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# HydroGuard<sup>®</sup> XP

The Next Wave in Master  
Tempering Valve Technology

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- MM430 Master Tempering Valves
- SH1430 Single Hi/Lo Valves
- ASSE Listed, CSA B125 Certified

**POWERS<sup>™</sup>**

Water Tempering Innovation Since 1891



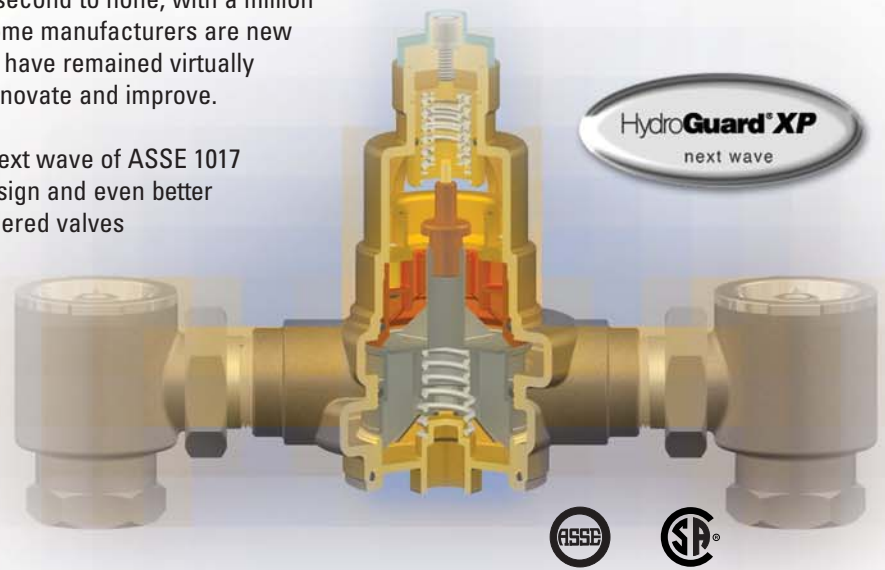
## A History of Innovation and Leadership... It's in Our DNA

Since 1891, Powers has proven itself the leader in water tempering control devices for commercial and institutional facilities. Year after year, decade after decade, Powers continuously improves its' products through the evolution of its' technologies, the innovation of its designs and the commitment of its employees.

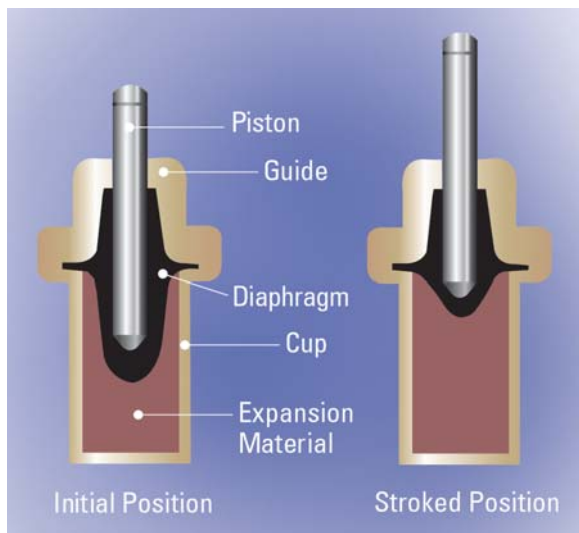
With bather safety the ultimate design consideration, Powers' thermostatically controlled valves and systems offer superior performance and exceptional quality, followed up with ongoing technical support and expertise. Powers understands not only the valves themselves, but also the systems they are a part of.

And consider Powers thermostatic bloodline is second to none, with a million valves sold and still in operation today. While some manufacturers are new to thermostatic tempering, and others' products have remained virtually unchanged for decades, Powers continues to innovate and improve.

