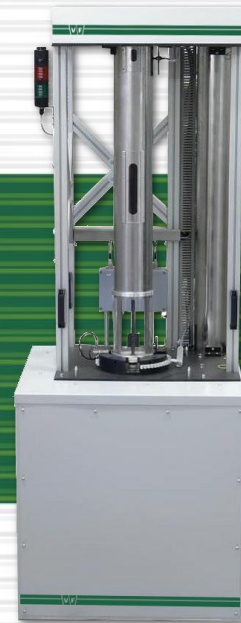


NI-01

NEUTRON IRRADIATOR



MAIN ADVANTAGES

- Simple and reliable design
- Fully automated irradiation process
- Integrated safety system
- Interchangeable neutron moderators

PURPOSE

The NI-01 Neutron Irradiator is fitted with a suitable sealed radionuclide source and serves as a reference source of a homogeneous collimated neutron beam.

It is normally used for calibration of neutron dose rate and dose meters in calibration laboratories

The irradiator consists of a shielded container for one radiation source, a lifting mechanism, a neutron moderator, a mechanical indicator for the source position, a control unit, and a safety system.

The irradiator is set so that the axis of the generated neutron beam is at a height of 1.5 m. There are adjustable legs at the bottom of the irradiator, which allow correction of the beam height.

The irradiator is equipped with a safety system to automatically stop irradiation in abnormal or emergency situations. In the event of a power failure, the exposed source automatically returns to the shielded position by gravity.

SPECIFICATION

Number of nests for the sources	1
Max. dimensions of sources ($\varnothing \times h$)	35 × 60 mm
Max. activity ²³⁹ Pu-Be	2,4E11 Bq
Dose rate in 1 m (neutrons)	< 5 μ Sv/hr
Dose rate in ν 1 m (gamma)	< 0,5 μ Sv/hr
Time for transporting the source to working position	< 5 s
Power supply	230 V / 50 Hz / 1 A
Weight	800 kg
Dimensions (H × W × L)	2100 × 800 × 800 mm
Operating temperature	from 10 to 35 °C

RELATED PRODUCTS

CB-50	Calibration Bench
NI-08	Neutron Irradiator
OG-8	Gamma Irradiator
GI-06	Gamma Irradiator
IG-13	Gamma Irradiator