ACORN CONTROLS

IT ALL COMES BACK TO CONTROLS

THERE IS NO SUBSTITUTE FOR QUALITY.

EMERGENCY TEMPERING VALVES
MODEL ET71

PRESSURE REDUCING VALVES
MODEL RV03B SERIES

MASTER MIXING VALVES
MODEL MV17

MORRIS GROUP INTERNATIONAL

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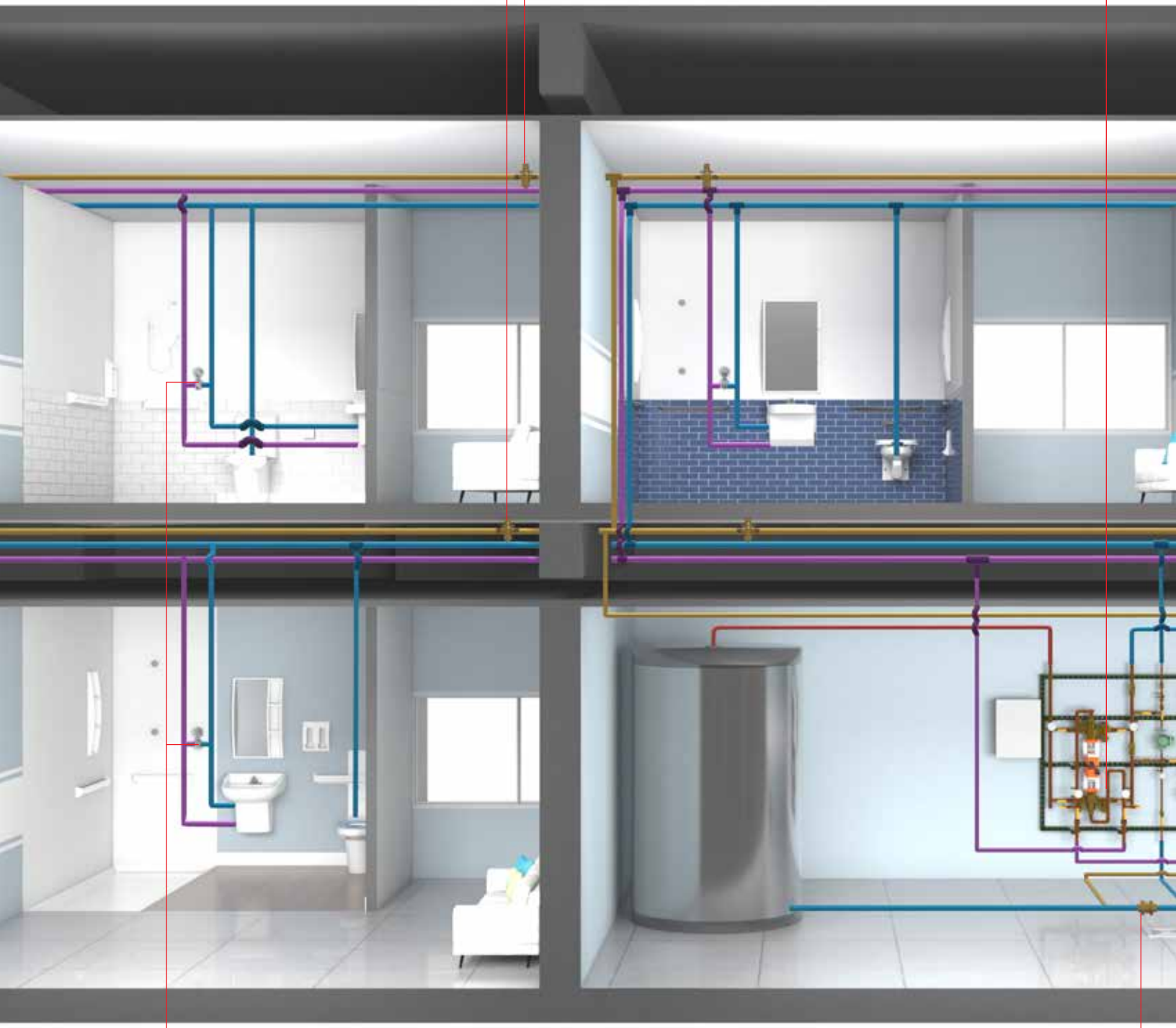
FULL SYSTEM LAYOUT

Model TZV1 and TZV2

Thermostatic Zone Valves are installed after the last hot water device in each loop to maintain domestic hot water zone temperature. They self-adjust and balance the recirculated flow and heat loss for each zone.

Model ABMMV

The Acorn ConTrols® BASyC® system provides distributed regulation and monitoring of Acorn ConTrols mixing valves and a wide variety of temperature, pressure and flow sensors for recirculated hot water systems.



Model SV16

A point-of-use valve for showers and tubs that delivers tempered water and prevents sudden changes in temperature.

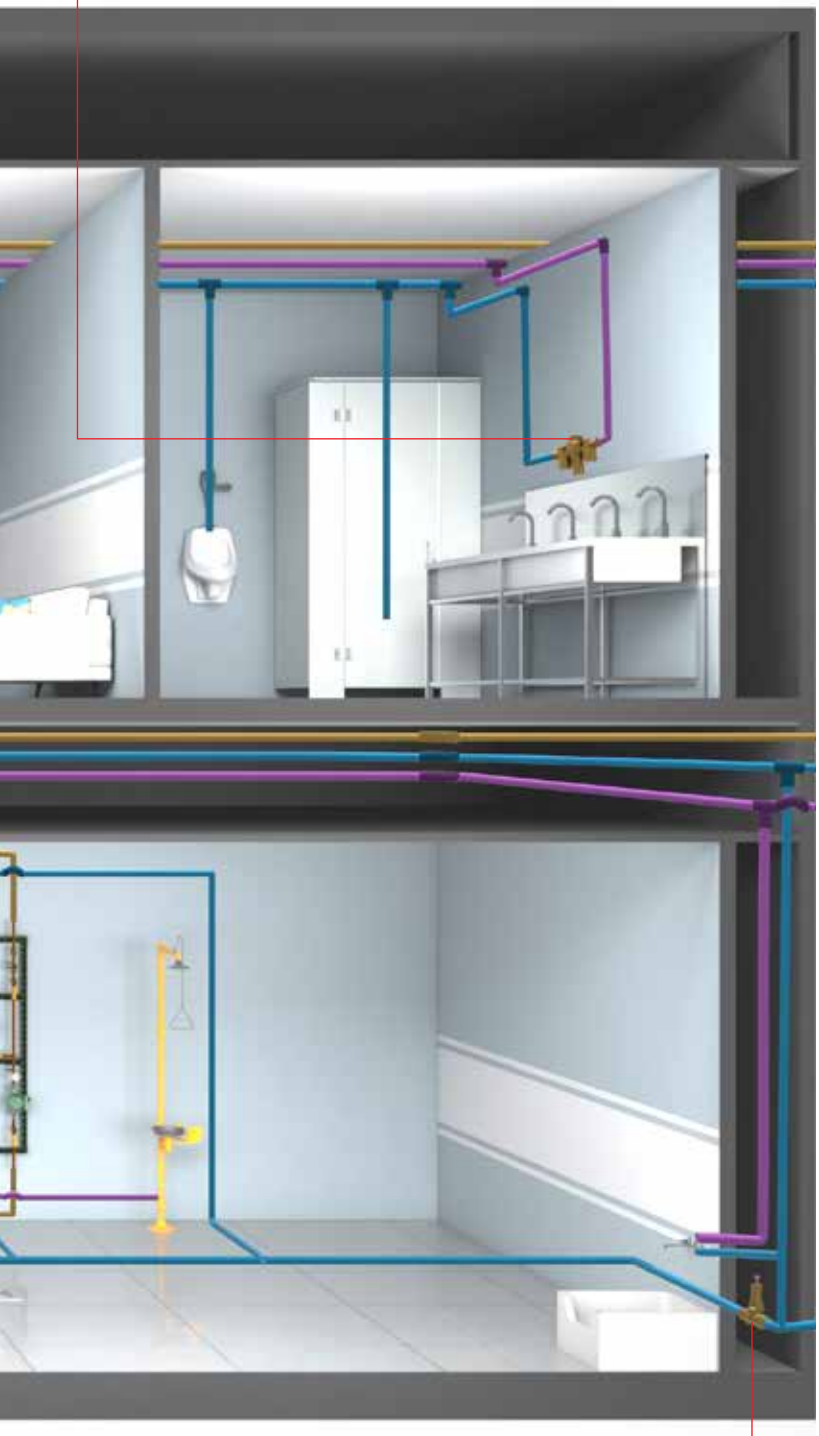
Model CV

Check Valves are designed to allow flow in one direction and protect against crossflow.

A COMPLETE LINE OF MIXING, TEMPERING, BALANCING, CHECK, AND PRESSURE REDUCING VALVES

Models ST70, ST7017, ST7069, STP7069

Provides tempered water for single and multi-station sinks and lavatories, preventing sudden changes in temperature.



Model RV03 and RV03B

Pressure Reducing Valves lower the pressure of the incoming water from the municipal line to an acceptable level.

IT ALL COMES BACK TO ACORN CONTROLS®.

We know water pressure-reducing, balancing, and tempering valves. We know how to manufacture, test, and use valves and their importance to you in managing a potable water system.

For nearly 50 years, we've made commercial buildings safer for their occupants with dependable valves. Our passion is to build reliable products that meet or exceed standard listings and approvals. We manufacture well-known brands like BASyC®, Temp-Flow®, Alpha®, and Omega®, and we recently began manufacturing a full line of Acorn ConTrols water pressure-reducing valves (PRVs).

The Acorn ConTrols division of Morris Group International is dedicated to a principle first expressed by Earl L. Morris, "There is no substitute for quality." That sentiment - from our founder - has remained with us since the beginning.

We don't simply stand behind the quality pledge; we have constructed and invested in Morris Group Innovation Centers (MGIC) in Los Angeles, CA, and Chicago, IL. The Morris Group Innovation Centers research, develop and test products for all MGI divisions. Pressure-reducing valves are the latest product group from our state-of-the-art facilities. In 2024, with the help of the MGIC, we will introduce a line of backflow preventers.

THE ACORN CONTROLS NAME IS BRANDED ON ALL OUR PRESSURE-REDUCING, BALANCING, AND TEMPERING VALVES. OUR NAME ENSURES AND PROTECTS AGAINST THE FOLLOWING:

- Hot/cold water temperature changes
- Pressure variations
- Unauthorized setpoint changes
- Legionella
- Risk of scalding and thermal shock
- Lead poisoning
- Deadlegs/stagnation

LEAD-FREE:

Acorn ConTrols Valves comply with the Federal Reduction of Lead in Drinking Water Act, which requires that any valve, fitting, or fixture coming in contact with potable water intended for human consumption must have a weighted average lead content of less than 0.25%.

LISTINGS & APPROVALS

The complete line of Acorn ConTrols products meet or exceed the following standards:

- ASSE 1003
- ASSE 1016
- ASSE 1017
- ASSE 1070
- ASSE 1069
- ASSE 1071
- NSF/ANSI-372
- ANSI/ISEA Z358.1
- ASME A112-18.1
- CSA B125.3-11
- CSA B356-10
- NSF-61

WARNING: Cancer and Reproductive Harm - **www.P65Warnings.ca.gov**

TYPES OF VALVES

The management of water is paramount in any commercial or residential supply system. Acorn ConTrols manufactures and distributes a complete line of thermostatic mixing, balancing, pressure regulating, and check valves to handle water temperature, pressure, and flow in a building.

The **Master Mixing Valve** is placed at the water heater to store water at 140 degrees Fahrenheit or higher, which limits Legionella bacteria growth in the tank. The Master Mixing valve then delivers hot water to the distribution system at approximately 120 degrees.

The **Emergency Tempering Valve** installs between the water heater and the emergency fixtures, such as a drench shower or eye wash, to provide tepid water.

A **Supply Fixture** is an installation convenience, 100% factory assembled with a mixing valve, inlet and outlet gauge, and shut-off valve to ensure proper installation. They are tested for reliability and performance.

A **Lavatory Tempering Valve and Tub/Shower Valve** mix hot and cold water to create water at a perfect temperature to distribute to a sink, shower, or tub. They are used in hotels or office buildings, or anywhere there is a centralized hot water delivery. It is installed at the lavatory or point-of-use.

A **Thermostatic Balancing Valve** has a sealed thermostatic "motor" in the flow stream of the valve body, which responds to temperature to open and close the valve to control water flow. It is installed on the piping system's returning legs to avoid creating dead legs of uncirculated hot water.

A **Check Valve** is installed in the water piping to prevent backflow and contamination. It is a one-way valve - water flows freely only in one direction, but if the flow turns, it will close to protect the piping, other valves, and pumps.

A **Pressure Reducing Valve (PRV)** is vital to incoming water flow in a potable water piping system. Pressure-reducing valves maintain, reduce, and relieve water pressure by reacting to changes in pressure. They are used in residential, commercial, institutional, and industrial applications.

An **Emergency Tempering System** distributes tempered water during an emergency. Water tempering systems, skid or strut mounted, provide a complete safety solution that simplifies installation and maintenance, and meets regulatory safety requirements.

- Outdoor Emergency Shower Booth or Skid
- Indoor Emergency Shower Skid
- Complete with heater, emergency equipment, and tempering valves

A **Temperature Monitor and Alarm** tracks critical temperatures, degrees of hotness or coldness, in the water distribution system and alerts the facility of temperature-related problems.

- Can alert and shut down tempered water flow when the water temperature exceeds limits.
- Common commercial uses include hospitals, shower rooms, therapeutic applications, boilers, and hot water heaters.
- Use with any thermostatic mixing valve.

MODEL ATM-1

HOW ACORN CONTROLS® VALVES WORK

A thermostatic mixing valve (TMV) and pressure-reducing valve (PRV) automatically regulate water temperature, pressure, and flow to a shower, tub, sink, or emergency fixture. A TMV maintains a set water temperature for the plumbing fixture without scalding or freezing the user. A PRV is a self-operating valve that lowers high or unregulated inlet water pressure to a consistent, lower level.

The delivery and distribution of water through Acorn ConTrols® valves keeps everyone comfortable and safe over piping distances and to multiple levels of a building. Acorn ConTrols TMVs and PRVs are preset at the factory. They can work independently or as part of a management system.

BENEFITS OF THERMOSTATIC MIXING VALVES:

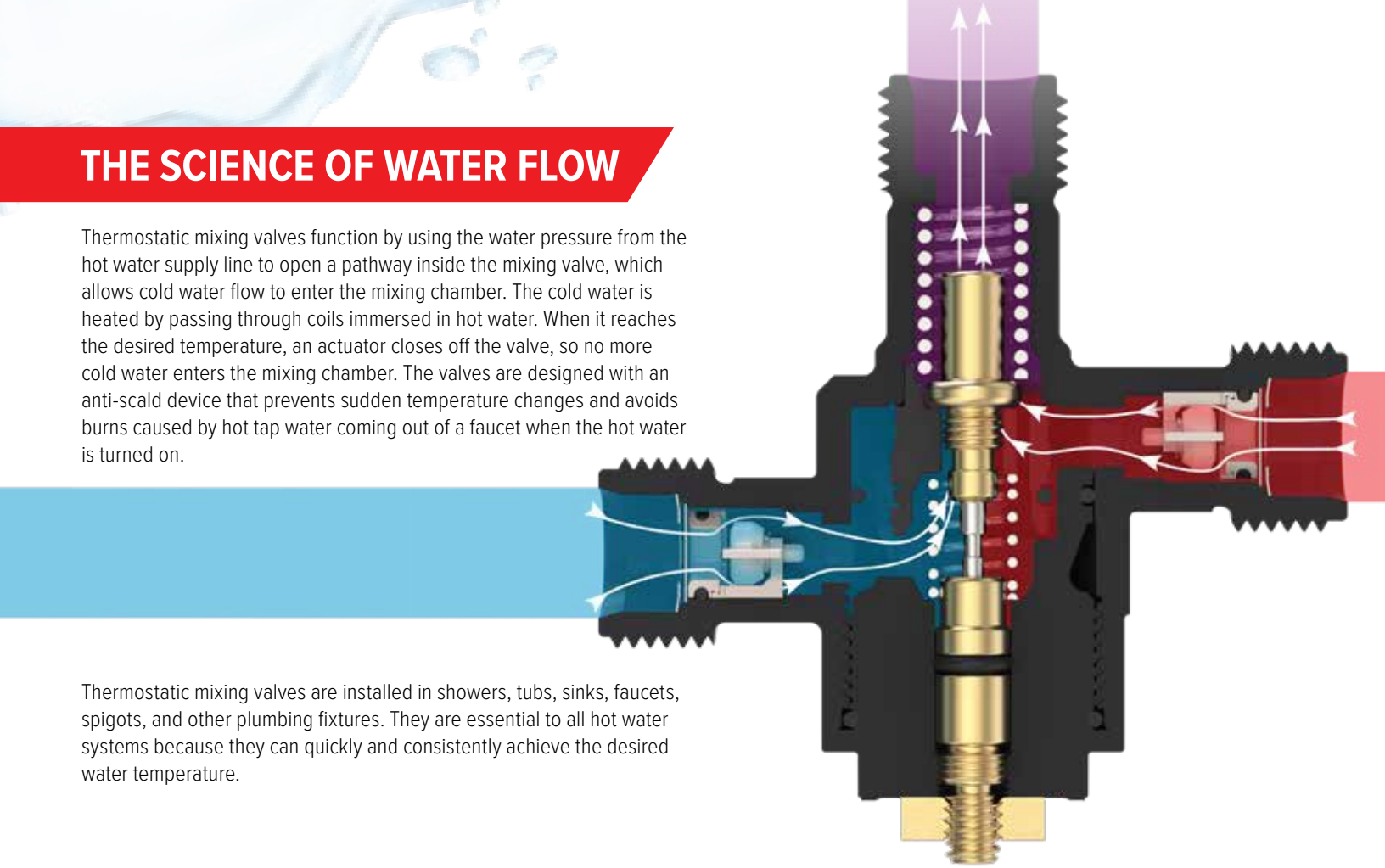
- Reduces energy consumption by 50%
- Prevents scalding, burns, and thermal shock
- Inhibits Legionella
- Balances erratic water temperatures
- Provides safe and comfortable water temperature in showers, tubs, sinks, and emergency equipment

BENEFITS OF PRESSURE-REDUCING VALVES

- Ensures reliable and stable pressure for the potable water system
- Lessens risk of leaks due to high pressure
- Lessens the amount of water that comes out of the fixture
- Decreases water flow and energy use by 30%
- Benefits the environment as a result of lower water usage

