

THERMOCUBE PAO

COMPACT 275 WATT RECIRCULATING CHILLER FOR PAO FLUID



Why choose ThermoCube?

- **Compact size**
- **Precise temperature control, even near ambient**
- **For use Fluorinert or PAO**
- **Very energy efficient**
- **Quiet**

Applications

- **Avionics bench testing**
- **Airborne cooling**
- **Power Supply cooling**

Solid State
COOLING SYSTEMS
Temperature Control...Precisely.

THERMOCUBE™ PAO

THERMOELECTRIC RECIRCULATING CHILLER

WHY CHOOSE THERMOCUBE?

Customers choose the ThermoCube for its compact size, quiet operation, precise temperature control and energy efficiency.

RELIABLE FREON-FREE THERMOELECTRIC TECHNOLOGY

The ThermoCube uses thermoelectric technology, widely used throughout the world for 50 years in various applications from spacecrafts to home appliances. With lifetimes exceeding 200,000 hours, the thermoelectric modules at the core of this chiller make for ultra-high intrinsic reliability.

LOWER HEAT LOAD

ThermoCube PAO is available in 275 Watt capacity, below the economical range of refrigerant-based chillers.

WHISPER QUIET

With only two moving parts, the pump and cooling fan, ThermoCube is quiet.

PRECISE TEMPERATURE CONTROL

Because electrons transfer the heat, ThermoCube responds instantaneously to changes in load. The digital PID temperature controller holds to $< \pm 0.05$ °C, even near ambient.

ENERGY EFFICIENCY

ThermoCube is very energy-efficient. Its thermoelectric modules are powered by a variable voltage power supply that provides the minimum power required to control the temperature at set point, so ThermoCube only draws as much power as needed. It was also designed to operate in the modules' most energy-efficient range.

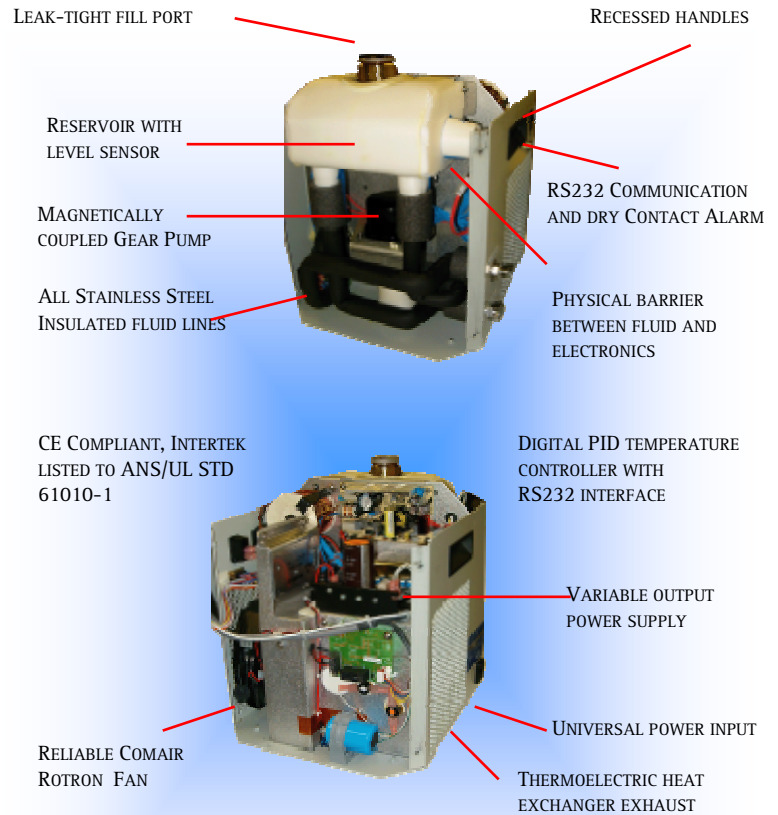
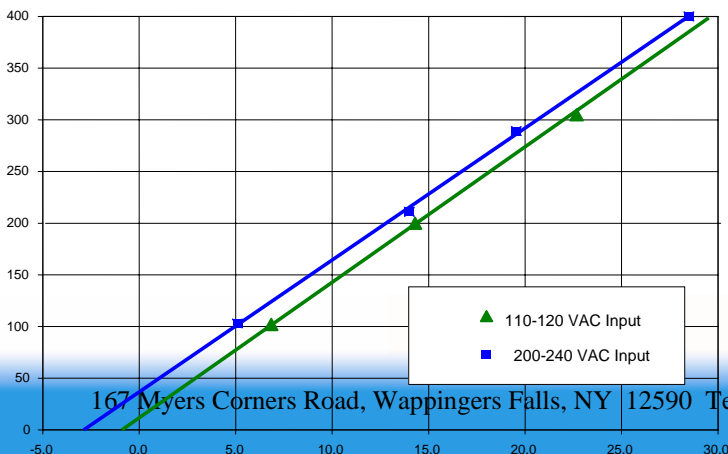
NO VIBRATION

ThermoCube is virtually vibration-free equipped with smooth-flow magnetically coupled gear pumps.

HIGH PRESSURE PUMPS STANDARD

ThermoCube's standard pump is capable of delivering up to 45 psi for laser diode and other high-pressure applications.

Figure 1 Cooling Performance of ThermoCube PAO
PAO Coolant, 20 deg C Ambient



SPECIFICATIONS SUMMARY

(May include optional components.)

Operating Range: 0 to +50 °C

Cooling Capacity: 275 W at 25 °C (25 °C ambient)

Modes: Fixed setpoint, cycling

Precision: $< \pm 0.1$ °C, even near ambient

Coolant: PAO, water/glycol mixture, industrial water, DI water or Galden/Fluorinert

Filter: 5 μ m external fluid filter

Power: 85 - 265 VAC, 50 or 60 Hz

Pumps: 1 or 2 lpm @ 30 psi mag coupled gear

Plumbing: Stainless steel, Ni coated aluminum

Alarms: Dry contact
(temperature, system and fluid level)

Process Fittings: 1/4" Swagelok

Noise: 63 dBA at 3 feet

Size (L x W x H): 12.75 x 11.0 x 12.75"

Weight: 34 lbs.

STANDARDS: CE, INTERTEK LISTED TO ANS/UL STD 61010-1

Please refer to the "tech info" section on our web site for