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IT ALL STARTED WITH A DEEP NEED FOR THE MOST RELIABLE VALVES EVER BUILT.





The year was 1893 when the young engineer A.W. Cash was given the toughest challenge of his career: designing valves for U.S. Navy submarines. With the unforgiving ocean as his ultimate testing "ground", his new valves would require unprecedented levels of performance, reliability and dependability. When he later founded the Cash Valve Manufacturing Company, those same standards became its foundation.

And they remain at the heart of today's Cash Acme. We put more into every product we make — more design, more experience, more innovation and cutting-edge manufacturing technologies. Combined with a relentless quality control program that's every bit as unforgiving as A.W.'s ocean. In short, we don't just build it, we overbuild it. The result is industry-leading products like Heatguard,® our thermostatic mixing valve that allows water to be stored at germ-killing temperatures, while delivering it at a safe 120°F or less. SoloSet,® our pressure reducing valve that reduces labor from a two-man job to a two-finger twist of its cap. Cash-Flo,® the industry's most maintenance-free backflow preventers. And the SharkBite® push-fit fitting connection system with valves and PEX tubing — the fastest, easiest way from meter to fixtures and the industry's only Total Rough-In Solution.™ Just a few examples of how we apply deeper thinking to water control technology.



THE SHARKBITE® CONNECTION SYSTEM

Lightning Fast. Won't Let Go.

- Connects copper, CPVC and PEX pipe in any combination.
- No soldering, clamps, unions or glue.
- Certified to 200 psi and 200°F.
- Certified for underground and behind the wall applications and as a manufactured joint without access panels.
- All SharkBite® Brass Products including LEAD FREE are DZR Brass.
- · Certified for potable water and hydronics.
- Integral tube liner for PEX installations.
- Fittings can even be rotated after assembly for easier installation in tight spaces.
- Easy to disconnect if needed.





There's no faster way to make a repair – wet or dry. You can connect copper, CPVC or PEX pipe in any combination.



WATER HEATERS, VALVES AND MORE

Connect a water heater or shower valve. Install a mixing valve or pressure regulator – it's all a breeze with SharkBite® push-fit connections.



HYDRONIC HEATING SYSTEMS

Under the floor or behind a wall, a broad range of SharkBite® push-fit fittings and PEX products gives you confident connections.

INSTALLATION AND DISCONNECTION



When installing, ensure the pipe is cut square and rough edges and debris are removed. Mark pipe for 1" depth. Push pipe and fitting together. Use the disconnect clip or tongs to easily change or reuse a SharkBite* fitting.

For complete information on over 600 products, ask for the SharkBite® Connection System catalog or view online.

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THERMOSTATICS



Heatguard® 110-D Thermostatic Mixing Valve

Delivers water at a safe 120°F (49°C) or lower from all outlets, while allowing the heater to be set at a germ-killing 140°F (60°C) or higher which aids in preventing the growth of legionella bacteria in the water heater. The higher tank temperature means that hot water demands can be satisfied longer. Certified for installation at the water heater or point of use. Robust, low complexity construction. Every valve is tested for performance prior to shipping. Unique purpose designed adjuster tool minimizes unauthorized tampering with valve setting. Lead free available.

Applications: Domestic hot water distribution.

Sizes - Valve: 1"

Sweat: 1/2", 3/4" & 1" (1/2" & 3/4" w/checks) Threaded: 1/2" & 3/4" (w/ & w/o checks) SharkBite®: 1/2" & 3/4" (1/2" & 3/4" w/checks) Barb: 1/2", 3/4" & 1" (w/ & w/o checks) Compression: 3/8" & 1/2" (w/ & w/o checks)

Fitting Kits: page 8

Approvals: The Heatguard® 110-D is certified to ASSE 1017, 1070 and CSA B125.3 and is listed by ASSE and IAPMO.



Heatguard® 110-HX Thermostatic Mixing Valve

The 110-HX temperature actuated valve mixes hot and cold water to deliver reduced temperature hot water. The valve offers a high flow rate, which reduces system pressure losses, and robust, low complexity construction. An adjustable and lockable handle prevents tampering. The extended outlet temperature range- up to 176°F (80°C), makes the 110-HX ideal for heating system applications.

Applications: Domestic water distribution and radiant

heating systems. **Sizes** – *Valve:* 1"

Sweat: 1/2", 3/4" & 1" (1/2" & 3/4" w/checks) Threaded: 1/2" & 3/4" (w/ & w/o checks) SharkBite®: 1/2" & 3/4" (1/2" & 3/4" w/checks) Barb: 1/2", 3/4" & 1" (w/ & w/o checks) Compression: 3/8" & 1/2" (w/ & w/o checks)

Fitting Kits: page 8

Approvals: The Heatguard® 110-HX is certified to ASSE 1017 and CSA B125.3 and is listed by ASSE and IAPMO.



Heatguard® 115-D Thermostatic Mixing Valve for Large Domestic and Standard Commercial Water Applications

The 115-D offers the same reliable protection of the 110-D, but on a larger scale. A fast acting, high quality thermostatic element senses the outlet water temperature and reacts to maintain a stable delivery temperature even under changing flows or variations in supply temperatures. The valve also greatly reduces the outlet flow in the event of a cold water supply failure. The adjusting handle can be locked at a desired temperature or function in an adjusting mode. It is clearly marked to indicate the direction to turn to achieve hotter or colder water temperatures. The valve delivers water at a maximum of 120°F (49°C), allowing the heater to be set at 140°F (60°C) or higher, thus providing a greater effective volume of hot water and reducing the chances of legionella bacteria growth in the water. The valve flows 30 gpm at 45 psi, making it suitable for larger residential and commercial installations.

Applications: Large domestic and standard commercial water distribution systems. The Heatguard® 115-D is intended for installation at the water heater to distribute controlled temperature water throughout a hot water system.

Sizes - Valve: 1 1/2"

Sweat: 3/4", 1" & 1-1/4" (w/checks)

CPVC: 3/4" (w/checks)

Threaded: FNPT 3/4" & 1" (3/4" & 1" MNPT) (w/checks)

SharkBite®: 3/4" (w/checks)

Fitting Kits: page 8

Approvals: The Heatguard® 115-D is certified to ASSE 1017 and CSA B125.3, and is listed by ASSE and

IAPMO.







Heatguard® 115-H Thermostatic Mixing Valve

The 115-H features a robust design based on the expertise gained from years of experience in the design and manufacture of safety valves. The 115-H incorporates a thermostatic element that senses the outlet water temperature and reacts to maintain a stable delivery temperature. In the event of a cold water supply failure, it reduces the flow to a trickle. The adjusting handle is clearly marked to indicate the direction to turn for hotter or colder water temperatures or it can be locked at a desired temperature setting. Every valve is tested for performance on an automated testing station during the assembly process.

