

## CRICKET

### Grapple Mounted Radiation Detection System



***Find radioactive sources that other systems miss! CRICKET is the world's leading, most rugged, highest sensitive radiation detection grapple mounted system on the market!***

The CRICKET GRAPPLE is the world's leading, most rugged and highly sensitive continuous monitoring radiation detection system, allowing for close proximity scans without disrupting ongoing production processes.

#### **Fit to any grapple, in any application**

The CRICKET radiation detection system is designed specifically to meet the needs of the scrap, steel, and waste industries. The CRICKET's revolutionary, yet simple design provides an optimum level of detection capability for low intensity radioactive sources, on a continuous basis, in applications where radiation detection systems never existed before. The level of detection capability will far exceed any conventional radiation detection system, including detection systems that are mounted on the boom of a crane, regardless of detector size.

#### **Get closer, scan longer, with more accuracy**

Mounting the CRICKET in a grapple application allows direct exposure to all the material being handled. There are three different opportunities to analyze all the scrap material during the handling process. Firstly, because the CRICKET system scans on a continuous basis, material is scanned on the surface before the load is even picked up. Secondly, the load is scanned while in the grapple. Finally, the material is scanned just as it is released.

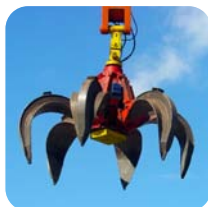
These three scanning conditions allow the CRICKET to provide the highest degree of detection capability for low level radioactive material.

#### **Spectroscopic Radiation Detection**

Options include neutron detection and Thallium doped Sodium Iodide crystal technology for isotopic identification.

#### **FEATURES**

- Proven, tested, innovative leading edge technology
- Unparalleled durability
- User friendly, easy to operate
- Easy to install and maintenance friendly
- Supervisory software capable
- Options include isotopic identification and neutron detection



# CRICKET

The CRICKET Grapple consists of four assemblies:

- The protective shield
- The detection unit
- A controller
- A battery pack



## Detector Protective Shield

- Fits to any type of mechanical, hydraulic or electrohydraulic grapple
- The shields high strength and wear resistance design
- is capable of withstanding severe impacts on a continuous basis
- Easy to install and service
- Equipped with doors for easy access to the internal detector assembly(s)
- Detector occupies a small volume of the grapple that does not affect the scrap handling operations

## Detection Unit

- The primary component of the detector system
- Size of the detection system is configured to the size of the grapple
- Contains the electronic and detection assemblies which are designed to withstand SEVERE repeated impacts and vibration associated with these applications
- The system electronics include several sensors that are used to monitor the operating conditions of the grapple such as temperature and motion
- The internal assemblies are mounted specifically so that they are isolated from the direct transfer of energy

## Battery Pack for Grapples

- The battery pack measures 5.5" x 3.75" x 1.25" (13.97cm x 9.53cm x 3.17cm) and incorporates a rugged steel box housing measuring 8.25" x 6" x 5" (20.96cm x 15.24cm x 12.7cm)
- The box is welded in a protected area on the tube of the grapple center section
- A small 1/2" (13mm) hole is drilled in the tube to allow communication cable access to the battery pack connections
- Battery pack includes a shock mounted standard 8400mAh 7.4v Lipo battery and wireless communication system
- Battery powers the detection unit's electronic circuits and wireless system

## Cricket Control

- Wireless system utilizes BlueTooth technology
- Touchscreen LCD display



## Options

- NeuSpec NaI(Tl) technology for isotropic identification
- Supervisory software
- Neutron detection

## Models

|                 | PVT Volume                                   | Detector Housing  |
|-----------------|--|---|
| Cricket 2       | 62 in <sup>3</sup> (1.0 L)                   | 5.5"x13.5"x13.5"<br>(14cm x 34.2cm x 34.2cm)            |
| Cricket 103     | 118 in <sup>3</sup> (1.9L)                   | 6.25" x 18.75" x 18.75"<br>(15.9 cm x 47.6 cm x 47.6cm) |
| Cricket 3       | 248 in <sup>3</sup> (4.0L)                   | 6.25" x 24" x 24"<br>(15.9cm x 61.0cm x 61.0cm)         |
| Cricket 4       | 722 in <sup>3</sup> (11.8L)                  | 6.25" x 36" x 36"<br>(15.9cm x 91.4cm x 91.4 cm)        |
| Cricket 5       | 1,440 in <sup>3</sup> (23.6L)                | 6.75" x 48.5" x 44"<br>(17.1cm x 123.2cm x 111.8cm)     |
| Cricket LR      | 29.4 in <sup>3</sup> (418 cm <sup>3</sup> )  | 5" dia. x 1.5"<br>(12.7 cm x 3.8 cm)                    |
| Cricket LR Dual | 85.1 in <sup>3</sup> (1392 cm <sup>3</sup> ) | 8.5" dia. x 1.5"<br>(216 cm x 38 Cm)                    |
| Cricket 2       | 62 in <sup>3</sup> (1.0 L)                   | 5.5"x13.5"x13.5"<br>(14cm x 34.2cm x 34.2cm)            |



Cricket LR

