Digital radiography

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What is Digital Radiography

Over the past few years, radiography with X-ray films has been a common imaging method used to test suspicious explosives.

With the development of technology, digital radiography (DR) is rapidly being replaced.

Digital radiography uses an X-ray digital detector (detector) instead of an existing film or fluorescent plate (CR or phosphor).

These digital systems provide instant high-resolution images, low radiation exposure, and lightweight capabilities.

Digital Radiation System Configuration:

◆ X-ray generator
◆ Digital Detector: A device that converts X-ray energy into a digital image
◆ Notebooks and software: devices that view and adjust images
◆ Accessories: Device holders, cases, bags
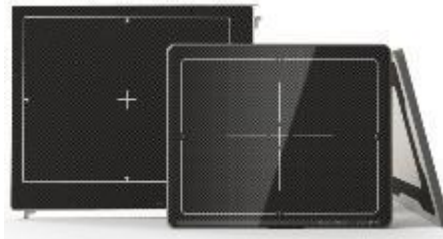
Advanced Digital Radiography

The security industry is a growing market in the world, including many business sectors such as anti-terrorism, road safety, forensic science and civil defense. Radiography is being used to identify suspicious objects in public institutions, embassies, airports, businesses, etc.

In the past, the recording medium was X-ray film. Current state-of-the-art technical standards for radiography are CR (Computed Radiography) and DR (Direct Radiography). The CR System uses the imaging plate as a capture device, and the DR System uses a flat detector to display X-ray images on the monitor by simply clicking on the button. Digital panels are shorter in time and less radiation than conventional X-ray films.

Example of using the security industry for digital radiography

IED, EOD

Contrabands : drugs, weapons, cash

Electronic counter measures

Crime scene investigations

Private security

IED (Improvised Explosive Device)
EOD (Explosive Ordnance Disposal)

Using the security industry in digital radiography, IED, an improvised explosive, is often used in terrorist acts of terrorism and guerrilla warfare. These explosives pose a frequent threat to ordinary citizens and social life as well as to soldiers on a peace mission. Detecting explosives, chemicals, etc. is a top priority for EOD/IED processing.

Portable X-ray systems optimized for a series of tasks contribute significantly to IED processing.
EOD/IED processing is very important in a moment's decision. Immediate high-quality images are needed for suspicious object or bomb internal analysis.
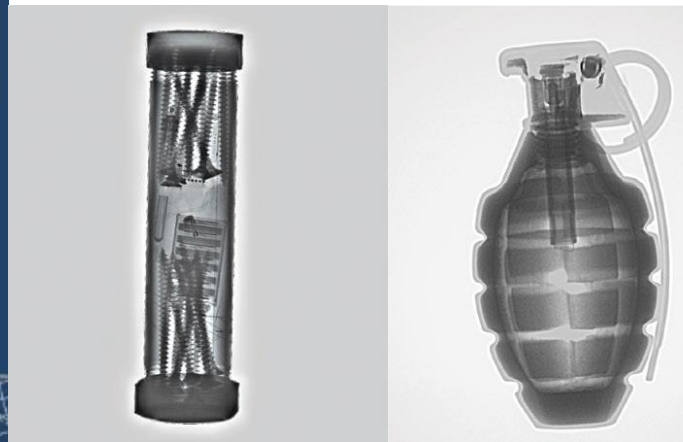
Contrabands : drugs, weapons, cash

Border Security Search and Customs Service are important economic gates for cities, communities and protect borders on land, aviation and at sea.

Non-destructive testing using fast-installable DR equipment can help identify criminal organizations or individuals. Specialized software tools improve detection and make it easier to work with.

Customs officials can quickly inspect suspicious vehicles or packages without having to open them.
Portable X-ray systems are lightweight, quick to check and easily transmit, making it a perfect solution for searching.
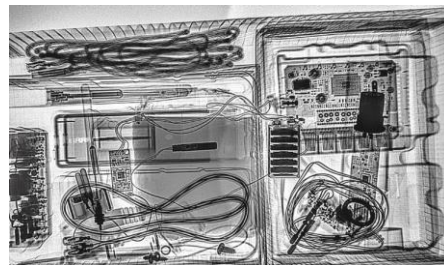
Electronic Counter Measures

These days, with high-tech equipment pouring out every day, it's easier to be monitored. Electronic devices the size of fingernails are hidden in offices and conference rooms, and important issues that have been coming and going may be leaked to the outside world.

To find this out, a portable DR system is a technology that allows you to instantly identify physically indelible sofas and see the results.

