



APOLLO® VALVES

---

# LEAD FREE CONVERSION GUIDE

---

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



"Apollo"  
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, as new lead reduction initiatives are taking effect, Apollo® Valves is committed to providing our customers with Lead Free alternatives for valves intended for potable water service.

# LEAD FREE CONVERSION GUIDE

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

## Table of Contents:

What is driving the change to “Lead Free”.....	4
How will this affect your business? .....	5
What is Lead Free? .....	5
Product Availability .....	6
Transition Planning.....	6
Reduce Risk and Liability .....	7
Will all valves be converting to Lead Free Materials? .....	7
How do I Identify Apollo® Valves Lead Free products? .....	8
Frequently Asked Questions.....	10
Additional Resources.....	11
Transition Timeline .....	11





## 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 current 1996 amendment establishes 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, which has an effective date of January 4, 2014.

It should be noted that several states have already implemented similar legislation. Lead in Plumbing laws are now in effect in California, Vermont, Maryland and Louisiana with the same 0.25% lead limits.

# HOW WILL THIS **AFFECT** YOUR BUSINESS?

Effective January 4, 2014 it will be illegal 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?**

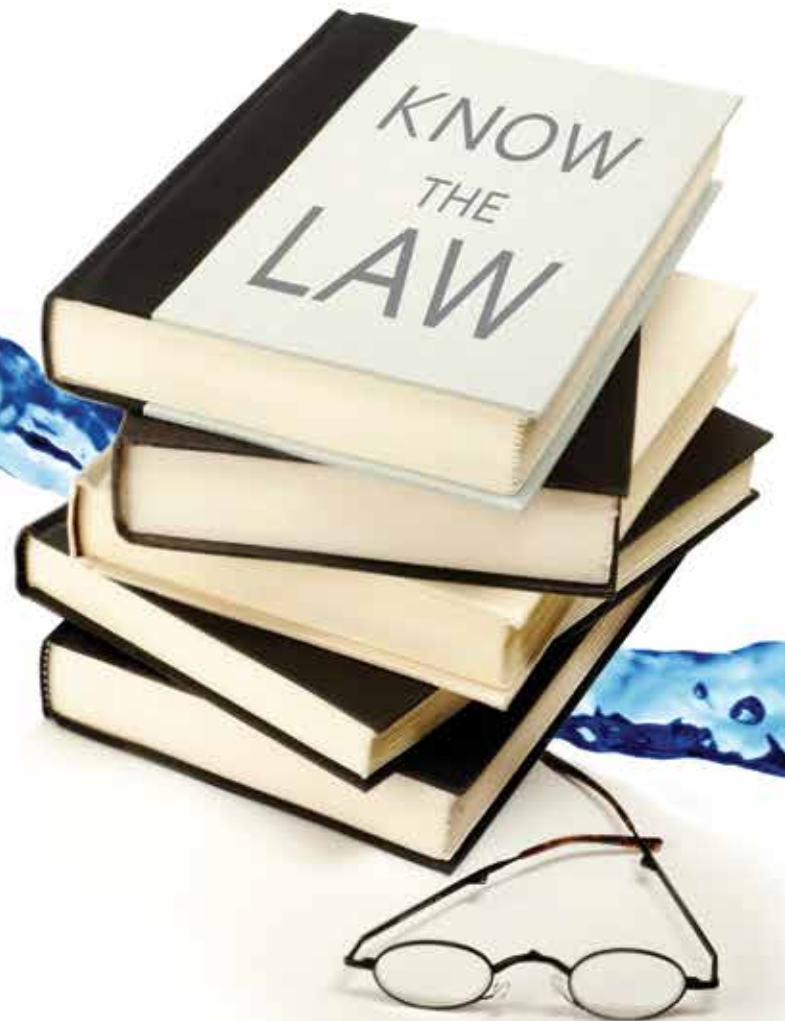
The wetted surfaces of the product shall contain no more than 0.25% lead by weighted average.

### 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 4200 SKU's of certified Lead Free product, with many more additions planned for 2013.

"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!

