

### MODEL K44L Low Temperature Secondary Comparison Furnace

Pond Engineering's K44L Furnace provides an affordable, compact system for comparison calibration of up to six thermometers from 90°C to 450°C. The innovative three-zone furnace offers the user-active control of the primary setpoint as well as the temperature gradient between the core and each of the guard blocks.

Core and guard-zone blocks of machined aluminum suspended in a fiberglass insulated envelope provide excellent responsiveness, while simultaneously requiring minimal power to achieve the desired setpoint. This configuration also provides excellent axial and circumferential gradient control while maintaining a wide setpoint operating range. Custom configurations with even higher upper operating temperature limits are available upon request. Rapid heating and stabilization times coupled with integrated user prompts and configuration functions make calibrations quick and simple.

Interactive controls on a sloping front panel increase usability in a stand-alone configuration. Optional remote interface (RS-232 or USB) allows users to integrate the K44L into an automated calibration system. Communication software is available for either interface, and allows users to monitor and configure the system from any remote computer with a graphical interface.



### SPECIFICATIONS

System Setpoint Range:	90°C to 450°C
Control Stability:	+/- 0.003°C
Thermowells:	Aluminum ≈0.325" (8.2 mm) dia. ≈12" (304 mm) deep
Operator Interface:	Manual front panel (optional USB or RS-232)
Power Requirements:	120 Volts 10 Amps maximum A.C. 60 Hz. (other input power available on special order)
Ambient Operating Range:	15°C to 30°C non-condensing
Cabinet Physical Dimensions:	12" (30.5 cm) wide 8.5" (21.6 cm) deep 18" (45.7 cm) high

All specifications subject to change without notice.

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### TO ORDER, OR FOR MORE INFORMATION:

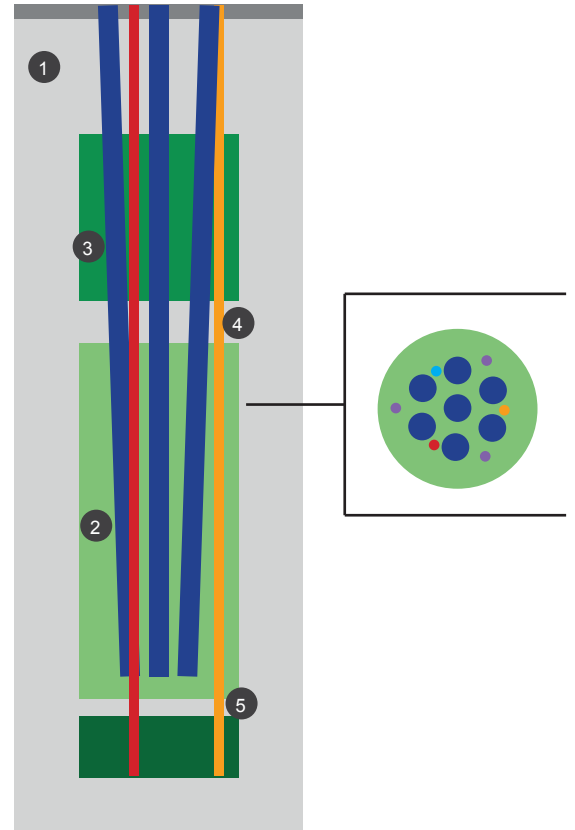
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# KEY TECHNICAL FEATURES

- 1 High temperature fiberglass insulation allows for the use of a low level power supply, even in high temperature operation, and improve temperature uniformity
- 2 Main zone of machined aluminum provides exceptional temperature uniformity
- 3 Guard blocks (2x), driven by an integrated controller, eliminates axial gradients and compensates for the stem conduction of the particular thermometers being calibrated
- 4 High temperature platinum resistance thermometers with 32-bit ratiometric signal conditioning (no thermocouples) provide unsurpassed stability and accuracy
- 5 Over-temperature protection (both primary and secondary) is ensured by all three sensors in conjunction with the integrated microprocessor-based controller with watchdog safety shutoffs



RANGE OF APPLICATION 90  450

