

# Custom Instrument Design

## Introduction

Since 1987 ANTECH has provided a wide range of custom systems to meet our customers' varied requirements. ANTECH has considerable expertise in applying proven measurement technologies in innovative ways to fulfill the requirements of new measurement challenges.

## Different types of custom design

ANTECH offers three different types of custom design:

### 1. New concept instrumentation

Completely new instruments can be developed, designed and manufactured to meet the latest measurement challenges. ANTECH is experienced in applying existing technologies to new measurement scenarios.

Recent examples of instruments that ANTECH has developed to meet novel customer requirements include:

- G3050, RadSearch: Radioactivity and Decommissioning Monitor
- B3001-600, Universal Multi-Detector Counting System

### 2. Adapted and upgraded instrumentation

Existing instruments can be adapted or upgraded to broaden their range of applicability to meet specific customer requirements. Where the measurement technology allows, ANTECH instruments can be built to meet specific customer size, volume and detection capability requirements.

ANTECH upgrades its own and third party instruments to increase efficiency or enhance sensitivity, for example by installing larger detectors or adding additional shielding.

Recent examples of instruments that have been adapted or upgraded to meet enhanced customer requirements include:

- G3302-800-220, Segregated Waste Clearance Monitor for free release of 200L drums
- Third party Segmented Gamma Scanner – ANTECH provided new motion control electronics and data analysis software

### 3. Systems that combine several instruments

ANTECH is experienced in integrating different measurement technologies into a single measurement system. For example we have combined gamma spectroscopy and dose-rate measurement with automatic conveyors (for drum handling) or gantry robot cranes (for sample handling) to create complete integrated assay systems.

Recent examples of integrated assay systems include:

- B7703-440, Wide Range Waste Characterisation System. This system performs automatic assay and sentencing of 200L and 400L waste drums using gamma ray and neutron measurement stations and an automatic conveyor.
- MOX SYSTEM. This system performs automatic assay of Special Nuclear Materials using gamma ray spectroscopy and calorimetry with automatic sample handling using a gantry robot crane.

## Contact us

ANTECH staff are available to discuss your measurement and assay requirements.

- For enquiries from the USA and Canada, please contact the ANTECH US office in Denver, Colorado on +1 (303) 430-8184
- For enquiries from Europe and the rest of the world, please contact the ANTECH UK office near Oxford on +44 (1491) 824444