Authorized or embassy security teams should inspect everyday items, gifts, cell phones, etc. to detect small changes in electronic components. These may contain eavesdroppers or explosives.
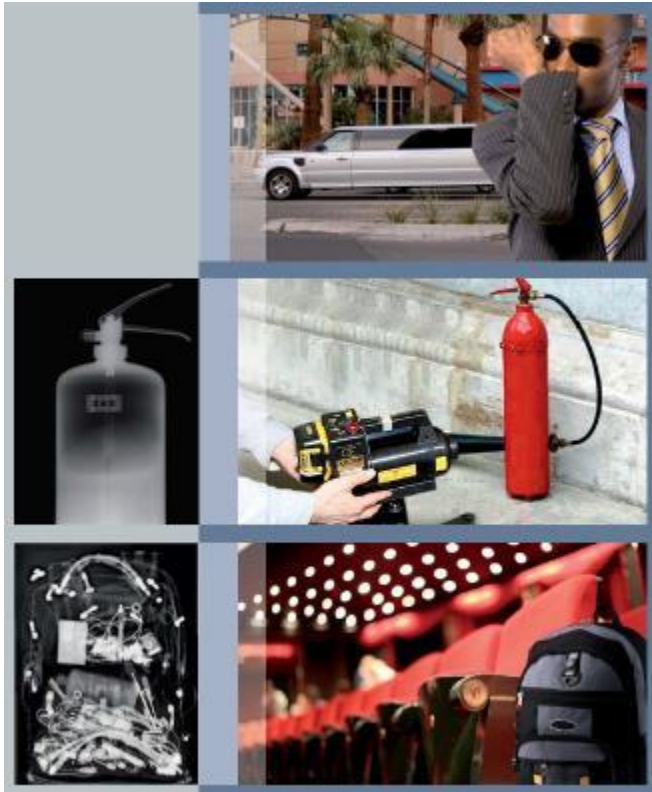
Crime Scene Investigations

The forensic team analyzes and verifies criminal cases and sites to finally convict criminals.

Forensic radiology is widely used to identify victims, estimate age, estimate cause of death, and even find causes or forgery such as fire or explosion.

Private & VIP Security Special Forces

The personal security market is growing with increased risk. Protecting key infrastructure, business events, individuals or organizations from terrorism has become a very important issue for personal security teams today. Portable digital radiography systems help security personnel respond quickly to harmful attacks.

Special units need products that are easy to carry and easy to install. It is important to make sure that the system is as light, robust and quiet as possible for safe and fast mission performance.
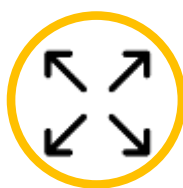
Handle Carry

Easy Interface

Strong durability

Wireless/ Remote Operation

Wide Range

Non Cable

Handle Carry

- Heavy protection restricts movement during EOD operations.
- Hand carry equipment for inspection should be easy on both hands.
- Minimize unnecessary elements with minimal movement and movement

Easy Interface

- Most of them are used in urgent and very dangerous situations.
- The quickest and simplest measurable interface is critical

Strong Durability

- Strong durability to withstand various situations and climates is essential
- Response to damage that can occur in explosive and hazardous situations is very important.

Wireless Remote Operation

- Secure safe distance from explosives during the operation and proceed with the inspection.

- Reliable remote transmission and reception capability stability of Wireless products within a safe distance is a top priority

- Equipment must be operated in a safe environment within a safe distance

Wide Range
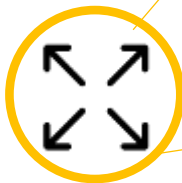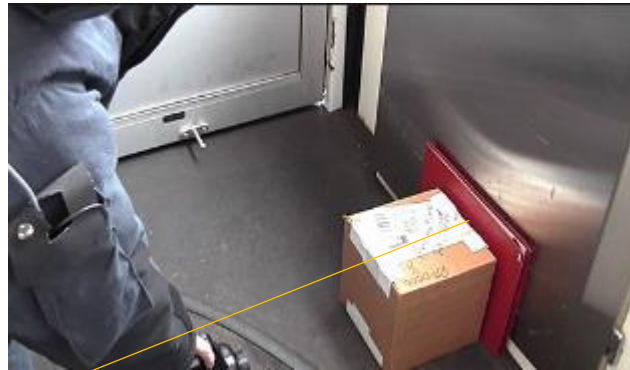
-     Consideration is required for the maximum measurable range of explosive estimators of various types and sizes to be examined.

Non Cable
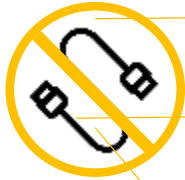
- Very low convenience for wired equipment as a certain distance is required to maintain a safe distance.

- Lines can also become obstacles and vulnerable to damage in the cable

- In case of wireless type equipment, unnecessary movement may occur (directly related to safety issues)