MIRION TECHNOLOGIES

Radiation Safety. **Amplified.**

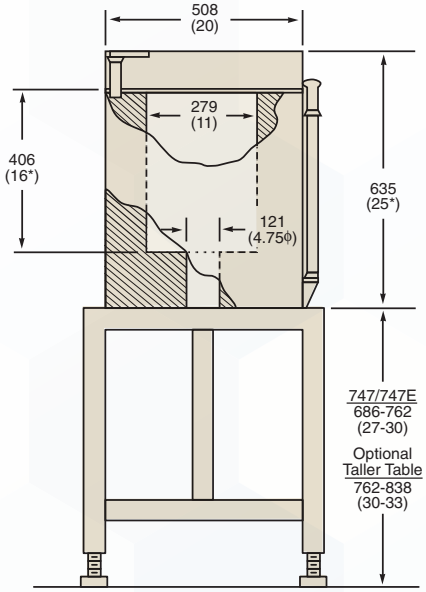
Model 747 and 747E

Lead Shield

Nuclear | Healthcare | Homeland Security & Defense | Labs and Education | Industrial and Manufacturing

KEY FEATURES

- 4-inch thick low-background lead
- Easy-to-use lever-actuated door
- Compact – 2 foot by 2 foot floor space
- Graded tin and copper liner
- Adjustable foot pads



Front View – Dimensions in mm (inches)
* 12 in. and 21 in. respectively on 747E

DESCRIPTION

The Model 747 CANBERRA Lead Shield is intended for use with Germanium detectors. It will prevent high background counts due to external sources, thus reducing counting times and improving the lower limit of detection. This shield is compact and easy to use with only 0.4 m^2 (4 ft^2) of floor space required. The shield may be set up so that the door opens right or left without need for clearance to the rear. A convenient lever-actuated door lift allows the door to be placed firmly on the shield to prevent direct path radiation from entering.

The 1 mm (0.040 in.) tin and 1.6 mm (0.062 in.) copper graded liner prevents interference by lead x rays. The exterior is attractively finished with light grey textured paint, the interior is coated with clear polyurethane to prevent oxidation and facilitate cleaning. The floor of the shield has a 12.1 cm (4.75 in.) diameter hole which will accommodate either flanged or slimline cryostats.

The 747E model is 10 cm (4 in.) shorter than the standard 747 and does not have a door lift mechanism.

A number of options are available.Four-inch long, clamp-on cold finger extensions are available for most cryostats. Preamp hardware Option PHW (for CANBERRA Preamp) is also required to ensure that flanged cryostats fit within the 28 cm (11 in.) shield diameter. Adjustable foot pads provide a convenient means for leveling. Optional annular lead plugs are available to minimize the streaming path through the hole in the shield floor. A detector lift and taller table are available to accommodate installation of other cryostat types, such as the Cryo-Pulse® 5 Plus, MAC's and 7500SL-RDC. See option list on back for details.

CANBERRA

Model 747 and 747E Lead Shield

SPECIFICATIONS

MATERIALS

- OUTER JACKET – 9.5 mm (3/8 in.) thick low carbon steel.
- BULK SHIELD – 10 cm (4 in.) thick low background lead.
- GRADED LINING – 1 mm (0.040 in.) tin and 1.6 mm (0.062 in.) copper.

WEIGHT

- 747 – 1088 kg (2400 lb); 1134 kg (2500 lb) shipping weight.
- 747E – 950 kg (2100 lb); 1000 kg (2200 lb) shipping weight.

FINISH

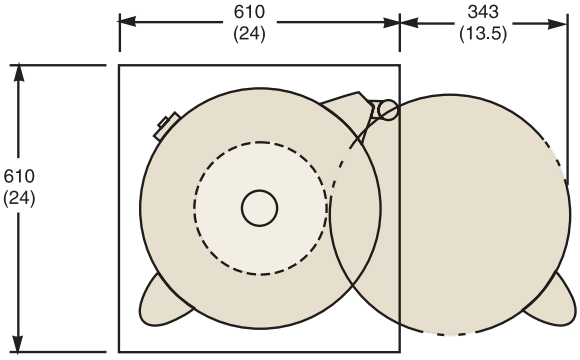
- CANBERRA light grey textured epoxy.

MECHANICAL

- DOOR HINGE – Oiled bronze bushings.
- DOOR LIFT – Lever actuated cam (747 only).

OPTIONS

- Model CFE-4 clamp-on cold finger extension.
- Model PHW Special Preamp Hardware (7500 only).
- Model 7415 Detector Lift (for use with Cryo-Pulse 5 Plus and MAC's).
- Model 747-1 Annular Plug (7500 only).
- Model 747-2 Offset Annular Plug (7500SL only).
- Model 747-3 Split Annular Plug (7500SL-RDC only).
- Model 747-5 Taller Table (7500SL-RDC only).



Top View – Dimensions in mm (inches)

CANBERRA