CETTO INDUSTRIES

INNOVATIONEN FÜR DIE STAHLINDUSTRIE

RADIOACTIVITY MEASUREMENT SYSTEMS

Product overview

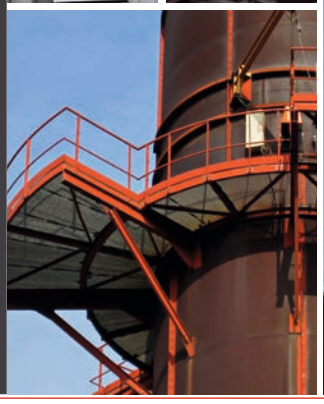
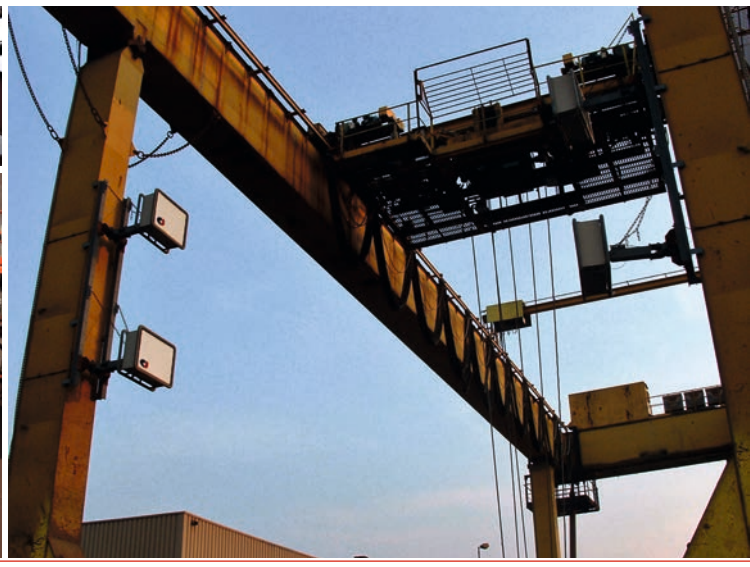
ConRaD

- CIII
- ECO
- DustScan
- ShredScan
- Fume
- Portable
- GrabScan
- MAG
- SampleScan
- WaterScan
- AreaScan
- WasteScan







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What you should know about radioactive sources

Various technical and medical applications use radioactive sources. Afterwards, these sources are often disposed of irresponsibly or criminally. Thousands of these sources wander around the world undetected in metal scrap and other waste. If these sources enter the recycling process, they endanger the health of workers and adjacent residents and there could be non-foreseeable damages. Moreover, complete loads, filter systems and the environment can be contaminated for a long time. To minimize this potential threat to employees, environment and population, measurement systems against radioactivity are used at different points.

We offer in our portfolio stationary and portable radioactivity measurement systems to detect radioactive sources. The systems are modular in design and applicable in many ways. Our customers include, for example, steel works, rolling mills, recycling plants, foundries, waste incinerators, hospitals, ports, etc. We do not provide measurement systems from the shelf, but local advice and adapt our instruments individually to the local conditions at the customer. We develop our systems in accordance with national and international standards for radioactivity measuring devices. In addition, we guarantee our customers through continuous development a measurement system that is on the state of the art.

Stationary portal monitoring system ConRaD

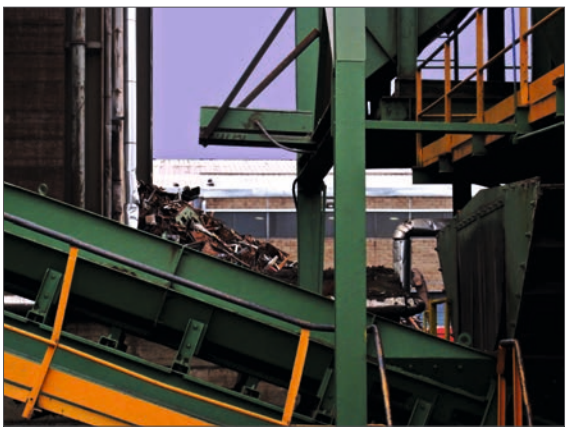
Stationary, fully automatic car lock for trucks or wagons allow dynamic measurement of all incoming and outgoing materials. In case of alarm, the system identifies the radioactive isotope by a nuclide specific analysis.

References:
TSR Recycling GmbH & Co. KG, ThyssenKrupp Steel Europe AG, ArcelorMittal Bremen GmbH, DEUMU Deutsche Erz- und Metall-Union GmbH , Cronimet (Holland) b.v.

Conveyor measuring system ConRaD ShredScan / DustScan

Radioactive contaminated dust is extremely dangerous if it enters the human body. Cs-137 for example is a radioactive nuclide that passes the melting process and settles down in the dust. Our special conveyor belt systems measure transported goods fully automatically and optionally generate an alarm. For shredder systems we can also stop the conveyor belt via external signals before the radioactive source enters the shredder.
This measuring device applies to all items that are transported on conveyor belts.

References:
Iton-Seine S.A.S. , Alpa S.A.S, Thy Marcinelle S.A, Salzgitter Flachstahl GmbH



Flue gas measuring system ConRaD Fume

Flue gas measuring systems are mounted on chimneys, where the air is measured as a last step prior to disposal to the environment. Optionally the exhaust conveying can be stopped in the event of an alarm.

References:
Iton- Seine S.A.S. , Alpa S.A.S

Grapple measuring system ConRaD GrabScan

The mobile measuring system ConRaD GrabScan supports every grapple type and provides maximum protection against hidden radioactivity in recycled materials. A very robust housing with special viewing windows for sensitive detection of radioactive emitters protects the detector.

References:
TSR Recycling GmbH & Co. KG, Outokumpu Stainless Oy, Cronimet (Holland) b.v. , Thy-Marcinelle S.A., Seehafen Wismar GmbH

Magnet measuring system ConRaD MAG

Our patented measurement system was developed for very high stress use in lifting magnets, offering our customers a high degree of safety during loading of steel scrap.

References:
Riva Acciaio S.p.A., TenarisDalmine, TenarisTamsa

ConRaD Portable

The specificity of the portable measuring device ConRaD Portable is the use of the same detector as in the stationary measuring system ConRaD. The user only has to connect the detector to a portable control unit. Due to the large crystal, this mobile device is very sensitive. If you want to use smaller detector variations, we also provide solutions with other detectors.
If your stationary system contains a portable detector, you are able to separate the load in case of alarm with highest measurement efficiency.

References:
TSR Recycling GmbH & Co. KG, Riva Acciaio S.p.A., DEUMU Deutsche Erz- und Metall-Union GmbH

Laboratory measurement system ConRaD SampleScan

In steel mills and foundries there is always the risk to melt radioactive contaminated scrap. Therefore, samples are taken from the production process and tested for radioactive contamination. This ensures that the final goods are not contaminated.

The laboratory measuring system ConRaD SampleScan checks if these samples are radioactively contaminated, and if the measured value exceeds the limit value. A shielding of lead allows the reduction of natural background radiation, so even the smallest activities can be determined (e.g. activities below 0.1 Bq / g for Co-60).

The laboratory measurement system is available in two versions:

» Manual system: In manual mode, the user loads the device with samples and starts the measurement by pressing a button.

» Automatic system: We integrate our automatic laboratory systems into the laboratory automation line; the robot from the laboratory control system equips the measuring system. Here, no user interaction is required.

References:
Riva Acciaio S.p.A., ThyMarcinelle, Saarstahl AG, Dillinger Hütte, ArcelorMittal Bremen GmbH, ArcelorMittalEisenhüttenstadt GmbH, Boliden Kokkola, Stahlwerke Bous GmbH

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Area monitoring system

ConRaD AreaScan

The measuring system ConRaD AreaScan monitors the natural background radiation of an area and alerts if there is an increase in radiation. This system can be used for various applications, e.g. for the checking of packages or for material testing upon arrival.

Waste measurement system

ConRaD WasteScan

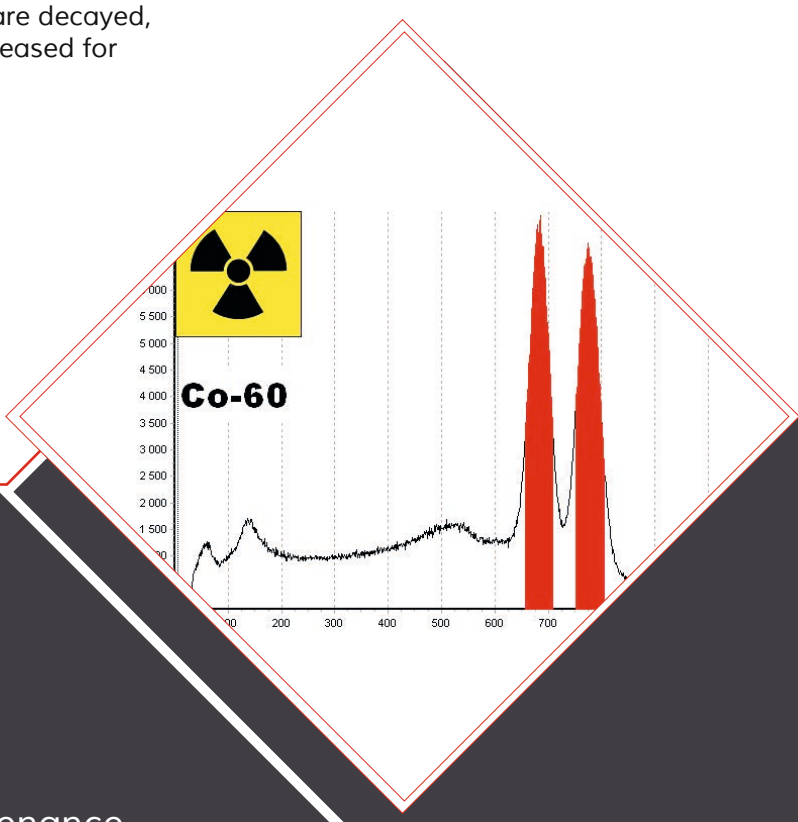
It is not possible to discard waste from hospitals with nuclear medicine stations without measurement because it may contain radioactive substances. The measuring system ConRaD WasteScan checks whether a waste container includes measurable radioactive materials and therefore must be stored until these nuclides are decayed, or already can be released for normal disposal.

Wastewater measuring system

ConRaD WaterScan

The wastewater measuring system ConRaD WaterScan controls water in water tanks or water pipes. It monitors either a specific nuclide (for instance in hospitals) or the presence of radioactivity above the natural radiation.

Our central monitoring software I-Server monitors all measuring systems from one local position.



Our service for you:

- Efficient consulting on site
- Attractive financing schemes (leasing and hire purchase)
- Free online support and remote maintenance
- Assistence in case of alarm
- Establishing contact with authorities
- Transfer to experts
- Development of emergency plans

The measuring system for your application is not in the list?
Talk to us. We develop individual solutions for our customers!

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