

3 Instruments  
To Choose From

# TEMPERATURE CONTROLLERS

## REGAL Series Oil Unit



RK-1230HC

ADVANTAGE Regal 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.

**PROCESS TEMPERATURES:**

- 100°F to 500°F

**AVAILABLE PUMP HP:**

- 1 to 3

**AVAILABLE HEATER KW:**

- 12 to 24

**AVAILABLE COOLING CIRCUIT:**

- 3.5 sq. ft. Heat exchangers

**STANDARD DIMENSIONS:**

- 44" x 16" x 24" (HxWxD)

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



HE Instrument



LE Instrument



400°F Instrument

**FEATURES - AT A GLANCE:**

- 3 levels of microprocessor control
- 'Lift off' stainless steel enclosure panels
- Water-cooled high flow centrifugal pump
- To process pressure gauge
- Mercury heater contactor
- Optional heat exchanger cooling circuit
- 1 years parts and labor warranty



# SPECIFICATIONS

| <b>SPECIFICATIONS RK-</b>                       |                       | <b>1230H</b> | <b>1245H</b> | <b>1250H</b> | <b>1645H</b> | <b>1650H</b> | <b>1660H</b> | <b>2460H</b> |
|---|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <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 (inches)</b>                      | Height                | 44"          | 44"          | 44"          | 44"          | 44"          | 44"          | 44"          |
|   | Width                 | 16"          | 16"          | 16"          | 16"          | 16"          | 16"          | 16"          |
|   | Depth                 | 24"          | 24"          | 24"          | 24"          | 24"          | 24"          | 24"          |
| <b>CONNECTIONS (inches)</b>                     | T/F <sup>3</sup>      | 1"           | 1"           | 1"           | 1"           | 1"           | 1"           | 1"           |
|   | S/D <sup>4</sup>      | ½"           | ½"           | ½"           | ½"           | ½"           | ½"           | ½"           |
| <b>WEIGHTS (pounds)</b>                         | Shipping <sup>5</sup> | 275          | 285          | 300          | 580          | 595          | 610          | 770          |

| <b>SPECIFICATIONS RK-</b>                       |                       | <b>230HC</b> | <b>1245HC</b> | <b>250H</b> | <b>1645HC</b> | <b>1650HC</b> | <b>1660HC</b> | <b>2460HC</b> |
|---|-----------------------|--------------|---------------|-------------|---------------|---------------|---------------|---------------|
| <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>HEAT EXCHANGER</b>                           | Sq.Ft.                | 3.7          | 3.7           | 3.7         | 3.7           | 3.7           | 3.7           | 3.7           |
| <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 (inches)</b>                      | Height                | 44"          | 44"           | 44"         | 44"           | 44"           | 44"           | 44"           |
|   | Width                 | 16"          | 16"           | 16"         | 16"           | 16"           | 16"           | 16"           |
|   | Depth                 | 24"          | 24"           | 24"         | 24"           | 24"           | 24"           | 24"           |
| <b>CONNECTIONS (inches)</b>                     | T/F <sup>3</sup>      | 1"           | 1"            | 1"          | 1"            | 1"            | 1"            | 1"            |
|   | S/D <sup>4</sup>      | ½"           | ½"            | ½"          | ½"            | ½"            | ½"            | ½"            |
| <b>WEIGHTS (pounds)</b>                         | Shipping <sup>5</sup> | 275          | 285           | 300         | 580           | 595           | 610           | 770           |

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. S - water supply; D - drain. 5. Approximate shipping weight. **PLEASE NOTE: Models with an "H" suffix provide heating only. Models with an "HC" suffix provide cooling through a 3.5 sq. ft. U-tube heat exchanger and heating.**

# OPTIONS

## INSTRUMENTATION:

- HE remote display with 20' cable
- SPI communications cable - 20'

## SYSTEM ALARMS:

- Audible alarm
- Visual/audible alarm beacon

## HEAT EXCHANGERS:

- Special heat exchanger sizes

## ELECTRICAL:

- Nema 12 construction
- Special electrics

## CABINERY:

- Rear Panel Cover

# STANDARD FEATURES

## TANK CONSTRUCTION:

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

## PUMP:

- Low pressure centrifugal pump
- Cast iron casing
- Bronze pump impeller
- Water 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

## SAFETY DEVICES:

- Water supply pressure switch
- Motor overload relay
- Pressure relief valve (water)
- 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

## WARRANTY:

- 1 year parts and labor

## INSTRUMENTATION -

### 400° INSTRUMENT:

- Up to 400°F temperatures
- Large temperature display
- Status lights for *pump, power, heat and cool*
- On/off toggle switch
- Setpoint selector dial

### 'LE' INSTRUMENT - up to 500°F:

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

### 'HE' INSTRUMENT - up to 500°F:

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

**WARRANTY and SERVICE...** The REGAL temperature controller is supported by a comprehensive factory warranty. Refer to bulletin ADV-205 for complete warranty details. The ADVANTAGE service department is staffed with experienced technicians, and supported by a nation wide network of independent service contractors. With ADVANTAGE, service is only a phone call away.



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](mailto:sales@AdvantageEngineering.com) ©2003 ADVANTAGE ENGINEERING, INC. Form #ADV-369 9/00 updated 9/03

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