

Source Holders for Model 44D Well Chamber

44D-1 for ¹³⁷Cs Tube Sources and HDR ¹⁹²Ir

The Model 44D-1 positions ¹³⁷Cs tube sources in the chamber for accurate assays of activity. The source holder is a 6.3 mm diameter acrylic tube, 23.4 cm long, with centimeter markings for accurate positioning and determination of source length. A 7.1 cm (2.8 in) diameter lid centrally positions the acrylic tube which can be easily adjusted in the vertical direction with a nylon thumb screw.

44D-1SL for Single Linear Seed Sources

The Model 44D-1SL has a 6.3 mm diameter, 22.7 cm long acrylic tube with a 1 cm long thin-walled section, 1.5 mm diameter, for counting ¹²⁵I seed sources. The lid is identical to the 44D-1 source holder. The acrylic tube only (44D-1S) may be purchased as an accessory to the 44D-1.

44D-2 for Flexible Ribbon Sources

Designed for use with the CNMC 44D brachytherapy calibration well chambers, the Model 44D-2 positions ¹⁹²Ir seeds in the well chamber for accurate assays of activity. The acrylic coil source holder holds up to twelve ¹⁹²Ir seeds with 1 cm spacing and no overlap. The index pins in the 7.1 cm diameter lid assure orientation reproducibility.

44D-3 Seed Batch Assay Holder

Multiple seed measurement can be performed using the Model 44D-3 seed batch assay holder, which holds up to 500 iodine or palladium seeds. For a large number of seeds, a random sampling of at least 10% of the seeds should be calibrated. The 44D-3 positions seeds at the center of the sweetspot of the well chamber. Self absorption resulting from a large number of seeds being placed in the source holder is significant. Correction factors must be experimentally obtained for each type of seed used. This method is described in Medical Physics 22 (9), Sept. 1995.

MODEL 44D-1



MODEL 44D-1SL



MODEL 44D-2



MODEL 44D-3

