

**NEW
AIR-COOLED DESIGN
NO WATER REQUIRED!**

TEMPERATURE CONTROLLERS

REGAL Series Air-Cooled Oil Unit



RK-1230HCA

Air-Cooled Unit Benefits :

- Lower cost to install ... no water plumbing required.
- Longer heat exchanger life ... no thermal shock typical of water-cooled units
- Less pump maintenance ... air-cooled design eliminates scaling in cavity of typical models using water-cooled seal.
- Less heat exchanger maintenance ... air-cooled design eliminates scaling in heat exchanger typical of models using water-cooled heat exchangers.

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. **New 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: 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 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.

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

PUMP:

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

HEATER:

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

CABINERY/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

PRESSURE GAUGE:

- To process

CONTROL INSTRUMENT:

- Advantage LE

WARRANTY:

- 1 year parts and labor
- See document #ADV-205 for complete details

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

CABINERY:

- Special Paint

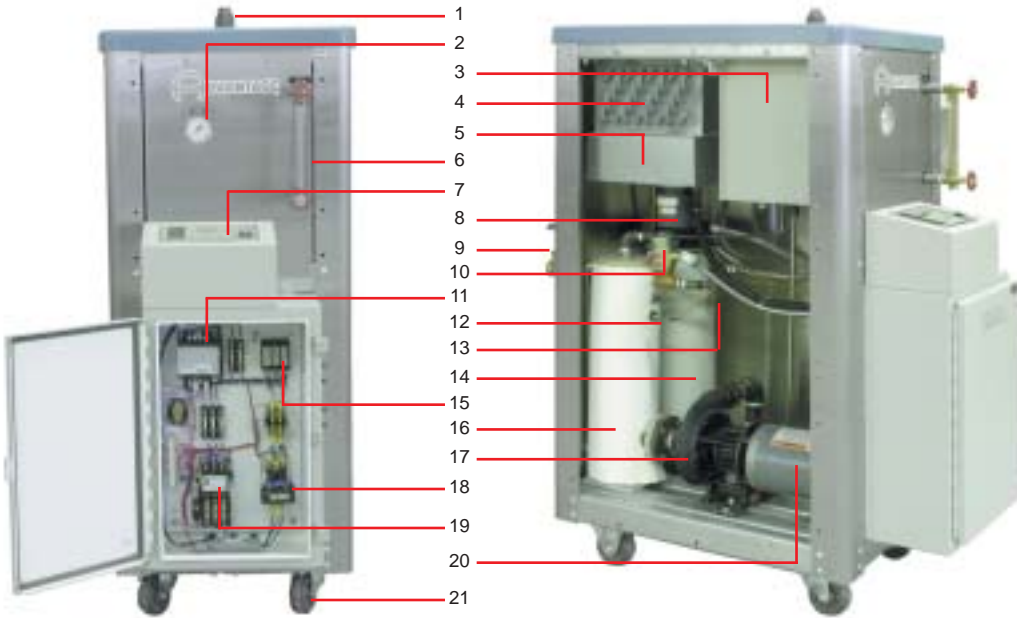


SPECIFICATIONS

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

SPECIFICATIONS RK-HEATER ¹		1230H/HCA	1245H/HCA	1250H/HCA	1645H/HCA	1650H/HCA	1660H/HCA	2460H/HCA
HEATER ¹	KW	12	12	12	16	16	16	24
PROCESS PUMP	HP	1	1½	2	1½	2	3	3
	GPM	30	45	50	45	50	60	60
	PSI	24	26	28	26	28	26	26
FULL LOAD AMPERAGE @ 3ø/60hz ²	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
DIMENSIONS	Height	60"	60"	60"	60"	60"	60"	60"
	Width	24"	24"	24"	24"	24"	24"	24"
	Depth	52"	52"	52"	52"	52"	52"	52"
CONNECTIONS	T/F ³	1"	1"	1"	1"	1"	1"	1"
WEIGHTS (lbs)	Shipping ⁴	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



- # Description**
- 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

CUSTOM DESIGNS... if one of our standard models does not fit your application, then we can design a custom unit that will.



since 1977

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

ADVANTAGE ENGINEERING, INC. 525 East Stop 18 Road Greenwood, IN 46142 phone: 317-887-0729 fax: 317-881-1277
 web site: <http://www.AdvantageEngineering.com> email: sales@AdvantageEngineering.com ©2003 ADVANTAGE ENGINEERING, INC. Form #ADV-544 11/03

SINCE PRODUCT INNOVATION AND IMPROVEMENT IS OUR CONSTANT GOAL, ALL FEATURES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY.