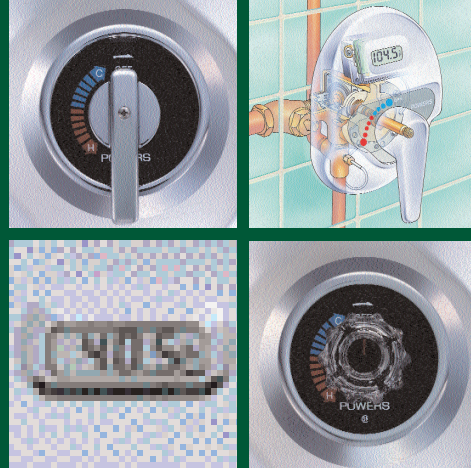


VisuGuard LCD®



PRESSURE BALANCING SHOWER VALVES

SERIES 410 & 470

POWERS™

Water Tempering Innovation Since 1891

NEW AND INNOVATIVE

FROM THE INVENTOR OF PRESSURE BALANCING TECHNOLOGY

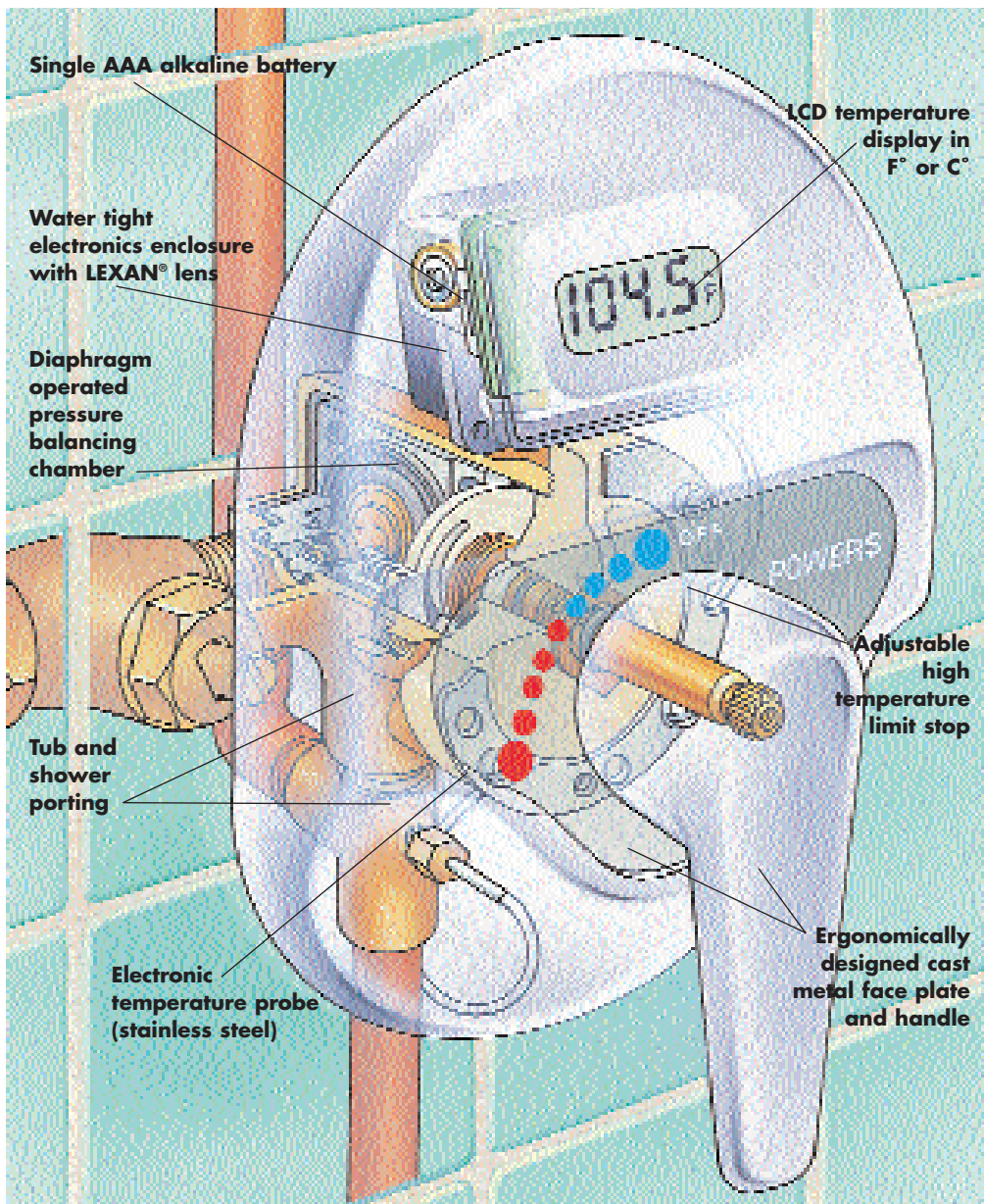


*Powers Original Style A
Mixing Valve. (Circa 1924)*

Did you know Powers patented the very first pressure balancing valve back in 1924 — almost 20 years before our nearest competitor “developed” their first valve?

Powers “Style A” mixer was the first valve to protect bathers from sudden changes in supply line pressures. Today, VisuGuard and HydroGuard® continue in that tradition, providing bathers with the same high degree of protection and comfort they’ve