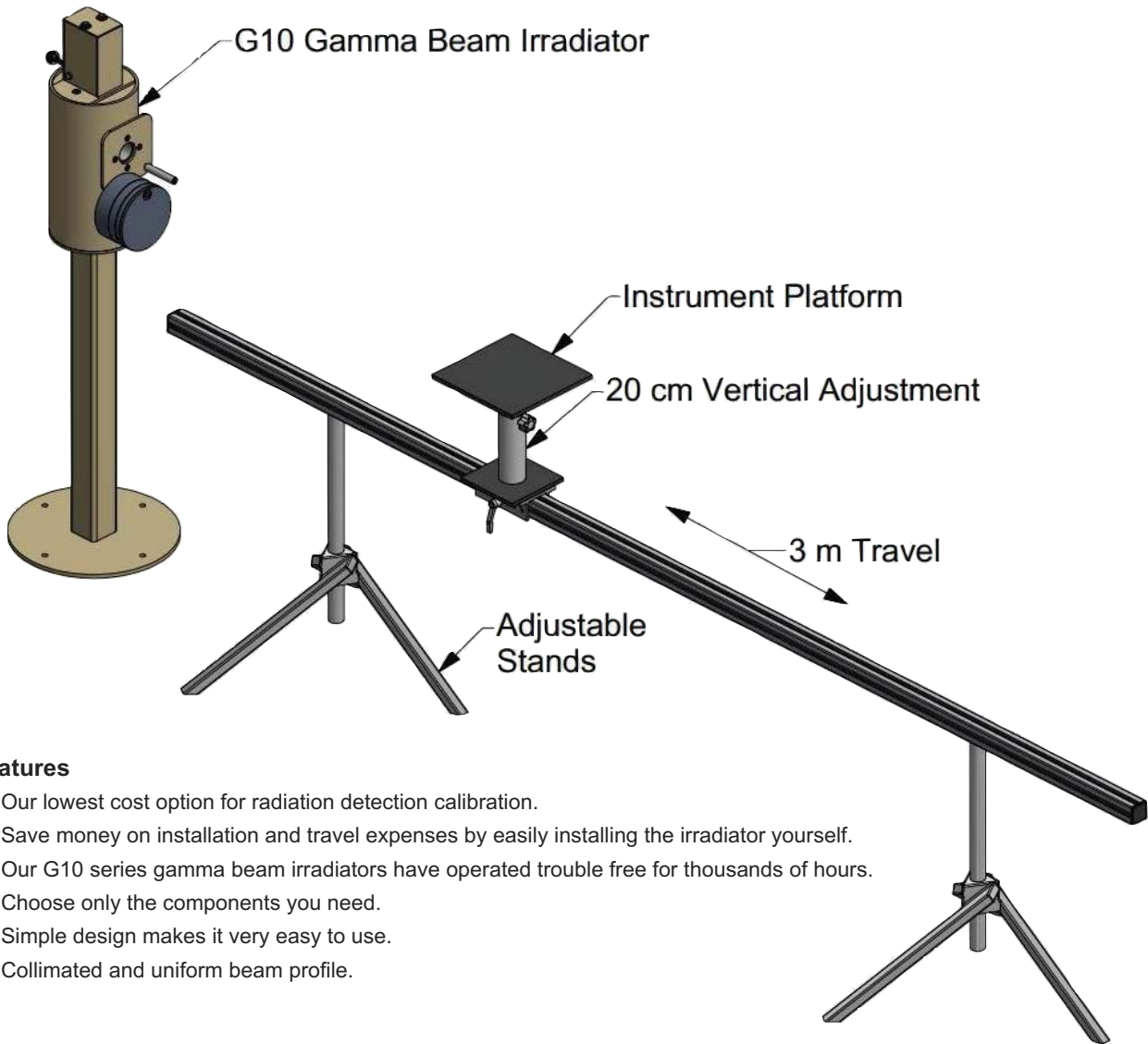


Hopewell Designs, Inc.

G10-3 and G10-10 Gamma Beam Irradiator



Features

- Our lowest cost option for radiation detection calibration.
- Save money on installation and travel expenses by easily installing the irradiator yourself.
- Our G10 series gamma beam irradiators have operated trouble free for thousands of hours.
- Choose only the components you need.
- Simple design makes it very easy to use.
- Collimated and uniform beam profile.

Overview

Are you looking for a way to bring your radiation detection instrument calibration “in-house” but don’t have the throughput to justify the costs? Hopewell Designs introduces the G10-3 and G10-10, sub-models of our popular G10 series gamma beam irradiator which are used in dosimetry/calibration laboratories worldwide. These models provide a horizontal radiation beam for calibrating radiation detection instruments and irradiating personnel dosimetry. These models include the source shield with beam port and stand, a Cs-137 source and manual controls. Based on your budget and requirements, you can add a single

Standard Models				
Model	Maximum Cs ¹³⁷ Sources	Exposure Rates	Weight with Stand	Overall Dimensions
G10-x-3	300 mCi	0.1 mR/hr to 3 R/hr	125 kg	1.35 m x 3.5 m
G10-x-10	10 Ci	0.1 mR/hr to 50 R/hr	170 kg	1.35 m x 3.5 m

rail linear positioning system, adjustable support stands, a Z-axis with 25 cm of travel, attenuator set, an instrument camera with LCD monitor for remote viewing, jigs for instrument placement or even an optional electronic or automated computer control system.

G10-3 and G10-10 Gamma Beam Irradiator

Source Shield

The source shield, which also serves as a DOT7A shipping container, is a steel-encased lead cylinder with the source rod mounted in the center of the shield. The horizontal beam port provides a 30cm diameter beam at 1 meter. A stainless steel and tungsten rod holds the source(s). Tungsten, used above and below the sources, limits radiation along the axis of the source rod. A handle on top of the shield raises the source to the beam port. Indicator lights on top of the shield show the source position. External exposure rates are less than 5 mR/h at 30cm from the shield when sources are shielded. Source can be locked when not in use.

Radioactive Sources

Sources are doubly encapsulated, hermetically sealed special form sources. The G10 can hold one or two sources to provide a broad range of exposure rates.

Ancillary Equipment and Options

Linear Positioning Systems

A simple linear positioning system provides accurate instrument placement. The platform can be moved to a desired distance (indicated by a scale on the track) and locked in place. The height can be adjusted and locked. Standard travel is 3m for the X-axis (horizontal) and 20cm for the Z-axis (vertical). The platform is engraved in a 1cm with tapped holes every 10cm for alignment pins. Jigs can be quickly placed on the

platform to give quick, precise positioning.

Attenuators

Three lead discs (4X, 10X, and 25X attenuation) can be used singly or in combination to provide 8 levels of exposure rates.

Instrument Camera

Instrument Camera and a small, but easy to view LCD monitor is provided to facilitate camera setup.

Jigs/Fixtures

Dozens of standard jigs are available for nearly every instrument.

