P100S

Collimated Spectrometer

Features

- ✓ Practical high-performance gamma-ray spectrometer
- ✓ Rapidly identifies and quantifies isotopes of interest in one direction over time
- ✓ Embedded tungsten collimator optimized for your applications
- ✓ Better than 1.1% FWHM energy resolution at 662 keV
- ✓ Industry-leading efficiency with >4500 mm^3 pixelated CZT
- ✓ Compact and portable
- ✓ Easily exchangeable tungsten plug
- ✓ Embedded battery
- ✓ No cryogenic cooling required
- ✓ Real-time trends interface
- ✓ Viewable over Ethernet, Wifi, or other wireless network
- ✓ Wireless or wired tablet operation
- ✓ Stores >6 months of data
- ✓ Start up in only 2 minutes
- ✓ Energy range covers isotopes of interest up to 3 MeV
- ✓ Air/water tight for easy decontamination
- ✓ Operates in high dose rates
- ✓ Tripod and other mount points
- ✓ Storage case included
- ✓ Software upgrades included
- ✓ Annual recalibration and software updates included

The H3D® P100S is a shielded version of the S100. It identifies, quantifies, and tracks isotopic trends in an object of interest, even in the presence of stronger gamma-ray sources.

With real-time networked interface and mounting brackets, use it for short- or long-term monitoring of an object of interest.

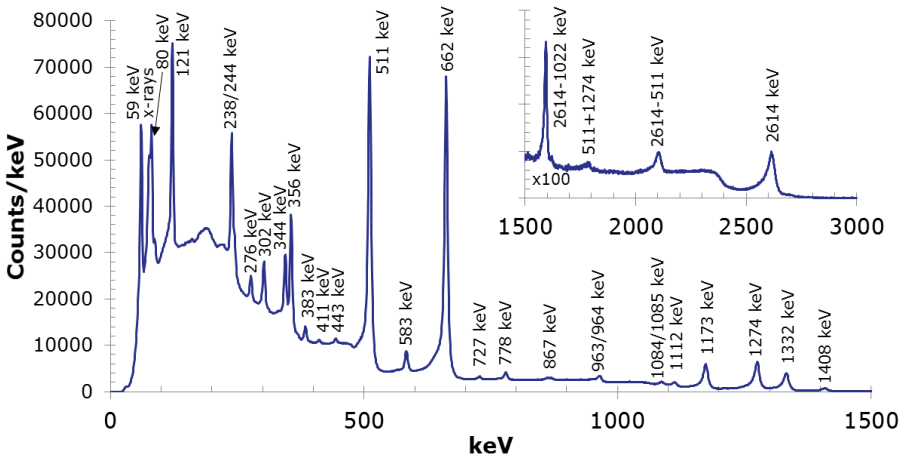
With portable design, removable tungsten plug, and embedded battery and computer, use it for precise quantification measurements even in challenging field environments.

Perfect for:

- ❑ Isotopic characterization and quantification of pipes, valves, and ducts
- ❑ Isotopic trend analysis
- ❑ Outage monitoring

"H3D's S100 reduced outage costs. Key radionuclide concentrations in the Reactor Coolant System can now be monitored in real time, affecting radiation exposure throughout the outage. This will change how forced oxidation is monitored throughout the industry and provide more data for source-term reduction."

- Brad Boyer, Radiation Protection Manager, Prairie Island Nuclear Generating Station



About H3D, Inc.

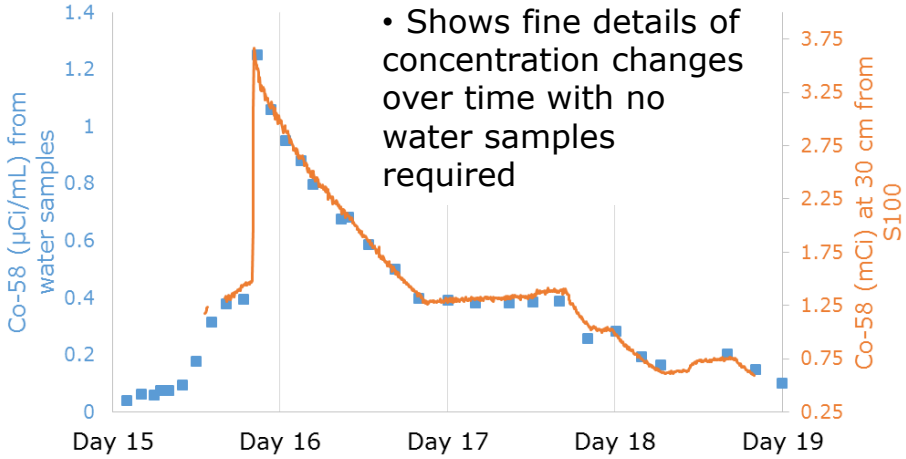
H3D® is commercializing CZT-based 3D radiation-imaging technologies for nuclear power plant, defense & homeland security, and medical applications. A 2011 spinout from the University of Michigan, we have performed sponsored research for the Defense Threat Reduction Agency, Department of Energy NA-22, and National Institutes of Health. We currently ship the H100 to nuclear power plants and research labs around the world, and we have several additional product variants in the development pipeline or undergoing customer feedback trials. Our team has over 100 years of combined experience in Compton Imaging, CZT readout, and system integration. We are privately held, market-driven, and committed to providing our customers with the highest performance and most user-friendly instruments possible.

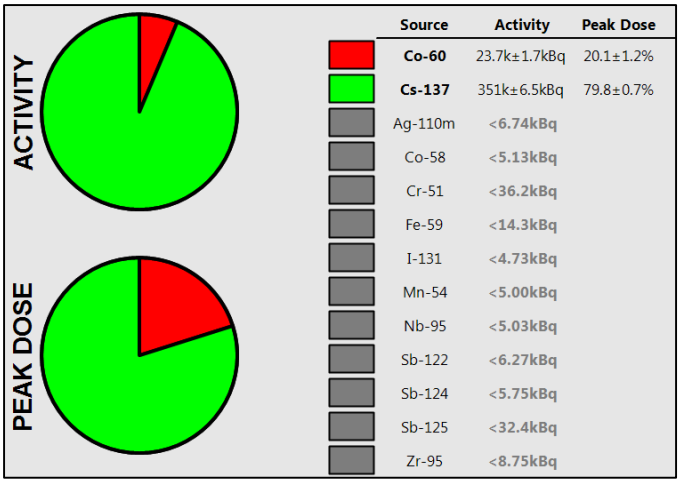
P100S Specifications

Dimensions:	12.3 in x 5.5 in x 8.9 in (31.2 cm x 13.8 cm x 22.6 cm)
Weight:	20 lbs to 35 lbs (9.1 kg to 15.9 kg) depending on configuration
Battery Life:	>10 hours at 23° C (73° F) >5 hours at -20° C (-4° F) or 50° C (122° F)
Power Supply:	100-240 V, 47-63 Hz
Operating Temperature:	-20° C to 50° C (-4° F to 122° F)
Startup Temperature:	4° C to 38° C (40° F to 100° F)
Storage Temperature:	-20° C to 60° C (-4° F to 140° F)
Ingress Protection:	IP65 (IP67 with fan replacement)
Mounting:	3/8”-16 tripod; other mount points
System Cooling:	Proprietary external heat sink and removable fan
User Service:	Removable fan cover; replaceable fan and fuse
Energy Resolution:	≤1.1% FWHM at 662 keV
Field of View:	Selectable
Sensitivity:	Detects ^{137}Cs producing ~3 µR/hr in <1 min
Energy Range:	50 keV to 3 MeV
Crystal Volume:	>4.5 cm^3 CZT (CdZnTe)
Count-Rate Limit:	0.5 rem/hr (5 mSv/hr) from front bare-^{137}Cs equivalent
Isotope Library:	Select from 3573 ENDF isotopes & user defined; unlimited
Startup Time:	2 min
Display:	7” 1280x800 HD tablet or internet browser
Tablet Communication:	Peer-to-peer Wifi or Bluetooth, or wired connection
Other Communication:	Ethernet RJ45 port and TCP/IP; other RF
Views:	Spectrum, isotope trends
Data Storage:	Removable USB (16 GB) included
Warranty:	2 years (includes annual recalibration and software updates)
Includes:	Power/accessory cables, stylus, and tablet Pelican™ Storm iM1650 Case

S100 spectrometer measurement at RHR return in U.S. nuclear facility

- Real-time quantification consistent with HPGe lab samples
- Shows fine details of concentration changes over time with no water samples required





Automated identification and quantification

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