# Current LEAD FREE Products Available from Apollo® Valves

Series	Size	Description	Connection	Series	Size	Description	Connection
30LF	1/4" - 3"	Bronze Gate Valve	NPT, Solder, Press	4C100	1/4" - 3/8"	Carbonated Beverage Backflow Prev.	NPT & Flare
33LF	1/4" - 2"	Bronze Globe Valve	NPT, Solder, Press	4FPLF300	1" - 1-1/4"	Residential Dual Check Valve	NPT & NPSM
34ALF	1/2" - 1"	Mixing Valve	NPT, Solder, PEX, CPVC	4NLF300	3/8" - 1"	Dual Check Valve	NPT, NPSM, BSPP
34BLF	1/2" - 1"	Mixing Valve	NPT, Solder, PEX, CPVC	59LF	1/8" - 4"	Strainer, Bronze	NPT, Push, Press
34DLF	3/8"	Mixing Valve	Compression	61LF100	1/4" - 3"	Check Valve, Bronze, Ball Cone	NPT
36LF	1/2" - 2"	Water Pressure Reducing Valve	NPT, Solder, PEX, CPVC	61LF500	3/8" - 3/4"	Check valve, Bronze, Soft Seat	NPT
36CLF	1/2" - 1"	Water Pressure Reducing Valve	NPT, Solder, PEX, CPVC, Push, Press	61YLF	1/4" - 2"	Swing Check, Bronze	NPT, Solder, Press
36ELF	1/2" - 1"	Water Pressure Reducing Valve	NPT, Solder, PEX, CPVC, Push, Press	70LF	1/4" - 4"	Ball Valve, Bronze	NPT & Solder
36HLF	1/2" - 3"	Water Pressure Reducing Valve	NPT, Flanged	70LF-HC	1/2" - 3/4"	Ball Valve, Bronze, Hose Cap & Chain	NPT & Solder
38LF-100	1/4" - 2"	Atmospheric Vacuum Breaker	NPT	76	1/4" - 3"	Ball Valve, SS Standard Port	NPT
40LF-000	1/8"	Freeze Protection Valve	NPT	76F	1/2" - 2"	Ball Valve, SS Full Port	NPT
40LF-200	1 1/4", 1 1/2"	Reduced Pressure Assembly	NPT	77CLF	1/4" - 2-1/2"	Ball Valve, Bronze	NPT & Solder
40LF-300	1/2" - 1"	Dual Check Valve	NPT, NPSM, BSPP	77WLF	1/2" - 2"	Ball Valve, Bronze	Press ends
40LF-400	1/2" - 3/4"	Dual Check with Atmospheric Port	NPT, Solder, BSPP	77WLF-HC	1/2" - 3/4"	Ball Valve, Bronze, Hose Cap & Chain	Press end
40XT	3/4"	Expansion Tanks, Potable	NPT	78LF-RV	3/4"	Ball Valve, Thermal Expansion Relief	NPT, Solder, PEX, Push
4ALF-100	1/2" - 2"	Double Check Valve	NPT	82LF	1/4" - 2-1/2"	Ball Valve, Bronze, 3 Piece	NPT, Solder / Brazed
4ALF-100	2 1/2" - 12"	Double Check Valve	Flanged, Grooved	86A	1/4" - 2"	Ball Valve, SS 3 Piece 1500 CWP	NPT, SW, BW
4ALF-200	1/2" - 2"	Reduced Pressure Assembly	NPT	86B	1/4" - 2"	Ball Valve, SS 3 Piece Class 600	NPT, SW, BW
4ALF-200	2-1/2" - 12"	Reduced Pressure Assembly	Flanged, Grooved	87A-200	1/2" - 4"	Ball Valve, SS ASME 150#	Flanged
4ANLF-100	2-1/2" - 12"	Double Check Valve	Flanged, Grooved	94ALF*	1/4" - 4"	Ball Valve, Brass	NPT & Solder
4ANLF-200	2-1/2" - 12"	Reduced Pressure Assembly	Flanged, Grooved	95LF	1/2" - 1"	Ball Valve, Bronze, Stop and waste	NPT & Solder



## REDUCE RISK AND LIABILITY!

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.

