb.	7.50	3.61	2.10	3.61	7.50	7.50
10061736	8741 4 Copper 125 lb.	9.00	3.76	2.50	3.76	9.00	9.00
150 Lb.							
10061763	8771 2½ Copper 150 lb.	7.00	3.62	1.90	3.62	7.00	7.00
10061769	8771 3 Copper 150 lb.	7.50	3.61	2.10	3.61	7.50	7.50
10061738	8771 4 Copper 150 lb.	9.00	3.76	2.50	3.76	9.00	9.00

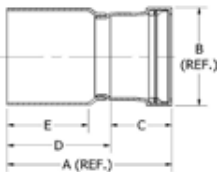
APOLLOXPRESS® FITTINGS

LEAD FREE COPPER FITTING REDUCER

Small Diameter



Large Diameter



LF Item Number	Description	Dimensions (in.)					Height	Length	Depth
		A	B	C*	D**	E**			
10075146	818 3/4x1/2 FTGxC RED	2.03	0.95	0.81	1.22	0.98	0.95	2.03	0.95
10075150	818 1x1/2 FTGxC RED	2.37	1.25	0.81	1.56	1.10	1.25	2.37	1.25
10075148	818 1x3/4 FTGxC RED	2.22	1.25	0.85	1.37	1.10	1.25	2.22	1.25
10075336	818 1 1/4x1/2 FTGxC RED	2.83	1.38	0.85	1.98	1.27	1.38	2.83	1.38
10075154	818 1 1/4x3/4 FTGxC RED	2.69	1.38	0.85	1.84	1.34	1.38	2.69	1.38
10075156	818 1 1/4x1 FTGxC RED	2.40	1.50	0.91	1.48	1.23	1.50	2.40	1.50
10075332	818 1 1/2x1/2 FTGxC RED	3.19	1.63	0.81	2.38	1.43	1.63	3.19	1.63
10075334	818 1 1/2x3/4 FTGxC RED	3.22	1.63	0.89	2.33	1.40	1.63	3.22	1.63
10075158	818 1 1/2x1 FTGxC RED	2.93	1.63	0.93	2.00	1.53	1.63	2.93	1.63
10075160	818 1 1/2x1 1/4 FTGxC RED	2.69	1.75	1.04	1.65	1.31	1.75	2.69	1.75
10075338	818 2x1/2 FTGxC RED	4.04	2.13	0.85	3.19	1.83	2.13	4.04	2.13
10075340	818 2x3/4 FTGxC RED	3.87	2.13	0.89	2.99	1.83	2.13	3.87	2.13
10075162	818 2x1 FTGxC RED	3.66	2.13	0.97	2.69	1.83	2.13	3.66	2.13
10075152	818 2x1 1/4 FTGxC RED	3.34	2.13	1.04	2.30	1.60	2.13	3.34	2.13
10075164	818 2x1 1/2 FTGxC RED	3.51	2.13	1.31	2.20	1.77	2.13	3.51	2.13
10068025	818 2 1/2x1/2 FTGxC RED	4.59	2.63	0.85	3.74	2.00	2.63	4.59	2.63
10068001	818 2 1/2x3/4 FTGxC RED	4.50	2.63	0.89	3.61	2.00	2.63	4.50	2.63
10068002	818 2 1/2x1 FTGxC RED	4.31	2.63	0.97	3.34	2.00	2.63	4.31	2.63
10068017	818 2 1/2x1 1/4 FTGxC RED	4.18	2.63	1.04	3.14	2.00	2.63	4.18	2.63
10068004	818 2 1/2x1 1/2 FTGxC RED	4.28	2.63	1.31	2.97	2.00	2.63	4.28	2.63
10075165	818 2 1/2x2 FTGxC RED	4.36	2.63	1.51	2.85	2.30	2.63	4.36	2.63
10068005	818 3x1/2 FTGxC RED	5.01	3.13	0.85	4.16	2.27	3.13	5.01	3.13
10068019	818 3x3/4 FTGxC RED	4.92	3.13	0.89	4.03	2.27	3.13	4.92	3.13
10068007	818 3x1 FTGxC RED	4.73	3.13	0.97	3.76	2.27	3.13	4.73	3.13
10068008	818 3x1 1/4 FTGxC RED	4.60	3.13	1.04	3.56	2.27	3.13	4.60	3.13
10068020	818 3x1 1/2 FTGxC RED	4.70	3.13	1.31	3.39	2.27	3.13	4.70	3.13
10068010	818 3x2 FTGxC RED	4.57	3.13	1.51	3.06	2.26	3.13	4.57	3.13
10057500	818 3x2 1/2 FTGxC RED	5.09	3.16	1.90	3.19	2.51	3.16	5.09	3.16
10068011	818 4x1/2 FTGxC RED	6.02	4.13	0.85	5.17	2.80	4.13	6.02	4.13
10068022	818 4x3/4 FTGxC RED	5.93	4.13	0.89	5.04	2.80	4.13	5.93	4.13
10068013	818 4x1 FTGxC RED	5.74	4.13	0.97	4.77	2.80	4.13	5.74	4.13
10068014	818 4x1 1/4 FTGxC RED	5.61	4.13	1.04	4.57	2.80	4.13	5.61	4.13
10068023	818 4x1 1/2 FTGxC RED	5.75	4.13	1.31	4.44	2.80	4.13	5.75	4.13
10068016	818 4x2 FTGxC RED	5.60	4.13	1.51	4.09	2.76	4.13	5.60	4.13
10057503	818 4x2 1/2 FTGxC RED	6.02	4.13	1.90	4.12	2.67	4.13	6.02	4.13
10057506	818 4x3 FTGxC RED	5.90	4.13	2.10	3.81	2.65	4.13	5.90	4.13

*Cup Depth (Dim C) Tolerance : Sizes 1/2" - 2" +/- .045, Sizes 2-1/2" - 4" +/- .015

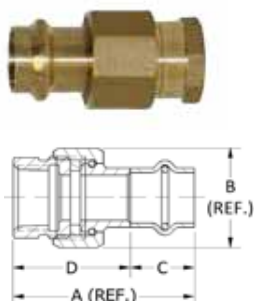
**Lay-in (Dim D) Tolerance : Sizes 1/2" - 3/4" +/- .03, Sizes 1" - 2" +/- .09, Sizes 2-1/2" - 3" +/- .12, Size 4" +/- .15

***Fit End (Dim E) Tolerance : Sizes 1/2" - 1" +/- .06, Sizes 1-1/4" - 2" +/- .09, Sizes 2-1/2" - 4" +/- .12

LEAD FREE PRODUCTS CATALOG

APOLLOXPRESS® FITTINGS

LEAD FREE BRASS FEMALE UNION

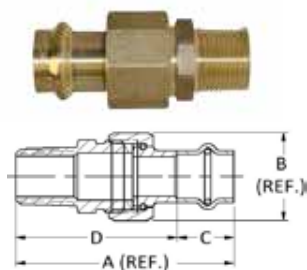


LF Item Number	Description	Dimensions (in.)				Height	Length	Depth
		A	B	C*	D**			
10075872	8733-3 1/2 CxF UNION	2.14	1.25	0.76	1.39	1.25	2.14	1.25
10075874	8733-3 3/4 CxF UNION	2.88	1.52	0.92	1.96	1.52	2.88	1.52
10075876	8733-3 1 CxF UNION	2.88	1.94	0.92	1.96	1.94	2.88	1.94
10075878	8733-3 1 1/4 CxF UNION	3.16	2.19	1.04	2.12	2.19	3.16	2.19
10075880	8733-3 1 1/2 CxF UNION	3.09	2.45	1.43	1.66	2.45	3.09	2.45
10075882	8733-3 2 CxF UNION	3.33	3.12	1.59	1.75	3.12	3.33	3.12

