

**THERMAL
CARE** 

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CRA SERIES

MULTIZONE MOLD
TEMPERATURE CONTROLLER

For the Optical Disc Industry



CRA SERIES

MULTIZONE MOLD TEMPERATURE CONTROLLER

Replicators can now get precise temperature control for multiple zones of any optical disc mold from a durable, single-point temperature control unit. The CRA Series Temperature Controller from Thermal Care, Inc. features a compact vertical design and is easy to install and operate.

CRA Series units can control any type of mold zone including moveable, stationary, sprue and punch cut. Units come standard with a wide variety of helpful features that make it a superior value for any replicator.



CRA SERIES UNITS SAVE TIME & MONEY

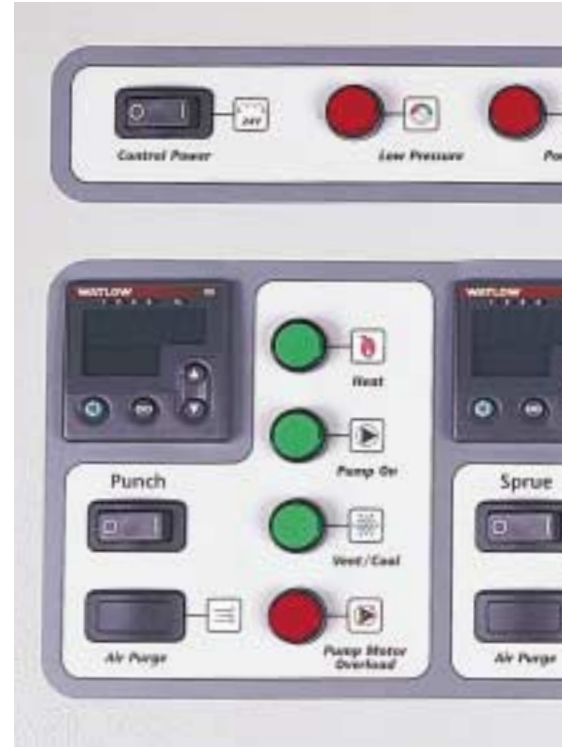
Single point power, cooling water and air connections mean less time and fewer materials needed for installation.

Multi-stage pumps provide durable, efficient operation for low-flow/high pressure requirements.

Premium components and durable construction assure maximum operating performance. Less downtime and reduced maintenance saves money.

STANDARD MECHANICAL & DESIGN FEATURES:

- High-efficiency, vertically-mounted, multistage stainless steel centrifugal pumps.
- Nonferrous construction of water circuit eliminates corrosion.
- Low watt density heaters with incoloy 800 sheathes.
- Internal, low-flow bypass lines protect pumps.
- Pump seal cavity vent lines ensure proper fill and elimination of air.
- Single point cooling water connection.
- Low chilled water pressure switch.
- Individual liquid filled pressure gauges for each zone and for system chilled water supply.
- Individual circuit isolation valves.
- Individual zone pressure relief.
- Premium quality solenoid valves.
- Swivel casters and leveling feet allow for flexibility and stability.
- Side panels swing open and can be removed entirely for quick access to internal components.
- Sloped control panel is easy to read and operate.
- High quality, powder coated cabinetry.



OPTIONAL EQUIPMENT OR FEATURES:

- Automatic zone air purge.
- Remote RTD control.
- RS232/485 and analog (4-20 mA) communications.
- High temperature operation (up to 140°C/284°F).
- Central PC-based control of several machines with monitoring and data-logging capabilities.
- CE, C-UL and ESA construction.
- 50 micron chilled water inlet filter.

Plus, for added protection, optional Silicon Controlled Rectifier (SCR) heater contactors allow cycle rates under one second, which stabilizes heater surface temperatures and greatly reduces fatigue from thermal stress. These solid state devices have no moving parts and virtually limitless life expectancy. SCRs provide ultra-durable temperature control and come with an extended 5-year warranty.

Accurate temperature control and equipment protection are at the heart of every Thermal Care CRA Series Multizone Mold Temperature Controller.



← EVERY CRA SERIES UNIT IS BUILT USING HIGH QUALITY ELECTRICAL COMPONENTS.

CRA SERIES CONTROL PANEL AND ELECTRICAL SYSTEM

CONTROLLER INTERFACES COME STANDARD WITH THE FOLLOWING FEATURES:

- Latest 1/16" DIN microprocessor technology.
- PID control algorithms and autotune.
- Dual LED displays.
- E-Stop with guard.
- Alarm horn.
- Sealed, high visibility, 16-mm LED operating lights.
- Durable, marine-duty, sealed rocker switches.

ELECTRICAL SYSTEMS COME WITH THE FOLLOWING FEATURES:

- 3-phase power monitor with under voltage, phase reversal and loss of phase protection.
- 3-phase power cutoff on high temperature and power faults.
- UL type I gasketed enclosure.
- Hinged, sloped control panel interlocks with main enclosure.
- Branch circuit protection.
- Thru-door, lockable disconnect switch.
- Alarm horn.
- Internal wiring protected against dirt and liquids.
- 24 VAC control circuitry.
- NFPA 79 wiring standards.
- Single point power connection.





CRA SERIES UNITS USE VERTICAL MULTISTAGE PUMPS

Every Thermal Care CRA Series Multizone Mold Temperature Controller utilizes high quality vertical, multistage, centrifugal pumps for years of efficient and dependable operation.

The robust design withstands poor water conditions better than turbine and positive displacement pumps. The laser-welded impellers and floating seal rings significantly improve efficiencies over single stage and turbine pumps.

◀ VERTICAL MULTISTAGE PUMP

CRA SERIES PUMPS ALSO COME WITH THE FOLLOWING FEATURES:

- Vertical design reduces equipment footprint.
- Stainless steel construction eliminates corrosion.
- Standard NEMA frame, TEFC motors improve durability.
- Standard operating range to 120°C/248°F.

COOL TOP OPTION INCREASES TEMPERATURE OPERATING RANGE

Designed for use where desired operating temperatures are as high as 140°C/284°F, or where seal durability is at a premium. Seal isolation chamber keeps seal area cooler thereby extending the operational window.



PUMP SEAL MAINTENANCE IS EASY

The severe-duty seal materials greatly minimize seal maintenance and the one-piece, cartridge-style design makes service easy if required. It's as simple as unbolting the motor and replacing the seal cartridge as shown in these photos.

SEAL CARTRIDGE ▶



EXCLUSIVE WARRANTY PROTECTION

NO OTHER MANUFACTURER OFFERS A WARRANTY AS COMPREHENSIVE.

A full 2-year warranty on parts and labor, plus a 3-year warranty on the microprocessor and its parts. All administered by Thermal Care's fully staffed service department.



7720 N. Lehigh Avenue
Niles, IL 60714-3491
Toll-free 888-828-7387
Phone 847-966-2260
Fax 847-966-9358
www.thermalcare.com

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