come to expect from Powers. Decades of improvements and refinements have made these valves the finest commercial grade mixers available today.

No wonder, for the past 80 years, Powers has been and still is considered the leader in pressure balancing technology.



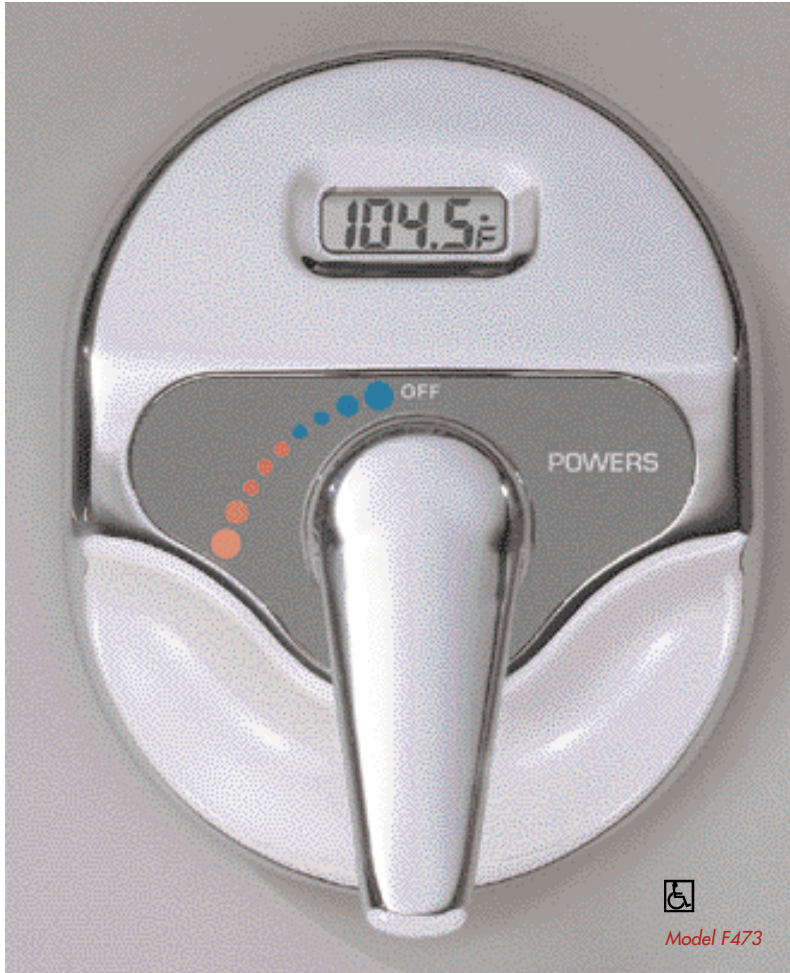
A CLOSE-UP LOOK AT VISUGUARD LCD

Commercial-grade metal trim and rugged brass valve body construction make VisuGuard the perfect choice for schools, healthcare facilities, hotels and residential applications. Pressure balancing cartridge components are manufactured of Celcon® to resist lime buildup and corrosion. A concealed, 4-port pressure balancing mixer is designed for use in both shower and shower/bath applications.

