

Universal Surface Dose Drum Monitor

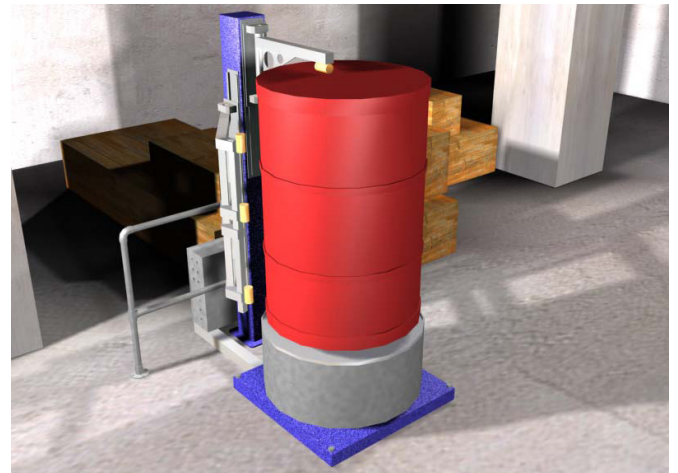
G3030 Series

Introduction

The ANTECH G3030 Universal Surface Dose Drum Monitor reproducibly measures the surface dose rate of large numbers of steel drums containing radioactive waste. Five shielded Geiger-Müller detectors are used to measure the dose rate of the top, bottom and sides of the drum under test. The lower detector has a fixed position and the three side detectors and one top surface detector are adjustable to accommodate different drum sizes. A sixth detector is positioned at one metre away and 'views' the entire drum surface. During the measurement a servo drive senses the position of the drum surface and maintains the three side detectors at a constant distance regardless of the drum ovality or its position on the turntable.

An operator console allows fully automatic operation of the measurement sequence, real time display of measurement parameters, entry of drum type and identity, report generation, data validation and archiving. The operator console software allows 'stand-alone' operation in manual mode for single drum evaluation and supports a test mode for initial commissioning and preventative maintenance. A series of 6 dose rate graphs (obtained as the drum is rotated) are included in the measurement report for each drum.

The G3030 can be supplied either with a drum rotation platform for loading and unloading by a forklift, or short entry and exit roller conveyors with a conveyor drum rotation platform for integration into an existing conveyor mechanical handling system. The system can be used with ANTECH's range of SGS and TGS assay instruments.



Features

- Fully adjustable for a wide range of drum sizes
- Shielded and collimated energy compensated Geiger Muller detectors
- Tungsten detector shielding
- Dedicated dose rate measurement microprocessor
- Integral electronic weighing scale
- Operator control station, local or remote modes of operation
- Suitable for forklift loading and unloading
- Provision for background measurement and subtraction
- CE marked

Benefits

- Automatic, reliable and consistent measurement of the surface dose rate of drums
- Meets measurement requirements of US DOE transport regulations
- Secure measurement records, all data fully archived
- Reduced exposure to operators
- Low maintenance and robust construction
- Complies with European Safety Norms
- Designed for easy wipe down and cleaning
- Easy integration with high through-put batch measurement plant

Specification

Drum diameter range	440 mm - 1130 mm (17.32 in - 44.49 in)
Drum height range	880 mm - 1700 mm (34.65 in x 66.93 in)
Capacity	1000 kg (2204.62 lb)
Weigh station accuracy	±2% of full scale
Surface dose range	3 µSv/h - 10 mSv/h
Detector channels	7 (expandable to 16)
Analysis software	Windows based operator station with database archiving functions. Measurement process controlled by microprocessor firmware.
Power requirements	Voltage selectable, 110 Vac - 230 Vac, 3 KVA