THE SCIENCE OF WATER FLOW

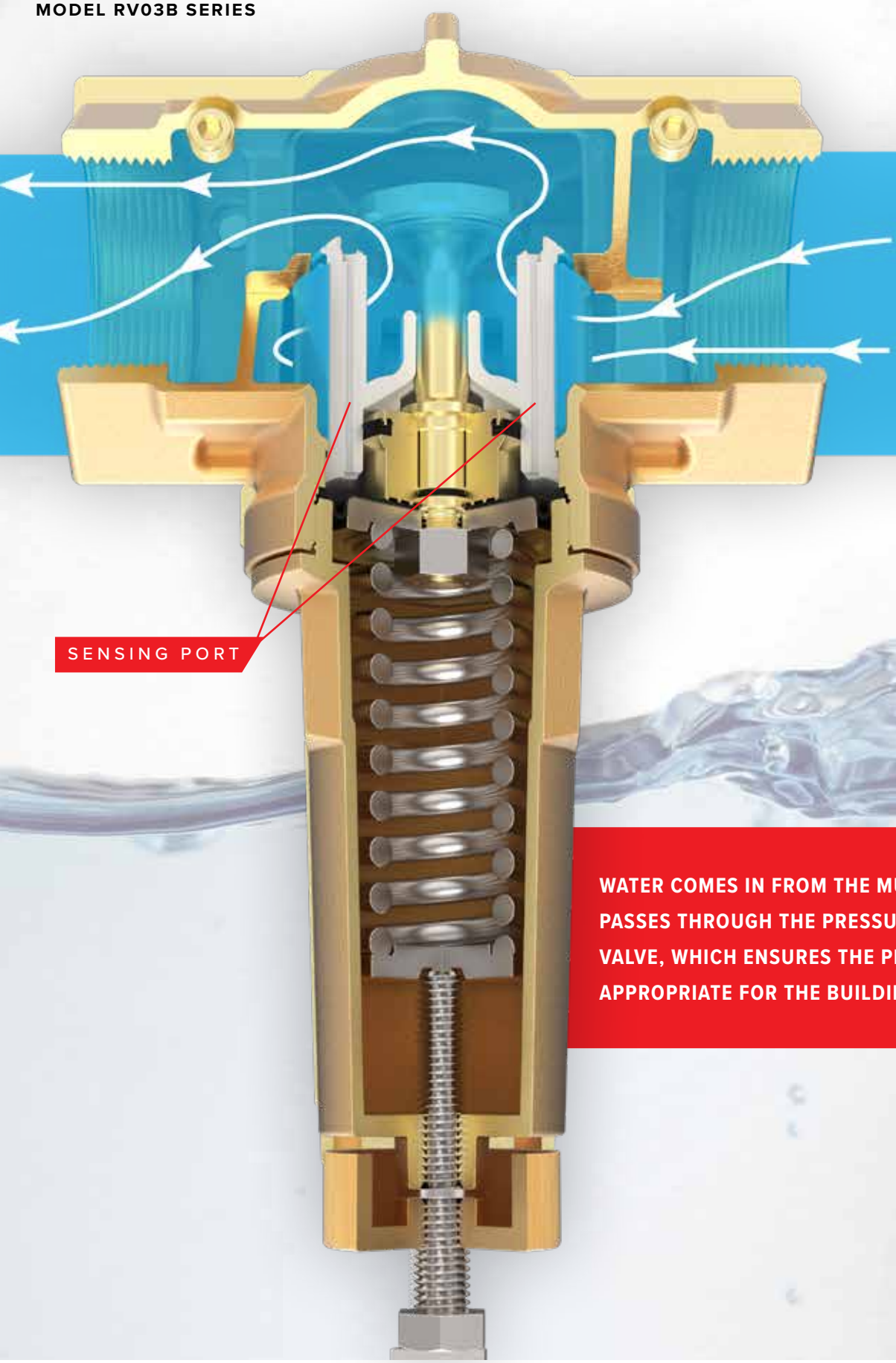
Thermostatic mixing valves function by using the water pressure from the hot water supply line to open a pathway inside the mixing valve, which allows cold water flow to enter the mixing chamber. The cold water is heated by passing through coils immersed in hot water. When it reaches the desired temperature, an actuator closes off the valve, so no more cold water enters the mixing chamber. The valves are designed with an anti-scald device that prevents sudden temperature changes and avoids burns caused by hot tap water coming out of a faucet when the hot water is turned on.



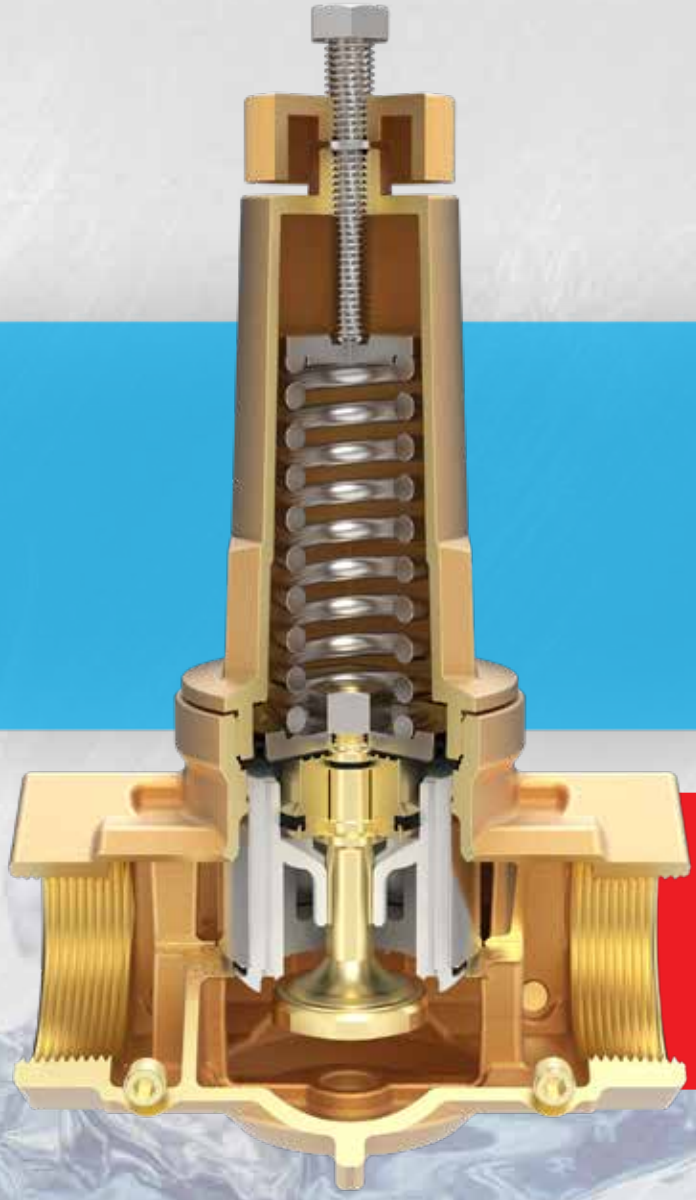
Thermostatic mixing valves are installed in showers, tubs, sinks, faucets, spigots, and other plumbing fixtures. They are essential to all hot water systems because they can quickly and consistently achieve the desired water temperature.

PRESSURE REDUCING VALVES

MODEL RV03B SERIES



WATER COMES IN FROM THE MUNICIPAL LINE AND PASSES THROUGH THE PRESSURE REDUCING VALVE, WHICH ENSURES THE PRESSURE IS APPROPRIATE FOR THE BUILDING SYSTEM.



MODEL NO. RV03B0-30

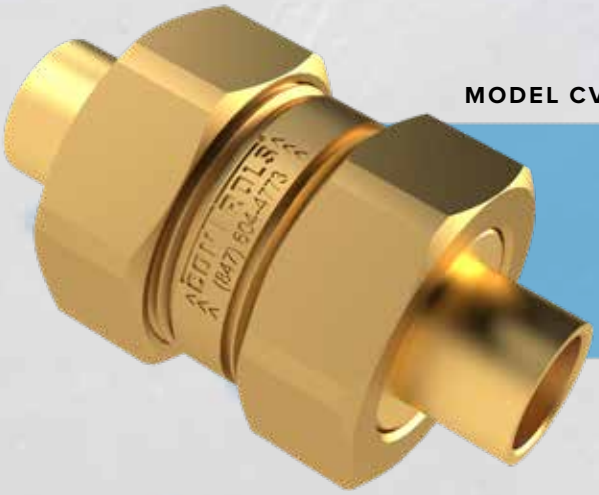
The municipal line provides water at a pressure far too high for in-building-use. A Pressure Reducing Valve is a key component of a potable water piping system as it reduces the pressure down to an appropriate pressure.

ACORN CONTROLS® PRESSURE REDUCING VALVES CAN HANDLE A UNIQUELY HIGH AMOUNT OF PRESSURE. COMPETITOR VALVES REQUIRE INSTALLATION OF MULTIPLE PRVS IN A LINE, INCREASING LABOR TIME AND FAILURE POINTS.

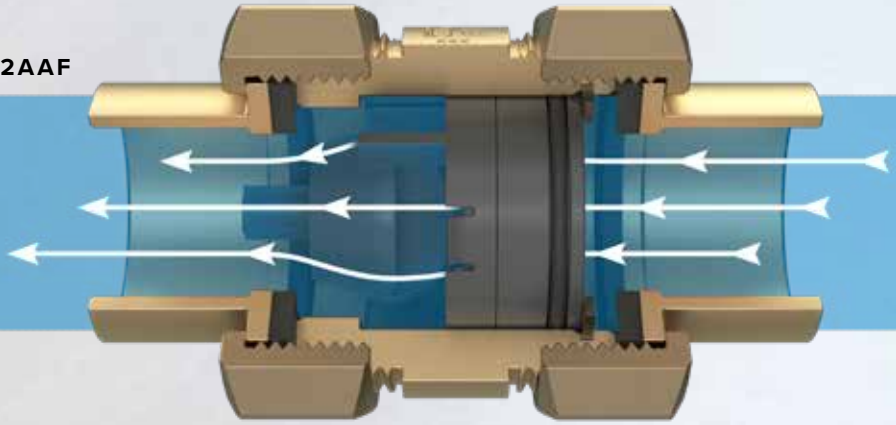
CHECK VALVE

MODEL CV SERIES

Check Valves are designed to allow flow in one direction and protect against crossflow.



