

RADIOACTIVE SOURCES

Model RN-150 is a radon gas source that dispenses discrete quantities of radon gas

Calibrated gas sources were developed by Pylon to satisfy the need for a convenient and accurate means of calibrating field instrumentation. These sources feature reliable rates of emanation, high accuracy and ease of use. They are widely used for the calibration of radon measuring instruments.

The Pylon Model RN-150 Calibration Radon Gas Source is the most convenient method of dispensing precise quantities of radon gas for the calibration of Lucas type cells, Radon Detectors and other types of radon measuring instruments. The Model RN-150 consists of a 20 litre radon (Rn-222) gas source and a 20 millilitre gas dispenser. This allows a large number of successive samples to be taken per day.

The classical method of producing radon gas involves degassing a solution containing radium salts; a process requiring careful attention to detail if accurate results are to be obtained. The equipment is fragile and generally not suitable for field use. There is also the attendant risk of spills and contamination.

The RN-150 is a portable, rugged unit which is ideal as either a field or laboratory source of radon gas. They contain a dry radium (Ra-226) source which provides calibrated quantities of radon (Rn-222) for laboratory or field use.

Applications:

- Radon monitor/detector calibration

Features:



RN-150

- ANSI N538-1979 safety standard
- Multiple Samples
- High accuracy, repeatability
- Easy to use
- Continuous operation
- Constant rate of emanation

Theory of Operation:

The source material is in a form which reliably emanates 100% of the gas produced. This reaches equilibrium in the container. Due to the size of the container, multiple samples may be obtained without affecting the equilibrium.

RN - 150

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Specifications:

	<u>RN-150-3</u>	<u>RN-150-18</u>	
Parent nuclide:	Ra-226	Ra-226	
Nominal activity:	0.081 (3)	0.49 (18)	uCi (kBq)
Activity Tolerance:	-10 / +25	-10 / +25	%
Calibration accuracy:	± 4	± 4	% At a 1 σ Confidence Level.
Housing Material:	Aluminum	Aluminum	
Dispensing Ratio:	1:1000	1:1000	
Sequential Variation:	< 1	< 1	% Per 10 samples.
Operating Temperature Range:	0 to +50 (+32 to +122)	0 to +50 (+32 to +122)	°C (°F)
Storage Temperature Range:	-20 to +75 (-4 to +167)	-20 to +75 (-4 to +167)	°C (°F)
Relative Humidity Range:	0 to 90	0 to 90	%
Diameter:	34.3 (13.5)	34.3 (13.5)	cm (in.)
Height:	37.5 (14.8)	37.5 (14.8)	cm (in.)
Weight:	6.6 (14.5)	6.6 (14.5)	kg (lb.)

- Values are nominal.
- Custom activities available.

Ordering Information:

Model	Part Number	Description
RN-150-3	6202054	Radon source to dispense discrete radon gas samples for scintillation cell calibration (3 kBq)
RN-150-18	6202055	Radon source to dispense discrete radon gas samples for scintillation cell calibration (18 kBq)

THESE SOURCES CONTAIN RADIOACTIVE MATERIALS. PYLON REQUIRES A COPY OF THE USER'S RADIOISOTOPE LICENCE PRIOR TO SHIPPING THESE PRODUCTS.

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