

Features

- ✓ Fast, portable, and easy to use imaging spectrometer
- ✓ Rapidly identifies and locates primary source terms
- ✓ Real-time spectroscopy, ID, and imaging
- ✓ Omnidirectional sensing and imaging
- ✓ Better than 1.1% FWHM energy resolution at 662 keV
- ✓ Energy range covers isotopes of interest up to 3 MeV
- ✓ Industry-leading imaging sensitivity using pixelated CZT technology
- ✓ Precision overlay of gamma-ray and optical images
- ✓ Images both point and distributed sources
- ✓ Ready to use in under 90 s
- ✓ Discrimination between background and sources of interest in less than 1 minute
- ✓ Light weight and highly portable
- ✓ Integrated range finder
- ✓ Air/water tight for easy decontamination
- ✓ Dose-range gauge
- ✓ Automatic report generation
- ✓ Annual recalibration and software updates included

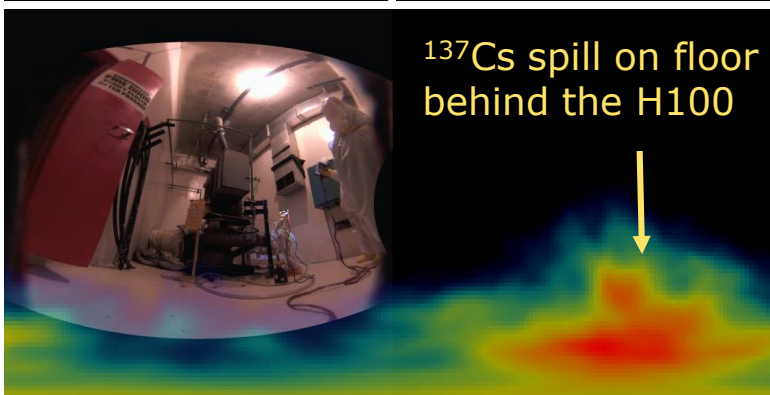
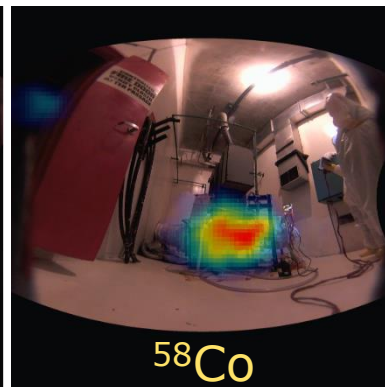
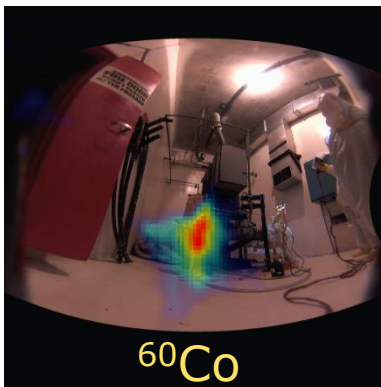
The H3D[®] H100 is your complete solution for the identification, quantification, and localization of gamma-ray sources at nuclear power plants:

- Easy to use
- Highly portable
- Cost effective

25 years of development and 10+ years of application-specific engineering to the exacting standards of nuclear power plant operators to support:

- Routine monitoring and maintenance
- Decommissioning operations
- Emergencies, incidents, and outages

Spectroscopic performance competitive with cryogenically cooled detectors and omnidirectional isotope-specific imaging... at under 8 lbs.



"All of our technology that we have—that I've worked with for 30 years—doesn't touch what this shows us."

- RPM, U.S. Nuclear Power Plant

10-minute isotope-specific images of an RHR pump room in a U.S. nuclear facility.

H100 Specifications

Dimensions: 9.6 in x 3.5 in x 7.0 in (24 cm x 9 cm x 18 cm)
 ...with Add-On Exoskeleton: 14.8 in x 4.7 in x 8.3 in (37.5 cm x 12 cm x 21 cm)
 Weight: 7.3 lbs (3.3 kg)

Battery Life: 10.5 lbs (4.8 kg) with add-on exoskeleton
 >7 hours at 23° C (73° F)
 >3 hours at -20° C (-4° F) or 50° C (122° F)

Power Supply: 100-240 V, 47-63 Hz
 Startup & Operating Temp.: -20° C to 50° C (-4° F to 122° F)
 Storage Temperature: -20° C to 60° C (-4° F to 140° F)
 Ingress Protection: IP65 (IP67 with fan replacement)
 Tripod Mounts: 1/4"-20 with reinforced thread
 3/8"-16 (with add-on exoskeleton only)

System Cooling: Proprietary external heat sink and removable fan
 User Service: Removable fan cover; replaceable fan and fuse
 Range Finder: Integrated Class 2 laser; 635 nm; <1 mW
 Energy Resolution: ≤1.1% FWHM at 662 keV (coincident interactions combined)
 Optical Field of View: >162° horizontal, >122° vertical; full color
 Optical Registration: ±2° to radiation image in front 90° x 90°
 Radiation Field of View: 4π (360°) omnidirectional
 Angular Precision: ±1° source localization for all 4π (real time)
 Angular Resolution: ~30° FWHM for all 4π (real time)
 ~20° FWHM for all 4π (post processing)

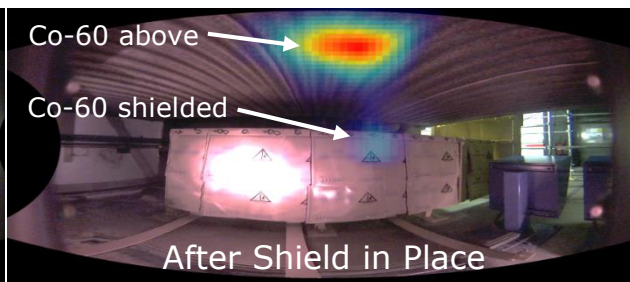
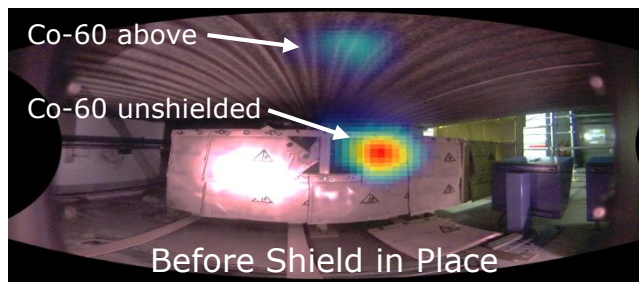
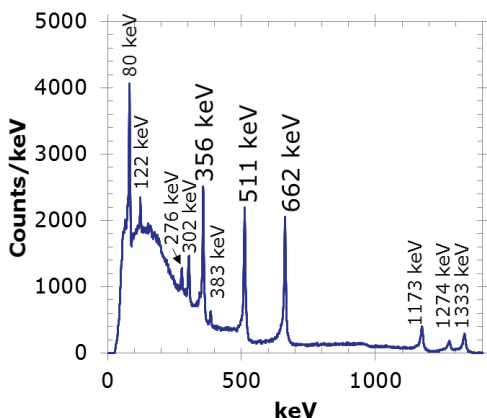
Sensitivity: Detects ¹³⁷Cs producing ~3 μR/hr in <1 min (spectroscopy)
 Localize point source of ¹³⁷Cs producing ~3 μR/hr in <5 min
 Energy Range: 50 keV to 3 MeV (spectroscopy)
 250 keV to 3 MeV (imaging)

Crystal Volume: 6 cm³ CZT (CdZnTe)
 Count-Rate Limit: 0.5 rem/hr (5 mSv/hr) bare-¹³⁷Cs equivalent
 Alarms: Audio & visual alarms based on dose rate or accumulated dose
 Silence independently & preemptively; adjustable threshold (Sv/h)

Isotope Library: Select from 3573 ENDF isotopes & user defined; unlimited
 Startup Time: < 90 s at 23° C (73° F)
 Display: 7" 1280x800 HD tablet (mountable to back cover)
 Tablet Communication: Peer-to-peer Wifi or Bluetooth, or wired connection
 Other Communication: Ethernet RJ45 port; TCP/IP
 Views: Spectrum, gamma image, optical image, composite image
 Data Storage: Removable USB (16 GB) included

Warranty: 2 years (includes annual recalibration and software updates)
 Includes: Visualizer software for advanced post processing
 Tablet-mounting bracket
 Power/accessory cables, stylus, and tablet
 Transport and storage case

Optional Add-Ons: Exoskeleton for drop protection
 External battery
 4π (360°) omnidirectional camera



90-s measurements; Shield Verification



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 No. 10,032,264.

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