

For Non-Health Hazard Applications

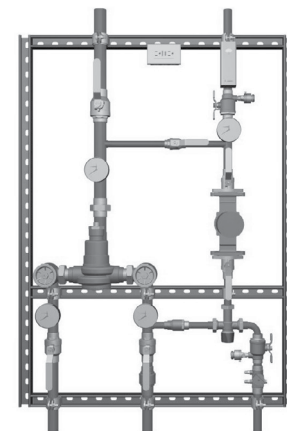
Job Name _____ Contractor _____
 Job Location _____ Approval _____
 Engineer _____ Contractor's P.O. No. _____
 Approval _____ Representative _____

Single Valve PowerStation™ Supply Fixture

Capacity up to 208 gpm @ 45 psi

Features

- Paraffin-based advance thermal actuation technology to sense and adjust outlet temperature
- Dirt and lime resistant poppet and seat design
- Virtual shutoff if supply pressure fails
- Vandal-resistant locking mechanism to secure temperature setting
- Mounted on heavy-duty welded struts and factory tested as a complete unit
- Includes Pressure/Temperature Gauges, Ball valves
- Internal by-pass loop for quick & easy set-up



Specifications

Connections See ordering information
 Maximum Operating Pressure 125 psi (861 kPa)
 Maximum Hot Water Temperature 200°F (93°C)
 Minimum Hot Water Supply Temperature (App. Temp)* 5°F (3°C) above set point
 Hot Water Inlet Temperature Range 120 – 180°F (49 – 82°C)
 Cold Water Inlet Temperature Range 40 – 80°F (4 – 27°C)
 Minimum Flow** 0.5 gpm (1.89 lpm)
 Temperature Adjustment Range*** 90 – 160°F (32 – 71°C)
 Listing/Compliance–Valve Only ASSE 1017, CSA B125



Advanced Thermal Activation

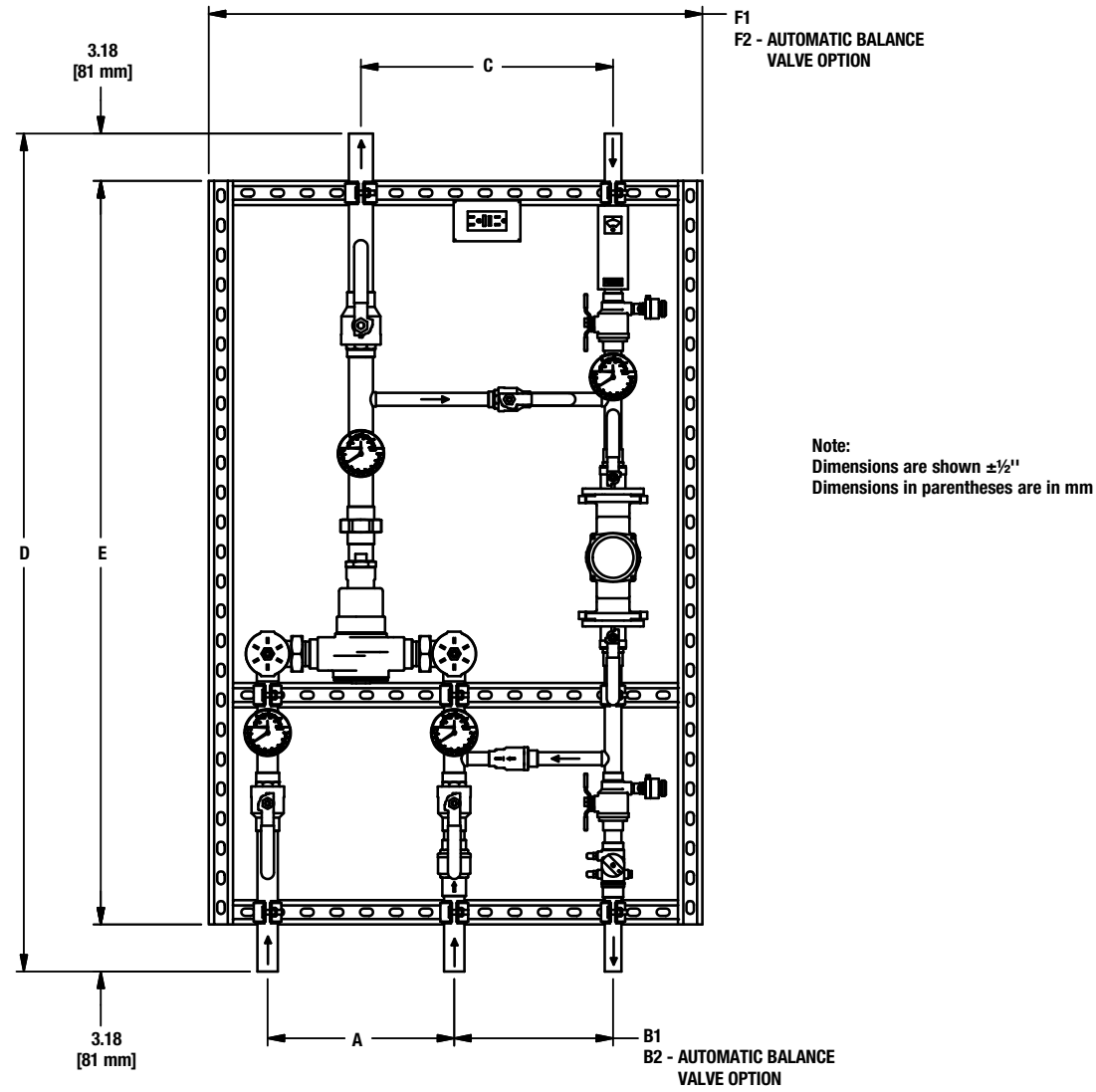
**With equal pressure*
***Minimum flow when HiLo valve is installed at or near hot water source recirculating tempered water with a properly sized continuously operating recirculating pump*
****Note: Low limit cannot be less than the cold water temperature. For best operation, hot water should be at least 5°F (3°C) above desired set point.*

Capacity

Flow Capacity at 50-50 Mixed Ratio								
		Pressure Drop Across Valve						
Model	Min. Flow to ASSE 1017	Cv	5 psi (34 kPa)	10 psi (69 kPa)	20 psi (138 kPa)	30 psi (207 kPa)	45 psi (310 kPa)	60 psi (414 kPa)
MM431	3 gpm 11 lpm	6.32	14 gpm 53 lpm	20 gpm 76 lpm	28 gpm 106 lpm	35 gpm 132 lpm	42 gpm 159 lpm	49 gpm 185 lpm
MM432	4 gpm 15 lpm	9.49	21 gpm 80 lpm	30 gpm 114 lpm	42 gpm 159 lpm	52 gpm 197 lpm	64 gpm 242 lpm	74 gpm 280 lpm
MM433	5 gpm 19 lpm	16.44	37 gpm 140 lpm	52 gpm 197 lpm	74 gpm 280 lpm	90 gpm 341 lpm	110 gpm 416 lpm	127 gpm 481 lpm
MM434	7 gpm 26 lpm	21.50	48 gpm 182 lpm	68 gpm 257 lpm	96 gpm 363 lpm	118 gpm 447 lpm	144 gpm 545 lpm	167 gpm 632 lpm
MM435	10 gpm 38 lpm	31.00	69 gpm 261 lpm	98 gpm 371 lpm	139 gpm 526 lpm	170 gpm 644 lpm	208 gpm 787 lpm	240 gpm 908 lpm
SH1432	1 gpm 4 lpm	8.54	19 gpm 72 lpm	27 gpm 102 lpm	38 gpm 144 lpm	47 gpm 178 lpm	57 gpm 216 lpm	66 gpm 250 lpm
SH1434	1 gpm 4 lpm	19.00	42 gpm 159 lpm	60 gpm 227 lpm	85 gpm 322 lpm	104 gpm 394 lpm	127 gpm 481 lpm	147 gpm 556 lpm
SH1435	5 gpm 19 lpm	30.00	67 gpm 254 lpm	95 gpm 360 lpm	134 gpm 507 lpm	164 gpm 621 lpm	201 gpm 761 lpm	232 gpm 878 lpm

Powers product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Powers Technical Service. Powers reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Powers products previously or subsequently sold.

Dimensions



Valve	Inlets	Outlets	A	B1	B2	C	D	E	F1	F2
MM431	3/4"	3/4"	9-1/8"	9-3/4"	13-3/4"	14-3/8"	56-1/2"	50-1/8"	29-1/4"	33-1/4"
	20 mm	20 mm	233 mm	247 mm	348 mm	364 mm	1435 mm	1274 mm	744 mm	845 mm
MM432	3/4"	1"	9-1/8"	9-3/4"	13-3/4"	14-3/8"	56-1/2"	50-1/8"	29-1/4"	33-1/4"
	20 mm	25 mm	233 mm	247 mm	348 mm	364 mm	1435 mm	1274 mm	744 mm	845 mm
MM433	1-1/4"	1-1/4"	12-1/2"	10-3/4"	14-3/4"	17"	56-1/2"	50-1/8"	33-1/4"	37-1/4"
	32 mm	32 mm	320 mm	272 mm	373 mm	432 mm	1435 mm	1274 mm	845 mm	947 mm
MM434	1-1/4"	1-1/2"	12-1/2"	10-3/4"	14-3/4"	17"	56-1/2"	50-1/8"	33-1/4"	37-1/4"
	32 mm	40 mm	320 mm	272 mm	373 mm	432 mm	1435 mm	1274 mm	845 mm	947 mm
MM435	2"	2"	15-5/8"	11-1/8"	15-1/8"	19"	59-1/4"	52-7/8"	39-1/4"	41-1/4"
	50 mm	50 mm	397 mm	283 mm	385 mm	483 mm	1504 mm	1342 mm	997 mm	1048 mm
SH1432	3/4"	1"	9-1/8"	9-3/4"	13-3/4"	14-3/8"	56-1/2"	50-1/8"	29-1/4"	33-1/4"
	20 mm	25 mm	233 mm	247 mm	348 mm	364 mm	1435 mm	1274 mm	744 mm	845 mm
SH1434	1-1/4"	1-1/2"	12-1/2"	10-3/4"	14-3/4"	17"	56-1/2"	50-1/8"	33-1/4"	37-1/4"
	32 mm	40 mm	320 mm	272 mm	373 mm	432 mm	1435 mm	1274 mm	845 mm	947 mm
SH1435	2"	2"	15-5/8"	11-1/8"	15-1/8"	19"	59-1/4"	52-7/8"	39-1/4"	41-1/4"
	50 mm	50 mm	397 mm	283 mm	385 mm	483 mm	1504 mm	1342 mm	997 mm	1048 mm

Ordering Information

Valve	Inlets (in)	Outlet (in)	Order Code
SH1432	3/4 (20mm)	1 (25mm)	A
SH1434	1 1/4 (32mm)	1 1/2 (40mm)	B
SH1435	2 (50mm)	2 (50mm)	N
MM431	3/4 (20mm)	3/4 (20mm)	C
MM432	3/4 (20mm)	1 (25mm)	D
MM433	1 1/4 (32mm)	1 1/4 (32mm)	E
MM434	1 1/4 (32mm)	1 1/2 (40mm)	F
MM435	2 (50mm)	2 (50mm)	G

Controls

None	O
Aquastat	A
AquaSentry® 2	B
Aquastat & AquaSentry® 2	C

Balancing Valve

None	O
Circuit Setter	A
Automatic Balancing Valve	B
Circuit Setter & Automatic Balancing Valve	C

Return Pipe Size

1/2"	A
3/4"	B
1"	C
1-1/4"	D
1-1/2"	E
2"	F

Assigned by Factory

Pump Information:

Pump Manufacturer: _____
 Their Part #* _____

* If the pump is not selected or if you are using Automatic Balancing Valve (ABV) you must provide the following:

System Head Loss _____
 Required Flow to Maintain Recirculating Temperature _____

P S [] [] [] [] [] []

Recirculation Piping Diagram

Please see Piping Diagram Section of this catalog.

Typical Specification

Water temperature control system should include a thermostatic mixing valve capable of maintaining water temperature to 5°F (3°C) above set point within the range of 90°F to 160°F (32 to 71°C). Valve must compensate for temperature fluctuation due to inlet temperature or pressure changes. Valve should be of bronze body with triple-duty checkstops and must have an advanced, paraffin-based thermal actuator in order to guarantee a precise control when tested in accordance with ASSE 1017 and CSA B125.

Control system should be mounted on a heavy-duty welded strut with corrosion resistance coating and factory tested as a complete unit. System should include an internal bypass loop for fast and easy set up. It should also include GFCI protection engineer specified circulator and combination temperature/pressure gauges. The system should feature optional Aquastat and Automatic Balancing valve to maintain system balance.

The control system shall be a Power's PowerStation™ series PS. Any alternate must have a written approval prior to bidding.

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A WATTS Brand

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