MODEL CV-2AAF



PRESSURE REDUCING VALVES

MODEL RV03 SERIES

SIZES: 1/2", 3/4", 1", 1-1/4", 1-1/2", AND 2"

USED IN RESIDENTIAL, COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS.

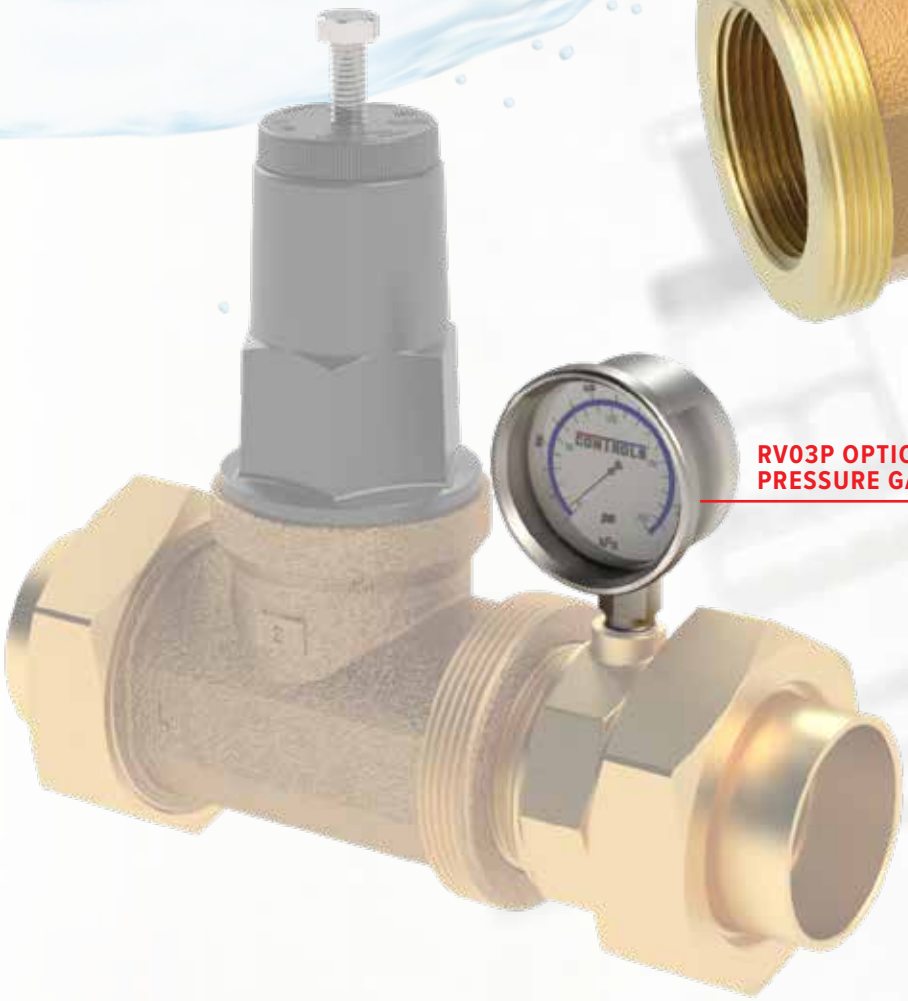
FEATURES:

- Reduces pressure from incoming water line to an acceptable level
- Used to protect plumbing system components and save water
- Capable of handling higher pressures than competitors, eliminating the need to install a row of valves

STANDARDS:

- NSF/ANSI 61
- ASSE 1003
- CSA B356-10
- UPC
- Lead-Free

MODEL RV03S0-5AAO

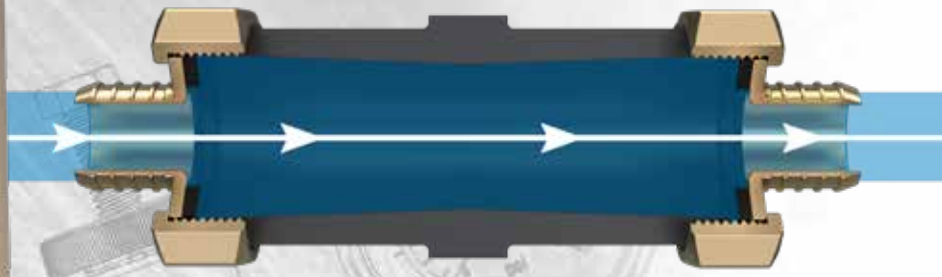


RV03P OPTIONAL PRESSURE GAUGE

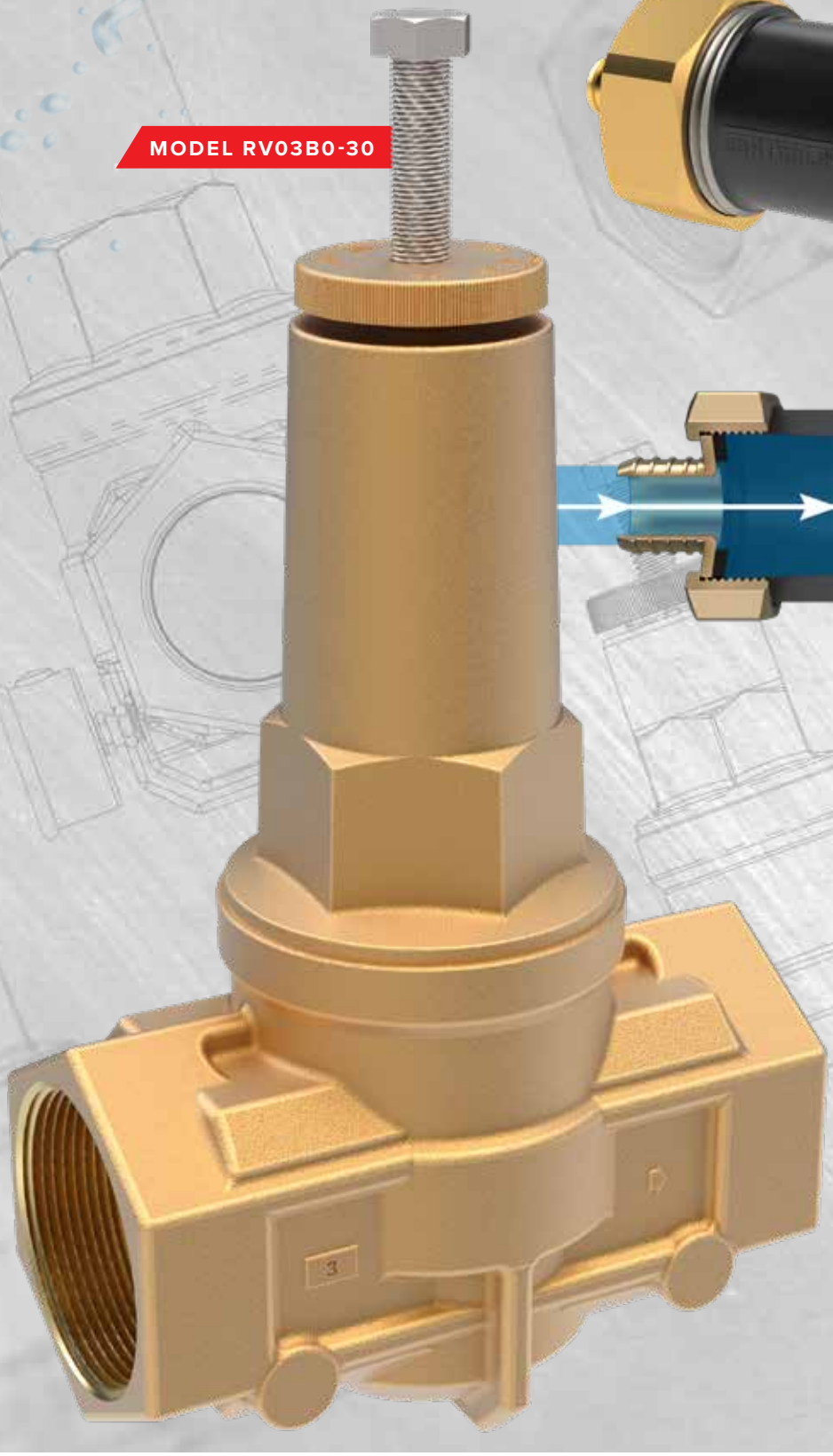
RVSK SPOOL KIT

MODEL RVSK-1CC0

A temporary spacer for potable water systems. The face-to-face length of the spool piece matches that of the Acorn ConTrols® RV03.



MODEL RV03B0-30



HI-LO MASTER MIXING VALVES

MODEL MV17

FOUR SIZES AVAILABLE

USED IN RESIDENTIAL, COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS.

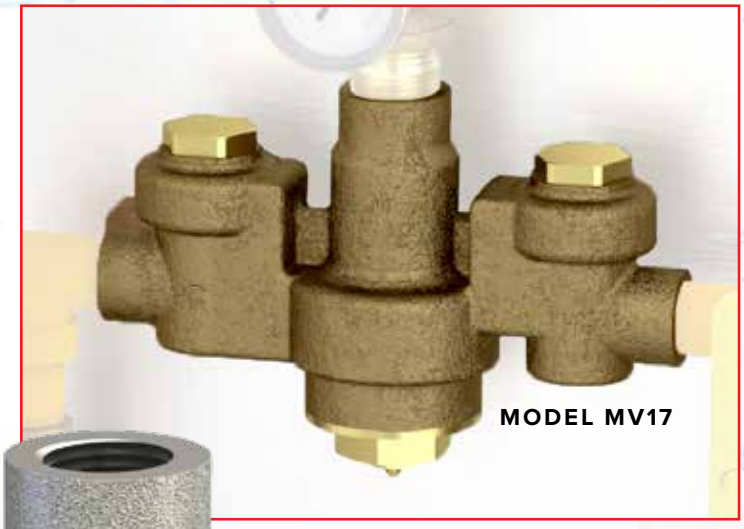
FEATURES:

- Mixes hot water from heater with cold water to appropriate temperature for distribution system
- Ideal for looped systems
- Operates at a lower flow rate than competitors—minimum 0.1 GPM
- Brass and paraffin wax design eliminates unreliable and inconsistent performance of competitors' bi-metal designs

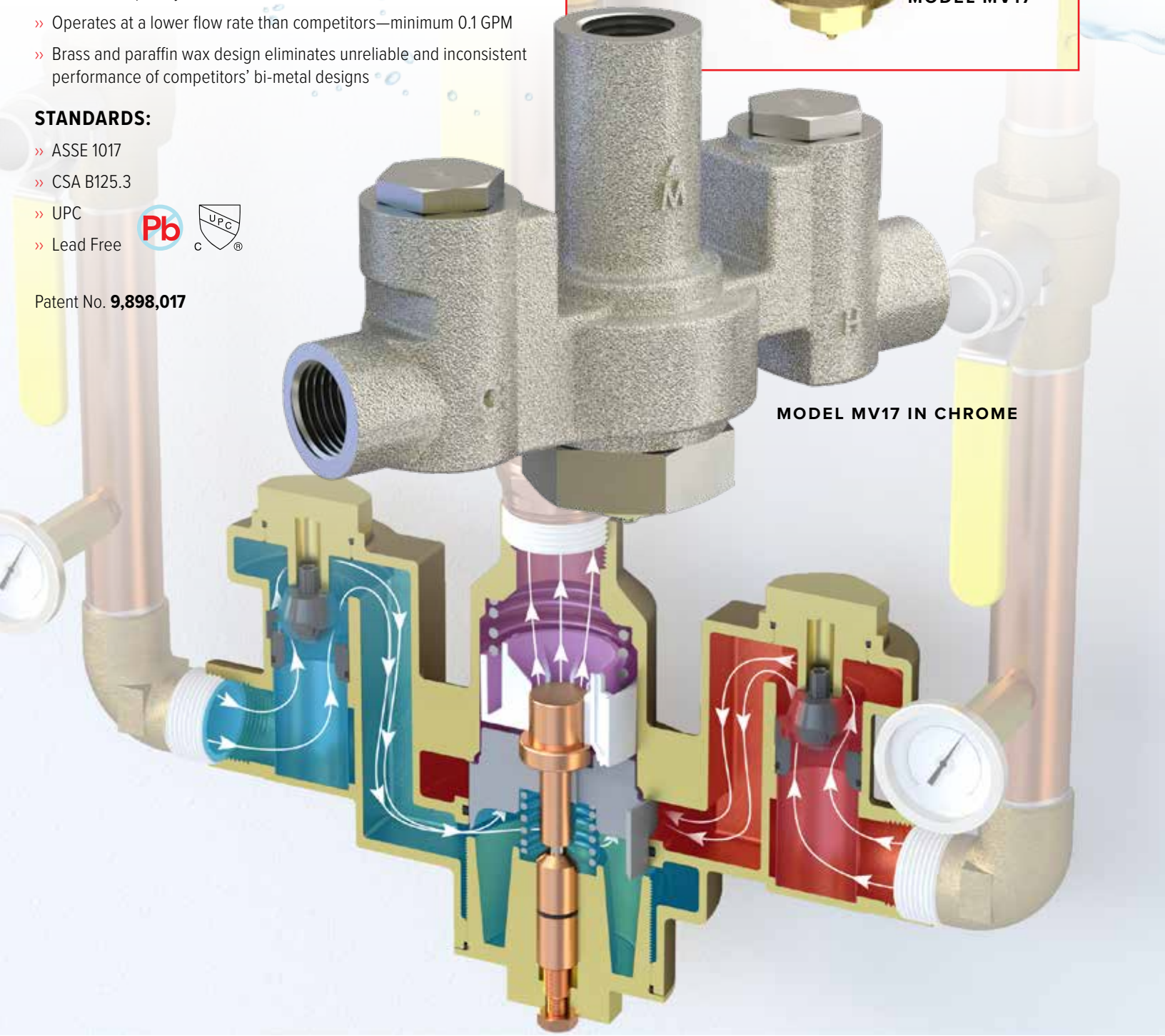
STANDARDS:

- ASSE 1017
- CSA B125.3
- UPC
- Lead Free

Patent No. **9,898,017**



MODEL MV17



MODEL MV17 IN CHROME

EMERGENCY TEMPERING VALVES

MODEL ET71

FOUR SIZES AVAILABLE

USED IN RESIDENTIAL, COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS.

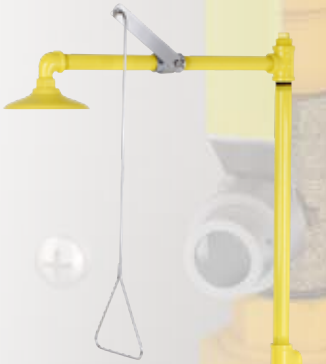
FEATURES:

- Temper water for safe use in emergency eye washes, drench showers, and combination units
- Brass and paraffin wax design eliminates unreliable and inconsistent performance of competitors' bi-metal designs
- Suitable for recirculating systems

STANDARDS:

- ASSE 1071
- CSA B125.3
- UPC
- Lead Free

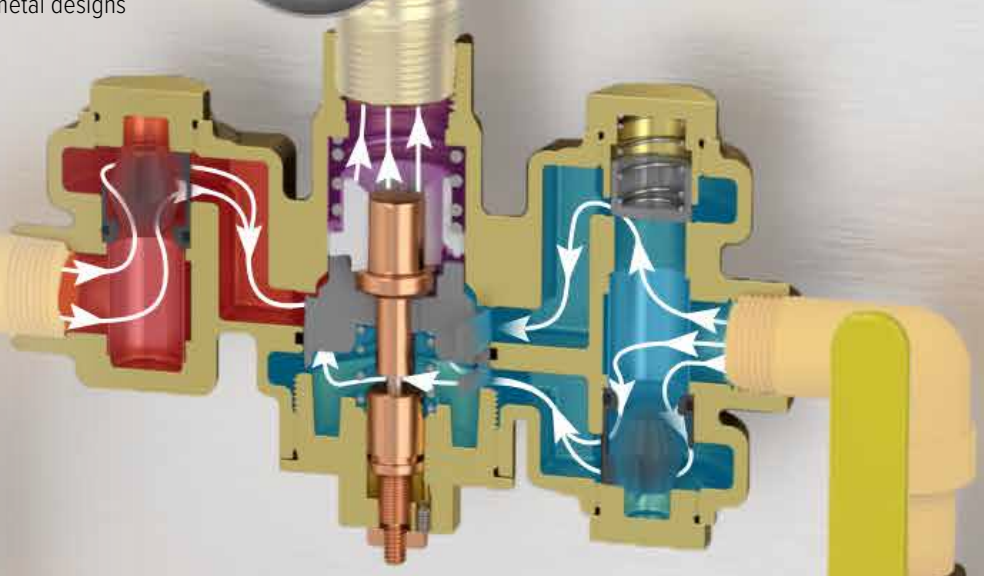
Patent Nos. **9,879,658** and **9,898,017**



SAFETY

MODEL 1320

MODEL ET71



- Optional Inlet/Outlet Temperature Gauge and Connection "T."

- Optional locking ball valves eliminate the need for a lockable cabinet to prevent unauthorized shut-off.

COMMAND STATION® SUPPLY FIXTURES

USED IN COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS.

FEATURES:

- A customized valve system for whole-building or recirculating loop regulation
- 100% factory assembled and tested

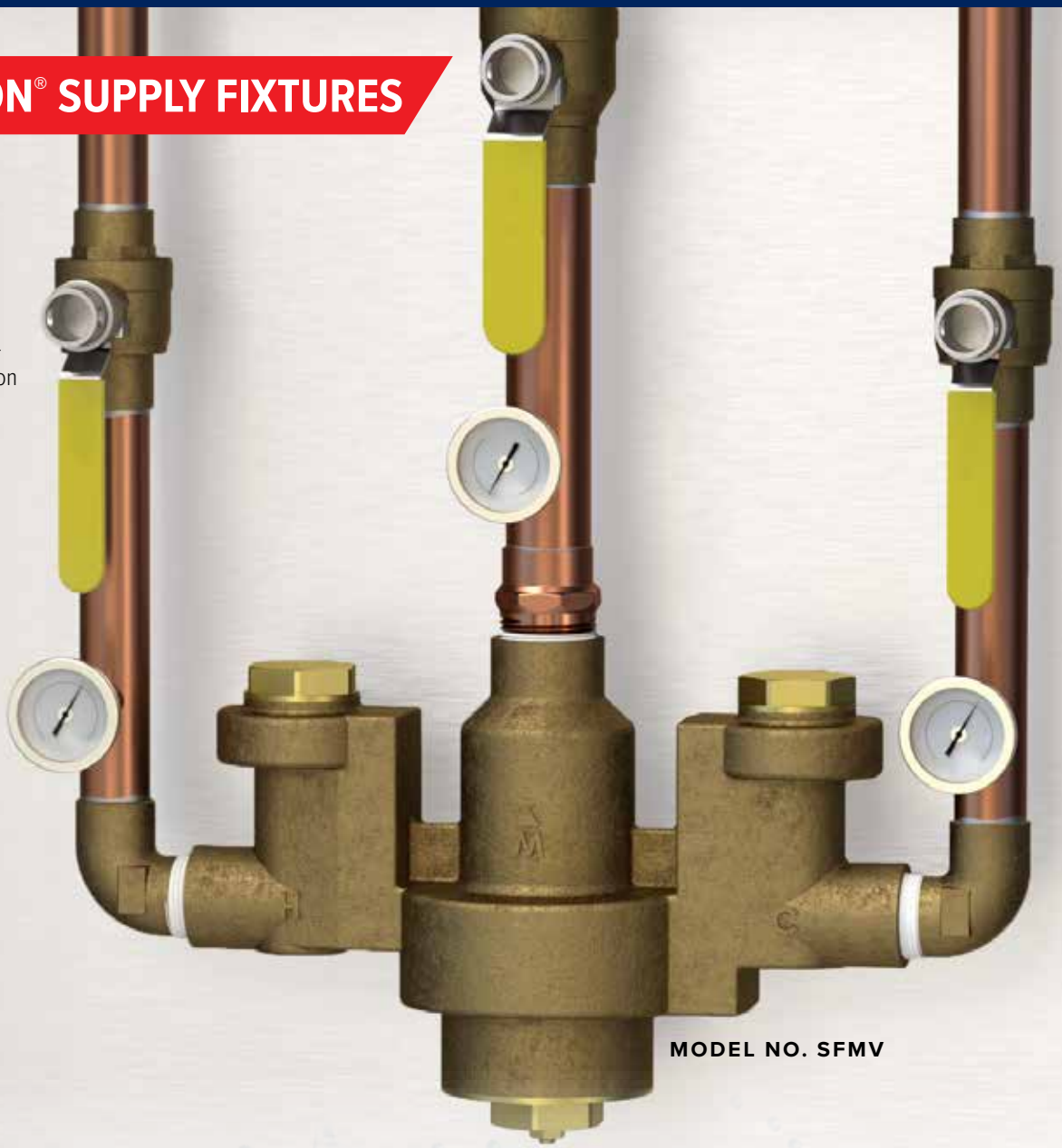
TYPICAL ITEMS INCLUDED

- Ball valves on the inlets and outlet.
- Outlet temperature gauge.
- Piping.
- Tempering valve with integral checks and strainers.
- Hot/cold water bypass.
- Inlet temperature gauges.
- Wall-mounted or recessed cabinet (optional)
- Other modifications/options upon request

STANDARDS:

- ASSE 1017 (SFMV and SFMMV Series)
- ASSE 1071 (SFET Series)
- ASSE 1069/1070 (SFST Series)
- NSF/ANSI 61 (SFST Series
- CSA B125.3
- UPC
- Lead Free

Patent No. **9,898,017**



MODEL NO. SFMV

SFMV AND SFMMV SERIES

FEATURES:

- Based on MV17 Master Mixing Valves.
- Use for hot water distribution systems in small to large commercial applications.
- Available with BASyC® upgrade or option to add later.

SFET SERIES

FEATURES:

- Based on ET71 Series Mixing Valves.
- Use for safety systems such as eye/face washes and drench showers.
- 4 models/sizes based on minimum flow performance requirements and maximum flow demands.
- Available with BASyC® upgrade or option to add later.

SFST SERIES

FEATURES:

- Based on the ST7069 Mixing Valve.
- Delivers safe, tempered water to point of use fixtures such as sinks, baths and showers.
- Ideal for commercial, institutional or residential applications.
- Available with BASyC® upgrade or option to add later.

BASyC® DIGITAL MIXING VALVE AND MONITORING SYSTEM

USED IN RESIDENTIAL, COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS

FEATURES:

- A digital system that provides round-the-clock monitoring and adjustment capability to a Command Station® supply fixture (see previous page)
- Regulate up to four mixing valves and two loops with one controller (e.g. hot water for sinks and tepid water for emergency drench equipment)
- Non-proprietary electronics interface with any building management software system
- Sanitation override option - raise temperature to kill bacteria
- Redundant system - in case of power outage or system failure, valves continue to function mechanically

Patent No. **9,898,017**

MODEL ABET

Command Station® System with BASyC upgrade

BASyC® by ACORN CONTROLS

STANDARDS:

- ASSE 1017 (SFMV and SFMMV Series)
- ASSE 1071 (SFET Series)
- ASSE 1069/1070 (SFST Series)
- NSF/ANSI 61 (SFST Series
- CSA B125.3

MODEL ABMV

SHOWERING AND TEMPERING VALVES

MODEL SV16

USED IN COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS.

Tub/shower valves mix hot and cold water to create warm water at safe temperatures for delivery to showers and tubs.

FEATURES:

- Temperature/Pressure balancing shower valve
- Ligature resistance adds another layer of bather safety

STANDARDS:

- ASSE 1016
- CSA B125.16
- UPC
- Lead Free
- ADA

Patent Nos. **D697,591 S** and **10,474170 B2**

KNOB STYLE
MODEL SV16

LEVER STYLE
MODEL SV16-LVR

HANDHELD APEX SHOWER

MODEL NO. 480BADA

Handheld shower with temperature/pressure balancing mixing valve

STANDARDS

- ADA
- OBC

SHOWERING & LAVATORY TEMPERING VALVE

MODEL ST7069

USED IN COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS

FEATURES:

- Install at point of use to temper water for sinks, baths, showers, and lavatories
- Brass and paraffin wax design eliminates unreliable and inconsistent performance of competitors' bi-metal designs
- Accommodates up to 8 single temperature showers or 24 lavatories

STANDARDS:

- ASSE 1069
- ASSE 1070
- NSF/ANSI 61
- CSA B125.3
- UPC
- Lead Free

Patent No. **9,898,017**

MODEL ST7069

ALPHA® THERMOSTATIC SHOWER AND LAVATORY TEMPERING VALVE

Alpha®
by ACORN CONTROLS

MODEL STP7069

SIZE: 1/2”

USED IN COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS.

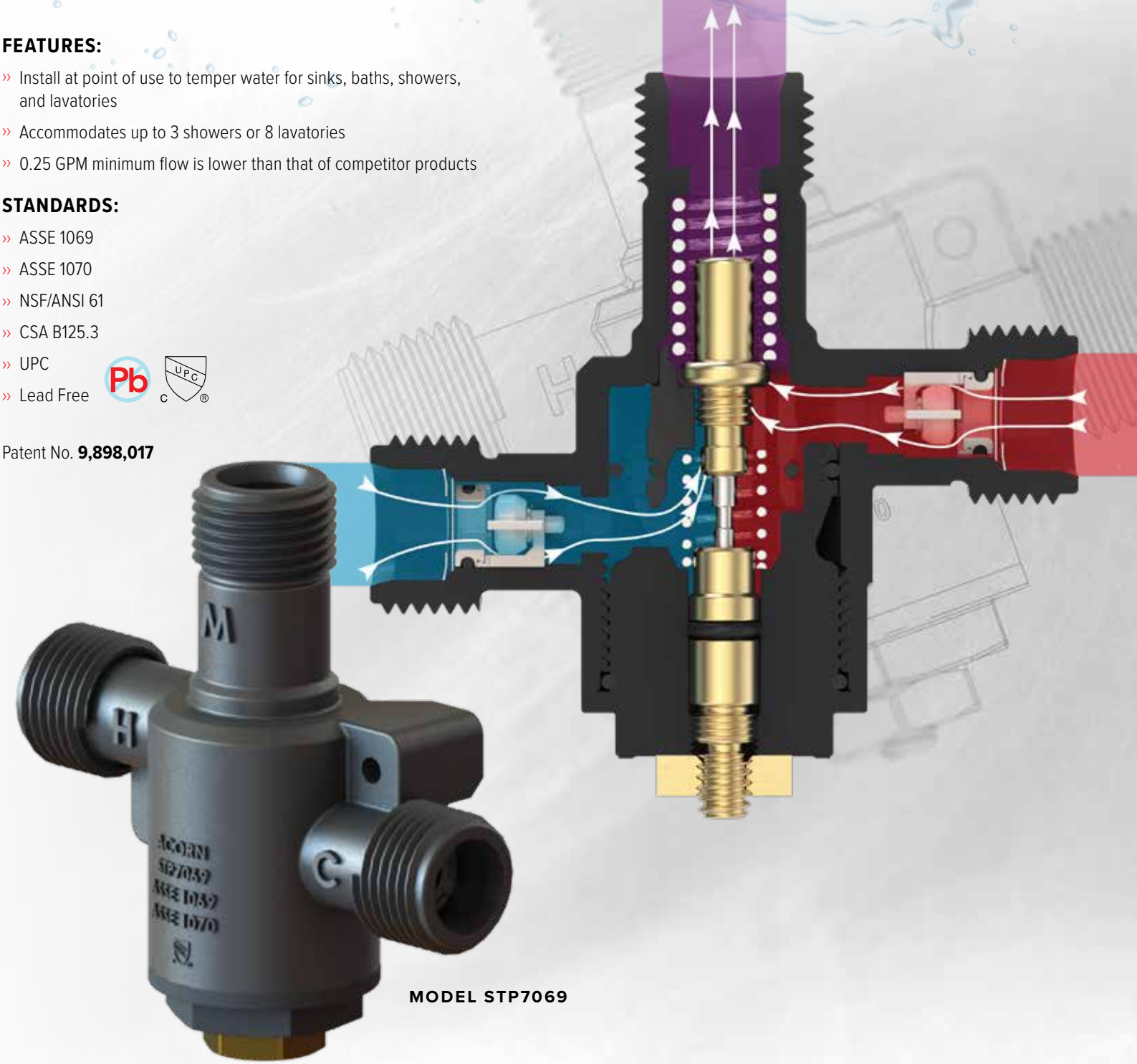
FEATURES:

- Install at point of use to temper water for sinks, baths, showers, and lavatories
- Accommodates up to 3 showers or 8 lavatories
- 0.25 GPM minimum flow is lower than that of competitor products

STANDARDS:

- ASSE 1069
- ASSE 1070
- NSF/ANSI 61
- CSA B125.3
- UPC
- Lead Free

Patent No. **9,898,017**



MODEL STP7069

OMEGA® THERMOSTATIC SHOWER AND LAVATORY TEMPERING VALVE

Omega®

by ACORN CONTROLS

MODEL ST7017

SIZE: 1”, 1/2”, 3/4”

USED IN COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS

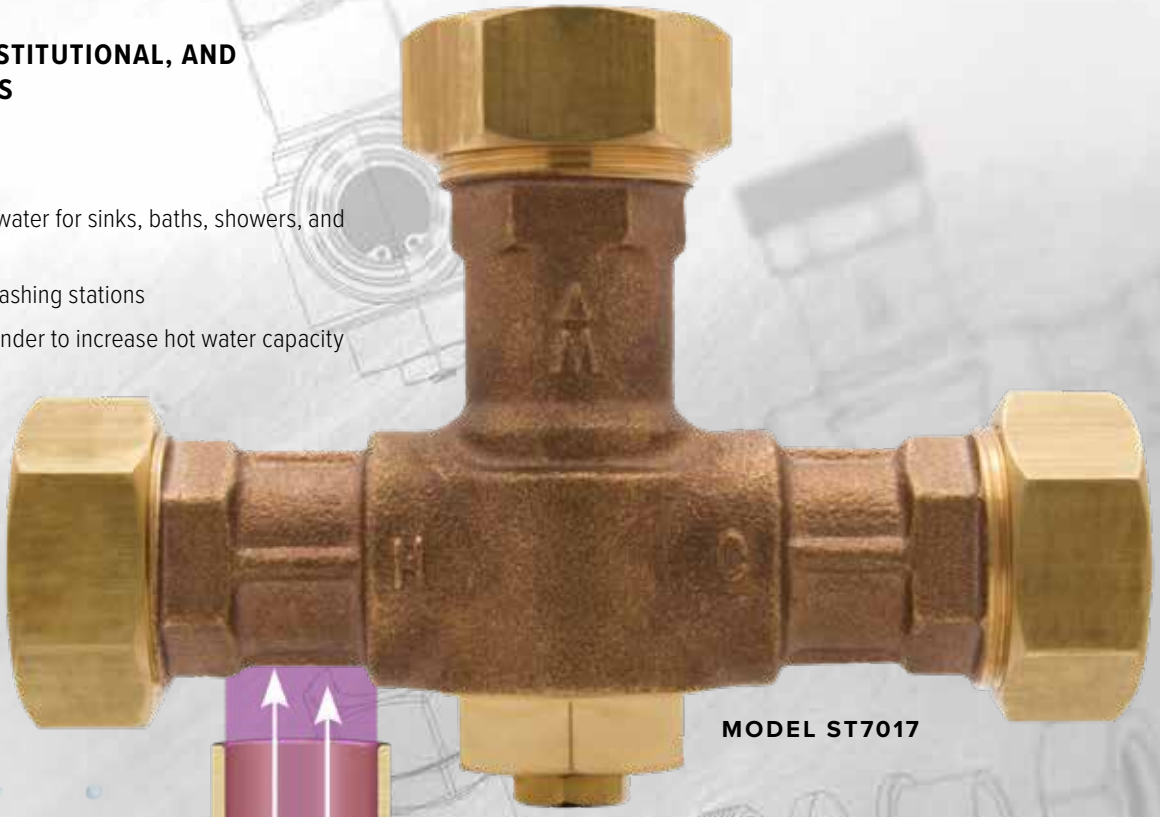
FEATURES:

- Install at point of use to temper water for sinks, baths, showers, and lavatories
- Accommodates up to 48 hand washing stations
- Can be used as a hot water extender to increase hot water capacity

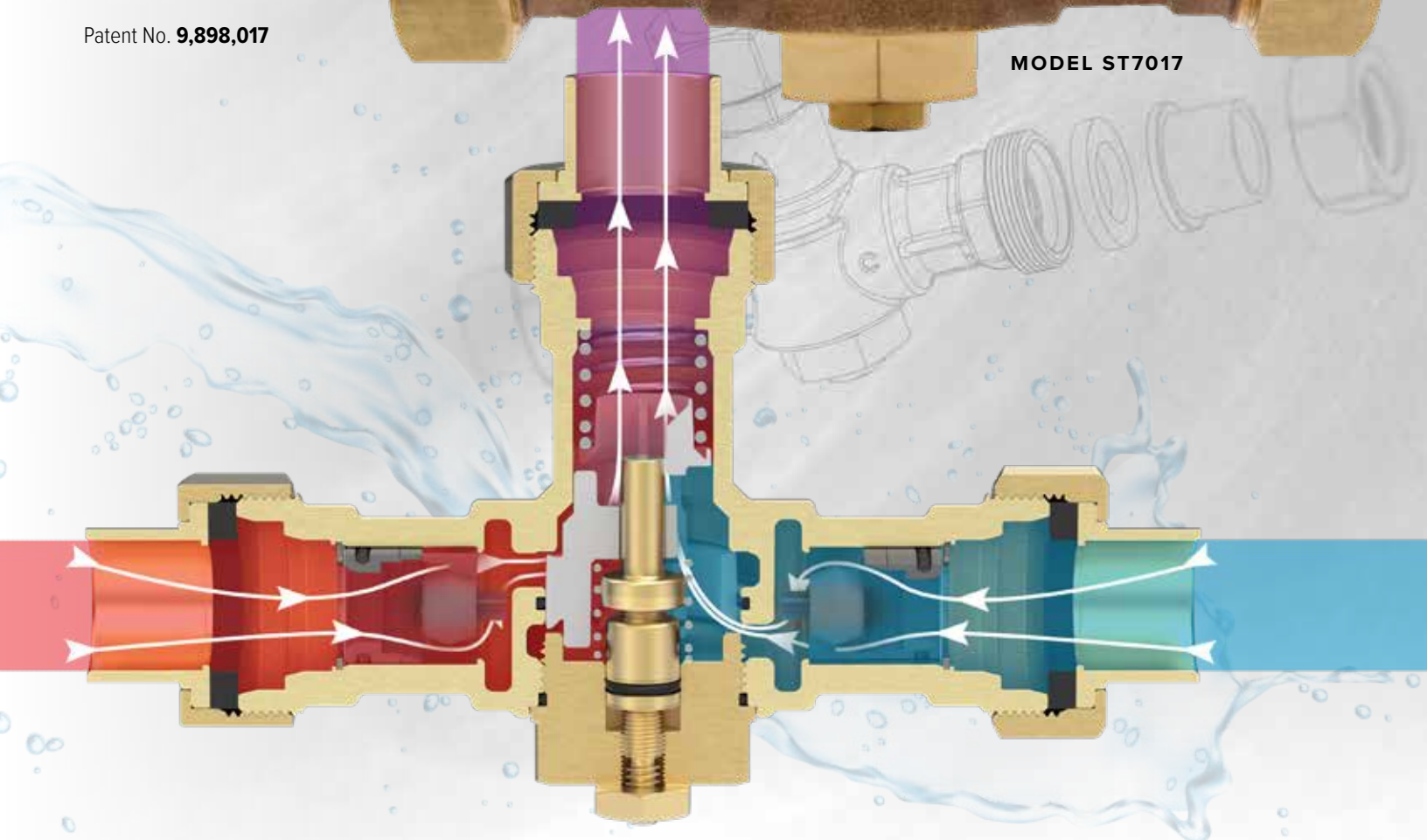
STANDARDS:

- ASSE 1069
- ASSE 1070
- CSA B125.3
- UPC
- Lead Free

Patent No. **9,898,017**



MODEL ST7017



TEMPERING VALVE

MODEL ST70

SIZES: 3/8”, 1/2”

USED IN COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS.

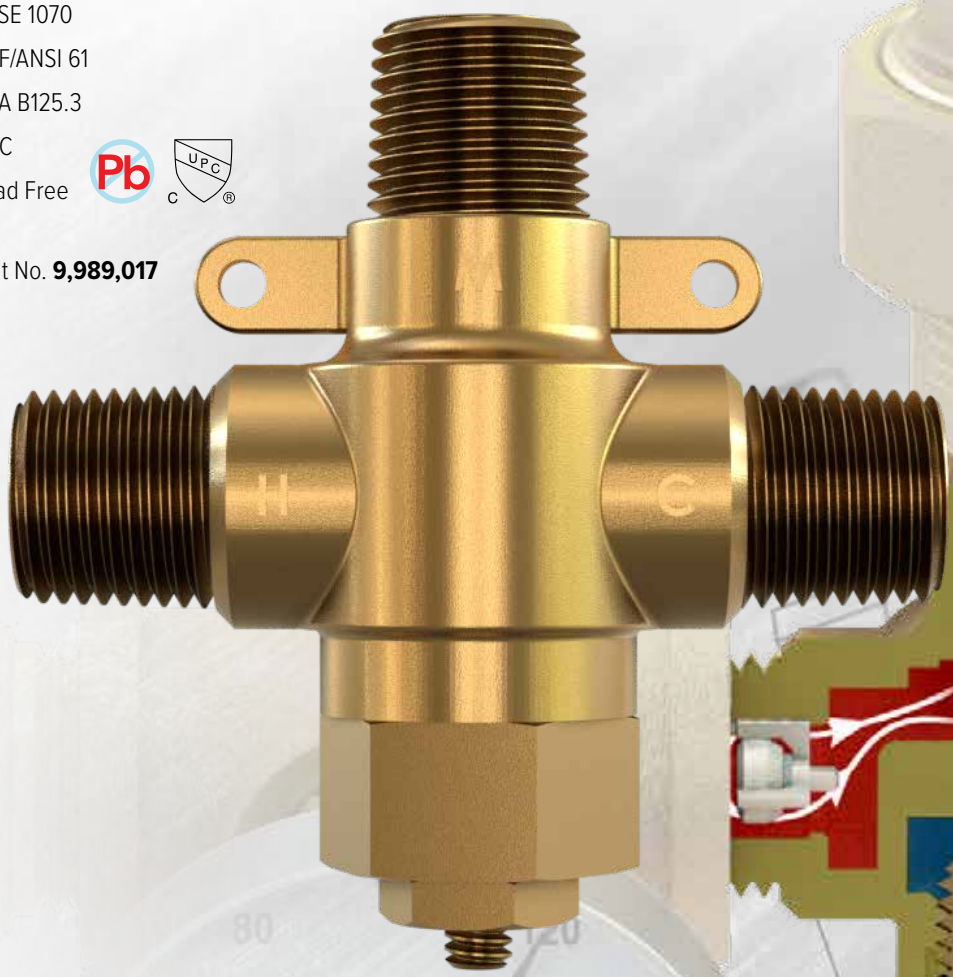
FEATURES:

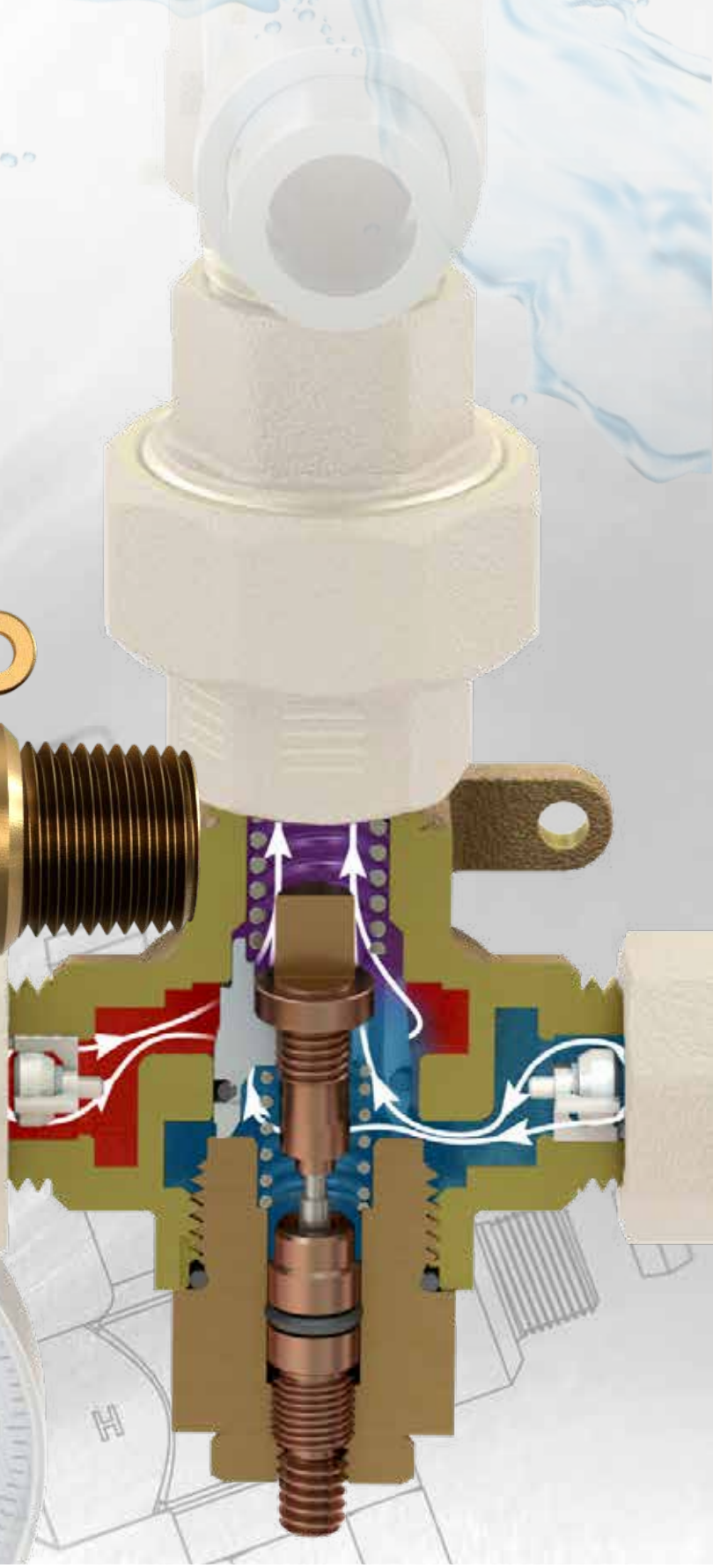
- Install at point of use to temper water for sinks, baths, showers, and lavatories
- Accommodates 1-8 lavatories

STANDARDS:

- ASSE 1070
- NSF/ANSI 61
- CSA B125.3
- UPC
- Lead Free

Patent No. **9,989,017**





TEMPFLOW® ZONE BALANCING VALVE

MODELS TZV1 AND TZV2

SIZE: 1/2”

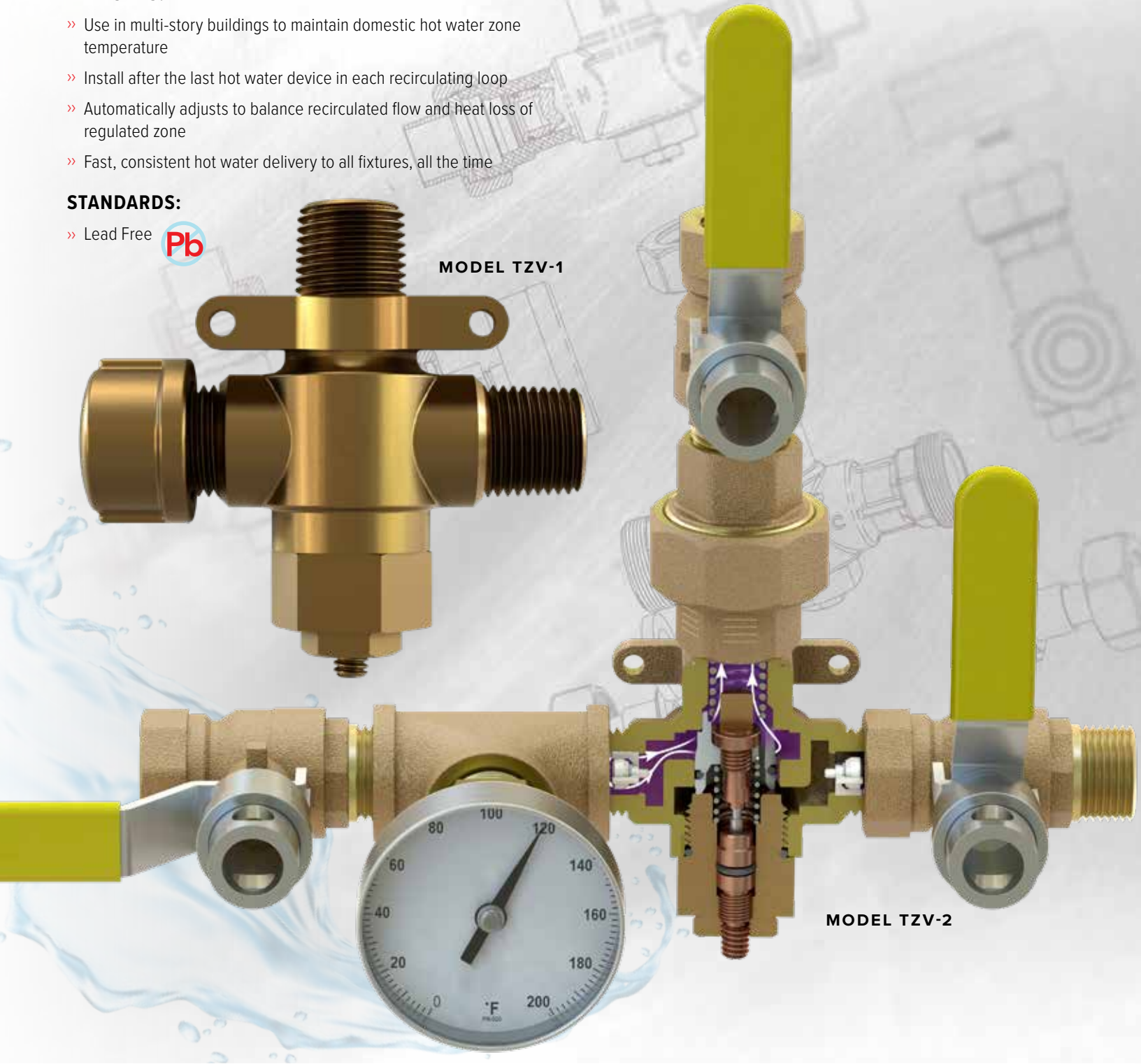
USED IN COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL APPLICATIONS

FEATURES:

- Use in multi-story buildings to maintain domestic hot water zone temperature
- Install after the last hot water device in each recirculating loop
- Automatically adjusts to balance recirculated flow and heat loss of regulated zone
- Fast, consistent hot water delivery to all fixtures, all the time

STANDARDS:

- Lead Free



MORRIS GROUP INTERNATIONAL

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Manufacturing Divisions

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ACORN CONTROLS

ACORN SAFETY

CHRONOMITE

DRAINAGE

AcornVac

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ELMDOR

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murdock

NeoMetro ACORN ENGINEERING

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FIRE PRO

CROKER

POTTER ROEMER

Larsen's

FireEnd

IT ALL COMES BACK TO CONTROLS

SUCCESS STORIES

See for yourself why contractors, specifiers, and installers prefer Acorn ConTrols valves.

ACORN CONTROLS BLOG

Learn more about water regulation, industry codes, and current design best practices.

ACORN CONTROLS

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