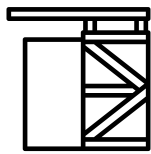
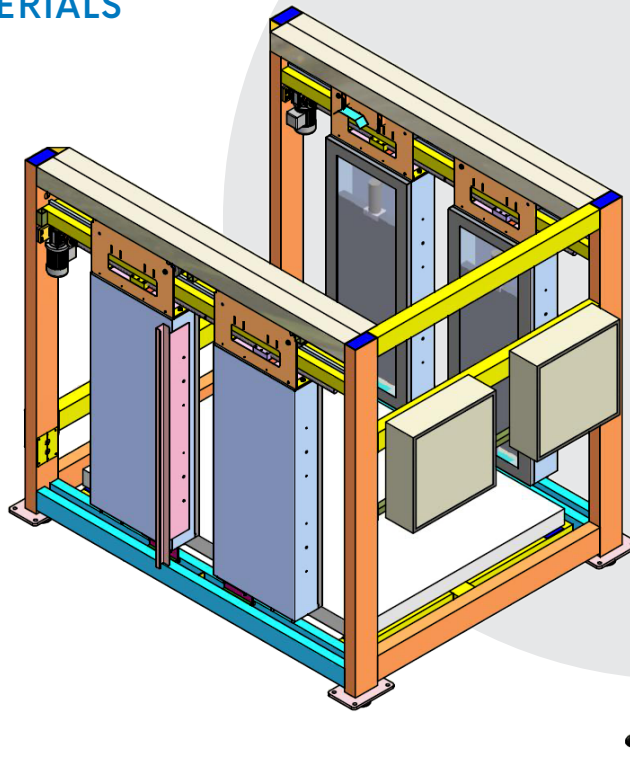


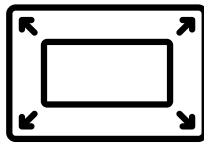


ARCHIMEDES III

RADIATION PORTAL MONITOR FOR EXCAVATION MATERIALS



Adjustable detectors
position



Wide measurement area for
scanning of big containers



High counting
efficiency

Detectors: 100 x 50 x 5 cm
plastic scintillators

Portal-shaped structure
with platform scale

Data archive, shareable
in local network

MDA (Cs-137): 5 Bq/g
(10 min)

The **ARCHIMEDES III** radiation portal monitor is designed to measure the radioactivity level of excavation materials of various nature.

The portal is composed, in its standard configuration, of two couples of large surface detectors (5000 cm²), each mounted on the sides of the mechanical structure.

The portal configuration provides a wide measurement area and it guarantees the best sensitivity. The monitor has an open top; this allows to easily place the containers and boxes to be monitored on the platform. The boxes have specific and defined standard dimensions, which can be inserted in the system database so that they can be recalled during the measurements. The relative position of the detectors is adjustable through a PLC, to maximize the counting efficiency according to the different geometries.

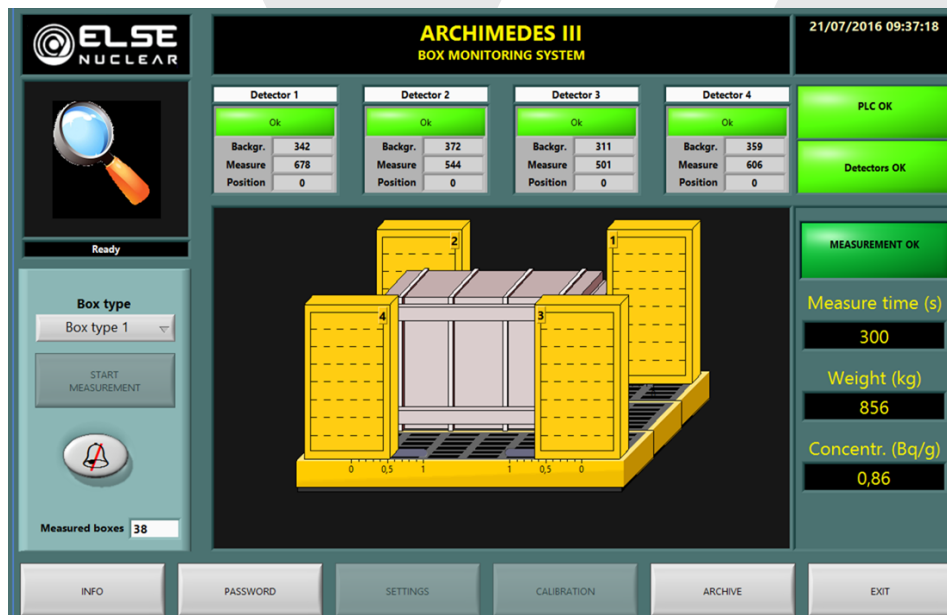
ARCHIMEDES III is equipped with a platform scale, installed at the base of the measurement area, to measure the weight of the boxes.

The whole system is managed by the user-friendly software installed on the control PC.

The environment background is continuously measured, and it is automatically subtracted from the measurements.

The management software performs the following main functions:

- Commands the PLC for the detector movement and adjustment
- Receives as an input the measurement parameters (box dimensions)
- Acquires the weight of the box
- Acquires and processes the measurement data from the detectors
- Performs data analysis, visualization and archive
- Receives as an input new measurement geometries, if needed
- Manages the alarm and malfunctioning statuses
- Saves the measurements in dedicated archives, shareable via LAN



ARCHIMEDES III software interface

TECHNICAL SPECIFICATIONS

Detection units

- Detectors: 4 plastic scintillators
- Detectors dimensions: 100 x 50 x 5 cm
- Energy range: 35 keV ÷ 2 MeV

Weighting system

- Max weight: 5000 kg
- Resolution: 1 kg

ACCESSORIES AVAILABLE UPON REQUEST

- Warranty extension from 12 months to 24 months

