



THERMAL SPECIMEN DEMAGNETIZER



Model TD-48SC

High-capacity single-chamber thermal demagnetizer for geologic specimens

- 48 Sample Capacity
- 3-Layer Seamless Magnetic Shield
- Compact Single Chamber Design
- 3 Zone Oven for Uniform Temperature
- 25 to 800°C Range

The TD48-SC thermal demagnetizer has a single chamber in which the samples are heated and cooled. The oven chamber is enclosed in a three layer, cylindrical mu-metal shield which will attenuate the earth's field to less than 10 nT when the system is oriented in an east-west position. Up to 48 samples can be processed in a single batch. The oven has three separate heating zones - a long central sample zone and a short trimmer zone on each end of the central zone. The three heating zones are individually monitored and driven by separate temperature programmers which are all tied to a single setpoint temperature. This three-zone design insures that temperature gradients over the length of the sample zone are kept to a minimum. The end zones and the floor of the central zone are lined with a quartz sleeve. This feature minimizes wear to the oven wall but still allows for excellent feedback between the sample zone thermocouple mounted on the sample boat and the heater windings.

The temperature controllers are microprocessor based PID type controllers which are tuned to minimize temperature overshoot during heating and maximize temperature stability at the setpoint. A system timer allows the user to start a batch of samples and complete the heating and cooling cycles without attending the unit.

SPECIFICATIONS

Absolute Temp. Accuracy:	10°C
Temp. Repeatability:	1°C
Max. Temp. Gradient:	10°C Total Over 16" Sample Region of Oven Chamber with Full Sample Load. 3°C Attainable with Partial Sample Load
DC Field in Sample Region:	Less than 10 nT (Gammas), When system is Oriented in East-West Direction
Heating Time:	48 Specimens From 25°C to 600°C in 45 Minutes
Cooling Time:	48 Specimens From 600°C to 40°C in 20 Minutes
Power Requirements:	115 VAC, 30 AMPS; 230V operation with supplied step-down transformer
Size:	Oven Unit - L x 16" (40.5 cm) W x 13" (33 cm) H Control Unit - 17" (43 cm) W x 15" (38 cm) D x 7" (18 cm) H

Optional Accessories:

Controlled Field Coil

Controlled Atmosphere Chamber