

The Sample InspectorTM

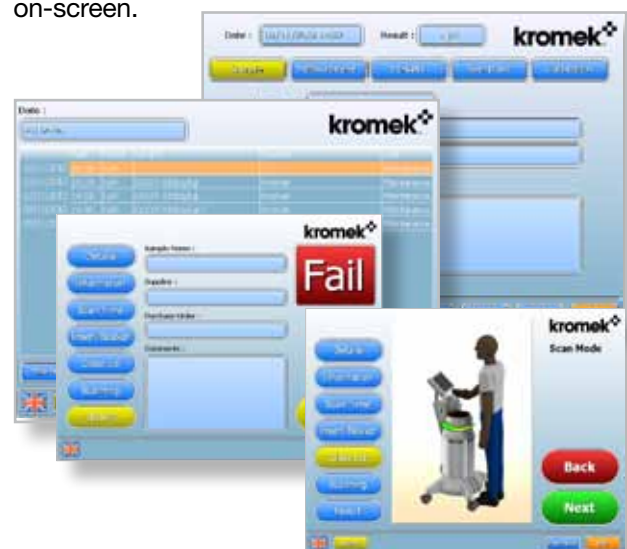
The Kromek Sample InspectorTM is a unique high-performance monitor for detecting the presence of radioactive contaminants in solid foods, liquids, water, soil and vegetation that is quick, reliable and precise.

Distinctive in style and using the highest sensitivity detection systems available today, the Sample InspectorTM provides high throughput for multiple applications.

With a large touch-screen and user-friendly interface, the Sample Inspector's software interface makes it intuitive to use with little training required.

The Sample Inspector uses a sophisticated algorithm to separate gamma energy peaks within mixed radionuclide samples for accurate quantification of individual radionuclides.

Activity can be measured in approximately 10 minutes, though total measuring time may vary to comply with local legislative requirements. When the measurement is complete, a 'PASS' or 'FAIL' indication message together with measured levels of radiation, is displayed on-screen.



High accuracy and precision gamma measuring system for a wide range of samples

Features:

- Short measurement times for meeting or complying with international food standards
- Lowest minimum detectable levels of activity available in the industry
- Instant decision-making: activity can be measured in approximately 10 minutes
- Visual indication - 'PASS' or 'FAIL' message and measured activity displayed on-screen
- Kromek's UltraShieldTM technology eliminates the effects of natural background levels on measurement precision
- Measures up to 1 litre of liquids or solids
- Large touch screen, user-friendly interface and easy to use software with clear indication of results
- Adjustable alarm levels
- Simple and quick to locate and setup
- Easy maintenance and cleaning
- Local language options available
- Minimal training times

Applications include:

- Environmental Monitoring
- Decommissioning
- Waste Disposal
- Food Inspection

Detection and resolution in a single, user friendly and easy-to-use system

The sample is placed inside one of the industry standard beaker options.

The user then selects the radioactivity limit required for the sample to be measured against and the specified nuclides.

The intelligent software algorithm calculates the minimum scan time for this mode.

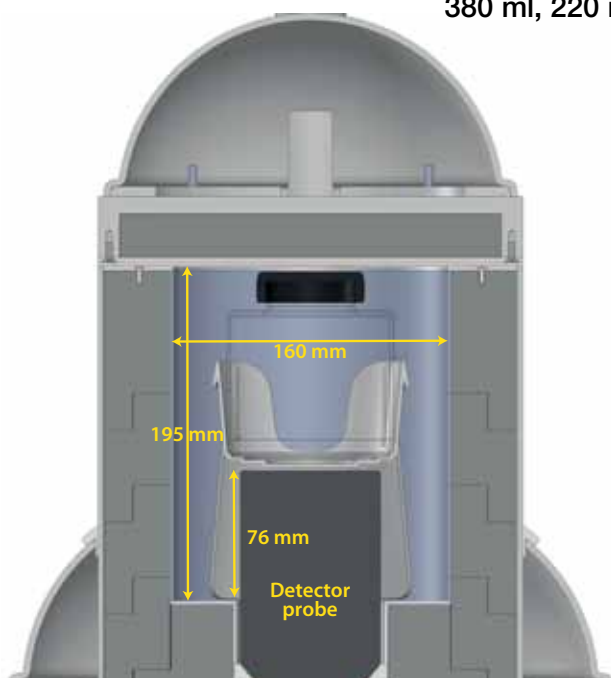
By following the simple instructions on the touch screen, the user is guided through the process of measuring both the sample and a reference water sample for the selected beaker geometry.

At the end of the scan, the screen will display a 'PASS' indication message when the instrument is over 99% certain that the sample is below the set activity limit. The screen also displays the measured activity.



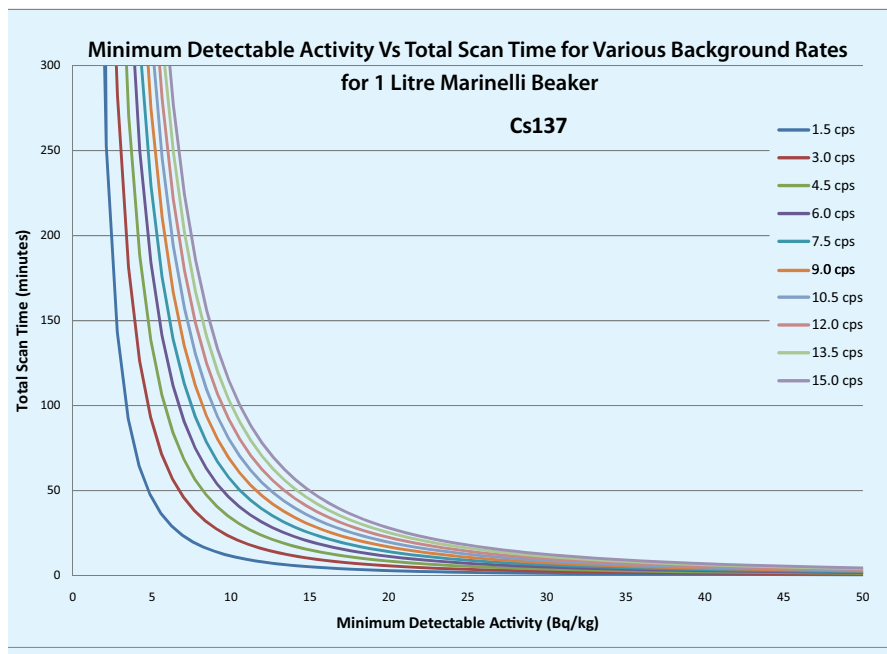
The Sample Inspector includes a specially designed plastic cradle to accommodate a variety of beaker geometries.

Beakers include: 1L Marinelli, SG500, 380 ml, 220 ml, 60 ml and 15 ml



Processor specification:

Fanless box PC barebone, Intel Atom N270 1.6G processor with Intel 945GSE + ICH7M Chipset, 1 x 200 pins DDR2 533 slot, up to 2GB, with adaptor ■ SO-DIMM 200PIN DDR2 533 2GB ■ 4GB CF (SLC 200X) ■ Windows XP Embedded - Licensed and pre-installed ■ Optional printer available



Calibration

Calibration is pre-set during manufacture using calibrated distributed sources in order to convert the measurements into Bq/kg. An annual calibration service is available on request.

Language options:

Kromek's proprietary analytical software can be ordered in most international languages.



Technical Data

| | |
|-------------------------|--|
| Data Storage: | Measurement and Calibration files stored onto embedded PC. These can be downloaded to USB in PDF/CSV format. |
| User Software: | Kromek's analytical software |
| Detector: | 75 mm x 75 mm NaI (TI) detector |
| Energy Full Range: | 30 keV-3 MeV |
| Number of nuclides | I ¹³¹ , Cs ¹³⁴ , Cs ¹³⁷ |
| Temperature Range: | 5°C - 50°C |
| Temperature compensated | Yes |
| Number of Channels: | 4096 |
| Measuring Range: | User definable from 10 Bq/kg and above |
| Protection Class (IP) | Indoor use - IP54 |
| Power Input: | 100-250 V |
| Sample Containment: | 1 litre European and Japanese Marinelli beakers, SG500, 380 ml, 220 ml, 60 ml, and 15 ml |

Dimensions

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|----------------------|--|
| Weight: | 240 kg |
| Height: | 1280 mm (from floor to top of monitor) |
| Screen Dimensions: | 12 inches, 30 cm |
| Body Diameter: | 1130 mm dia. |
| Base: | 635 x 520 mm |
| Carriage: | 4 medical grade castor wheels |
| Lead / copper shield | 40 mm lead / 2 mm copper |
| Beaker chamber | 195.35 mm (h) x 80 mm (w) with 76 mm inset for probe |



Nuclear
detection



Medical
imaging



Security
screening

detect image identify