Today, Powers introduces HydroGuard XP, the next wave of ASSE 1017 listed valves with more features, a simplified design and even better performance. Eight new and completely re-engineered valves meet a broad range of capacity requirements and budgets. When considering your next specification, consider the company that's DNA is tempering.



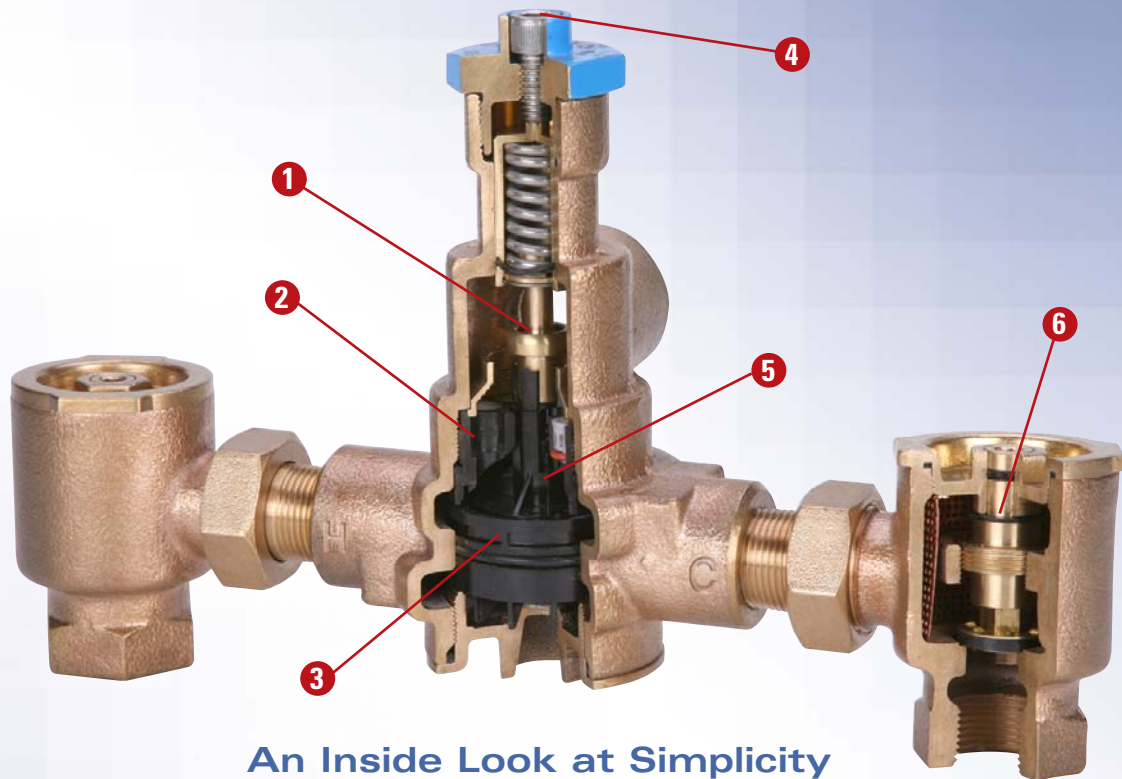
Advanced Thermal Actuation



### At the Heart of HydroGuard® XP

At the core is Powers' paraffin-based Advanced Thermal Actuation technology that operates on the principle of converting heat energy into mechanical energy, using the expansion of paraffin from a solid to a liquid state. As shown in this illustration, when the temperature of the water enveloping the sensor increases, the expansion of the paraffin actuates the valve piston. As the water cools, the paraffin contracts into a solid and the valve piston returns to its starting position.

Powers' paraffin sensor is significantly smaller in size than bi-metal and chemical filled elements and requires only a small volume of water to initiate thermal transfer and response.



### An Inside Look at Simplicity

- 1. Advanced paraffin actuation technology for speed of response and low flow control accuracy
- 2. Patented Booster Funnel (SH1430 series only) directs water around actuator for fast response and precise control
- 3. Single-seat design for tighter shut-off in the event of cold-water failure
- 4. Lockable, vandal resistant temperature setting for greater safety
- 5. Corrosion resistant internals to resist seizing or sticking in harsh water conditions, insuring safe and consistent valve performance
- 6. Triple-duty checkstops with screens prevent cross flow and filter out debris

### More Sizes with Greater Capacity

### More Installation Options



For larger projects, the HydroGuard XP series now offers two new 2" platforms, both with capacity in excess of 200 gallons per minute and minimum flow control as low as 5 gpm (SH1435 Hi/Lo). Models MM435 and SH1435 provide a more cost effective solution to multi-valve, piped systems that are more susceptible to leaks and damage in shipment.

The HydroGuard XP series of valves mounts in any position. Upside down, right side up, horizontal, vertical, backwards, frontwards... it doesn't matter. The HydroGuard XP provides the same high level of performance.

## MM430

### Master Tempering Valves



**Precise temperature control and durability for commercial and institutional applications.**

The MM430 product line features five newly engineered cast bronze valves, including a new 2" platform with capacity in excess of 200 gallons per minute. All valves, including the largest sizes, are listed to ASSE 1017 and CSA B125, feature a low approach temperature (within 5°F of HW inlet supply), standard check stops and are available in rough bronze and chrome plated finishes.

Model	Cv	Min Flow to ASSE 1017	Pressure Differential					
			5 psi	10 psi	20 psi	30 psi	45 psi	60 psi
MM431	6.32	3 gpm	14 gpm	20 gpm	28 gpm	35 gpm	42 gpm	49 gpm
		11 lpm	53 lpm	76 lpm	106 lpm	132 lpm	159 lpm	185 lpm
MM432	9.49	4 gpm	21 gpm	30 gpm	42 gpm	52 gpm	64 gpm	74 gpm
		15 lpm	80 lpm	114 lpm	159 lpm	197 lpm	242 lpm	280 lpm
MM433	16.44	5 gpm	37 gpm	52 gpm	74 gpm	90 gpm	110 gpm	127 gpm
		19 lpm	140 lpm	197 lpm	280 lpm	341 lpm	416 lpm	481 lpm
MM434	21.50	7 gpm	48 gpm	68 gpm	96 gpm	118 gpm	144 gpm	167 gpm
		26 lpm	182 lpm	257 lpm	363 lpm	447 lpm	545 lpm	632 lpm
MM435	31.00	10 gpm	69 gpm	98 gpm	139 gpm	170 gpm	208 gpm	240 gpm
		38 lpm	261 lpm	371 lpm	526 lpm	644 lpm	787 lpm	908 lpm

## SH1430

### Single Solution Hi/Lo Valves



**When accurate low flow control is critical to your application.**

The SH1430 product line features three newly engineered cast bronze valves, including a new 2" platform with capacity in excess of 200 gallons per minute. All valves, including the largest sizes, are listed to ASSE 1017 and CSA B125, feature a low approach temperature (within 5°F of HW inlet supply), standard check stops and are available in rough bronze and chrome plated finishes.

Model	Cv	Min Flow to ASSE 1017	Pressure Differential					
			5 psi	10 psi	20 psi	30 psi	45 psi	60 psi
SH1432	8.54	1 gpm	19 gpm	27 gpm	38 gpm	47 gpm	57 gpm	66 gpm
		4 lpm	72 lpm	102 lpm	144 lpm	178 lpm	216 lpm	250 lpm
SH1434	19.00	1 gpm	42 gpm	60 gpm	85 gpm	104 gpm	127 gpm	147 gpm
		4 lpm	159 lpm	227 lpm	322 lpm	394 lpm	481 lpm	556 lpm
SH1435	30.00	5 gpm	67 gpm	95 gpm	134 gpm	164 gpm	201 gpm	232 gpm
		19 lpm	254 lpm	360 lpm	507 lpm	621 lpm	761 lpm	878 lpm



# POWERS™

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