Product Specifications

LCM-8000

Conveyor Contamination Monitor

The LCM-8000 can be used to monitor laundry, plywood, scaffolding or any other items where an automated process for detecting dispersed or localized contamination are necessary.

FHT 8000 Controller

- Automatic release measurement of beta & gamma contaminated clothes or other parts
- Detector arrangement with seven detectors above and eight below
- Conveyor automatically stops upon detection of contamination above the user set point

System Components

The LCM-8000 consists of the following system components:

- Conveyor belt of link chain structure
- Detector arrangement above and below the conveyor belt
- Programmable logic controller for activating the conveyor belt.
- FHT8000 measuring electronics
- Two LCD monitors
- Keyboard with touch pad

Detector Arrangement

The LCM-8000 uses fifteen 10.16 x 10.16 cm (4 x 4 in.) plastic scintillators. There are seven detectors above the conveyor belt and eight detectors below. The detectors are staggered with respect to the conveyor belt so no gamma emitter or higher energy beta emitter can escape detection even if trapped in seams, cuffs, or Velcro. The material is readily recounted for confirmation.

The alarming 100 cm^2 areas are exactly located on the belt for confirmation with a hand probe. The exact garment or spot on a garment is readily located by a minimally trained operator.

The detector shield assembly is integrated into the LCM. The detectors are mounted into easily removable trays. The signal cables exit the tray through a notch in detector access door. The signal cables are numbered one through fifteen and attach to the rear of the FHT8000 electronics control box.

The typical sensitivity of this detector is 3000 dpm per 100 cm^2 at a belt speed of 12.7 mm (0.5 in.) per second. To reduce the effects of electromagnetic and electrostatic interference, all AC input has noise filter and spike suppression.