



For more than 45 years, Thermal Care has manufactured industrial temperature control equipment with the best available component technologies. Our RQE Series mold temperature control units provide long lasting and dependable performance.

## Maximum Performance

Carefully designed for high-flow mold cooling with precise temperature control our mold temperature control units ensure maximum performance to reduced cycle times.

### High-Flow Pumps

Specifically designed to meet the rapid cooling requirements of injection mold cooling our unique high-flow energy-efficient pumps provide the best flow and pressure available in the industry.

### Long-Life Heaters

Our heaters provide the best combination of performance and longevity with Incoloy sheathed electrical heater elements for better corrosion resistance than copper or stainless steel.

## Reliable

Using the best available components and control software combined with our extensive experience in providing industrial cooling equipment ensures our units have outstanding reliability.

### Leak-Proof Pump/Heater Assembly

Heavy-duty cast-iron pumps, heater tubes, and mixing tubes with tight-sealing O-ring seals eliminate threaded fittings that are a common cause of internal pressure losses and leaks.

### Long-Life Pump Seals/Internal Flushing System

High-temperature pump seals, impellers with an integral flush system, and turbulence ribs inside the seal chamber extend seal life and are more effective and energy efficient than external seal flush lines.

### High-Performance Cooling Valves

With both fast-acting solenoid valves for high-speed injection molding and high-capacity modulating valves for more demanding requirements, we can match the right valve to meet your needs.

### Control Panel Cooling Fan

All units with heating capability include an electrical control panel fan to eliminate heat build-up to keep all electrical components to run cooler for peak performance and extended life.

### High-Quality 24 VDC Control-Circuit Power

The 24-volt DC control-circuit power supply provides dependable and safe control circuit power and isolates the control circuit from static interference for stable and precise operation.

## Easy to Use

We package our high-flow pumps, heaters, high-performance cooling valve, and other long-life components into a compact cabinet that minimizes floor space and provides easy-access.

### Tilted Front Panel

Conveniently angled for optimal viewing, our front panel offers quick and easy monitoring and adjustment of the set point and other control functions.

### Tool-Free Cabinet

The lift-off mechanical enclosure cover provides quick access to the pump and heater and the control panel has an easy-open front electrical control panel door for quick and easy component access.

### Front Facing Pressure Gauges

Large easy-to-read supply and return pressure gauges located on the angled front of the unit provides easy monitoring of the mold circuit and unit performance.

### Internal Extended Power Cord

An internal extended power cord from the control panel to the pump motor allows pump motor removal for pump seal and impeller access without the need to disconnect the pump motor wiring.

## Standard Controller

Our control system provides an excellent combination of proven hardware with a powerful software control system for outstanding performance that is reliable and easy to use.



### Automatic Air Purge with 120°F Air Purge Cancel

Designed to purge air from the mold at start-up our automatic air purge sequence deactivates when the mold circuit is above 120°F to avoid cooling of the mold during temporary power interruptions.

### Seal-Saver Program

Stopping a pump without allowing the pump seal to cool down can lead to seal warping that shortens seal life, so our automatic seal saver program allows for pump seal cooling before the pump stops.

### Pump Running Hours Display

Standard with every controller our pump running hour display provides a quick and easy way to monitor and record machine run time for planned maintenance.

### Temperature Deviation Warnings and Alarms

The deviation warning provides a visual alert of a potential problem before a fault occurs. If the condition worsens, the alarm sounds and the unit stops to prevent equipment damage.

### Adjustable Deviation Alarm Time Delays

Adjustable deviation alarms provide a way to program a start-up time delay to deactivate the alarms long enough for the process loop to stabilize without nuisance temperature alarms.

### Supply and Return Temperature Display

The continuous display of the set point and supply temperatures and the ability to check the return temperature allow for complete monitoring of the process and unit operation.

### Alarm Horn and Silence Switch

Standard on every unit, our alarm horn provides an audio and visual indication of an alarm condition and allows silencing of the alarm horn after acknowledgement of the alarm condition.

## Premium Controller

This option provides more system monitoring and control for those applications where additional features are required. The premium controller also has an optional expansion port to allow for remote communications.



### More Premium Controller Features:

- Electrical phase error protects against loss of phase, phase reversal, and phase imbalance
- Heat error light alerts the operator when there is a heater contactor malfunction
- Dedicated quick access button to initiate the Seal-Saver sequence to extend seal life

## Available Options

- Rotary non-fused disconnect switch
- C-UL508A industrial control panel construction
- Hand-held remote control panel
- Solid state relay heater controls
- Brazed plate heat exchangers
- 300°F maximum operating temperature
- Stacking rack
- Remote heat/cool contact
- Premium controller 4-20 mA supply output signal
- Premium controller ModBUS RTU communications
- Premium controller SPI communications

## Warranty

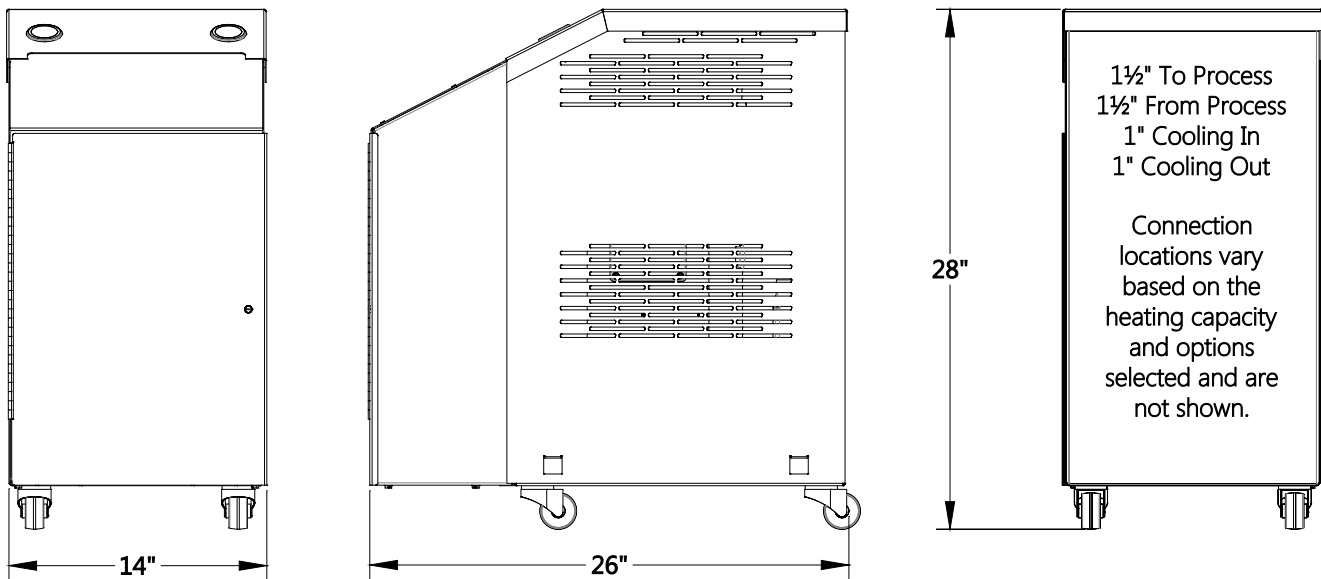
- 5 year control board parts
- 3 year entire unit parts
- 3 year labor
- Lifetime pump/heater casting
- Lifetime standard pump seal
- Lifetime \$175 control board exchange

## RQE Series Temperature Control Units

Model	Heating Capacity kW	Pump Performance			Unit FLA 460V	Ship Weight (lbs)
		hp	gpm	psi		
RQE0008	0	¾	40	26	1.6	265
RQE0010	0	1	50	28	2.0	270
RQE0020	0	2	75	30	3.0	280
RQE0030	0	3	85	32	4.1	340
RQE0050	0	5	100	46	6.4	345
RQE0075	0	7½	125	54	9.0	350
RQE00TN	0	10	140	68	12.8	360
RQE0908	9	¾	40	26	12.9	265
RQE0910	9	1	50	28	13.3	270
RQE0920	9	2	75	30	14.3	280
RQE0930	9	3	85	32	15.4	340
RQE0950	9	5	100	46	17.7	345
RQE0975	9	7½	125	54	20.3	350
RQE09TN	9	10	140	68	24.1	360
RQE1208	12	¾	40	26	16.7	265
RQE1210	12	1	50	28	17.1	270
RQE1220	12	2	75	30	18.1	280
RQE1230	12	3	85	32	19.2	340
RQE1250	12	5	100	46	21.5	345
RQE1275	12	7½	125	54	24.1	350
RQE12TN	12	10	140	68	27.9	360
RQE1808	18	¾	40	26	24.2	265
RQE1810	18	1	50	28	24.6	270
RQE1820	18	2	75	30	25.6	280
RQE1830	18	3	85	32	26.7	340
RQE1850	18	5	100	46	29.0	345
RQE1875	18	7½	125	54	31.6	350
RQE18TN	18	10	140	68	35.4	360

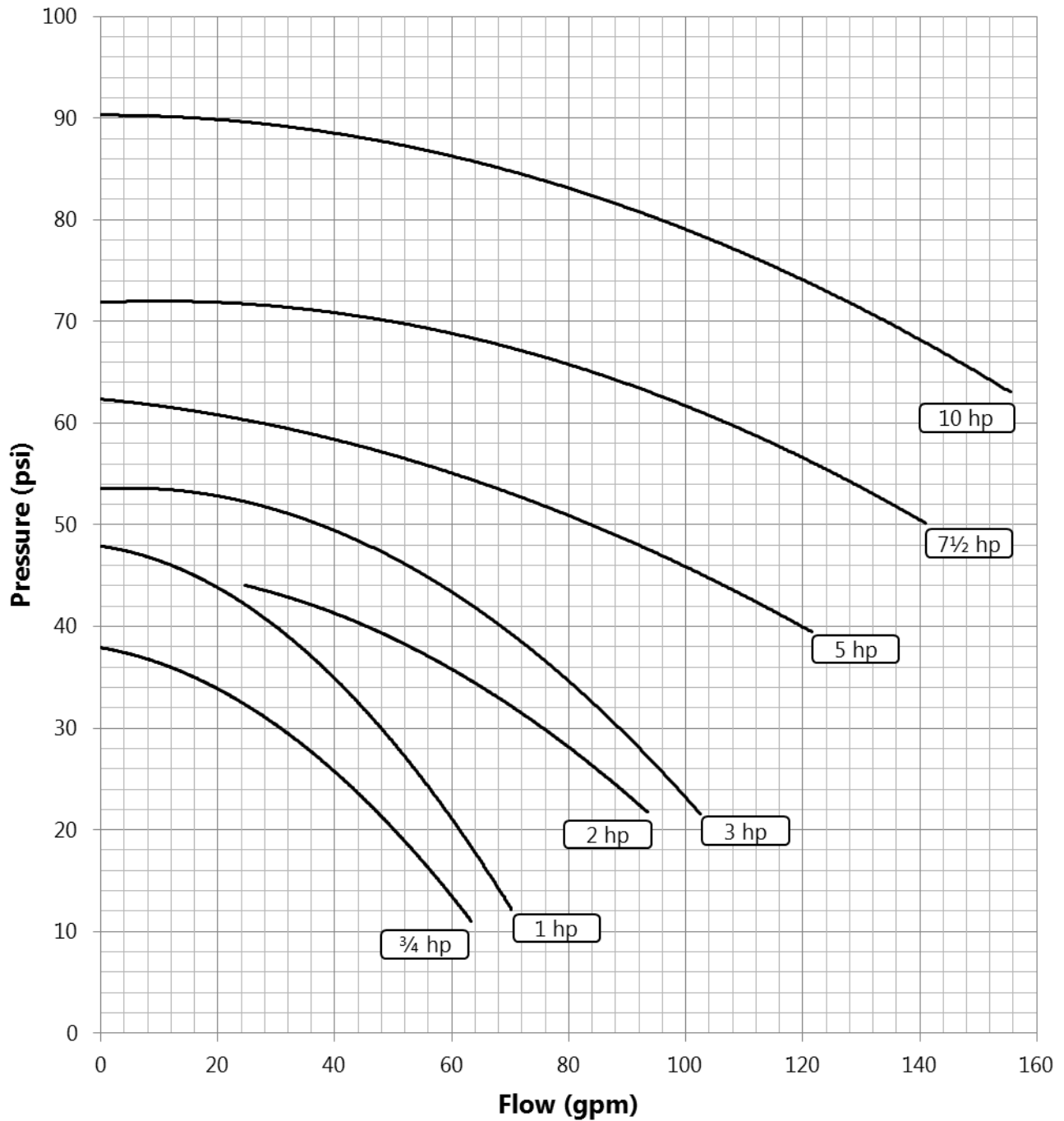
Model	Heating Capacity kW	Pump Performance			Unit FLA 460V	Ship Weight (lbs)
		hp	gpm	psi		
RQE2408	24	¾	40	26	31.7	265
RQE2410	24	1	50	28	32.1	270
RQE2420	24	2	75	30	33.1	280
RQE2430	24	3	85	32	34.2	340
RQE2450	24	5	100	46	36.5	345
RQE2475	24	7½	125	54	39.1	350
RQE24TN	24	10	140	68	42.9	360
RQE3608	36	¾	40	26	46.8	265
RQE3610	36	1	50	28	47.2	270
RQE3620	36	2	75	30	48.2	280
RQE3630	36	3	85	32	49.3	340
RQE3650	36	5	100	46	51.6	345
RQE3675	36	7½	125	54	54.2	350
RQE36TN	36	10	140	68	58.0	360
RQE4808	48	¾	40	26	61.9	295
RQE4810	48	1	50	28	62.3	300
RQE4820	48	2	75	30	63.3	310
RQE4830	48	3	85	32	64.4	370
RQE4850	48	5	100	46	66.7	375
RQE4875	48	7½	125	54	69.3	380
RQE48TN	48	10	140	68	73.1	390

The standard operating range is 50°F to 250°F.



# RQE Series Net Pump Performance

Based on Water at 50°F, 60 Hz



Manufacturer reserves the right to change specifications or design without notice or obligation.

## Notes

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