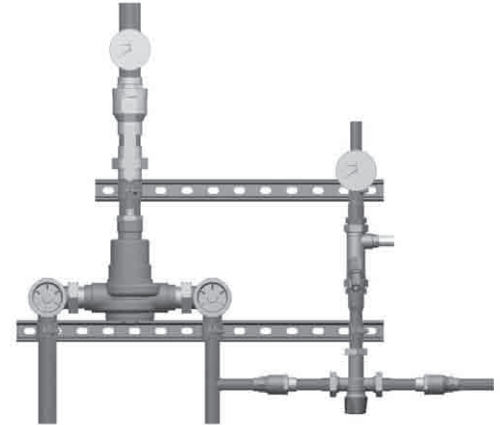


HydroGuard® Water Tempering with Automatic Balancing System

Product Specification

Features ■

- Paraffin-based advanced thermal actuation technology to sense and adjust outlet temperature
- Dirt & lime resistant poppet and seat design
- Virtual shutoff if supply pressure fails
- Vandal-resistant locking mechanism to secure temperature setting
- Mounted on a heavy-duty struts and factory tested
- Includes Pressure/Temperature gauges and Ball Valves



Specifications ■

- Maximum Operating Pressure 125psi (861 kPa)
- Maximum Hot Water Temperature 200°F (93°C)
- Minimum Hot Water Supply 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)
- Temperature Adjustment Range**
 - Standard 90 - 160°F (32 - 71°C)
 - Low 60 - 90°F (16 - 32°C)
- Listing - Valve Only ASSE 1017
- Certified - Valve Only CSA B125

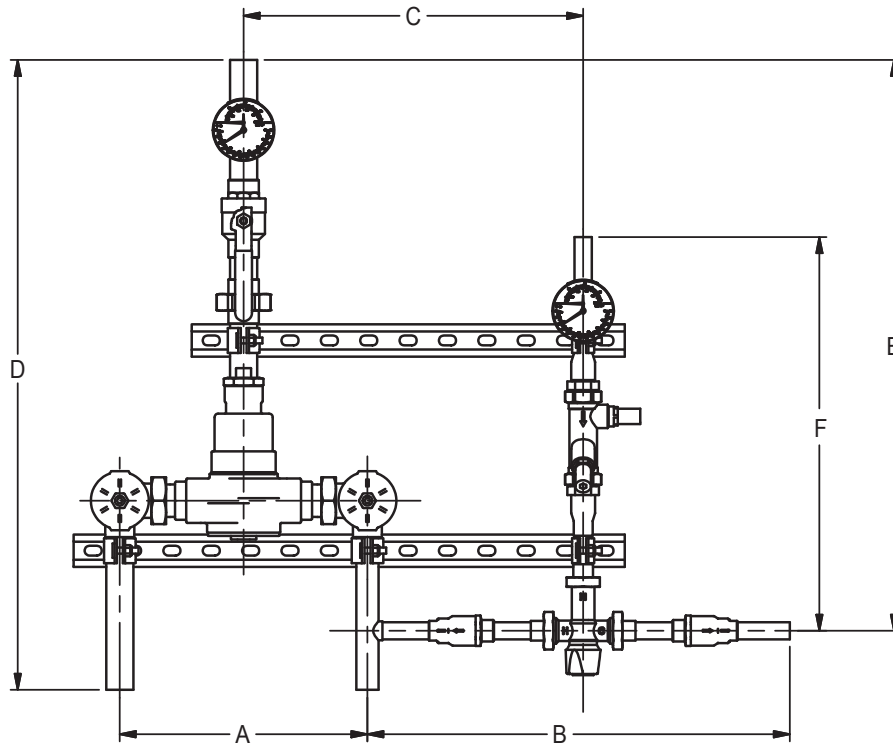
* With Equal Pressure

** 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	C _v	5psi (34 kPa)	10psi (69 kPa)	20psi (138 kPa)	30psi (207 kPa)	45psi (310 kPa)	60psi (414 kPa)
MM431	3 gpm	6.32	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	4 gpm	9.49	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	5 gpm	16.44	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	7 gpm	21.50	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	10 gpm	31.00	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
SH1432	1 gpm	8.54	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	1 gpm	19.00	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	5 gpm	30.00	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