BUILT ON A SOLID FOUNDATION

At the heart of every VisuGuard LCD is the HydroGuard Series 410 — our heavy-duty, high capacity tempering valve. With its proven track record, the HydroGuard Series 410 has been serving commercial and institutional markets for over 30 years.

L C D D I S P L A Y T E C H N O L O G Y



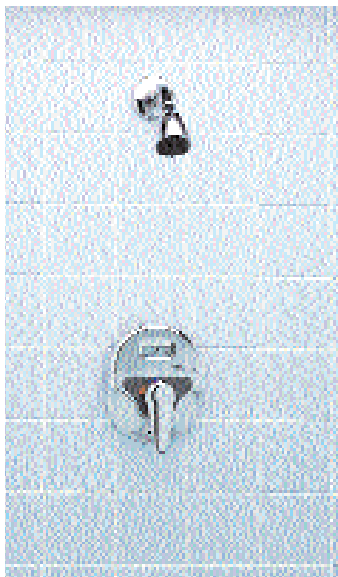
Model F473

VisuGuard LCD[®]

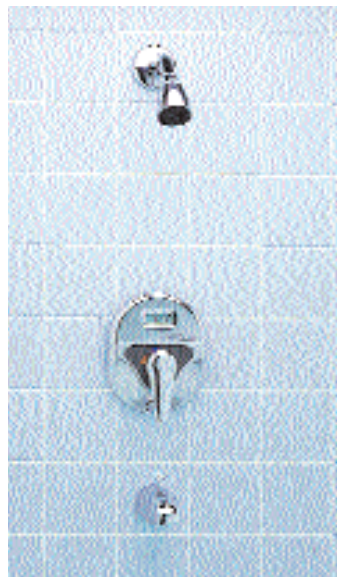
THE FORECAST CALLS FOR SHOWERS WITH HIGH VISIBILITY

Introducing VisuGuard LCD[®], a new and innovative tempering valve with LCD display. VisuGuard provides precise temperature readouts in °F or °C within 1/10 of a degree, while a single AAA alkaline battery provides four years of service. Both the battery and temperature display are housed in an easy-access, watertight enclosure.

All VisuGuard models include ergonomically designed, ADA compliant handle operation that opens in the cold water position to maximize bather safety. An adjustable handle rotation stop also reduces risk of handle overadjustment.



F473AM1000 Shower System
Includes valve, checkstops, showerhead, arm and flange



F473AM1T00 Tub/Shower System
Includes valve, checkstops, showerhead, arm and flange, and diverter spout



F473A00090 Tub/Shower System
Includes valve, checkstops, hand shower with glide bar

PERFORMANCE, ACCESSIBILITY AND SAFETY

All VisuGuard valves meet the performance, accessibility and safety requirements set forth by:

- ASSE 1016
- CSA B125
- ADA





VisuGuard LCD provides you with an exciting new choice for schools, healthcare facilities, hotels and residential applications.

PRECISION, PRECISION, PRECISION

With VisuGuard you'll find precise temperature readouts (in °F or °C) within 1/10 of a degree. VisuGuard is also available without an LCD window.

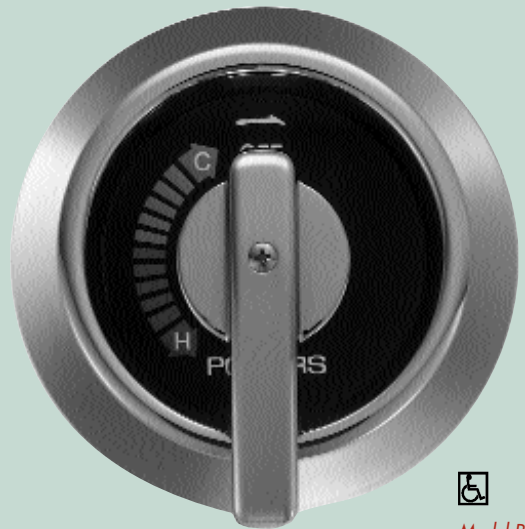


Model C473
Temperature display in °C



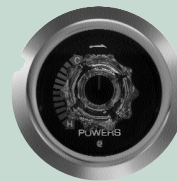
Model F473
Temperature display in °F

CHOICES



*Model P413 – 3-ports
Model P417 – 4-ports*

HydroGuard® SERIES 410



*Model P411 – 3-ports
Model P416 – 4-ports*

- Rugged construction for heavy duty, high use applications
- Pressure balancing valves safely and comfortably balance mix of hot and cold water
- Three or four port configurations
- Five different models available
- Shower and tub/shower systems
- 6 GPM (.375 l/s) capacity
- CSA approved



