



#### **General**

The RA, RAD, RB and RBD series of water temperature control units are quality run-tested in our ISO 9001:2000 certified facility. The units are built in painted sheet metal cabinet with casters for easy portability and installation. The electrical control cabinet features an easy-to-use tilt front. The cabinet has removable sides and top for easy access.

#### **Pump(s)**

- Cast iron centrifugal pump
- Stainless steel impellers (3/4 to 2 HP units), all others are bronze
- Silicon carbide pump seal
- Pump seal flush line with continuous seal contaminant removal/flushing

#### **Pump/Heater Casting(s)**

- Leak-proof twin tube cast pump assembly with reduced fittings
- Internal bypass line for protection under low flow conditions

#### **Heater(s)**

- 6 element incoloy sheathed electric immersion heater(s)

#### **Control Panel**

- Tilted control panel for easy use
- Easy access flip down control panel door
- Interconnecting wiring run to terminal block for easy wiring tracing and troubleshooting
- Adjustable inlet water pressure safety switch

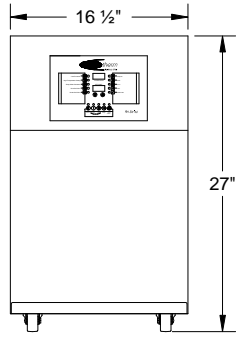
#### **Microprocessor Controller**

- PID control program with full PID heat and cool
- Control panel adjustment between °F and °C temperatures
- Auto-tune control program sequence
- 30 minute temperature deviation alarm delay during start-up
- 1 minute automatic air purge cycle with safety cancellation above 120°F
- High temperature safety set for 260°F
- Self-adjusting high and low temperature deviation alarm set points
- Easy reset of control panel alarms from front panel
- Low voltage fail-safe sensor interlocked with control circuit
- Dual LED digital display of actual and set point temperatures
- 7 snap action micro switches with LED indication
- Seal Saver automatic cool down program
- Diagnostic Alarm Lights: Low pressure, high temperature, pump motor overload, over set point, under set point
- Operational Lights: Pump on, heater on, cool valve open, air purge sequence activated, probe fault, power on, unit start, unit stop, mold purge activated (optional), alarm silence (optional)

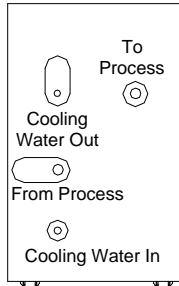
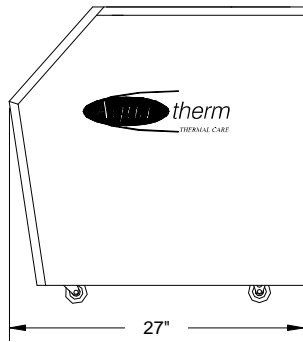
#### **Warranty**

- Lifetime pump/heater casting warranty
- Lifetime pump seal warranty (standard units)
- 5 year microprocessor parts warranty with \$175 lifetime exchange policy
- 2 year parts, 2 year labor warranty

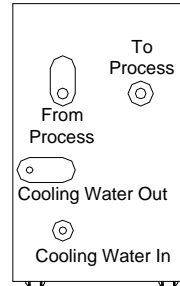
# RA, RAD, RB, RBD Aquatherm Temperature Control Units



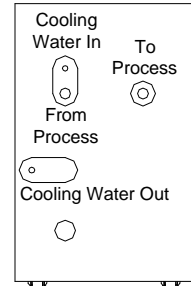
RA & RB Series  
Single-Zone Units



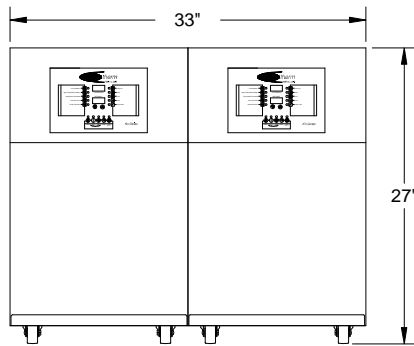
0 kW, 9 kW & 12 kW  
RA & RB Series  
Single-Zone Units



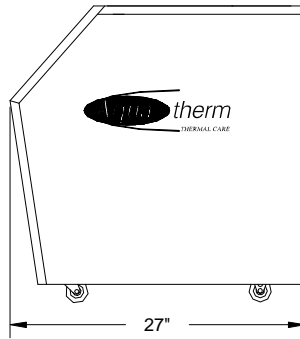
18 & 24 kW  
RA Series  
Single-Zone Units



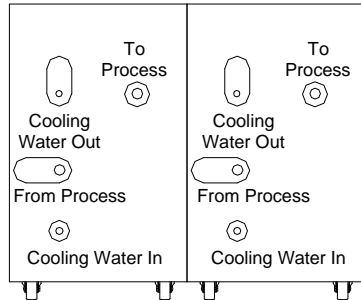
RB & RA Series  
Single-Zone Units  
With Heat Exchanger



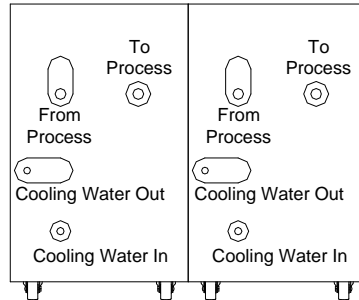
RAD & RBD Series  
Dual-Zone Units



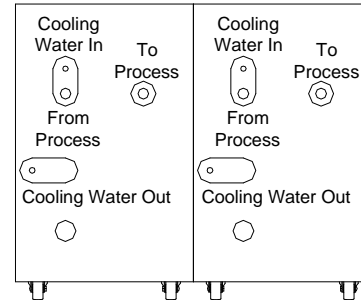
Connection Sizes (same for all units)  
 1½" To Process  
 1½" From Process  
 1" Cooling Water In  
 ½" Cooling Water Out



0 kW, 9 kW & 12 kW  
RAD & RBD Series  
Dual-Zone Units



18 kW & 12 kW  
RAD Series  
Dual-Zone Units

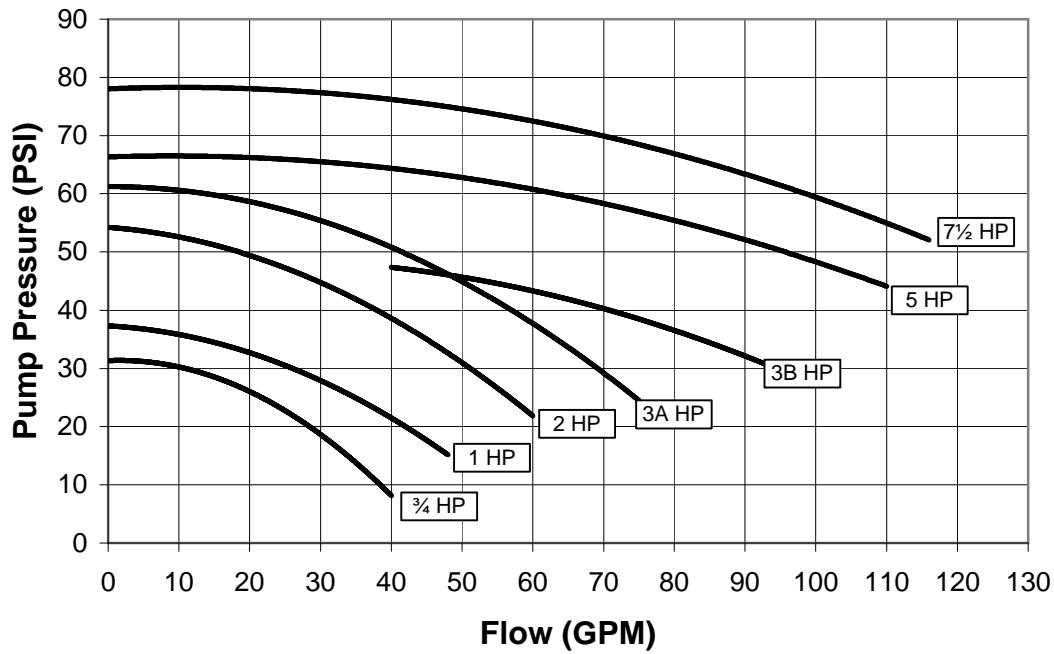


RAD & RBD Series  
Dual-Zone Units  
With Heat Exchangers

# RA, RAD, RB, RBD General Specifications

Single-Zone Units							Dual-Zone Units						
Model	Heating Capacity (kW)	Pump Performance			Unit FLA 460/3/60	Unit Ship Weight (Lbs.)	Model	Heating Capacity Per Zone (kW)	Pump Performance Per Zone			Unit FLA 460/3/60	Unit Ship Weight (Lbs.)
		HP	GPM	PSI					HP	GPM	PSI		
RB08	0	¾	30	19	3	230	RBD08	0	¾	30	19	6	460
RB10	0	1	35	25	3	230	RBD10	0	1	35	25	6	460
RB20	0	2	50	30	4	235	RBD20	0	2	50	30	8	470
RB3A	0	3	70	30	6	240	RBD3A	0	3	70	30	12	480
RB3B	0	3	85	35	6	240	RBD3B	0	3	85	35	12	480
RB50	0	5	95	50	9	260	RBD50	0	5	95	50	18	520
RB75	0	7½	110	55	12	265	RBD75	0	7½	110	55	24	530
RA0908	9	¾	30	19	13	230	RAD0908	9	¾	30	19	26	460
RA0910	9	1	35	25	13	230	RAD0910	9	1	35	25	26	460
RA0920	9	2	50	30	14	235	RAD0920	9	2	50	30	28	470
RA093A	9	3	70	30	15	240	RAD093A	9	3	70	30	30	480
RA093B	9	3	85	35	15	240	RAD093B	9	3	85	35	30	480
RA0950	9	5	95	50	17	260	RAD0950	9	5	95	50	34	520
RA0975	9	7½	110	55	20	265	RAD0975	9	7½	110	55	40	530
RA1208	12	¾	30	19	17	230	RAD1208	12	¾	30	19	34	460
RA1210	12	1	35	25	17	230	RAD1210	12	1	35	25	34	460
RA1220	12	2	50	30	18	235	RAD1220	12	2	50	30	36	470
RA123A	12	3	70	30	19	240	RAD123A	12	3	70	30	38	480
RA123B	12	3	85	35	19	240	RAD123B	12	3	85	35	38	480
RA1250	12	5	95	50	21	260	RAD1250	12	5	95	50	42	520
RA1275	12	7½	110	55	24	265	RAD1275	12	7½	110	55	48	530
RA1808	18	¾	30	19	24	230	RAD1808	18	¾	30	19	48	460
RA1810	18	1	35	25	24	230	RAD1810	18	1	35	25	48	460
RA1820	18	2	50	30	25	235	RAD1820	18	2	50	30	50	470
RA183A	18	3	70	30	26	240	RAD183A	18	3	70	30	52	480
RA183B	18	3	85	35	26	240	RAD183B	18	3	85	35	52	480
RA1850	18	5	95	50	28	260	RAD1850	18	5	95	50	56	520
RA1875	18	7½	110	55	31	265	RAD1875	18	7½	110	55	62	530
RA2408	24	¾	30	19	32	230	RAD2408	24	¾	30	19	64	460
RA2410	24	1	35	25	32	230	RAD2410	24	1	35	25	64	460
RA2420	24	2	50	30	33	235	RAD2420	24	2	50	30	66	470
RA243A	24	3	70	30	34	240	RAD243A	24	3	70	30	68	480
RA243B	24	3	85	35	34	240	RAD243B	24	3	85	35	68	480
RA2450	24	5	95	50	36	260	RAD2450	24	5	95	50	72	520
RA2475	24	7½	110	55	39	265	RAD2475	24	7½	110	55	78	530

**RA, RAD, RB, RBD Series  
60 Hertz Pump Curves**



7720 North Lehigh Avenue  
Niles, Illinois 60714-3491  
Tel: (847) 966-2260  
Toll Free: (888) 828-7387  
Fax: (847) 966-9358

Email: [info@thermalcare.com](mailto:info@thermalcare.com)  
Website: [www.thermalcare.com](http://www.thermalcare.com)

*Manufacturer reserves the right to change specifications or design without notice or obligation. Thermal Care is a registered trademark of MFRI, Inc.*