Applications: Large heating systems. The Heatguard® 115-H has an outlet temperature range extending to 140°F (60°C) and a flow rate of 30 gpm at 45 psi, making it ideal for use in large heating systems. It is also suitable for any installation requiring the delivery of reduced temperature hot water.

Sizes - Valve: 1 1/2"

Sweat: 3/4", 1" & 1-1/4" (w/checks)

CPVC: 3/4" (w/checks)

Threaded: FNPT 3/4" & 1" (3/4" & 1" MNPT) (w/checks)

SharkBite®: 3/4" (w/checks)

Fitting Kits: page 8

Approvals: The Heatguard® 115-H is certified to ASSE 1017 and CSA B125.3, and is listed by ASSE and

IAPMO.



Heatguard® 145LF Compact Thermostatic Mixing Valve

The 145LF is a compact point-of-use thermostatic mixing valve. It provides stable operation at flow rates as low as 0.34 gpm, or as high as 5.8 gpm. The valve also reduces the outlet flow to a trickle in the event of cold water supply failure. Inlet connections are typical supply line 3/8" compression for 3/8" OD tube or flexible hose with integral connectors. The 3/8" NPT male thread on the outlet allows adaptation to any connection type. Compact design with integral checks easily fits under or behind a single basin. Available with and without tee and elbow fittings - 3/8". Also available with cold water bypass and elbow insert fittings.

Applications: Individual faucets and electronic faucets.

Sizes – *Valve:* 3/8" MNPT Compression: 3/8"

Approvals: The Heatguard® 145LF is certified to ASSE 1070 and CSA B125.3, and is listed by ASSE and

IAPMO.



Heatguard® 160 Thermostatic Mixing Valve

"Next generation" thermostatic technology provides optimum water temperature control. Long life and scale resistance ensured by use of high quality engineering polymers and inherently scale resistant design. Every valve is extensively factory tested. Adjustable from 95°F - 118°F (35°C - 46°C).

Applications: Commercial Point-Of-Use. Supply of controlled temperature hot water directly to showers, lavatory faucets, electronic sensor faucets, etc.

Sizes - Valve: 1"

Sweat: 1/2", 3/4" & 1" (1/2" & 3/4" w/checks) Threaded: 1/2" & 3/4" (w/ & w/o checks) SharkBite®: 1/2" & 3/4" (1/2" & 3/4" w/checks)

Barb: 1/2", 3/4" & 1" (w/ & w/o checks)

Compression: 3/8", 1/2" (w/ & w/o checks)

Fitting Kits: page 8

Approvals: The Heatguard® 160 is certified to ASSE 1069, ASSE 1070 and CSA B125.3 and is listed by ASSE and IAPMO.



Heatguard® 160 4 in 1 Thermostatic Mixing Valve

Each is complete with service fittings on each inlet. The fittings have a 1/2" female inlet thread and connect to the base valve via union connections. The valve reduces the outlet flow to a trickle in the event of cold water supply failure. Every valve is tested for performance on an automated testing station prior to shipping. Accurate temperature control even under varying supply conditions.

Applications: Point-of-use, higher level of protection. Intended to supply controlled temperature hot water to outlets such as a tub or basin in a nursing home or lavatory faucets in a public place.

Sizes: 1/2" (4 in 1 service)

Approvals: The Heatguard® 160 is certified to ASSE 1069, ASSE 1070, and CSA B125.3 and is listed by

ASSE and IAPMO.





Heatguard® TAFR Hot Water Shut-off Devices

Thermal element senses high temperature water and reduces flow to protect user. Device will only reset when water temperature drops to a safe level.

Applications: For shower, tub or faucet spouts to act as a "hot water fuse" to reduce flow of water if it reaches 120°F (49°C).

Sizes: Available to suit shower heads, faucets (male and

female thread) and tub spouts.

Approvals: The Heatguard® TAFR are certified to ASSE 1062, CSA B125.3 and NSF-61 and are listed by ASSE and IAPMO.



Masterguard® 800 Series Thermostatic Master Controller

Fast acting, high quality thermostatic elements that sense the outlet temperature and react to maintain a stable delivery temperature even under varying and extremely low flows. The Masterguard® Series features a range of six high flow rate valves that mix hot water with cold water to deliver water at a controlled temperature, typically 120°F (49°C). The adjusting handle can be locked at a desired temperature. Each valve has integral mounting feet to allow it to be securely fixed to a wall or frame. Complete with 4 in 1 service fittings on each inlet. Every valve is factory tested.

Applications: Commercial and industrial plant rooms. Master control of the temperature of hot water delivered to a whole building or a section of building.

Sizes (inlet X outlet): 1/2" X 3/4", 3/4" X 3/4", 3/4" X 1",

1" X 1-1/4", 1-1/4" X 1-1/2" and 1-1/2" X 2"

Approvals: The Masterguard® Series is certified to ASSE 1017 and CSA B125.3, and is listed by ASSE and IAPMO.



Masterguard® 800 Series with Cabinet Assembly Thermostatic Master Controller with Cabinet

Each cabinet assembly is made to order and includes a Masterguard® Series 800 valve as described above, integrated with additional components to meet your requirements. The robustly designed cabinet provides a secure, lockable encloser for the water temperature master controller.

Applications: Commercial and industrial plant rooms requiring limited access to system controls.

Sizes (inlet X outlet): 1/2" X 3/4", 3/4" X 3/4", 3/4" X 1", 1" X 1-1/4"

Approvals: The Masterguard® Series is certified to ASSE 1017 and CSA B125, and is listed by ASSE and IAPMO.



HEATGUARD®

TANK **BOOSTER** PRO

Allows water to be stored at 150°F (65°C) for maximum output, which helps prevent the growth of Legionella bacteria, while keeping distributed water temperature at a safe 120°F (49°C) or below to prevent scalding.

Applications: Residential & commercial water

distribution systems.

Sizes: HG Thermostatic Valve: 3/4" FNPT X 3/4" MNPT

X 7/8" - 14 UNF Thread

Water Heater Tee: 3/4" FNPT X 3/4" MNPT X 7/8" - 14 UNF Thread.

Approvals: ASSE 1017, ASSE 1070 and CSA B 125.3







Thermostatic Retrofit Kit

Comes with 3 CTS tailpieces. Use with SharkBite® push-fit fittings to easily connect a Heatguard® valve to 1/2" or 3/4"pipe. Heatguard® 110-D purchased separately.

Applications: For use with Heatguard® thermostatic mixing valves.

Sizes: 1/2" (24311-0000) and 3/4" (24312-0000)



Mixing Valve Fitting Kits

Use with Heatguard® 110, 160 and 115 base valves. Each kit includes three union nuts and face seals, plus three fittings for a specific type connection. Available in sweat, barb/PEX, compression, threaded (NPT), and CPVC. All kits are available with check.