Dimensions ■



Model	Inlets	Outlets	Return Size	A	B	C	D	E	F
RMM431ABS0	3/4	3/4	3/4	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RMM432ABS0	3/4	1	3/4	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RMM433ABS0	1-1/4	1-1/4	3/4	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM434ABS0	1-1/4	1-1/2	3/4	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM435ABS0	2	2	3/4	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)
RSH1432ABS0	3/4	1	3/4	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RSH1434ABS0	1-1/4	1-1/2	3/4	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RSH1435ABS0	2	2	3/4	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)
RMM431ACS0	3/4	3/4	1	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RMM432ACS0	3/4	1	1	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RMM433ACS0	1-1/4	1-1/4	1	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM434ACS0	1-1/4	1-1/2	1	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM435ACS0	2	2	1	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)
RSH1432ACS0	3/4	1	1	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RSH1434ACS0	1-1/4	1-1/2	1	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RSH1435ACS0	2	2	1	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)
RMM431ABW0	3/4	3/4	3/4	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RMM432ABW0	3/4	1	3/4	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)

Dimensions (cont.) ■

Model	Inlets	Outlets	Return Size	A	B	C	D	E	F
RMM433ABW0	1-1/4	1-1/4	3/4	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM434ABW0	1-1/4	1-1/2	3/4	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM435ABW0	2	2	3/4	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)
RSH1432ABW0	3/4	1	3/4	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RSH1434ABW0	1-1/4	1-1/2	3/4	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RSH1435ABW0	2	2	3/4	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)
RMM431ACW0	3/4	3/4	1	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RMM432ACW0	3/4	1	1	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RMM433ACW0	1-1/4	1-1/4	1	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM434ACW0	1-1/4	1-1/2	1	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RMM435ACW0	2	2	1	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)
RSH1432ACW0	3/4	1	1	9-1/8 (233)	21-1/8 (538)	15-1/4 (387)	28 (711)	25 (635)	20 (508)
RSH1434ACW0	1-1/4	1-1/2	1	12-5/8 (320)	21-1/2 (545)	17-1/4 (438)	32 (813)	29 (737)	20 (508)
RSH1435ACW0	2	2	1	15-5/8 (397)	11-1/8 (284)	19 (483)	38 (965)	41-7/8 (1065)	27-7/8 (709)

Ordering Information ■

R

Valve Capacity @ 45 gpm

- 42 gpm (159 lpm)
- 64 gpm (242 lpm)
- 110 gpm (416 lpm)
- 144 gpm (545 lpm)
- 208 gpm (787 lpm)
- 57 gpm (216 lpm)
- 127 gpm (481 lpm)
- 201 gpm (761 lpm)

Order Code

- MM431
- MM432
- MM433
- MM434
- MM435*
- SH1432
- SH1434
- SH1435*

Valve & Piping Finish

Rough Bronze

A

Return Size

- 3/4"
- 1"

B
C

Temperature Range

- Standard (90 – 160°F)
- Low (60 – 90°F)

S
W

Alarm System

- None
- AquaSentry2®

0
4

*Note: **MM435 & SH1435 are only supplied with Circuit Setter.**

Recirculation Piping Diagram ■

Please see Piping Diagram Section of this catalog.

Typical Specification ■

Recirculating loop shall feature HydroGuard® master tempering valve and automatic balancing or circuit setter. System shall be mounted on a heavy-duty welded struts, fully assembled and factory tested. Master tempering valves shall be constructed of solid brass with triple duty checkstops. Master tempering valves shall have temperature range of 90 – 160°F (32 – 71°C) or 60 – 90°F (16 – 32°C). Valves shall feature temperature locking mechanism to deter vandalism or unintended adjustment.

Recirculating loop shall feature temperature/pressure gauge for diagnostics, flow meter with volume control and inline checks to prevent cross-flow. System shall be Powers' RMM_____ or RSH_____. Any alternate must have written approval prior to bidding.

ENGINEERING APPROVAL	
Project:	_____
Contractor:	_____
Architect/Engineer:	_____



A Watts Water Technologies Company



USA: Phone: 1.800.669.5430 • Fax 1.847.229.0526 • www.powerscontrols.com
 Canada: Phone: 1.888.208.8927 • Fax 1.888.479.2887 • www.powerscontrols.ca