Model P419 – 3-ports

The HydroGuard Series 410 family of products is ideal for high use shower applications, such as schools and health clubs. Chrome plated, heavy cast metal face plates provide easy cleaning and maximum durability. A dirt and lime resistant design includes a bronze body, brass stem and washerless construction that minimizes maintenance. Plus, factory installed wall gaskets prevent damaging water seepage.

DESIGN

ONE TOOL YOU'LL NEVER NEED



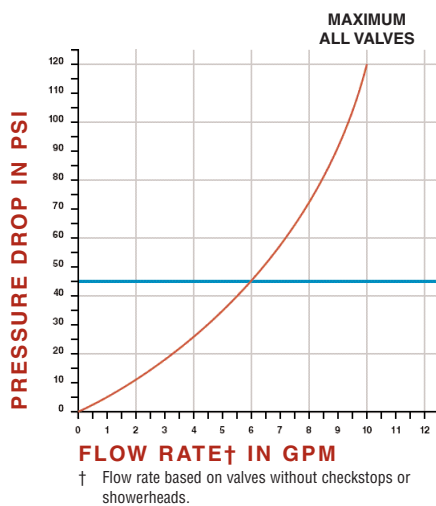
Harsh water conditions can reign havoc on a valve's performance. Tight fitting metal components are susceptible to lime buildup and suspended matter which can cause a valve to "stick" or "freeze up." A "frozen" valve is a dangerous valve. Once a compensating mechanism seizes, it can no longer provide adequate protection against fluctuations in supply line pressures. Some manufacturers actually recommend using a hammer or mallet to remedy a sticking valve. Unfortunately, a

sticking valve is usually identified by an unsuspecting bather who happens to be showering when the mechanism seizes.

The Powers diaphragm/poppet cartridge is a unique design. Manufactured of corrosion-resistant Celcon[®], it does not rely on tight fitting components to adjust for pressure fluctuations, nor will lime or other matter affect its performance.

PROVEN DESIGN FOR TROUBLE-FREE PERFORMANCE

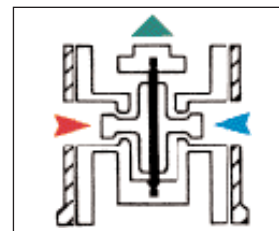
A proven reliable method of pressure balancing control is the Powers diaphragm/poppet design. It uses a balancing diaphragm as well as poppet type discs and seats with wide clearances to provide maximum protection against lime and dirt conditions.



If either the cold or hot supply water suddenly drops due to demand elsewhere on the supply line, the sensitive diaphragm immediately responds to the change and maintains the ratio of cold to hot water.

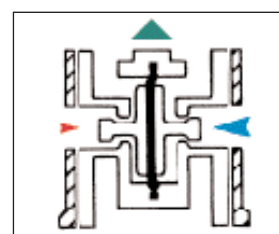
This unique design offers proven operating advantages over piston and cylinder type valves where close tolerances between the metal piston and cylinder can be jammed by dirt and lime buildup.

This single handle action opens from cold water to hot water so that the bather will not receive a sudden burst of hot water when turning on the valve.



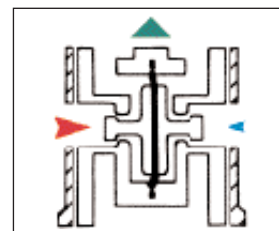
Balanced Hot & Cold Water Pressure

Diaphragm/poppet assembly remains in neutral position allowing equal flow of hot and cold water. Bather comfort and safety are assured.