Applications: Connection or adaptation of Heatguard® valves to various pipe systems.

Sizes: Sweat - 1/2", 3/4" and 1" (checks not available for 1"

or 1/4")

Threaded - 1/2" and 3/4" CPVC - 1/2" and 3/4" Barb - 1/2", 3/4" and 1"

HG 115 - 3/4" & 1" or sweat, thread, 3/4" CPVC, and 1

1/4" sweat

PRESSURE REGULATORS



E-3 Pressure Regulating Valve

The E-3 solves the problems of water hammer, pipe noise and rapid wearing of fixtures, faucets, and valves. Brass body, threaded connections, stainless steel body seat, BUNA-N diaphragm and seat washer. Gives years of dependable service on hot (to 180°F [82°C]) or cold water. Large inbuilt stainless strainer with separate clean-out plug. Good capacity for homes. 300 psi maximum inlet pressure; standard factory setting 45 psi. Low pressure and high pressure models are available.

Applications: Commercial and domestic water applications.

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

Approvals: The E-3 is certified to ASSE 1003 and is listed by ASSE and IAPMO (UPC).



E-41 Pressure Regulating Valve

Similar to the E-3 regulator, but without an inbuilt strainer for conditions which do not require their use or where separate, individual strainers are preferred. Threaded connections. Maximum inlet pressure is 300 psi; standard factory setting is 45 psi. Low pressure and high pressure models available.

Applications: Commercial and domestic water applications.

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

Approvals: The E-41 is certified to ASSE 1003 and is listed by ASSE.





E-56 Piston Type Pressure Regulating Valve

Provides exceptionally high capacity for all services. Bronze body with bronze piston and stainless steel seat ring. The E-56 has no diaphragm. It incorporates a chrome plated spring-opposed, balanced piston design. Maximum pressures: for all sizes with threaded connections, 400 psi; for all sizes with 150 lb. flanges, 225 psi. Delivery pressure: maximum 125 psi; minimum 15 psi. Maximum temperature 180°F (82°C). Regulators for higher temperatures are available.

Applications: Large commercial and industrial water or air service installations.

Sizes: NPTF threaded connections - 2", 2-1/2" and 3" 150 lb. MSS flanged connections - 2", 2-1/2" and 3"



EB-5 Water Pressure Regulating Valve

Reduces inlet pressure of up to 300 psi down to 45 psi. Bronze body, stainless steel strainer screen with separate clean-out plug, screwed-in stainless steel body seat, nylon-reinforced EP diaphragm and replaceable composition seat disc. Maximum temperature is 180°F (82°C). Standard factory setting is 45 psi, with 10-40 psi, 20-70 psi, 71-150 psi pressure ranges available. The EB-5 has a threaded union inlet and an inbuilt back-pass check valve which permits backflow to the inlet side if downstream pressure exceeds the inlet pressure.

Applications: Domestic water supply service. Sizes: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2" and 2-1/2"

Approvals: The EB-5 is certified to ASSE 1003 and CSA B356 and is listed by ASSE, IAPMO, and CSA.



SoloSet® EB-25 Water Pressure Regulating Valve

The SoloSet® EB-25 brings state-of-the-art water control technology to pressure regulators. The convenient orange twist-cap and numerical indicator make pressure adjustment and installation a quick, one-man job. With the most advanced design in the industry, SoloSet® delivers rock steady outflow even with extreme variations in supply pressure. Thanks to a patented single-cartridge design, SoloSet® has fewer parts for increased reliability, and it can be serviced without having to remove the valve body. The innovative design also eliminates the water whistle or harmonic hum associated with most PRVs, thanks to innovative "micro-fingers" that dissipate noise as water flows across the seat. Available in high working pressure versions (400 inlet psi max) and low pressure set (8-35 psi) models and threaded or sweat. Also available with blanking cap, and contractor kit and protective orange cover for sizes through 1". * Lead free models are also available.

Applications: Domestic water supply service.

Single Union Sizes: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

(Lead Free options available)

Double Union Sizes: 3/4", 1", 1-1/4", 1-1/2" and 2" SharkBite® push-fit and barb sizes are available, 3/4" -

1 1/4" Lead Free options available

Approvals: The EB-25 is certified to ASSE 1003 and CSA B356 and is listed by ASSE and IAPMO (cUPC). *Note:* The low pressure (8-35 psi) model is not certified/ listed. The high working pressure versions are certified to ASSE 1003 and listed by ASSE and IAPMO for the 1/2", 3/4", and 1" sizes. Du PEX ends available - 3/4" & 1". (Lead Free in 1" only.)



SoloSet® EB-25 Stainless Steel Water Pressure Regulating Valve

The SoloSet® EB-25 Stainless Steel features a solid, 100% lead free body, which complies with NSF-61 standards for potable water. The EB-25SS features the exact same cartridge, features, and benefits that are included in the EB-25 pressure regulator. And like the standard EB-25, the EB-25SS is available in a contractor's kit and blanking cap kit for "rough in" installations. Also available with a protective orange cover for the 3/4" and 1" sizes. Lead Free Compliant.

Applications: Domestic water supply service.

Sizes: EB-25SS - 3/4" and 1" (threaded and double

union threaded)

Approvals: The EB-25SS is certified to ASSE 1003 and CSA B356 and is listed by ASSE and IAPMO (cUPC).





Multi-Cartridge EB-25 Water Pressure Regulating Valve

The EB-25 SoloSet® Multi-Cartridge pressure reducing valve eliminates the need for costly two-valve installation in commercial and institutional (domestic) water applications subject to wide variation in water demand. Benefits include accurate flow control and pressure regulation, plus simple cartridge change-out for servicing. Available with threaded or ASME B16.24 CL150 flanged inlet and outlet. The valves are factory set – Cartridge 1: 55 psi; Cartridge 2: 50 psi and Cartridge 3: 45 psi. Patent pending.

Applications: Commercial water distribution systems with wide variations in demand.

Sizes - Threaded: 2-1/2", 3" ASME B16.24 CL 150 Flanged: 2-1/2", 3", 4"



SoloSet® EB-35 Water Pressure Regulating Valve

The convenience and performance of the SoloSet® line continue with the EB-35. The orange twist-cap makes pressure adjustment a breeze. The unique design also eliminates the water whistle or hum associated with most PRVs by using innovative "micro-fingers" that dissipate noise as water flows across the seat. And thanks to Cash Acme's patented single-cartridge design, the SoloSet® EB-35 has fewer parts for increased reliability – plus it can be serviced without having to remove the valve body. Available with threaded or sweat connectors. A Contractor Kit, Inlet Blanking Kit and Blanking Cap Kit are available for the EB-35 valve.

Applications: Domestic water supply service.

Threaded and Sweat Sizes: 1/2", 3/4", and 1"

Barb: 3/4" and 1"

SharkBite®: 1/2", 3/4" & 1".

Approvals: The EB-35 is certified to ASSE 1003 and CSA B356 and listed by ASSE and IAPMO (cUPC).



Contractor Kit

Eliminate jumpers with this Contractor Kit. The kit includes a valve body, fittings, special cap with o-ring seal and a debris strainer. The valve body is installed permanently during construction, and when the project is complete the temporary cap and strainer are replaced with the one-piece cartridge. Available with sweat or threaded, single or double union fittings.

Applications: Cartridge style regulators used in domestic water supply service.

EB-25 Sizes: 3/4", 1", 1-1/4", 1-1/2" and 2"

EB-35 Sizes: 1/2". 3/4" and 1"



EB-45 PRV Water Pressure Regulating Valve

The EB-45 Pressure Regulator features a half cartridge design that offers both the performance of a high-end, cartridge based valve and the price of a traditional regulator. The EB-45 comes factory set at 45 psi. The pressure may be adjusted to 10-70 psi. The EB-45's half cartridge based system allows for easy servicing and installation. Available in threaded or sweat. An Inlet Blanking Kit and a Blanking cap kit (3/4", 1", 1-1/4"size) are also available. * Lead free models are also available. 3/4" and 1" sizes available with gauge connections.

Applications: Domestic water supply service.

Sizes: 1/2", 3/4", 1", 1-1/4", 1-1/2", and 2" Threaded, Single Union or Double Union (threaded or sweat)

3/4" and 1" with Double Barb Ends 3/4" and 1" with Double CPVC Ends

1/2", 3/4", 1", 1-1/2", and 2" with High Pressure set range 71 to 150 psi Single Union (threaded)

SharkBite®: 1/2", 3/4" and 1", Barb - 3/4" and 1" **Approvals:** The EB-45 is certified to ASSE 1003 and CSA B356 and listed by ASSE and IAPMO (cUPC).





Inlet Blanking Kit For Pressure Regulators

The Blanking Kit is installed on the inlet side of the regulator to prevent water from entering the system and causing unnecessary damage before the plumbing is complete. Simply remove the union nut, tailpiece, and gasket from the inlet of the valve. Insert the inlet blank and place the gasket between the blank and tailpiece and tighten the union nut.

Applications: Domestic water supply service. EB-35 Sizes: 3/4", 1"

EB-25 Sizes: 3/4", 1", 1-1/4" EB-45 Sizes: 3/4", 1", 1-1/4"



This kit includes a tube with debris screen and fittings. Use this kit in place of the EB-45 regulator valve. Once all debris and particles have been flushed out, the EB-45 is installed. * Available with Lead Free Fittings.

Applications: Domestic water supply service. **Sizes:** Threaded or sweat - 3/4", 1" and 1-1/4"

CPVC and PEX - 3/4" and 1" only

SharkBite® - 3/4" Barb - 3/4" and 1"



EB-75 PRV Compact Water Pressure Regulating Valve

The EB-75 has a compact iron body and fully pressure-balanced piston. Automatically reduces and regulates high inlet pressures (300 psi max) down to 45 psi at standard factory setting. Contains an inbuilt back-pass check which operates independently of the regulator. This allows water to flow back through the regulator in cases of thermal expansion caused by water heating devices. Low pressure and E-75P for propane available.

Applications: Domestic installations where small size and economy are important and where codes allow the use of iron body units.

Sizes: 1/2" and 3/4" Threaded (NPT)



Pressureguard™ PSL Pressure Limiting Valve

Compact size, quick operation, high flow rates and a stainless steel seat for extended life. Has a brass body suitable for inlet pressures of up to 300 psi. Tamper resistant.

Applications: RVs, dishwashers, washing machines, water meters, water softeners, water fountains, etc.

Sizes: 1/4" ID Tube (3/8" OD), 3/8" NPTF, 1/2" ID Tube (5/8" OD), 1/2" NPTF and 3/4" hose connection



TEMPERATURE AND PRESSURE RELIEF VALVES



NCLX Domestic Temperature and Pressure Relief Valves

The NCLX incorporates an inert thermal element coating that provides effective isolation from mineral deposits (liming). Cast bronze body with male inlet and female outlet, brass and stainless steel internal parts, silicone seat disc and stainless steel spring. Test lever standard. Temperature relief setting is 210°F (99°C). Lead Free* models are also available.

Applications: Temperature and pressure protection for

domestic water heaters and storage tanks.

Sizes – Inlet/Outlet: 1/2" or 3/4"
Element extensions: 1-5/16" to 7-7/8"

Inlet Shank: 6 lengths to accommodate different thicknesses of heater insulation

Approvals: The NCLX valves are design certified to ANSI Z21.22 / CSA 4.4 and capacity certified to ASME Boiler Code Section IV (1/2" sizes ANSI / CSA listed only).



FVX Commercial Temperature and Pressure Relief Valves

CSA design certified per ANSI Z21.22 Relief Valves for Hot Water Supply Systems. Bronze body, stainless steel spring, furnished with silicone seat disc and EP diaphragm, as well as a test lever. Standard factory setting is 150 psi. Temperature relief setting is 210°F (99°C). All FVX Series valves through 1-1/4" have coated thermal elements that protect against mineral build-up. The 1-1/2" and 2" valves have stainless steel elements. Available with male or female inlet connections. Female outlet connections. Lead Free* models are also available.

Applications: Commercial and domestic hot water heating applications.

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

Approvals: The FVX valves are design certified to ANSI Z21.22 / CSA 4.4 and capacity certified to ASME Boiler Code Section IV.



F-30 and F-82 Pressure Only ASME Safety Relief Valves

ASME Section IV listed and rated for emergency steam discharge. Bronze body, brass and/or stainless steel internal components, silicone seat disc and stainless steel spring. "Pop" type action provides maximum safety. F-30 set at 30 psi only. Lead Free* F-82 models are also available.

Applications: Designed for use on hot water heating boilers, water supply boilers and storage tanks. Used in saturated water applications, but *NOT TO BE USED* in steam applications.

Sizes – F-30: 3/4" only. F-82: 3/4", 1", 1-1/4", 1-1/2" and 2" **Approvals:** The F-30 and F-82 are capacity certified to

ASME Boiler Code Section IV.





F-95 Pressure Only ASME Safety Relief Valve (For Hot Water)

Iron body construction. Bronze body option available in some sizes. Brass seat, silicone seat disc and EP diaphragm. "Pop" type opening action. The F-95 Valve series offers a complete line of boiler safety relief valves in sizes ranging from 3/4" X 1" to 2" X 2-1/2". This complete range of sizes provides pressure protection for many commercial/industrial OEM boilers and hot water heating system applications. 30 to 75 psi pressure sets available.

Applications: Commercial/industrial OEM boilers and hot water heating systems.

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

and 2" X 2-1/2"

Approvals: The F-95 is capacity certified to ASME Boiler code section IV.



FWL-2 and FWOL Pressure Only Safety Relief Valves

Bronze body, brass and stainless steel internal parts, silicone seat disc, and stainless steel spring. Test lever is standard on the FWL-2. Male inlet and female outlet. Automatic reseating after pressure relief. Compact and economical. The FWOL is available without the lift lever. Lead Free* models are also available.

Applications: Tankless water heaters or water heaters.

Sizes: 1/2" and 3/4"

Approvals: The FWL-2 is design certified per ANSI Z21.22 and CSA 4.4 and is capacity certified to ASME Section IV and CSA. The 1/2" size is CSA only.



FW and FWC Miniature Non-Code Relief Valves

Small, low-cost relief valves suitable for static over-pressure protection. Type FWC incorporates a calibrated adjusting screw for occasional changes in pressure setting without the use of a pressure gauge. Bronze bodies with male inlet and female outlet, silicone seats and stainless steel spring. Standard factory set is 125 psi. Available set range for FW is 15 to 250 psi. FWC is 25 to 175 psi.

Applications: For commercial and industrial applications including thermal expansion protection, static pressure and over-pressure relief, low capacity pump relief and

other uses of similar nature where tight shut-off is required. Where code listing is not required.

Sizes: 1/2" and 3/4"



VR-801 Vacuum Relief Valve

Prevents internal vacuum conditions that could collapse storage tanks - especially copper. Bronze body with a male inlet, integral body seat and silicone seat disc. Maximum water pressure 200 psi. Maximum temperature 210°F (99°C). Capacity 13 SCFM at 2" Hg. Available with dust cover. Lead Free* models are also available.

Applications: Designed to protect hot water supply

systems and pressure vessels.

Sizes (Male): 1/2" and 3/4"

Approvals: The VR-801 is design certified to ANSI Z21.22 / CSA 4.4.



BACKFLOW PREVENTION DEVICES





RP100 and RP200 (bronze) Cash Acme Reduced Pressure Zone Backflow Preventer

A Cash Acme RP100 or RP200 (Reduced Pressure Backflow Preventer) provides maximum protection against back-pressure and back-siphonage. The RP consists of two independently acting check valves and a relief valve. The Cash Acme RP100 and RP200 design streamlines the number of working parts, making maintenance easy. The unique top-entry cover allows quick access to both check valves and relief valve. The RP100 is available in 3/4" through 2" sizes and the RP200 comes in 1/2" and 3/4" sizes.

Applications: Prevention of back-siphonage when connecting low and high hazard systems to potable water supply systems.

Sizes: 1/2" (RP200), 3/4" (RP200), 1", 1-1/4", 1-1/2" and 2"

Approvals: The Cash Acme RP100 and RP200 are CSA and ASSE 1013 listed, AWWA C511 compliant. All major national approvals.



RP500 (Engineered Polymer) Cash Acme Reduced Pressure Zone Backflow Preventer

The Cash Acme® RP500 features a short lay length, a single top access cover for easy servicing. It contains no lead or heavy metals and is no-lead compliant. The valve is not susceptible to corrosion in aggressive water conditions and acts as a dielectric coupler in the water system.

Applications: Protects against high hazard backflow or

back siphonage into the potable water system Sizes: 1/2", 3/4", 1", 1-1/4", 1-1/2", and 2"

Approvals: The Cash Acme® DC500 is CSA B644, ASSE 1013, and NSF 61 listed. AWWA C511 Compliant. USC pending on the 1-1/2", 1-1/4" and 2" models.



RP100 (cast iron) Cash Acme Reduced Pressure Zone Backflow Preventer

A Cash Acme RP100 device (Reduced Pressure Backflow Preventer) provides maximum protection against back-pressure and back-siphonage. The RP100 consists of two independently acting check valves and a relief valve. The body and gate valves are constructed from epoxy coated ductile iron and corrosion resistant internal components. The unique top-entry cover allows quick access to both check valves and relief valve. The reduced pressure backflow preventers are available in 2-1/2" thru 10" sizes. UL and FM approved.

Applications: Prevention of back pressure or backsiphonage into the potable water supply system when low and high hazard systems are connected.

Sizes: 2-1/2", 3", 4", 6", 8", and 10"

Approvals: The Cash Acme RPZ is CSA and ASSE 1013 listed, AWWA C511 compliant. All major national approvals are under the Flomatic brand name.



DC100 (bronze) Cash Acme Double Check Backflow Preventer

The DC100 provides protection against back-pressure and back-siphonage. The DC100 body and ball valves are constructed from bronze and corrosion resistant internal components. The DC100 design streamlines the number of working parts, making maintenance easy. The unique top-entry cover allows quick access to both check valves. The DC100 Double Check Backflow Preventers are available in 3/4" through 2" sizes.

Applications: Prevention of back pressure or backsiphonage into the potable water supply system when low hazard systems are connected.

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

Approvals: The Cash Acme DC100 is CSA and ASSE 1015 listed, AWWA C510 compliant.
All major national approvals.





DC500 (Engineered Polymer) Cash Acme Double Check Backflow Preventer

The lead free Cash Acme® DC500. Features a top entry, single access cover and a plastic body. Meets all state no-lead requirements. Four vertical testcocks and two quarter turn ball valves provide for easy and fast servicing of the valve. Resistant to scaling, fertilizers, herbicides, insecticides and is corrosion resistant.

Applications: Protects against low hazard backflow or back siphonage into the potable water system.

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

Approvals: The Cash Acme DC500 is CSA B64.5, ASSE 1015, and NSF 61 listed. AWWA C510 Compliant. USC pending on the 1-1/2" and 2" models



DC100 (Ductile iron) Cash Acme Double Check Backflow Preventer

The DC100 provides protection against back-pressure and back-siphonage. The body and gate valves are constructed from epoxy coated ductile iron and corrosion resistant internal components. The DC100 is designed to streamline the number of working parts, making maintenance easy. The unique top-entry cover allows quick access to both check valves. The Double Check Backflow preventers are available in 2-1/2" thru 10" sizes. UL and FM approved.

Applications: Prevention of back pressure or backsiphonage into the potable water supply system when low hazard systems are connected.

Sizes: 2-1/2", 3", 4", 6" and 8"

Approvals: The Cash Acme DCV is CSA and ASSE 1015 listed, AWWA C510 compliant. All major national approvals are under the Flomatic brand name.



Cash Acme PVB Pressure Vacuum Breakers

The PVB pressure vacuum breaker is designed for installation on potable water lines to prevent contaminated water back-siphonage into the potable water supply. Assembly shall provide protection against back-siphonage where a potential health hazard exists.

Applications: Connection of a system where a potential health hazard exists to potable water supply or irrigation system water supply.

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

Approvals: The PVB Pressure Vacuum Breaker (Sizes

3/4" & 1") are ASSE 1020 listed and all major national approvals are under the Danfoss Flomatic brand name. For sizes 1-1/4", 1-1/2" and 2" please refer to Conbraco's PVB 4V-500 technical sheet for certification and national approvals.



Cash Acme Air Gap

The Cash Acme Air Gap Adapter features cast iron or polycarbonate construction. Available for all backflow prevention devices.

Applications: Used to funnel minor relief valve discharges due to line pressure fluctuations and/or minor check valve fouling into a drainage system.

Sizes: 1/2"- 3/4", and 3/4"- 2" (polycarbonate material),

2-1/2" through 8" (cast iron)

Approvals: The Cash Acme Air Gap is ANSI/ASME A112.1.2 standard compliant. All major national approvals through the Danfoss Flomatic Corporation.



BF Series Dual Check Type Backflow Prevention Valves

Prevents polluted water from entering the potable water supply system by preventing the reverse flow of water into supply lines. Cast bronze body and brass union inlet connection. The Cash Acme BF-1 is available in 3/4" and 1" sizes and incorporates a female threaded union inlet and a female threaded outlet. The Cash Acme BF-5 is available as a 1" meter threaded (swivel) inlet and 3/4" FNPT (union).

Applications: For continuous or intermittent applications on water supply lines.

on water supply lines

Sizes: 3/4", 1" and 1" swivel X 3/4" FNPT Union

Approvals: The BF Series is certified to ASSE 1024 and CSA B64.6.





BFP Backflow Preventer With Intermediate Atmospheric Vent

Prevents backflow of contaminated water into potable water supply lines. Brass body with two spring loaded poppet-type valve modules and threaded female union inlet and outlet connections. Internal strainer screen, and stainless steel springs. Suitable for hot (up to 180°F [82°C]) or cold water under continuous pressure.

Applications: Boiler feed lines, dairy processing systems, livestock water sources, chlorinators, trap primers and similar installations.

Sizes: 1/2" and 3/4" threaded or sweat.

Approvals: The BFP Series is certified to ASSE 1012

and CSA B.64.3.



V-3 and V-3C Hose Connection Vacuum Breaker

Prevents dangerous back-siphonage and backflow into a potable water supply. All-brass construction with threaded connections, neoprene seat disc, rubber washer, and steel set screw. The V-3 is equipped with a protruding "tip" device for manual draining of faucet (after hose removal) preventing freezing. Maximum pressure is 125 psi; maximum temperature is 180°F (82°C). The V-3 is available chrome-plated (V-3C) on special order.

NOTE: These units are not intended for use where water contamination could occur as a result of draining or for permanent continuous pressure installation. For continuous pressure systems, install the BFP described on page 15.

Applications: For use around homes, schools, commercial buildings, laboratories, or any place involving removable hoses attached to threaded faucets, indoors or out.

Sizes: 3/4"

Approvals: The V-3 and V-3C are certified to ASSE 1011 and CSA B64.2, listed by IAPMO and approved by

CSA



VB-222 Self-draining Hose Connection Vacuum Breaker

Prevents dangerous back-siphonage; automatically self-drains when all attachments are removed completely from the valve's outlet. Protects the valve and faucet from freezing and rupturing in cold weather. Constructed with brass body and adapter. Buna O-ring and seat disc, steel set screw, stainless steel springs and the highest quality molded parts.

NOTE: These units are not intended for use where water contamination could occur as a result of draining or for permanent continuous pressure installation. For continuous pressure systems, install the BFP described on page 15.

Applications: Designed to prevent dangerous backsiphonage and backflow into a potable water supply system. For use around homes, schools, commercial buildings, laboratories or any application involving a removable hose attached to threaded faucets.

Sizes: 3/4"

Approvals: The VB-222 is certified to ASSE 1011 and CSA 64.2 and is listed by IAPMO, ASSE, and CSA.



V-101 and V-101C Atmospheric Type Vacuum Breakers

Female connections, bronze body, and silicone seat. Designed for maximum intermittent water pressure of 125 psi. Suitable for temperatures up to 212°F (100°C). Not for continuous pressure use. A polished chrome model is also available (up to 1" size only). All models comply with ASSE Standard 1001, listed by IAPMO, and approved in all major cities and states.

Applications: Open tanks or basins filled by a hose below the water line; in appliances where water enters below the overflow rim; or in lawn sprinkling systems. Other applications include medical, surgical and therapeutic.

Sizes: 1/2", 3/4" and 1" (V-101C available in 1/2", 3/4" and 1") 1-1/4", 1-1/2" and 2" available in brass

Approvals: The V-101 and V-101C are certified to ASSE 1001 and CSA B64.1.1 – hose type connection, and are listed by IAPMO, ASSE, and CSA.





VAP Automatic Plumbing Vent

The VAP is designed to prevent backflow of sewer gases and trap siphonage at the fixture. vents by allowing air into the drain lines while the fixture is draining. An economical solution to preventing trap siphonage and backflow of dangerous sewer gases. The VAP can be securely hand tightened.

Applications: Economical solution for preventing trap siphonage and backflow of sewer gases.

Sizes: 1-1/2" Threaded MNPT

Approvals: The VAP Automatic Plumbing Vent is

certified to NSF-24.



Close Nipples

Cash Acme close nipples are designed to connect various products that have NPT threads. Made of brass, with short lay lengths and available in the following sizes: 1.125 (1/2"), 1.375 (3/4"), 1.5 (1"), 1.625 (1-1/4"), 1.75 (1-1/2") and 2 (2").

Applications: Connection of a wide range of safety and maintenance products with female NPT threads.

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

EXPANSION TANKS



T Series Expansion Tank For Heating Systems

Welded construction ensures long and reliable service. Heavy duty SBR diaphragm and epoxy paint finish. All models factory pre-charged to 12 psi.

Applications: For use in heating systems to absorb the increased hot water volume due to expansion thus maintaining system pressure.

Sizes: T-15 at 2.1 gal, T-30 at 4.5 gal, T-60 at 6.0 gal and T-90 at 15.0 gal



TE Series Thermal Expansion Tank

Welded construction for long and reliable service. Heavy duty butyl diaphragm for use with potable water. The tank connection is stainless steel to protect against corrosion along with internal coating of the steel shell. All models are factory pre-charged to 40 psi.

Applications: Domestic hot water heaters. The TE tanks take up the expanded water from a water heater when a backflow device is installed on the heater inlet.

Sizes: TE-5 at 2.1 gal, TE-12 at 5.5 gal and TE-25 at 9 gal **Approvals:** The TE Series is certified to NSF-61 and IAPMO PS88, and is listed by NSF and IAPMO.



TV Series Floor Standing Expansion Tank For Heating Systems

Sturdy corrosion resistant base. Welded construction ensures long and reliable service. Heavy duty SBR diaphragm and epoxy paint finish. All models factory pre-charged to 12 psi.

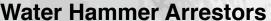
Applications: Large heating systems to absorb the increased hot water volume due to expansion.

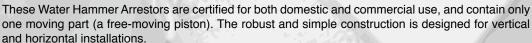
Sizes: TV-30 at 15 gal, TV-40 at 20 gal, TV-60 at 36 gal, TV-90 at 40 gal and TV-160 at 96 gal



GENERAL PLUMBING PRODUCTS







Applications: Provides maintenance-free continuous protection against shock waves caused by the sudden halt of water flow.

Sizes (Domestic): 1/2" and 3/4" Sizes

Sizes (Commercial): 1/2", 3/4", 1", 1-1/4", 1-1/2" and 2" **Approvals:** The Water Hammer Arrestor is design certified to ASSE 1010 and is listed by ASSE.



Y-Strainers

The Y-Strainer from Cash Acme utilizes a wire mesh screen to actively remove small solid particles from the flow of liquids or gases. The bronze Y-Strainer is rated to 400 WOG. May be installed vertically or horizontally in the system. Threaded NPT connection.

Applications: Designed to protect regulators, pumps, water meters, and other valves.

Sizes: 1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3", 4" and 6"

Cast Iron available in: 2 1/2", 3", 4" and 6"



WM Washing Machine Shut-off Valve

Single-lever control of both hot and cold water to protect a clothes washer's hose and inner working parts. E-Z on/off ball-type design can also be used to throttle water flow and ease the water hammer shock caused by solenoid valves. Bronze construction. Equipped with Teflon seats against brass thru-hole balls that provide quiet rotating action. The WM-1 is supplied with male adapters. The WM-2 is furnished with sweat copper elbow adapters (2-3/8" on centers) which may be installed either up or down.

Applications: Designed for control of both hot and cold water supply to a washing machine.

Sizes: 1/2"

Approvals: The WM-1 and WM-2 are certified to CSA B125 and are listed by CSA.



2000 Series High Quality Brass Ball Valves

NPT threaded connections. Full port. Adjustable packaging gland. Pressure rated to 600 psi WOG and 150 psi WSP, maximum temperature 300°F (149°C).

Sizes: 2000C 1/2" to 1", 2010 1/4" to 2"

Approvals: CSA, FM, NSF and UL Listed (1/4" to 2")





In-Line Check Valve General Purpose, Spring-Loaded Check Valve

The Cash Acme In-Line Check Valve is a general purpose, NSF-61 certified check valve. The check valve effectively prevents the reverse flow of water through a water line. The check valve combines a spring-loaded design with an NBR seat to create a bubble tight shut-off.

Applications: Domestic water lines **Sizes:** 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", and 2"





A-41 and AB-40 Pressure Reducing Boiler Feed Valves

The AB-40 features a brass body and a "combo connection" which allows either a threaded or sweat copper connection with the same union tailpiece. The AB-40 also includes a check valve and provides an inbuilt bypass for rapid filling, high pressure testing and system purging. The A-41 provides increased capacity for larger boilers. It has threaded female connections and an iron body with a stainless steel seat. Both the AB-40 and A-41 have a heat resistant diaphragm and seat disc, and an inbuilt strainer screen. The reduced pressure setting is 14 psi. The maximum inlet working pressure is 200 psi.

NOTE: For backflow prevention of boiler water into the potable water supply line, install a BFP valve.

Applications: Larger hot water space heating boilers that require faster filling.

Sizes: 3/4" (A-41) and 1/2" (AB-40)



A-89 and A-43CRF Pressure Reducing Boiler Feed Valves

Both the A-89 and A-43CRF feature a brass body and rapid fill capability. The A-89 also features a balanced piston for closer outlet control regardless of variation in inlet pressure. The A-43CRF also features an inbuilt check valve to retard reverse flow of boiler water. Standard reduced pressure setting is 14 psi with an adjustment range through 30 psi. Maximum inlet working pressure is 200 psi. Available with threaded connection or sweat copper union inlet.

Applications: Larger hot water space heating boilers that require faster filling.

Sizes: 1/2"



CBL Hot Water Boiler Dual Control Valve

All bronze construction, inbuilt stainless steel strainer screen, neoprene and bronze diaphragms, brass and stainless steel seat, renewable relief seat disc. Includes an inbuilt check valve to retard reverse flow and an inbuilt bypass for rapid filling, high pressure tests and system purging. Reduced pressure setting of 14 psi and relief setting of 30 psi for two story buildings; slightly higher setting for 3-, 4- or 5-story buildings. Maximum inlet working pressure is 100 psi. Combines a pressure reducing and regulating valve, positive relief valve and bypass valve into one compact unit.

NOTE: For backflow prevention of boiler water into the potable water supply line, install a BFP valve.

Applications: Boiler water supply lines. To assure automatic filling and maintain boiler pressure between 14 and 30 psi.

Sizes: 1/2"





CQ-M Dual Control Valve

Bronze body features large unrestricted waterways, special heat resistant composition diaphragms, silicone relief seat and an easy to clean inbuilt stainless steel strainer. All units have a test lever and an inbuilt check valve to prevent backflow. Provides pressure control and protection from thermal expansion.

NOTE: The relief section of all Cash Acme dual controls is for thermal expansion only. For proper pressure relief protection, the boiler must also be provided with a properly sized ASME-rated relief valve.

Applications: Designed for hot water space heating installations.

Sizes: 1/2"



CR Dual Control Valve for Hot Water Space Heating Boilers

Balanced piston for closer outlet pressure control regardless of variations in inlet pressure and a rapid fill feature with an improved larger seat for higher capacities and quicker fill. Has an iron body, brass internal parts on the regulator, special heat resistant composition diaphragm and O-rings, brass strainer screen, and stainless steel springs. Relief valve has bronze body, silicone seat disc and stainless steel spring.

NOTE: The relief section of all Cash Acme dual controls is for thermal expansion only. For proper pressure relief protection, the boiler must also be provided with a properly sized ASME-rated relief valve.

Applications: Designed for hot water space heating installations, the CR Series valve is suitable for 1-, 2- or 3-story buildings without adjustment.

Sizes: 1/2" (sweat or threaded)



BFAC Pressure Reducing Backflow Preventer

The Cash Acme BFAC combines the quality pressure reduction of the Cash Acme A-89 Pressure Reducing Boiler Feed Valve with the effective backflow prevention of the Cash Acme BFP Double-Check Backflow Preventer. The Cash Acme BFAC accurately reduces system pressure down to 14 psi while preventing the back-siphonage of contaminated water into the potable water supply. The BFAC features threaded (NPT) inlet and outlet connections.

Applications: Designed specifically for smaller boiler feed lines.

Sizes: 1/2" only



AP Series Air Purgers

One piece cast iron construction. No service required. Economical and easy to install.

Applications: For use in heating systems to trap entrained air from the circulating water.

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



AV Series Air Vents

Brass construction. No service required. Economical and easy to install.

Applications: For use in heating systems to vent air trapped within the circulating water.

Sizes: 1/8", 1/4" and 3/4"



Limited warranty

All products except SharkBite® Connection system

Reliance Worldwide warrants each product against defects in material and workmanship for a period of one year from the date of manufacture. In the event of any defect within the warranty period, Reliance Worldwide will, at its opinion, replace or recondition the product without charge providing the product is returned, prepaid to Cullman, Alabama: 2400 7th Avenue S.W., Cullman, Alabama 35055. This shall constitute the exclusive remedy for any alleged defect. Reliance Worldwide shall not be responsible for any incidental, indirect, contingent, or consequential damages including, without limitation, damages or other costs resulting from labor charges, delays, loss of use, revenue or profit, vandalism, negligence, fouling caused by foreign material, damage from peculiar water conditions, chemicals, or other circumstances over which Reliance Worldwide has no control. Reliance Worldwide makes no other warranties, express or implied, except as provided in this limited warranty. This warranty becomes voided by any misapplication, misuse, abuse, or improper installation of the product. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state or province to province. Applicable in USA and Canada only.

Limited warranty SharkBite® Connection system

A. Reliance Worldwide, the Company, warrants the following products - SharkBite® PEX Tubing, SharkBite® Push-Fit Fittings, SharkBite® Brass PEX Barbed Fittings, SharkBite® Copper PEX Manifolds and other SharkBite® Accessories - to be free of defects in material and workmanship for the time periods shown below and when used and installed in accordance with the requirements set forth below.

- 1. SharkBite® PEX Tubing cross-linked polyethylene (non-barrier PEX) pipe for a period of twenty-five (25) years from the date of sale.
- 2. SharkBite® Push-Fit Fittings brass push-fit fitting for a period of twenty-five (25) years from the date of sale.
- 3. SharkBite® Brass PEX Barbed-Fittings and SharkBite® Copper PEX Manifolds for a period of sixty (60) months from the date of sale.
- **4.** All other valves and accessories sold under Cash Acme's brand names of the SharkBite® PEX and/or SharkBite® Connection System for a period of twenty four (24) months from the date of manufacture.

The installing contract or must use construction techniques compliant with applicable codes to install SharkBite® products and use the product(s) within the design parameters specified in any installation guidelines and technical notes for the applicable system. A licensed contractor must install products in potable water systems.

Reliance Worldwide's obligation will be to repair or replace, at its discretion, any of the products covered under this limited warranty when the materials used to produce the product or the workmanship of the manufacturing process are proven to be defective.

- **B.** In the event of a system malfunction or leak caused by defective warranted products (and not by improper installation or usage, incorrect handling procedures or by jobsite or installation damage), a reasonable pre-approved amount will be allowed for repair materials and repair labor. In the event of a leak occurring in the factory manifold, please contact Reliance Worldwide. Note that Reliance Worldwide limits its warranty to its tubing, valves and accessories, fittings and manifolds. Reliance Worldwide does not warrant the connection. The connection is the sole responsibility of the installer.
- **C.** To qualify for a warranty remedy under paragraph B, you must contact Reliance Worldwide in advance and receive written authorization for this remedy from an authorized Reliance Worldwide

^{*} For Lead Free Models, the combined surfaces that are in contact with consumable water contain less than 0.25% lead by weight.



representative. Reliance Worldwide will not consider expenses for repair materials, labor and/or freight unless authorized in advance and in writing.

- **D.** To qualify for the warranty described above, you must:
 - 1. Use construction techniques in compliance with applicable codes to install our products, as specified in our current design and installation guidelines and technical notes. This shall include field pressure testing prior to concealing with concrete or by other means.
 - 2. Install and use Reliance Worldwide's SharkBite® PEX Tubing and Reliance Worldwide's SharkBite® Connection System products according to all guidelines and manuals published by Reliance Worldwide.
 - 3. Install and use Reliance Worldwide SharkBite® PEX Tubing and Reliance Worldwide SharkBite® Connection System products in a system that will not operate at temperatures or at pressures that exceed the printed rating on the tubing.
 - **4.** Install and use all warranted Reliance Worldwide SharkBite® product in compliance with any applicable local building, plumbing and mechanical codes.
- **E.** Evidence of tampering, mishandling, neglect, accidental damage, freeze damage or unauthorized repairs that cause damage to Reliance Worldwide's SharkBite® warranted products void any warranty coverage of those particular products. The terms of this warranty specifically exclude all field connections. Reliance Worldwide, in its sole discretion, can decide whether the warranty will be honored or is void.
- **F.** Although Reliance Worldwide provides a plumbing system to facilitate a complete installation; other manufacturer's tubing and/or fittings may be installed in any given installation provided manufacturing of the tubing and/or fittings demonstrates compliance with the applicable ASTM standards, and the product has been certified by a recognized third-party testing agency. The Reliance Worldwide product in the given installation will continue to be covered under this warranty. **NOTE:** Reliance Worldwide will be responsible only for proven defects in material or workmanship in Reliance Worldwide products. Problems in products manufactured by another company should be reported to that manufacturer.
- G. Disclaimer of Warranty. THE EXPRESS WARRANTY SET FORTH HEREIN IS THE ONLY WARRANTY GIVEN BY RELIANCE WORLDWIDE WITH RESPECT TO THE PRODUCTS LISTED IN PARAGRAPH A. RELIANCE WORLDWIDE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- H. Limitation of Remedy and Liability. The remedy described above shall constitute the sole and exclusive remedy for breach of warranty, and, apart from that remedy, Reliance Worldwide shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if these warranted products do not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, adverse chemical environments, or any other circumstances over which Reliance Worldwide has no control. This limitation applies even if Reliance Worldwide could have foreseen or has been advised of the possibility of these damages. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product. Proof of purchase is required to validate the warranty period. If proof of purchase is not available, the warranty period shall default to the date of manufacture for each product. Some states and provinces do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from state to state. You should consult applicable state laws to determine your rights. SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW OR PROVINCIAL LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF



MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT BASED ON PROOF OF PURCHASE, OR, IF NOT AVAILABLE, FROM THE DATE OF MANUFACTURE.

I. RETURNED GOODS - CREDIT: No products shall be returned without authorization. Any credit issued will be at the price originally invoiced, less handling charges, based on the costs of reconditioning, boxing, etc. Obsolete or made to special order products are not returnable.

NOTE: Prices and terms are subject to change without notice and supersede all previous quotations. Reliance Worldwide reserves the right to change or modify product design or construction without prior notice and without incurring any obligation to make such changes and modifications on products previously sold.

Cash Acme and SharkBite® products are manufactured and distributed by the Reliance Worldwide Corporation.



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Your Local Representative: