



ThermoTek®

Certificate of Conformance

ThermoTek certifies that this product has been manufactured in accordance to specifications as set forth by the manufacturer, including manufacturer's written acceptance of customer specifications.

Furthermore, product has been tested & calibrated to assure conformance to specifications.

Inspection records, test reports, and other applicable documentation are on file with the quality department. Such records are maintained in accordance to recognized quality standards, such as ISO 9001.

Serial Number:  A31096

Date of Test: FEB 09 2012



Quality Assurance

SELLER'S LIABILITY WITH RESPECT TO ANY PRODUCT NOT MEETING SUCH SPECIFICATIONS IS STRICTLY LIMITED AS SET FORTH IN SELLER'S WARRANTY.

1200 Lakeside Parkway #200
Flower Mound, Texas 75028
Phone: 972-874-4949 Fax 972-874-4945
www.thermotekusa.com

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RoHS Declaration

Date: February 1, 2012

Scope:

ThermoTek is committed to comply with the European Union's Directive 2002/95/EC, Restriction of the use of certain Hazardous Substances (RoHS). The RoHS directive restricts substances including lead (Pb), mercury, cadmium, hexavalent chromium and certain halogenated flame retardants such as PBB (polybrominated biphenyls) and PBDE (polybrominated diphenyl ethers) in electrical and electronic equipment.

Declaration:

This document certifies that to the best of our knowledge, the products and related component(s) of the part numbers identified as compliant, do not contain any known or intentionally added substances that are banned or reportable in the EU Directive referenced here and, are manufactured in accordance with Directive 2002/95/EC.

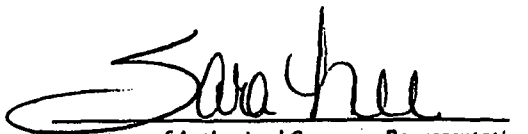
Disclaimer:

This declaration is based on the analysis of the components and materials used in the manufacture of our products or by supplier-furnished material declarations, including vendor material safety data sheets. Compliance is based on the minimum levels of 0.1% lead, hexavalent chromium, mercury, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and 0.01% for cadmium, as outlined in amendment 2005/618/EC (accepted August 18th, 2005).

Products:

The following models comply with the RoHS directive:

T255P-1R	T255P-30R	T255P-D6
T255P-1CR	T255P-3CR	T255P-GER
T255P-1H	T255P-D5	HX50-5C



Signature of Authorized Company Representative
 Niran Balachandran/Director of Engineering
 Sara Lee/Director of Quality
 ThermoTek, Inc.
 1200 Lakeside Parkway #200
 Flower Mound Texas 75028
www.thermotekusa.com



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Serial Number: A24908

Date of Test: AUGUST 17 2010

Monica Smith
Quality Assurance

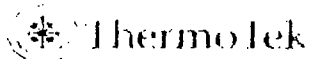
SELLER'S LIABILITY WITH RESPECT TO ANY PRODUCT NOT MEETING SUCH SPECIFICATIONS IS STRICTLY LIMITED AS SET FORTH IN SELLER'S WARRANTY.

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**P/N: 0P1BGENCEC
8/08
ECN 610**

REV: B



RETURNED MATERIAL FORM

RMA# 13840	MODEL# RC3-2-22GS	SERIAL# A24908	REVISION NS	MFG. DATE: 6/10	WARRANTY STATUS OUT OF WARRANTY	DATE RECEIVED: 7/21/2010
JOB# 12740	SALES ORDER# 16589	RECEIVED FROM: UNIV. OF CALI SAN D	RECEIVER# 47740	CUSTOMER P.O.# Customer Service Only		
RECEIVED WITH: <input checked="" type="checkbox"/> ThermoTek Shipping Box <input checked="" type="checkbox"/> Power Cord <input type="checkbox"/> Air Filter <input type="checkbox"/> Other: <u>KEY</u> <input type="checkbox"/> ThermoTek Shipping Foam <input type="checkbox"/> Ext. Filter <input type="checkbox"/> Mounting Plate <input type="checkbox"/> Transport Box <input type="checkbox"/> Umbilical <input type="checkbox"/> Hoses				SPECIAL INSTRUCTIONS:		
INSTRUMENT STATUS: <input type="checkbox"/> Repair <input type="checkbox"/> Return <input type="checkbox"/> Demo				EXPEDITE: <input type="checkbox"/>		

CUSTOMER COMPLAINT/PROBLEM:

CUSTOMER SPOKE W/ JUSTIN ABOUT DOWNGRADING FANS TO 49 DECIMALS THEY UNDERSTAND THIS WILL LOWER THE WATTAGE ALSO. *CAME W/ PWR CORD AND KEY

PRELIMINARY CHECKOUT Timer Data (if applicable) Software Rev: <u>50:18:00</u> Life Timer: <u>39</u> Hrs Cool Hours: <u>11</u> Hrs Heat Hours: <u>50</u> Hrs Pump Hours: <u>50</u> Hrs Max Power Hours: _____ Hrs Power Up Counter: _____ Relay Counter: _____ Software Mode: _____	FINDINGS Investigation: HEAT TRANSFER ASSEMBLY RCL Measurement: <u>20.36</u> Ω 500 W POWER SUPPLY Output in Cool Mode: <u>104</u> V DC Output in Heat Mode: <u>101.1</u> V DC Additional findings:	Technician: <u>E. Diaz</u> Date: <u>7/29/2010</u> PUMP Flow rate (L/min): <u>2.399</u> (where applicable) PRESSURE TEST PASS? <u>YES</u>
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RECOMMENDED REPAIRS:	Additional comments:
1	6 FANS - OP3A124715 \$18.00 each + 1 HR LABOR
2	
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8	Reviewed by: <u>CP</u>
9	Date: <u>7/29/10 10:19 AM</u>

ESTIMATED REPAIR COST: \$ 307.00

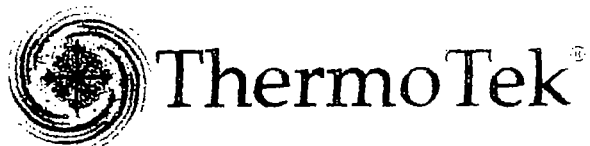
WARRANTY
(No approval needed)

NON WARRANTY & CHARGED WARRANTY
(Approval Needed)

Approved by: _____
Date: _____

APPROVED
By Debra Thomas at 2:26 pm, Aug 17, 2010

Date Shipped: 8-17-10



Limited Warranty

ThermoTek Inc. warrants and grants a limited warranty to the user of product as described herein as follows:

ThermoTek Inc. hereby warrants that repair and/or upgrade work performed shall be free from defects in material and workmanship for a period of 90 days from the date product was shipped back to Customer from the factory. ThermoTek, Inc. shall repair or exchange any parts that were repaired/replaced when returned at customers' freight expense to ThermoTek's principal place of business upon discovery of any such defects in material or workmanship during the 90-day period.

In the event that the product or any portion thereof is not installed or used in accordance with the manufacture's specifications, any and all warranties either expressed or implied shall be and are hereby voided. Only upon the proper installation and use of the items shall this warranty or any other warranties apply.

Events that will void this warranty include:

- Use of non-ThermoTek accessories within the machine.
- Shipment without original packaging material.
- Removal of the warranty seals or other attempts of servicing the inside of the product.
- Physical abuse as is evidence by case damage.
-

Non warranty work will be itemized before commencement. Any customer returning a non-broken product for warranty service will be assessed ThermoTek's standard fee for test & calibration plus a handling fee.

EXCEPT TO THE EXTENT EXPRESSLY PROVIDED HERE AND ABOVE AND IN LIEU OF ALL OTHER WARRANTIES, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE FOR THE PRODUCT.

EXECUTED: MO: August DATE: 17 YEAR: 2010

PN: OP1AL90WAR
Rev B
12/23/2008

1200 Lakeside Parkway, Flower Mound, TX 75028 Ph: 972-874-4949 Fax: 972-874-4945



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A23594

Serial Number: _____

Date of Test: MARCH 23 2010

Monica Smith
Quality Assurance

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**P/N: 0P1BGENCEC
8/08
ECN 610**

REV: B



ThermoTek®

RoHS Declaration

Date: July 20, 2006
Supplier: ThermoTek, Inc.

Products:

All products offered that are manufactured in accordance to the regulation are uniquely identified with a -R part number. (Example 0P9Model # -R) This declaration is valid for those products manufactured by ThermoTek, Inc. and advertised as RoHS compliant.

Scope:

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Signature of Authorized Company Representative
Niran Balachandran/Director of Engineering
Sara Lee/Director of Quality

ThermoTek, Inc.
1200 Lakeside Parkway #200
Flower Mound Texas 75028
www.thermotekusa.com

0P1B255CED-R

Rev A
9/25/08

J:\Certification Documents\0P1B255CED-R_RoHS Declaration Rev A.doc



ThermoTek®

RoHS Declaration

Date: July 20, 2006
Supplier: ThermoTek, Inc.

Products:

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Signature of Authorized Company Representative
Niran Balachandran/Director of Engineering
Sara Lee/Director of Quality

ThermoTek, Inc.
1200 Lakeside Parkway #200
Flower Mound Texas 75028
www.thermotekusa.com

0P1B255CED-R
Rev A
9/25/08

J:\Certification Documents\0P1B255CED-R_RoHS Declaration Rev A.doc



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Serial Number:  A29293

Date of Test: AUG 18 2011



Quality Assurance

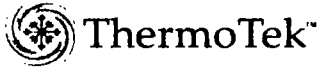
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P/N: 0P1BGENCEC
8/08
ECN 610

REV: B



RETURNED MATERIAL FORM

RMA# 13840	MODEL# RC3-2-22GS	SERIAL# A24980	REVISION NS	MFG. DATE: 6/10	WARRANTY STATUS OUT OF WARRANTY	DATE RECEIVED: 7/21/2010
JOB# 12740	SALES ORDER# 16589	RECEIVED FROM: UNIV. OF CALI SAN D	RECEIVER# 47740	CUSTOMER P.O.# Customer Service Only		
RECEIVED WITH: <input checked="" type="checkbox"/> ThermoTek Shipping Box <input checked="" type="checkbox"/> Power Cord <input checked="" type="checkbox"/> Air Filter <input checked="" type="checkbox"/> Other: <u>KEY</u> <input checked="" type="checkbox"/> ThermoTek Shipping Foam <input type="checkbox"/> Ext. Filter <input type="checkbox"/> Mounting Plate <input type="checkbox"/> Transport Box <input type="checkbox"/> Umbilical <input type="checkbox"/> Hoses				SPECIAL INSTRUCTIONS:		
INSTRUMENT STATUS: <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Return <input type="checkbox"/> Demo				EXPEDITE: <input type="text"/>		

CUSTOMER COMPLAINT/PROBLEM:

CUSTOMER SPOKE W/ JUSTIN ABOUT DOWNGRADING FANS TO 49 DECIMALS THEY UNDERSTAND THIS WILL LOWER THE WATTAGE ALSO. *CAME W/ PWŔ CORD AND KEY

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PRELIMINARY CHECKOUT Timer Data (If applicable) Software Rev: <u>50:18:00</u> Life Timer: <u>39</u> Hrs Cool Hours: <u>11</u> Hrs Heat Hours: <u>50</u> Hrs Pump Hours: <u>50</u> Hrs Max Power Hours: _____ Power Up Counter: _____ Relay Counter: _____ Software Mode: _____	FINDINGS Investigation: HEAT TRANSFER ASSEMBLY RCL Measurement: <u>20.36</u> Ω 500 W POWER SUPPLY Output In Cool Mode: <u>104</u> V DC Output in Heat Mode: <u>101.1</u> V DC Additional findings:	Technician: _____ Date: _____ <table border="1"> <tr> <td><u>E. Diaz</u></td> <td><u>7/29/2010</u></td> </tr> </table> PUMP Flow rate (L/min): <u>2.399</u> (where applicable) PRESSURE TEST PASS? <u>YES</u>	<u>E. Diaz</u>	<u>7/29/2010</u>
<u>E. Diaz</u>	<u>7/29/2010</u>			

RECOMMENDED REPAIRS:	Additional comments:
1	6 FANS - OP3A124715 \$18.00 each + 1 HR LABOR
2	
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8	Reviewed by: <u>CP</u>
9	Date: <u>7/29/10 10:19 AM</u>

ESTIMATED REPAIR COST: \$ 307.00

WARRANTY
(No approval needed)

NON WARRANTY & CHARGED WARRANTY
(Approval Needed)

Approved by: _____
Date: _____

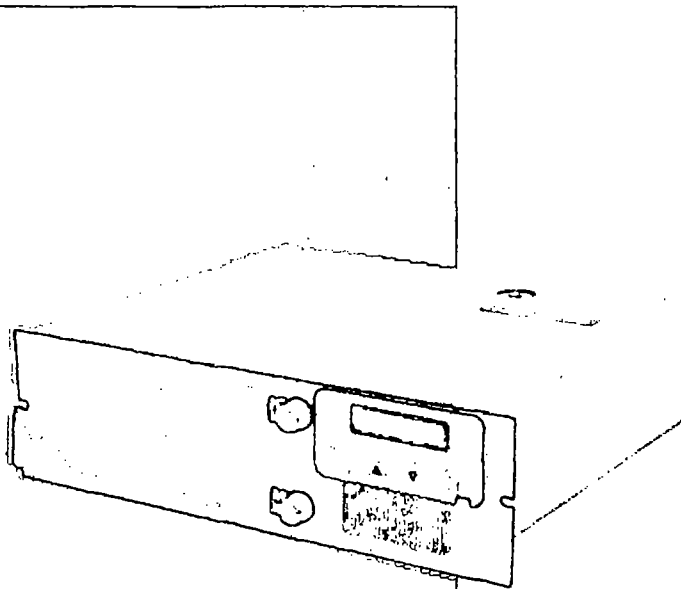
FOR CUSTOMER SERVICE USE ONLY

Date Shipped: _____

RC SERIES

Rack Mount Chiller

ThermoTek introduces the industry's smallest rack mountable recirculating chiller at just 3U tall. These thermoelectric chillers are built with solid state reliability for superior performance and temperature stability. ThermoTek's RC chillers can be configured to any cooling capacity up to 750 watts with ambient air and up to 945 watts of cooling when using a plant water supply. This series delivers performance, reliability and a highly customizable platform for every unique application.



OUR PROFILE

ThermoTek, Inc. has been a leader in the medical device industry for more than eighteen years. With our innovative designs for precision thermal management solutions and numerous patents on our technology, we continue to push the envelope with new and creative offerings.

OP1FMTGRMB_X1 8/11

Standard Features:

- ◇ Stocked configurations from 210 watts to 725 watts of cooling power
- ◇ Custom configurations from 210 watts to 945 watts of cooling power
- ◇ 3U tall EIA-310-C Rack standard
- ◇ Lightweight at 12 kg to 25 kg
- ◇ Quiet operation
- ◇ Solid state reliability
- ◇ No CFCs; Environmentally friendly
- ◇ Low vibration
- ◇ RS-232 communication
- ◇ De-ionized water compatible to 7 MOhms
- ◇ Leak-free disconnects
- ◇ Universal input power
- ◇ Field upgradable firmware

Optional Features:

- ◇ RS-485 or USB communication
- ◇ Fan Speed Control
- ◇ Calibrated Flow meter
- ◇ Remote temperature sensor
- ◇ Several pump options available
- ◇ External pump compatible
- ◇ Ability to utilize plant water supply
- ◇ Front and/or Rear Fluid Ports



ThermoTek™

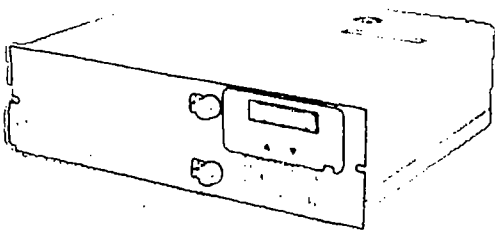
RC SERIES

Rack Mount Chiller

Model #	Stocked Configurations		
	RC2AC	RC4BD	RC7BD
Cooling Capacity (at 0° Delta T)	210 watts (716 Btu/hr)	485 watts (1,654 Btu/hr)	725 watts (2,473 Btu/hr)
Pump Flow Rate (max) Pressure (max)	3.8 LPM 0.7 bar (10.5 psi)	3.8 LPM 1 bar (15 psi)	3.8 LPM 1 bar (15 psi)
Temperature Stability	+/- 0.1°C	+/- 0.1°C	+/- 0.1°C
Temperature Range	-5° to +45°C	-5° to +45°C	-5° to +45°C
Communication	RS-232	RS-232	RS-232
Heating Capability	Yes	Yes	Yes
Input Voltage	100-240 VAC 50/60 Hz	100-240 VAC 50/60 Hz	100-240 VAC 50/60 Hz
Max Input Power	633 watts	1,223 watts	1,353 watts
Dimensions	19" x 15" x 5.25"	19" x 22" x 5.25"	19" x 22" x 5.25"
Weight	12 kg	20 kg	23 kg

Options:

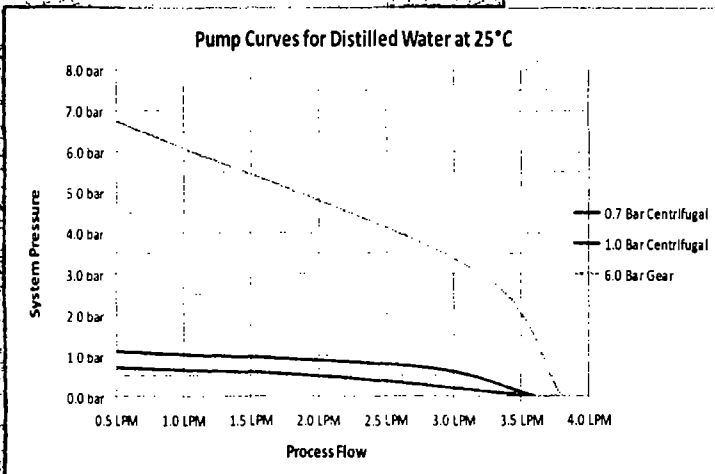
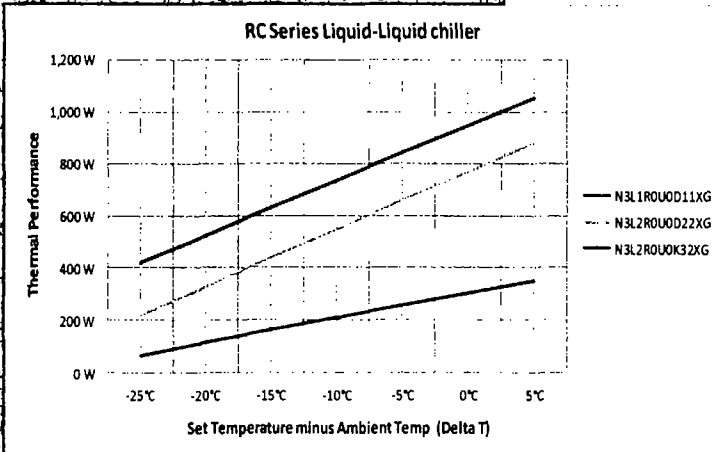
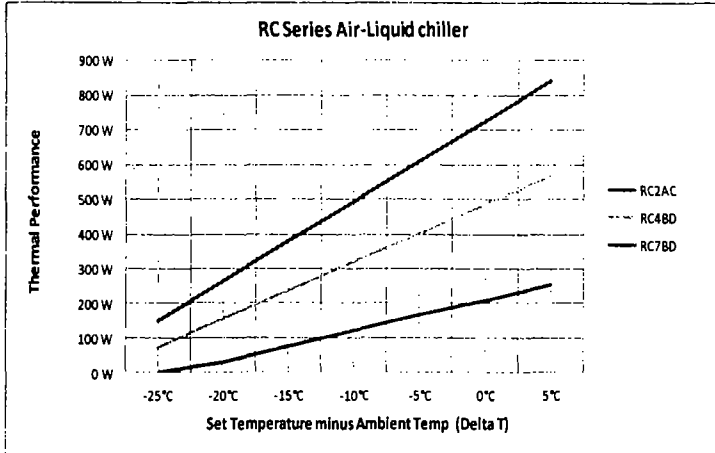
- * Chassis depth: 15" or 22" deep (15" not available for all configurations)
- * Chiller Type: Air or Liquid
- * Pump type: Centrifugal: 0.7 Bar (10.5 psi) / 3.8 LPM
Centrifugal (Opt 2): 1.0 Bar (15 psi) / 3.8 LPM
Gear Pump: 6.0 Bar (87 psi) / 3.8 LPM
- * Coolant Port location: Front, Rear (standard) or Both
- * Coolant Port Type: 1/4" flow QD (std), 1/4" flow Brass plated QD,
3/8" SS NPT ports, 3/8" SS Hydraulic QD
- * Calibrated inline Flow Meter
- * External Temp Sensor: 10K thermistor or 100 Ohm RTD
- * Communication Options: RS-232 (std), RS-485, USB and/or Ethernet
- * Mounting: Horizontal (std) or Vertical (rail kit also available)



ThermoTek™

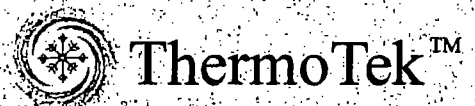
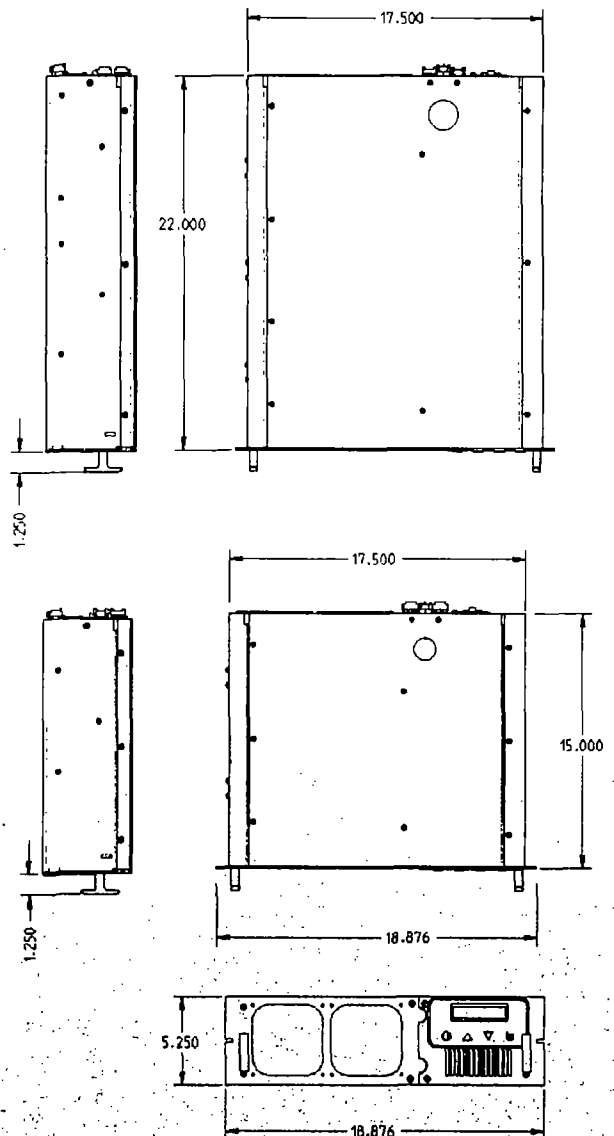
RC SERIES

Rack Mount Chiller



SYSTEM PERFORMANCE

- Thermal Performance: Up to 750 Watts at 0°C ΔT from Ambient Air
- Thermal Performance: Up to 945 Watts at 0°C ΔT from Plant Water
- Flow Rate Availability: Up to 3.8 LPM (1 gpm)
- Pressure Availability: Up to 6 Bar (87 psi)
- Temperature Range: -5°C to +45°C
- Temperature Stability: +/- 0.1°C





ThermoTek™

PRODUCT OVERVIEW

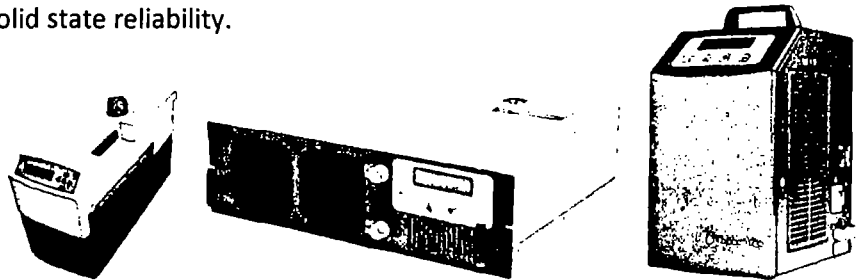
Solid State Recirculating Chillers

ThermoTek is the largest thermoelectric chiller manufacturer in the world servicing the industrial, medical and semiconductor markets. Our chillers for these markets include our NanoTherm chiller, T255P and RC Rack Mount solid state chillers.

NanoTherm At only 15 lbs (6.8 kg) this lightweight, 150 watt solid state chiller is extremely quiet, portable and reliable

T255P 210 watt cooling capacity that is 50% lighter and smaller than a comparable compressor chiller. Offers +/- 0.1°C stability and solid state reliability.

RC Rack Series The smallest and most customizable rack chillers in the industry at only 3U tall. Cooling capacities up to 750 watts with air cooling or 945 watts with a plant water supply.



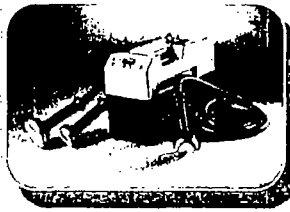
Innovative Designs
For Precision
Thermal Management
Solutions



COMPANY PROFILE

ThermoTek, Inc. has been a leader in the medical device industry for more than eighteen years. With our innovative designs for precision thermal management solutions and numerous patents on our technology, we continue to push the envelope with new and creative offerings.

ArTek® Medical Aesthetic Products



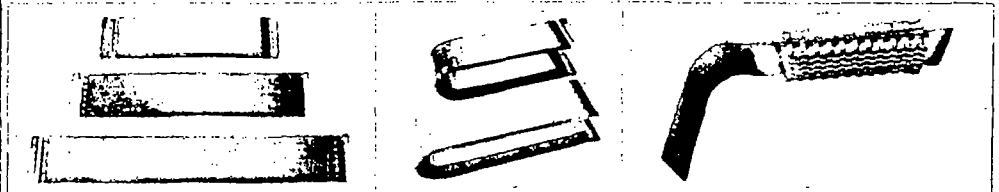
ThermoTek's introduces the ArTek Spot® and ArTek Air® thermoelectric dermal cooling systems. The ArTek Spot® contact cooling device offers effective dermal cooling before and after laser/light based treatments or injectables. The ArTek Air® is a compact solid state dermal air cooling device to augment laser and light-based aesthetic procedures.



PhasePlane™ Flat Heat Transfer Pipes

PhasePlane™ is an aluminum-extrusion, grooved-wick, flat heat transfer pipe with many advantages over standard, copper, and sintered-wick heat pipes.

- ◇ Improved performance over traditional sintered-wick heat pipes in gravity aided horizontal and vertical orientations
- ◇ Stackable, Bendable and Bondable
- ◇ Mass manufacturability
- ◇ Low Weight
- ◇ Easily implemented into complex designs



ThermoTek™