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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™**



# POWERS™



## 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.

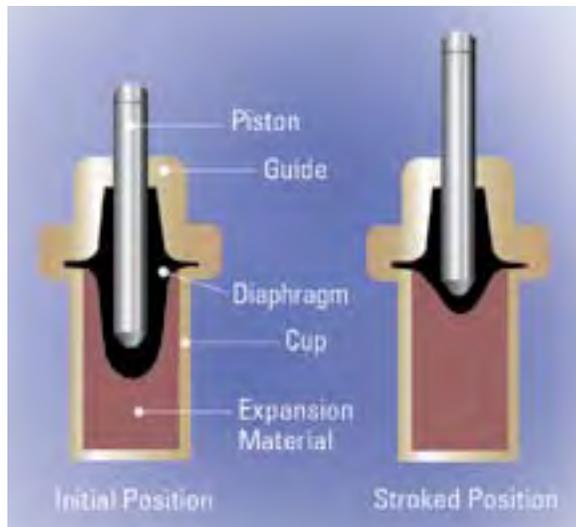
With bather safety the ultimate design consideration, Powers' thermostatically controlled valves and systems offer superior performance and exceptional quality, followed up with ongoing technical support and expertise. Powers understands not only the valves themselves, but also the systems of which they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

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 whose DNA is tempering.



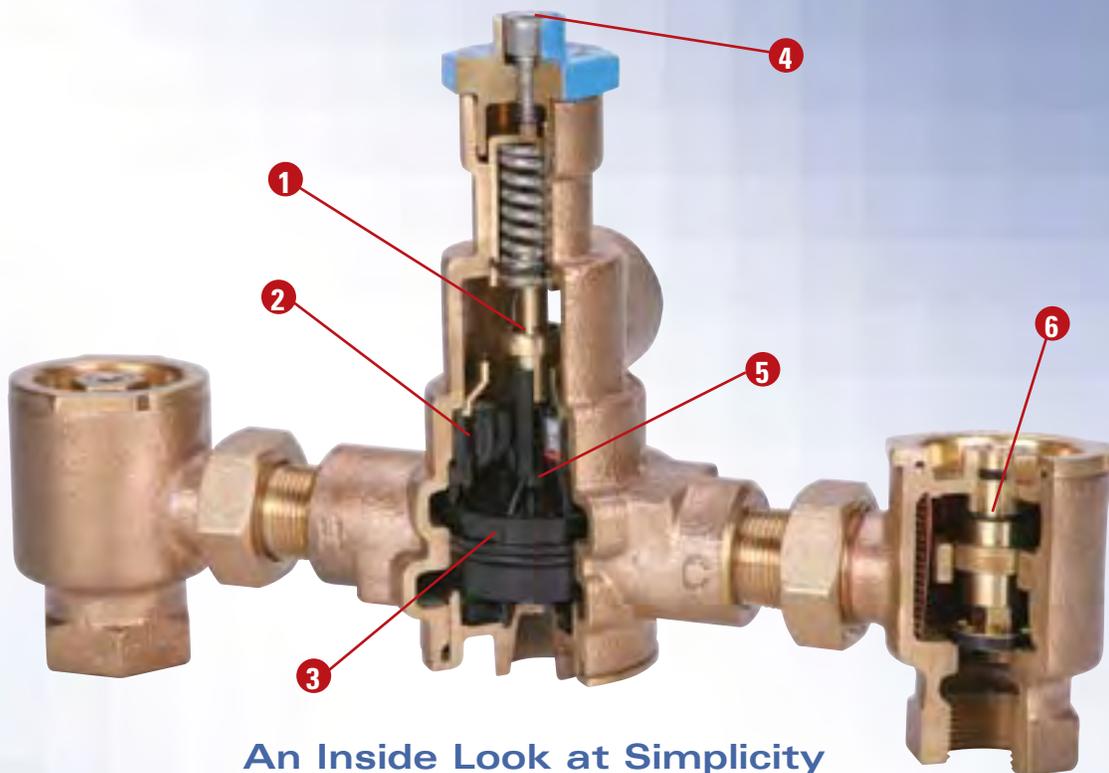
Advanced Thermal Actuation



### 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

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|--|---|
| <ul style="list-style-type: none"> <li>1. Advanced paraffin actuation technology for speed of response and low flow control accuracy</li> <li>2. Patented Booster Funnel (SH1430 series only) directs water around actuator for fast response and precise control</li> <li>3. Single-seat design for tighter shutoff in the event of cold-water failure</li> </ul> | <ul style="list-style-type: none"> <li>4. Lockable, vandal resistant temperature setting for greater safety</li> <li>5. Corrosion resistant internals to resist seizing or sticking in harsh water conditions, ensuring safe and consistent valve performance</li> <li>6. Triple-duty checkstops with screens prevent cross flow and filter out debris</li> </ul> |
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### More Sizes with Greater Capacity

### More Installation Options



For larger projects, the HydroGuardXP series now offers two new 2" platforms, both with capacity in excess of 200 gpm 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 gpm. 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 checkstops 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 gpm. 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 checkstops 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 |



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A Watts Water Technologies Company

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