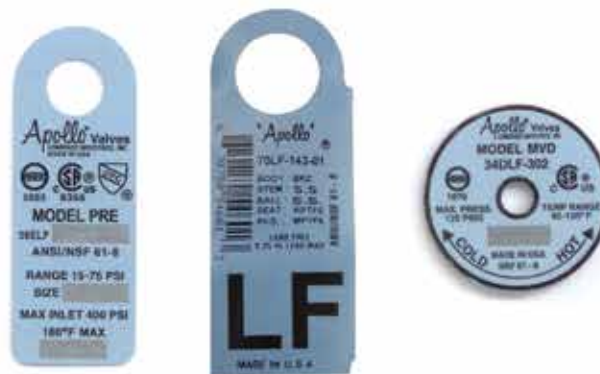


- Most Lead Free products contain an "LF" in their part number. For example: a 36C10401 water pressure regulator becomes a 36CLF10401 in Lead Free.
- Valve bodies are identified with the letters "LF" cast into the product, as size allows.
- Where tags or nameplates are used, these will be a distinctive 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".
- **Commencing Spring 2013**, new production of Lead Free ball valves now includes 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.

# 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 4,200 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 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.

*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](http://www.apollovalves.com/lead_free), or by contacting Conbraco Customer Service at (704) 841.6000.*

# 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](http://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
- Frequently Asked Questions (FAQ)
- State and Federal Lead Free Legislation

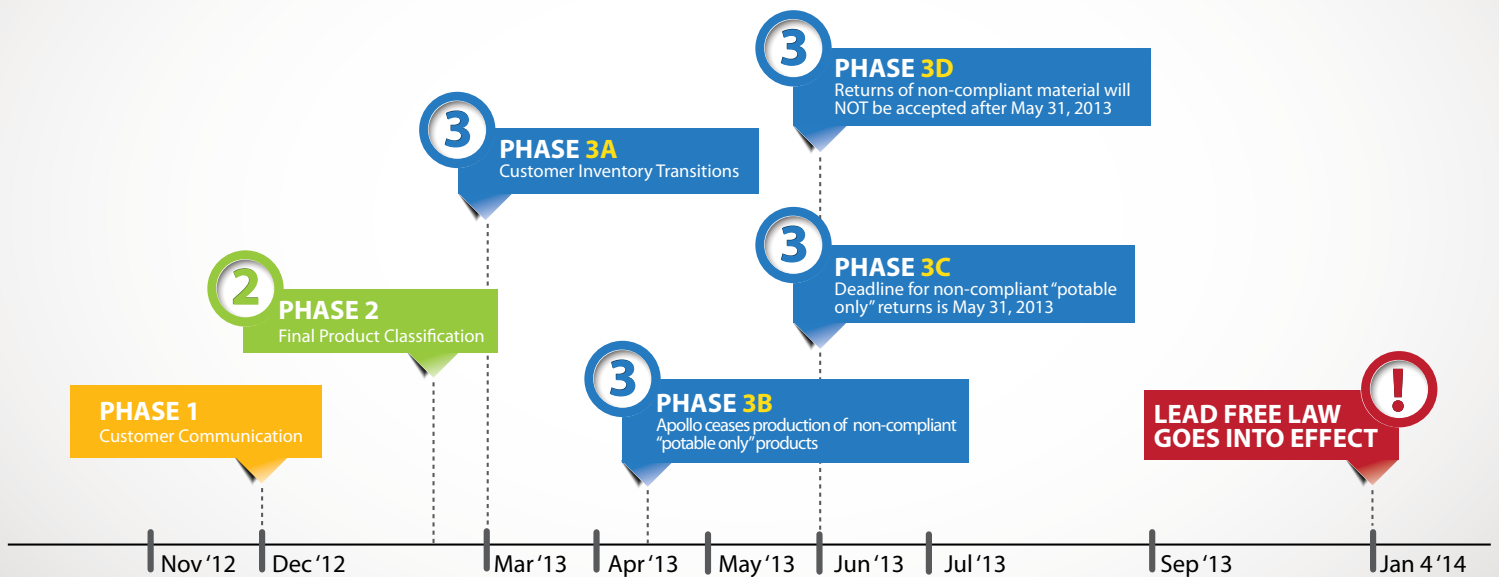


Remember to check back often as our website will be updated regularly throughout 2013 as new products and information becomes available.

## TRANSITION TIMELINE

For Lead Free Resources and Updates, please visit [www.apollovalves.com/lead\\_free](http://www.apollovalves.com/lead_free)

"Apollo"  
LEAD FREE



effective 12/31/2012





"Apollo"  
LEAD FREE

Customer Service  
(704) 841.6000

P.O. Box 247 | Matthews NC 28106  
[www.apollovalves.com](http://www.apollovalves.com)

American Made Quality Since 1928

