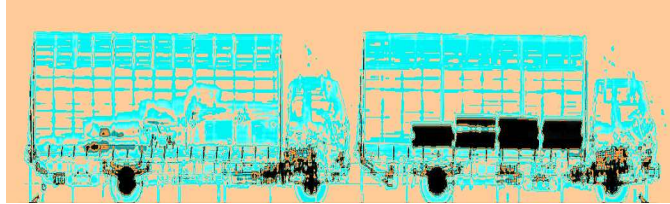


## SecureX Range

With the continuing increase in illegal and terrorist activities, integrated security is now accepted as being essential for the smooth running of public and commercial facilities. A high level of security is now routinely observed at air and seaports, prisons, embassies, banks and military locations.

Our high performance screens are used in X-ray imaging systems employed in high volume baggage inspection, mail and parcel checking, and cargo inspection. SecureX are the largest security screens commercially available and can be manufactured to custom sizes.



### Mail and packet inspection



The **SecureX HS** and **SecureX HR** X-ray screens are used in static cabinet-based X-ray detection systems for low throughput security checks at banks, prisons, embassies and corporate buildings.

Incorporating a highly efficient phosphor, mounted to a backing substrate, the SecureX HS and SecureX HR screens provide high light output – a feature of particular importance in lens-coupled imaging systems operating in low light conditions.

SecureX HR is a high-resolution screen optimized for use in systems employing multi-level energy control for enhanced detection of plastic explosives, incendiary devices and drugs. This advanced screen has extended the boundaries for detonator wire detection less than 0.1mm resolution which is particularly useful in mobile anti-terrorist imaging systems.



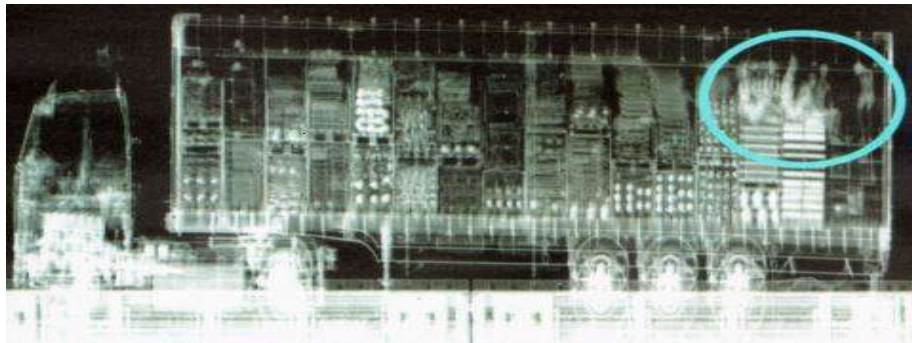
## Cargo inspection

The **SecureX FS** X-ray screen is employed in X-ray detection systems installed at ports and border crossings to inspect high volumes of moving freight vehicles for hidden illegal immigrants, weapons, drugs, explosive materials, bundled currency and other prohibited items.



Our technology provides significant improvements in image resolution over alternative technologies. Utilising a very fast decay phosphor (decays to 10% within 4  $\mu$ s) the SecureX FS screen produces instant, sharp, high contrast images. The screens can be pre-mounted to a range of substrates to provide the optimal on-site solution. SecureX FS is specifically designed to maximize resolution of images obtained using pencil beam X-ray and backscatter detection.

**SecureX SS** is a storage phosphor screen. Its fast decay time (decays to 10% within 15 $\mu$ s) allows greater throughput than with conventional systems. Utilising the unique X-ray absorption properties of the phosphor allows AST to provide an efficient, as well as cost effective, solution for cross-border cargo screening.



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APPLIED SCINTILLATION TECHNOLOGIES

Product: SecureX Range

## Baggage inspection

**SecureX ST** fast response phosphor coated strips are used in combination with linear photodiode arrays to provide rapid response X-ray based detection systems. These detectors are integrated into conveyor-based systems used in high throughput security checks at airports, and other transport terminals, where 100% inspection of baggage and airfreight will soon be mandatory.



SecureX ST utilises a range of phosphors to produce high contrast images, with good definition, which are essential for aiding correct and rapid identification of prohibited items in line scan baggage inspection.

## Ground based neutron radiation detection

After many years of underpinning the neutron detector programme at the ISIS facility at the Rutherford Appleton Laboratory, AST have utilised their experience to introduce new neutron detection and imaging techniques into the security marketplace.

**SecureX ND** is a high performance neutron detection screen often integrated into X-ray based systems to allow the detection of high cross section elements such as carbon and hydrogen found in plastic explosives. AST's blue emitting SecureX ND screen has unique, low sensitivity to background gamma to improve discrimination, while AST's SecureX NDg emits in the green, ideal for CCD coupling. This technology is now being used in mobile truck and container scanning systems being deployed at ports and cross-border sites.

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APPLIED SCINTILLATION TECHNOLOGIES

Product: SecureX Range

## Airborne neutron radiation detection



**SecureX LG** is a specialist lithium glass for neutron detection. Produced in sheet form it can be tiled to produce robust area detectors. The lithium glass is chemically inert and can withstand high temperature and pressures, making it particularly suitable for use in harsh environments. It is being used in novel

configurations for radiation threat/dirty bomb monitoring in both ground based and airborne systems.

### Availability

The SecureX range of screens comes in standard sizes: 30cm x 40cm, 14" x 17" and 17" x 17". Custom sizes are available up to the largest commercially available size of 1m x 1.5m. These screens can be optionally mounted to a variety of backing plates, which include Bakelite, aluminium and specialist plastics. Free samples of our most common screens, 75mm x 75mm, are available on request.

SecureX ST is available in a standard 50mm long x 3mm wide configuration but can be fabricated into many custom sizes in volumes from just a few tens up to many 10's of thousands of pieces

SecureX LG can be produced to maximum size of 150mm x 150mm per plate but can be tiled by bonding onto a support plate to create larger area detectors.

Applied Scintillation Technologies has the knowledge and expertise based on years of experience to partner you in the development of custom products for X-ray imaging in security & other applications.

Resolution, sensitivity, speed & colour of response are a few of the parameters that can be influenced in the production of a customised product that more closely relates to your customer need.

These products are manufactured to a high standard with tight tolerance specifications on a production basis working to our ISO9000:2000 approved systems. This provides you with a high performance product with a consistent security of supply provided by the constant availability of standard high quality materials.

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