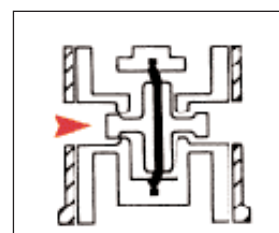
Low Hot & High Cold Water Pressure

Diaphragm flexes and poppet assembly moves left, restricting cold water while proportionally increasing hot water flow. Temperature remains virtually constant. Bather comfort and safety are assured.



High Hot & Low Cold Water Pressure

Diaphragm flexes and poppet assembly moves right, restricting hot water while proportionally increasing cold water flow. Temperature remains virtually constant. Bather comfort and safety are assured.



Cold Water Pressure Failure

Diaphragm flexes and poppet moves far right, shutting down hot water flow. Bather safety is assured.

Typical Specification –VisuGuard LCD & Series 410. Water mixing for shower and tub/shower applications shall be of the pressure balancing type and shall not be subject to failure due to lime buildup or dirt particles. Construction shall not have close fitting, sliding parts which, through wear or binding, may impair operation. All materials shall be suitable for potable water supply systems and comply with recognized approved standards, where applicable.

Valve shall have an all cast bronze housing and replaceable cartridge assembly. Valve shall include an adjustable limit stop, to be set by the installer. All valves shall be suitable for reverse connection of hot and cold water supply lines. Valves shall be shut off by returning to the cold water start position.

Valves shall be Powers _____ . Any alternates must have written approval prior to bidding.

VisuGuard LCD (only). In addition, valve shall feature an integral Liquid Crystal Display (LCD) thermometer powered by a single AAA alkaline battery. Thermometer shall be adjustable to display water temperature in °F or °C within 1/10 of a degree accuracy. Thermometer and battery shall be sealed in a water-tight enclosure and feature a shatterproof Lexan lens for protection. Sensing element to be a stainless steel thermistor located at the outlet of the valve. Valve shall accommodate both shower and/or tub applications.

HOW TO ORDER PRESSURE BALANCING SYSTEMS

VALVES

	Parts	Option	Handle
VisuGuard LCD	3 or 4	LCD Display, C*	Lever, Metal
	3 or 4	LCD Display, F*	Lever, Metal
Series 410	3	—	Knob, Lucite
	3	—	Lever, Metal
	4	—	Knob, Lucite
	4	—	Lever, Metal
	3	Exposed	Lever, Metal

CHECKSTOPS

Concealed	Straight, 1/2" IPS
	Straight, 1/2" Sweat
	Angled, 1/2" Sweat
Exposed	Straight, 1/2" IPS, Chrome-Plated
Factory installation of checkstops (Add suffix "X" to checkstop code) Min. order 10	

SHOWERHEADS

Economizer, Chrome-Plated ABS, Adjustable
 Standard, Chrome-Plated Brass
 Deluxe, Chrome-Plated Brass

ARM AND FLANGE KITS

Standard Arm and Flange
 Deluxe Arm and Flange
 Standard Arm/Flange & High Temperature Shut-Off
 Deluxe Arm/Flange & High Temperature Shut-Off

TUB SPOUTS

Diverter, Chrome-Plated Brass, 3/4" IPS
 Non-Diverter, Chrome-Plated, 1/2" IPS
 Diverter, Chrome-Plated, 1/2" IPS
 Diverter, Chrome-Plated Brass, 1/2" IPS
 Diverter, Chrome-Plated, 1/2" Slipfit

HAND SHOWER SYSTEMS

24" Chrome ADA Wall Grab Bar System
 36" Chrome ADA Wall Grab Bar System
 Deluxe, Metal Hose, 30" Slide Bar
 Professional, Vinyl Hose, 30" Slide Bar
 Standard, Metal Hose, Two Wall Hooks
 Deluxe, Metal Hose, 24" Slide Bar
 Professional, Vinyl Hose, 24" Slide Bar
 Standard Plus, Metal Hose, 24" Slide Bar
 Euro, Metal Hose, 24" Slide Bar

DIVERTERS

Exposed Diverter, Shower Arm type, Chrome-Plated
 Concealed Diverter/V-ohse, 1/2" IPS

VACUUM BREAKERS

Vacuum Breaker, In-Line
 Vacuum Breaker, Elevated, Chrome-Plated

Order Code

C473
 F473
 P411
 P413
 P416
 P417
 P419

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