

Model HWM-1800

Free Release Monitor for Gamma Emitting Radionuclides in Large Items and Containers

The Model HWM-1800 offers clearance capacity in real industrial dimensions, for measuring goods of up to 1,000 kg (2,200 lb) and a chamber of more than 1,800 L (63.5 ft³).



The standard unit is equipped with the following features:

- 24 gamma plastic detectors for complete 4 π coverage
- 50 mm (2 in.) lead shielding
- Built-in weigh scale for up to 1,000 kg (2,200 lb)
- Powder-coated steel frame with easy to clean stainless steel lining inside and outside
- Electrically driven double-wing doors including safety devices to protect people accessing the moving door area
- Electrically driven chain-conveyor with jigs to fix standard grid-boxes and barrels
- Stand-alone control terminal including touch-screen display, PC, and keyboard
- Fully automated measuring process with user guidance
- Nuclide composition suggestion from detector pulse analysis
- Network capability for remote monitoring and supervision
- Integrated UPS to protect controllers and electronics

The Model HWM-1800 allows fast and reliable detection of gamma radiation on a very large scale. Equipped with the latest measuring electronics and a built-in maintenance module, it allows optimization of the system to ensure consistent peak performance.

Key Features

- Fully Automated Measuring Process for Very High Throughput
- Fixing Points for Standard Containers on the Conveyor Allow Easy and Fast Loading and Unloading of Different Items
- Reduced Dead Zones: > 70% Coverage (Inner Chamber to Detector Size)
- Intuitive Operating Software that is Easy to Use
- Export of Measurement/Parameter Data in XML Format via USB
- Energy Filter Settings to Optimize Discrimination of Background Radiation
- Access to Historical Measurement Data via Integrated Database
- Access to Ludlum Test Tool Software for Detector Analysis

Standards:	The monitor is compliant with the following standards: CE, CSA / UL or EMC, ISO11929
Detectors:	24x gamma plastic detectors Detector volume: > 319 L (11.3 ft ³) Direct connection of each detector to the PC via USB
User Software:	Intuitive operator software with touch screen display, fully automated measurement process with user guidance, indications of results and measurement material position on the display. Web based for RPO remote access.
Electronics:	Integrated illumination in the chamber, status-LED, interlock-relays with interface to external units
Housing:	Steel frame with stainless steel lining, electrically driven front-door incl. area-safety control, electrically driven chain-conveyor
Sensors:	Door-sensors, surrounding area scanner, integrated weigh scale
Ext. Dimensions:	2,223 x 1,913 x 1,765 mm (87.5 x 75.3 x 69.5 in.) (H x W x D), without conveyor
Chamber Volume:	1,210 x 1,120 x 1,380 mm (47.6 x 44.1 x 54.3 in.) (H x W x D), 1,870 L (66 ft ³)
Shielding:	Standard: 50 mm (2 in.) lead Option: 75 mm (3 in.) lead
Weight:	Standard: approx. 11,500 kg (25,350 lb) With 75 mm lead: 15,500kg (34,170 lb)
Power Supply:	230 V / 16 A / N / PE Uninterruptable power supply (UPS) to bridge loss of mains electrical power for controllers and electronics



Software Screenshots

Additional Options

Ludlum offers a range of additional options to enhance the capabilities of the monitor and to customize the instrument to your specific needs.

- Second door and conveyor on the exit-side
- System integrated in a 10 ft. or 20 ft. container (also see Model HWM-1800C)
- Additional lead shielding (75 mm [3 in.] instead of 50 mm [2 in.])
- Integration of a camera in the chamber



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