



BREAKTHROUGH AIR CARGO SCREENING TECHNOLOGY

PRODUCT HIGHLIGHT / HI-SCAN 145180-2is pro

Deep X-ray penetration and premium image quality minimises dark alarms and secondary screening.

KEY BENEFITS

- Excellent penetration
- Superior image quality
- Fewer dark alarms
- Low TCO
- Increased security and efficiency

DARK ALARMS IN AIR CARGO SCREENING

With the majority of air cargo transported in passenger aircraft, regulators around the world are increasingly demanding 100% security screening of consolidated and palletised freight. X-ray is the most efficient method of screening this cargo, but the clarity of the images depends on the degree of penetration. When the X-ray cannot permeate certain areas of large or dense goods this can trigger a 'dark alarm' that then requires secondary checks, which inevitably slow down the overall material handling process.

The power of the generator voltage dictates the depth of penetration and, therefore, the number of dark alarms which trigger further, time consuming inspection. But in the past this has typically also meant lower image resolution quality and higher costs. So, although the advantages of deeper penetration are fully appreciated, it also raises concerns regarding regulatory image quality compliance and size of investment. There are also systems on the market designed for large, consolidated and palletised freight equipped with powerful 300kV generators and offering even deeper steel penetration. However, these systems also require a higher capital outlay and TCO.

Depending on the type and density of cargo, a balance must be found between operational performance and cost efficiency.

BEST PENETRATION ON THE MARKET

Smiths Detection has invested in developing an X-ray system specifically for screening common pallet types and highly packed Euro pallets. It has a significant impact on reducing dark alarms, at a size and price demanded by this sector. HI-SCAN 145180-2is pro offers 55-58mm steel penetration, which exceeds anything else on the market in this category, balanced with superior image resolution. One of the first installations was at the Frankfurt facility of CHI Deutschland Cargo Handling GmbH, one of the leading air cargo handler of Frankfurt airport, where the operators reported deeper material penetration, improved image quality and far fewer dark alarms.

In-depth research and extensive testing were undertaken to establish the optimum design for the new HI-RAY 14 200kV generators, which are produced in-house by Smiths Detection. One of the two generators on each HI-SCAN 145180-2is pro is uniquely positioned under the conveyor belt to provide exceptional penetration and image resolution – along with easy access for maintenance and service.

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Other developments include digital generator controls for easy performance analysis and diagnosis and key data can be stored on the internal memory.

In Europe, the HI-SCAN 145180-2is pro's image quality has gained both ECAC and STAC approval; and the certification process is well underway for inclusion on the TSA Air Cargo Screening Technology List of approved equipment.

AN EFFECTIVE SOLUTION

With consolidated and palletised freight forwarders in mind, the footprint is small, the price point is attractive and the tunnel handles items up to 145cm (W) x 180cm (H) which are carried seamlessly through on a robust conveyor.

Together with the new generators, the latest HiTraX Electronics platform and fully optimised imaging components, this scanner can tangibly improve efficiency and productivity – which in turn reduces the screening cost per item.

Smiths Detection has combined several advances in technology to help resolve the problems of dark alarms and secondary screening and deliver the high resolution images needed for accurate decision-making and fast turnaround speed in this time critical environment.



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TOUCH

If you would like to know more about our HI-SCAN 145180-2is pro and how we help make the world a safer place, visit:
<https://www.smithsdetection.com/products/hi-scan-145180-2is-pro/>