*Cup Depth (Dim C) Tolerance: Sizes 1/2" - 2" +/- .045

**Lay-in (Dim D) Tolerance: Sizes 1/2" - 3/4" +.07/- .03, Sizes 1" - 2" +.09/- .03

LEAD FREE BRASS MALE UNION

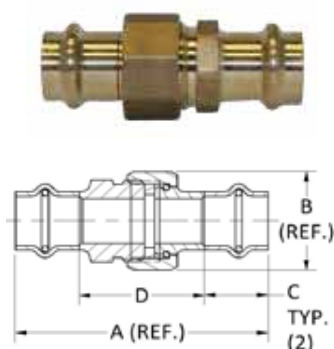


LF Item Number	Description	Dimensions (in.)				Height	Length	Depth
		A	B	C*	D**			
10075884	8733-4 1/2 CxM UNION	2.90	1.26	0.76	2.15	1.26	2.90	1.26
10075886	8733-4 3/4 CxM UNION	3.42	1.52	0.92	2.51	1.52	3.42	1.52
10075888	8733-4 1 CxM UNION	3.74	1.94	0.92	2.83	1.94	3.74	1.94
10075890	8733-4 1 1/4 CxM UNION	3.78	2.19	1.04	2.73	2.19	3.78	2.19
10075892	8733-4 1 1/2 CxM UNION	3.73	2.45	1.43	2.30	2.45	3.73	2.45
10075894	8733-4 2 CxM UNION	4.24	3.12	1.59	2.65	3.12	4.24	3.12

*Cup Depth (Dim C) Tolerance: Sizes 1/2" - 2" +/- .045

**Lay-in (Dim D) Tolerance: Sizes 1/2" - 3/4" +.07/- .03, Sizes 1" - 2" +.09/- .03

LEAD FREE BRASS UNION



LF Item Number	Description	Dimensions (in.)				Height	Length	Depth
		A	B	C*	D**			
10075860	8733 1/2 CxC UNION	2.99	1.26	0.76	1.48	1.26	2.99	1.26
10075862	8733 3/4 CxC UNION	3.69	1.52	0.92	1.86	1.52	3.69	1.52
10075864	8733 1 CxC UNION	3.83	1.94	0.92	2.00	1.94	3.68	1.94
10075866	8733 1 1/4 CxC UNION	3.83	2.19	1.04	1.74	2.19	3.83	2.19
10075868	8733 1 1/2 CxC UNION	3.95	2.45	1.43	1.04	2.45	3.95	2.45
10075870	8733 2 CxC UNION	4.65	3.12	1.59	1.48	3.12	4.65	3.12

*Cup Depth (Dim C) Tolerance: Sizes 1/2" - 2" +/- .045

**Lay-in (Dim D) Tolerance: Sizes 1/2" - 3/4" +.07/- .03, Sizes 1" - 2" +.09/- .03

ADDITIONAL RESOURCES

from Apollo® Valves

Much more information related to Apollo® Valves products and Lead Free can be found on our website at www.apollovalves.com/lead_free.

RESOURCES INCLUDE

- Catalogs
- Submittal Sheets
- Lead Free Price List
- ANSI 3rd Party Lead Free Product Certifications
- 3D CAD files for Lead Free Products
- Autodesk SEEK Revit BIM Models
- Frequently Asked Questions (FAQ)
- State and Federal Lead Free Legislation
- Lead Free Conversion Guide
- EPA Safe Drinking Water Data and FAQ's
- Lead Free Product Lookup Wizard
- CDA - "How to Solder Lead Free" Video



Remember to check back often as our website will be updated regularly as new products and information become available.

NEW! The very latest **Autodesk Revit BIM** models for Apollo Valves, APOLLOXPRESS® valves and fittings and Elkhart Products wrought copper fittings. Now available for download through Autodesk Seek.



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