Product Overview

- Bruker: The Gold Standard in CBRNE Detection

CBRNE

Innovation with Integrity

Choose Innovation – Choose Bruker

Bruker is recognised as the leading authority on detection and identification technologies that mitigate the threat from toxic agents and harmful materials. These threats can encompass chemical weapons, toxic chemicals, biological agents, radioactive materials and improvised explosives, all of which can devastate lives, threaten infrastructure and destroy property.

Bruker develops, manufactures and supplies technologies worldwide for a diverse number of clients that include most of the world's Militaries, Emergency Responder teams, Police Forces and numerous civilian clients that include security firms and safety teams.

We also supply many of our technologies to government departments, commercial enterprises and multi-national corporations who need to protect their employees and their clients from the threat from terrorism or from the accidental release of toxic materials.

Bruker is strongly committed to meeting its customers' needs by continuing to revolutionise the design, manufacture and distribution of detection tools based on our core technologies; by providing cost-effective solutions that are regarded as the 'Gold Standard' by threat mitigation experts.

Prepare for a World of Changing Threats

Bruker has been serving the needs of the CBRN community for 35 years. We relocated our former headquarters from Bremen in 2005, and now our current operation in Leipzig, Germany, is established as the World Headquarters of our Detection Division.

Since our formation in 1980, our product line has grown significantly. The detection of chemical warfare agents and toxic chemicals remains the mainstay of our capability, and the ensuing years have seen extensive innovations and developments of new technologies to enhance our capabilities.

In addition to being acknowledged as the global supplier of "Gold Standard" detection systems, we are also the world leader in installed detection systems that help our users to protect Critical National Infrastructure.

Our most recent developments include a new portable isotope identifier and two new explosives trace detection systems, the latter designed to help counter the increasing threat from improvised explosives devices.

Key Product Groups

- *Portable Chemical Detection Systems*
- *Installed Chemical Detection Systems*
- *Installed Chemical/Radiation Detection Systems*
- *Mobile Chemical Identification Systems*
- *Critical Infrastructure Protection Systems*
- *Detection Systems for Maritime Applications*
- *Biological Threat Identification Systems*
- *Trace Explosives/Narcotics Detection Systems*
- *Radiation Detection and Identification Systems*
- *Detection Systems Integration Services*
- *Supplier of Complete Mobile Platform Solutions*

Bruker serves the needs of the whole CBRNE community

Portable Chemical Agent Detection

µRAID™

- Compact lightweight CWA/TIC detector/identifier with five libraries offering over 50 substances
- Used as personal body-worn or hand-held detector
- Offers high and ultra-high sensitivity CWA ranges
- Powered by standard AA batteries or extended duration pack
- Colour display shows alarms, detected substances and their concentrations

RAID-M 100™

- Flexible, simple push button operation
- Fast, sensitive detection, identification and quantification of CWA / TIC
- Detection process unaffected by humidity levels
- Unique Bruker system protects the instrument from overloads
- For hand-held or in-vehicle deployment using vehicle mounts

RAID-XP™

- Combines chemical and radiological detection in a single system
- Fast, sensitive detection, identification and quantification of CWA / TIC
- Ideal for perimeter protection applications
- Operates from rechargeable batteries or local power
- Can be integrated with mobile platforms using vehicle mounts

Installed Chemical Agent Detection

OrthoTIMON™

- Most advanced CWA/TIC detector of its kind
- Two combined detection technologies realise Orthogonal Detection; a significant capability enhancement
- Offers the most sophistication detection solution to monitoring underground rail systems and high-occupany buildings
- Enhanced detection capability with expanded libraries of over 120 toxic substances
- For 24/7 operation with one year service intervals

RAID-S2plus™

- Variants offered for ship-based and submarine-based systems from Bruker; the market leaders in installed detection technologies
- Combined CWA/TIC detection / identification system
- Specifically designed for 24/7 long-term operation
- Operates as standalone unit or with several instruments in networks
- Standard product is rated to IP 65 for use indoors or outdoors

TIMON™

- Combined CWA/TIC detection and identification system
- Designed for use in vulnerable areas such as Critical Infrastructure Protection applications
- Operates 24/7 with maintenance intervals in excess of 18 months
- Ideal for monitoring underground rail systems and platforms
- Unobtrusive appearance that does not attract unwanted attention

Standoff Detection

RAPIDplus™

The compact, ruggedised new RAPID*plus*™ has been designed to provide standoff detection of 16 CWA and more than 80 TIC simultaneously.

- Substances can be detected and identified in real time at distances up to several kilometres
- Ideal for wide area threat monitoring in applications such as sports stadiums and high profile events
- Integrates a new colour camera with the scanning head New software overlays detection events on a
- panoramic image of the environment Can be deployed either on a tripod or mobile platforms
- Suited to integration in airborne platforms such as
- helicopters and larger Unmanned Aerial Vehicles (UAV)

Monitoring Critical Infrastructure with Standoff Detection

Chemical Identification Solutions

Mobile Mass Spectronomy

E²M

The Bruker Enhanced Environmental Mass Spectrometer, E²M™, is a compact, lightweight, mobile GC/MS system.

- Fast, reliable on-site identification of organic chemicals in any medium
- Designed to meet identification requirements of First Responders and Homeland Security groups
- Developed in co-operation with German Fire Brigades and Disaster Management Authorities
- Very low consumables burden and low through-life costs
- Applications: environmental protection, mobile on- site analysis and event monitoring

MM2™

Mobile Mass Spectrometry

The Bruker MM2 sets a new benchmark in GC/MS technology for military deployment.

- Equipped with improved gas chromatography/ mass spectrometry technique
- Latest generation of quadrupole mass spectrometers
- Designed to meet exacting Military Standards (MIL-STD)
- Optimised for long-term performance in many types of mobile platforms
- Designed for use in arduous conditions - even on tracked military vehicles
- No reliance on supplies of bottled gas
- Complex consumables are not required

Accessories and System Integration

- Accessories and integration tools greatly expand the utility of the MM2
- Flexible heated probes provide multiple deployment options
- All GC modules are mounted directly on the inlet to the MM2
- Thermal desorption units and remote control sampling devices offered
- The unique double wheel assembly (shown), for surface measurements

Biological Detection

Bruker offers complimentary systems that comprise a biological threat detection solution:

- *A biological trigger to detect the event*
- *An aerosol sample collector for collection of air-borne threats*
- *A toxins identification system*
- *A microorganism identification system*

The process of identifying biological agents comprises:

- *The biological trigger detects the fluorescence emission from live organisms in the air*
- *The bio-aerosols are then collected automatically for analysis and identification.*
- *The aerosol sample collector collects the aerosols in customer-specified liquids*
- *Samples are analysed and identified by the Bruker pTD/pTDi*
- *Final verification is achieved using the Bruker MALDI Biotyper*

pTD™/pTDi™

- Performs five parallel assays on a single sample for selected CDC Categories A and B toxins in <25 minutes
- Fully automated ELISA-based identifier for toxins
- Uses a unique electrical biochip technology embedded in a disposable consumable
- The field-portable pTDi is offered for field deployment away from mains power
- Connected to mains power, the pTD is offered for both mobile and permanent laboratories

MALDI Biotyper®

- Measures the unique molecular fingerprint of microorganisms
- This fingerprint is referenced against a specialist library for identification
- The measurement is made in seconds and identifies microorganisms to strain level
- The Standard library includes bacteria, yeasts and fungi with over 5,600 entries in the database
- The Security library has over 100 entries in the database, and can be user expanded

Trace Explosive/Narcotics Detection

DE-tector™

- High sensitivity bench top trace explosives trace detection system
- Non-radiation HEPI™ source reduces compliance burdens
- Based on industry-standard ion mobility spectrometry (IMS) technology
- Uses standard, re-usable, sample swabs to collect trace explosives from surfaces
- Touch screen operation, with traffic light icons, makes it quick and easy to use
- Includes trace narcotics detection as standard

ECAC Accredited

RoadRunner™

- Hand-held, battery-operated, touch screen explosives trace detection system
- Non-radiation HEPI™ source reduces compliance burdens
- Based on advanced IMS technology with sensitivity equal to that of a bench top system
- Use with sample swabs for particulate collection from surfaces
- Functions as a direct explosives vapour “sniffer” on vapours
- Includes trace narcotics detection as standard

RoadRunner is used to ‘sniff’ airfreight for explosives

Radiation Detection and Identification

SVG3™

- Easy to use, hand-held, hardened α, β, γ radiation detector
- Integrates Geiger-Mueller tubes and semiconductor detectors
- Offers automatic range switching and simple four-button set up
- Powered from a standard Li-ion rechargeable battery
- An integrated GPS module is coupled to an internal data logger. Download these data via USB

Backpack Sentry™

- Portable radiation detector and isotope identification system
- Uses a large scintillation crystal for rapid detection and identification
- System supplied in an inconspicuous generic backpack
- Allows an operator to detect even low level threats just by traversing an area
- The standard PDA / Bluetooth® headset gives status updates covertly

Bruker Radiation Probe™

- Robust installed gamma dose rate detector
- Designed for stationary radiation detection and monitoring on critical assets
- Ideal for protection applications on ships, submarines and reconnaissance vehicles
- Standard data output is over RS422 for easy integration with user data systems
- With IP 66 protection as standard, the probe readily survives decontamination

Total Capability in CBRNE

Bruker Detection designs, develops and manufactures a wide range of detection technologies, recognised worldwide as the Gold Standard in detection instruments. Now, responding to customer requirements that have developed over the last decade, our approach has been enhanced through the provision of a solutions-based 'Total Capability' approach.

- *Our scope of supply ranges from individual detectors, through solution-based packages,*
- *We take the overall responsibility for your project, delivering a finished solution that fulfils your requirements.*
- *We assign a Project Management team to your Contract. They work closely with you and your chosen suppliers to advise on the best configuration*
- *Third-party sensor systems, sensor networks, data collection and data fusion, hazard warning and reporting software are all within our scope of supply*
- *We support you to formulate Standard Operational Procedures (SOP) including recommendations for evacuation and medical support where requested.*
- *We ensure we deliver your contract on-time and within budget.*

Delivering your project on time and in budget

Global Resources – Local Focus

Bruker has support centres of technical expertise in every major area of the world providing sales, applications and engineering support for our complete product range. With more than 6,000 employees at 90 locations worldwide you can be confident that the support team fronts a uniquely integrated global resource. Research and development specialists, applications professionals and highly trained engineers in every field are dedicated to your investment in our equipment.

Superior Detector Performance
For highly sensitive detection, identification and quantification of chemical, biological, explosive and radiation threats. Superior performance and high reliability comes as standard.

Applications Support
Systems are configured to meet your needs and result from our detailed evaluation of your requirements.

Standards & Compliance
All our systems are manufactured in ISO9001 compliant factories; so you can be assured of superior quality and performance.

Software & Data Systems
Designed to industry standards on the Microsoft® platform, our software can be integrated with your security management software.

Training
User Training and User-Level Maintenance is part of our standard Scope of Supply. Our goal is simple; to minimise your cost of ownership.

Low Maintenance
All our systems are designed for extended maintenance periods and reduce the through-life-costs of your investment.

Türkiye Distribütörü

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