

- For quick and convenient measurement of environmental samples with charged-particle detectors.
- Superior design and construction.
- Accommodates extra large samples.
- Easily adjustable and repeatable sample-detector geometry.
- Low-background sample holders.
- Compatible with any ORTEC charged-particle detector equipped with a Microdot® connector.
- Front-opening hinged door.
- Three-way, high-quality, "Pump," "Hold," and "Vent" vacuum valve.
- Compatible with the ORTEC ALPHA-PPS-115 (or -230) Portable Pumping Station.



The ORTEC Model 808 Vacuum Chamber provides a quick and convenient way to measure the alpha and beta activity of environmental samples. It accommodates a wide range of sizes of samples and detectors. The chamber can accept sample trays measuring up to 10.8 x 14 cm (4.25 x 5.5 in.), with nominal sample size 10 cm (4 in.) in diameter.

The precise, internal, rack mounting structure ensures repeatable detector/sample geometry. A front-opening, hinged door permits easy access for inserting and removing samples and detectors.

A wide variety of charged-particle detectors fitted with a Microdot S-93 connector can be used. Typically, one would use ORTEC ion implanted or surface-barrier detectors in a B mount; also suitable in certain applications are detectors in E or T mounts.

The sample holder trays are made of special low-background materials. The chamber is equipped with a hermetic electrical feedthrough that provides a male connection to a Microdot S-93 for ready installation of a silicon charged-particle detector and preamplifier.

A 3-inch hook-and-loop fastener is provided for connecting the preamplifier to the rear panel.

The ORTEC Model ALPHA-PPS-115 (or -230) Portable Pumping Station is an excellent choice for use with the Model 808 Vacuum Chamber. The optional vacuum hose, model 808OPT1 provides a 4-ft vacuum hose that connects to the ALPHA-PPS-115 (or -230).

### Specifications

#### CONTROLS

**PUMP/HOLD/VENT** Front-panel position control for venting or pumping the vacuum chamber. A hold position independently isolates both the pump and the chamber.

#### OUTPUTS

**DETECTOR** Rear-panel BNC connector provides connection from the detector mounted in the vacuum chamber to the preamplifier, which can be mounted to the Model 808 rear panel with a hook-and-loop fastener that is provided with the instrument.

**VACUUM** Rear-panel vacuum pump connector (Swagelok® connector for 3/8-in. O.D. tubing) for connecting the Model 808 Vacuum Chamber to a vacuum pump.

#### MECHANICAL

##### WEIGHT

Shipping 9 kg (20 lb).  
Net 4.37 kg (9 lb 10 oz) with trays and holder.

##### DIMENSIONS

Cabinet 20.9 cm (8.25 in.) wide by 26 cm (10.25 in.) high by 34.3 cm (13.5 in.) deep.

Chamber 11.4 cm (4.5 in.) wide by 16 cm (6-3/16 in.) high by 15.7 cm (6-3/16 in.) deep.

Sample Trays 10.8 cm (4.25 in.) wide by 14 cm (5.5 in.) long. Nominal sample size up to 10.2 cm (4 in.). Without tray holder, holds sample sizes up to 4.5 in.

### Related Equipment

The Portable Pumping Station, Model ALPHA-PPS-115 (or -230), consists of a cart-mounted, rotary direct-drive mechanical vacuum pump to which is attached an anti-backstreaming trap, a thermocouple vacuum gauge, and flexible bellows tubing with appropriate termination for connecting directly to the Model 808 Vacuum Chamber. The Pumping Station requires no assembly.

### Ordering Information

Model	Description
808	Vacuum Chamber
808OPT1	Vacuum Hose (4-ft.) to connect the ALPHA-PPS-115 (or -230)
ALPHA-PPS-115	Pumping Station (115-V AC version)
ALPHA-PPS-230	Pumping Station (230-V AC version)