

**Temperature Control Units**  
Water & Oil  
30° - 500°F

- **Portable Chillers**  
Air & Water-Cooled  
20° - 70°F
- **Central Chillers**  
Air & Water-Cooled  
Packages & Modules  
20° - 70°F
- **Pump Tank Stations**  
Chilled or Tower Water  
200 - 3600 gallons
- **Cooling Tower Cells**  
45 - 540 tons
- **Filters**
- **Heat Exchangers**

## REGAL SERIES - Air-Cooled

ADVANTAGE Regal high temperature oil units are designed to supply up to 500°F of temperature stabilized heat transfer fluid to applications such as plastic molding, chemical processing and many others. **Air-cooled units need no water hook-ups.** Both *heating only* and *heating and cooling* models are available.

- **PROCESS TEMPERATURES:** 100°F to 500°F
- **AVAILABLE PUMP HP:** 1 to 3
- **AVAILABLE HEATER KW:** 12 to 24
- **COOLING OPTION:** Air-cooled via heat exchanger
- **CONTROL INSTRUMENT:** Microprocessor based
- **STANDARD DIMENSIONS:** 44" x 16" x 24" (HxWxD)

All models feature a high volume centrifugal pump with air-cooled pump seal. Models that include the optional cooling feature are equipped with a high temperature air-cooled heat exchanger to provide process cooling. When required, a valve opens introducing cooled fluid into the process while the fan exhausts the heat to the environment. The fan runs continuously providing a cool fluid reserve in the heat exchanger for rapid cooling on demand.

### WARRANTIES

- **1 Year** covering the entire machine.
- **4 Years** control instrument



### STANDARD FEATURES

**TANKS:**

- Large capacity expansion tank
- NPT process connections
- Process line shut-off valves
- Oil level sight glass
- Air operated mold purge circuit
- Fluid drain valve
- Fluid fill port

**PRESSURE GAUGE:**

- To process

**CONTROL INSTRUMENT:**

- Advantage LE

**WARRANTY:**

- 1 year parts and labor
- See #W-700 for details

**PUMP:**

- Low pressure centrifugal pump
- Cast iron casing
- Bronze pump impeller
- Air-cooled pump seal
- Stainless steel motor shaft

### OPTIONS

**INSTRUMENTATION:**

- HE control instrument
- Remote display (HE)
- SPI communications cable - 20' (LE & HE)

**SYSTEM ALARMS:**

- Audible alarm
- Visual/audible alarm beacon

**ELECTRICAL:**

- Nema 12 construction
- Special electrics

**HEATER:**

- Flanged bolt-in mount
- Vertical orientation
- Steel heater sheath
- Mercury heater contactor

**CABINETY/FRAME:**

- Stainless steel cabinetry
- Hinged electrical cover
- Portable, on casters
- Galvanized steel base

**LIMIT DEVICES:**

- Motor overload relay
- High temperature limit
- Fused control circuit

**ELECTRICAL:**

- Process pump motor starter
- Fused transformer
- 10' power cord installed
- 110 volt alarm output
- 5 kA RMS SSCR

### APPLICATIONS

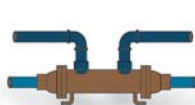
Regal Series temperature control units can be used on a variety of process applications that require 100°F to 500°F process temperatures.



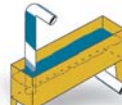
Molds & Dies



Nozzles, Barrels & Tools



Heat Exchangers



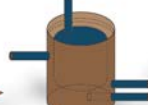
Troughs & Tanks



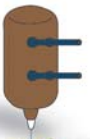
Rolls



Radiators and Air Coils



Jacketed Vessels and Mixers



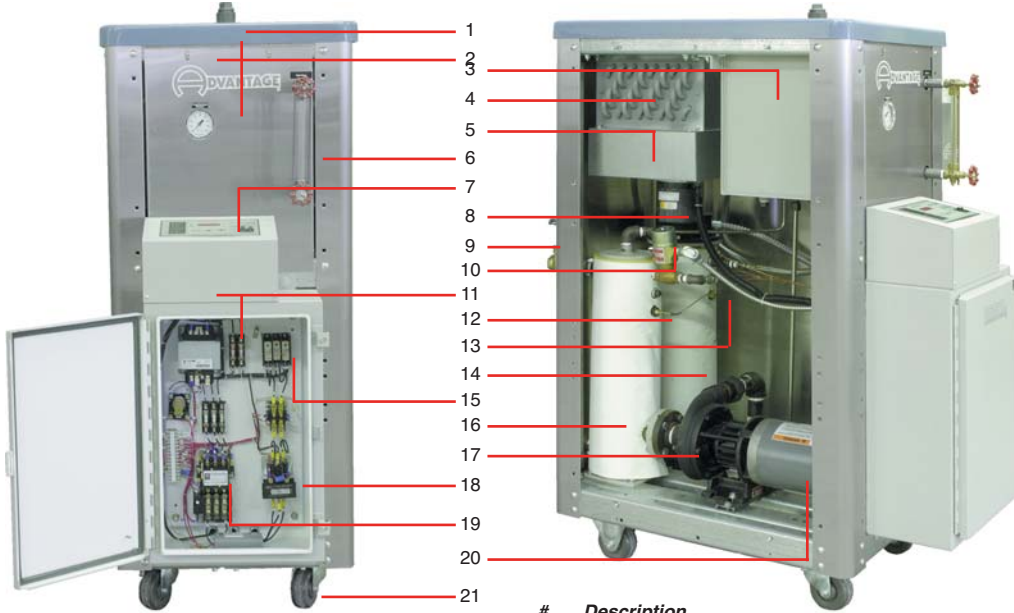
Lasers

# SPECIFICATIONS

H = Heating Only HCA = Heating & Cooling Air-Cooled

SPECIFICATIONS RK-		1230H/HCA	1245H/HCA	1250H/HCA	1645H/HCA	1650H/HCA	1660H/HCA	2460H/HCA
<b>HEATER<sup>1</sup></b>	KW	12	12	12	16	16	16	24
<b>PROCESS PUMP</b>	HP	1	1½	2	1½	2	3	3
	GPM	30	45	50	45	50	60	60
	PSI	24	26	28	26	28	26	26
<b>FULL LOAD AMPERAGE @ 3ø/60hz<sup>2</sup></b>	230 volt	34.8	36.4	38.0	47.0	49.0	51.0	71.0
	460 volt	17.9	18.7	19.5	23.5	24.5	25.5	35.5
	575 volt	14.3	14.9	15.6	18.8	19.6	20.4	28.4
<b>DIMENSIONS</b>	Height	60"	60"	60"	60"	60"	60"	60"
	Width	24"	24"	24"	24"	24"	24"	24"
	Depth	52"	52"	52"	52"	52"	52"	52"
<b>CONNECTIONS</b>	T/F <sup>3</sup>	1"	1"	1"	1"	1"	1"	1"
<b>WEIGHTS (lbs)</b>	Shipping <sup>4</sup>	600	625	630	700	725	730	850

1. Derate heater output by 25% for 208/3/60 operation. 2. Consult factory for 50hz operations. 3. T - to process; F - from process. 4. Approximate shipping weight.



- | #  | Description                                  |
|----|--|
| 1  | - Fluid fill port                            |
| 2  | - Fluid pressure gauge                       |
| 3  | - Expansion tank                             |
| 4  | - Heat exchanger                             |
| 5  | - Cooling fan and shroud                     |
| 6  | - Fluid level sight glass                    |
| 7  | - Control Instrument                         |
| 8  | - Fan motor                                  |
| 9  | - Process connections                        |
| 10 | - Cooling valve                              |
| 11 | - Transformer (with fuse)                    |
| 12 | - From process sensor                        |
| 13 | - To process sensor                          |
| 14 | - Discharge cylinder                         |
| 15 | - Power entry terminal block                 |
| 16 | - Suction cylinder                           |
| 17 | - Centrifugal pump with air-cooled seal      |
| 18 | - Mercury heater contactor                   |
| 19 | - Pump motor starter and over load           |
| 20 | - Pump motor                                 |
| 21 | - Caster                                     |
| 22 | - Lift-off access panel                      |
| 23 | - To process connection and shut-off valve   |
| 24 | - From process connection and shut-off valve |
| 25 | - Air connection and valve for mold purge    |
| 26 | - Unit drain                                 |

# CONTROL INSTRUMENTS



Standard

## 'LE' INSTRUMENT - up to 500°F:

- Temperature display for *to process*, *from process* and *setpoint* temperatures
- Status lights for *power*, *pump heat*, *cool* and *alarm*
- Error lights for *pump overload*, and *high temperature*
- Pump start switch
- Unit on/off toggle switch
- Soft key operators



Upgrade!

## 'HE' INSTRUMENT - up to 500°F:

- Continuous *to process* temperature display
- Selectable *from process* temperature display
- Temperature display in °F or °C
- Continuous *setpoint* temperature display
- Setup display for *temperature*, *network* and *machine*
- Capacity display for *heat*, *cool*
- Ok-fault status display for *temperature deviation*, *probe*, *high temperature*, *pump overload* and *phase*
- Alarm display
- Communications display
- SPI communications
- Soft key operators

## Model Designator for Regal Series Temperature Control Units

### RK - 1230HCA

Regal Series

Heater KW

Pump GPM

Mode:

H : Heating Only

HC : Heating & Cooling

HCA : Air-Cooled



TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS