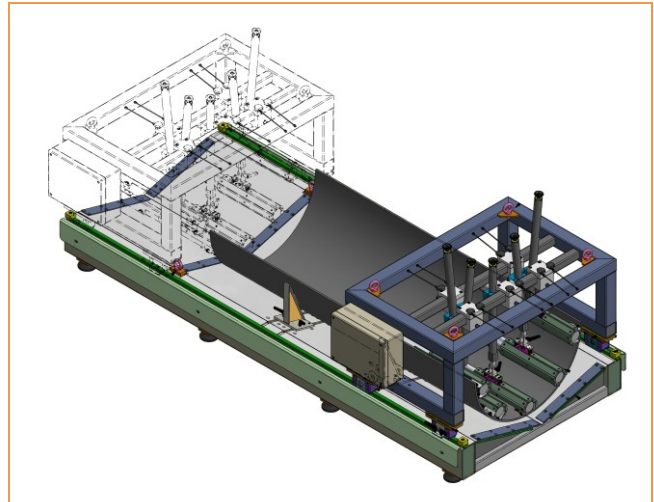


## SURFACE CONTAMINATION MONITOR FOR PIPES OR SURFACES

# PIPE SCANNER LITE

### MAIN FEATURES

- **Extremely adaptive to different diameters and geometries**
- **Fast and precise measurements of surface contamination**
- **Easily deployable mechanical structure**
- Detectors: up to 5 NaI(Tl) 2"x16" adjustable scintillators, including shielding
- Support base structure for pipe sections or surfaces with adjustable runners
- Maximum allowed dimensions of pipes: 2 m, from 4" up to 31"
- Configurable system software



### DESCRIPTION

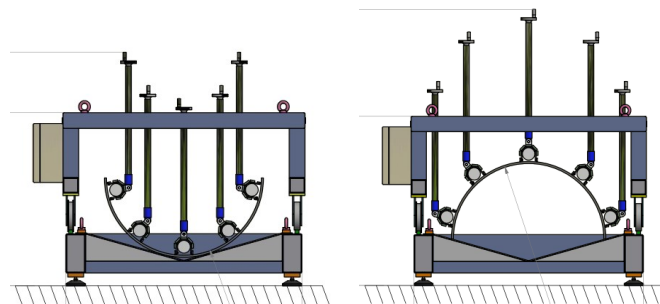
The **PIPE SCANNER LITE** monitor has been designed to easily perform surface contamination measurements of pipe sections coming from activities such as nuclear power plants decommissioning, or in general wherever a radiometric scanning of surfaces or pipes is needed.

The system main components are:

- A base structure supporting the object to be measured, with a "V" platform and adjustable runners
- A wheeled cart that can be manually translated at any desired position along the base structure
- A set of 5 detectors (2"x16" shielded NaI(Tl)) mounted on the cart and manually adjustable
- A panel board and a remote management PC

The base structure can support pipe sections up to 2 m long, with diameters from 4" to 31".

The pipes can be loaded on the base with their concavity facing either up or down: the system has been designed to scan both the internal and the external surfaces.



*Examples of pipe section loading: concavity facing up (left) or down (right)*

According to the pipe diameter, a different number of detector shall be actually used to perform the measurement: 1 detector for the smaller pipes up to 5 detectors for the bigger pipes.

The **PIPE SCANNER LITE** detectors are manually adjustable through knobs and handles, each managing independently every available range of movement (height and orientation), allowing the user to completely setup the measurement equipment according to the geometry of the object to be measured.

The proprietary software installed on the control PC allows to manage all the system functions through a user-friendly interface: measurement start and oversight, release reports archive, definition of isotopes, homogeneous groups and material type, quality control execution.

## TECHNICAL CHARACTERISTICS

### Measurement performance

- Energy range: 40 keV ÷ 2 MeV
- Environmental conditions: -20 ÷ 65 °C
- MDA: < 0.1 Bq/cm<sup>2</sup>, Co-60 and Cs-137, 30 s measurement
- Resolution: < 8% (FWHM Cs-137, 662 keV)
- Gain stability: < 1.5% over 24 h at 20°C

### Detectors

- Type: 2"x16" NaI(Tl) scintillator
- Number: up to 5
- Crystal dimensions: 51 x 406 mm
- Shielding: Pb 10 mm

### Mechanical information

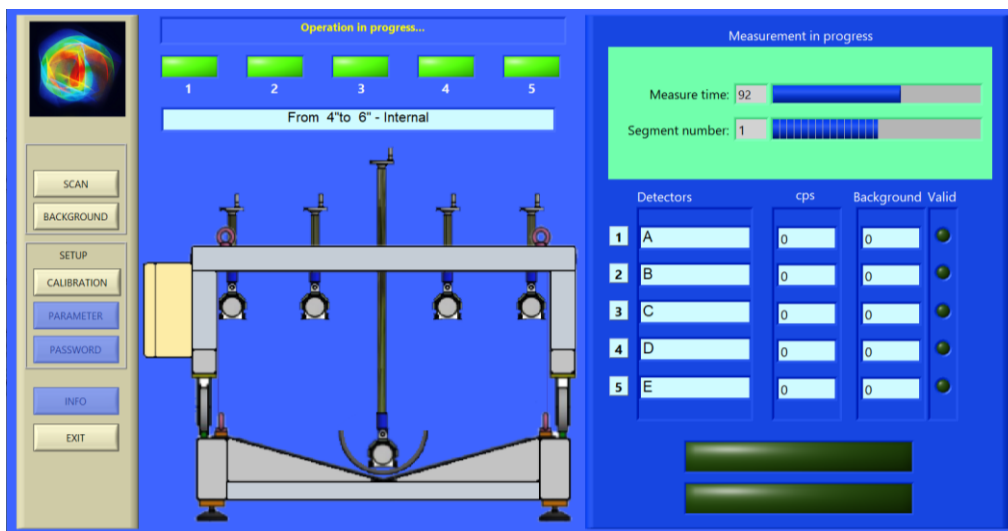
- Overall dimensions: 120 x 300 x 135 cm
- Overall weight: about 700 kg
- Material: painted S275JR steel
- Protection grade: IP55
- Deployment: runners for forklift; lifting eyebolts

### Counting electronics

- Signal acquisition: counter modules
- Front-end electronics: single channels modules ELSE NUCLEAR PAD

### Control software

- Electronics-PC interface: RS-485
- Password-protected settings: quality control and field calibration input, definition of homogeneous groups, scale factors, release factors, limit thickness
- Measurement functions: quality controls and object scanning
- Archived data management: control and calibrations reports, release reports



Control panel for measurements

## OPTIONS

- Multi-channel electronics instead of single channel

## ACCESSORIES AVAILABLE UPON REQUEST

1. Warranty extension from 12 months to 24 months