

# Model 2505 Portable Permeation Oven

## Overview

Sabio's Model 2505 Portable Permeation Oven generates precise gas concentrations for calibration of air quality analyzers, source monitors and other instruments. The Model 2505 may be combined with the Model 2010 and 4010 Gas Dilution Calibrators to form a very powerful intelligent calibration system.

Carrier air is provided by an internal air supply featuring an inlet filter, quiet internal pump and rear mounted scrubber canister. A precision regulator and critical orifice is used to regulate carrier flow through the permeation oven. A 0-15 psig pressure gauge is calibrated to provide carrier flow reference points.

The heart of the Model 2505 is a large capacity Teflon coated permeation chamber that can accommodate many types and sizes of permeation tubes concurrently. A front-panel-mounted knurled screw-in stopper is provided for easy access of the permeation chamber. The permeation chamber is housed in a precise temperature controlled insulated oven that features a carrier pre-heater, heaters and RTD sensor.

The oven temperature is precisely maintained by a microprocessor based temperature controller driving an optically isolated DC control module. Pulse width modulation is used to regulate the heat cycle to minimize thermal noise due to heater on/off cycling.

Dual displays on the temperature controller provide direct readout of set point temperature and actual oven temperature. Oven temperature is maintained within +/- 0.1 deg. C of setpoint.

The oven temperature control system and carrier air supply are battery backed for 8 hours of operation.

## Standard Features Permeation Oven

- ▶ Teflon Coated Chamber: 3.09 cm inside chamber diameter, 13.4 usable length, 107 cubic cm volume. Nominal carrier gas flow is 100 sccm
- ▶ Stainless Steel and Teflon gas handling materials



## SPECIFICATIONS

*Specifications subject to change without notice*

Mechanical	6.0" (15.2 cm) H 14.5" (36.8 cm) W 18.0" (45.7 cm) D
Weight	24 Lbs. (10.9 kg)
Electrical	Standard: 98-264 VAC, 150 VA, 50/60 Hz
Battery	Approximately 8 hours
Accessory Operating	High Impact Transport Case 5° C to 65° C Optional temperature ranges upon request
Temperature Range Unit Operation Temperature	5-40° C Optional temperature ranges upon request