

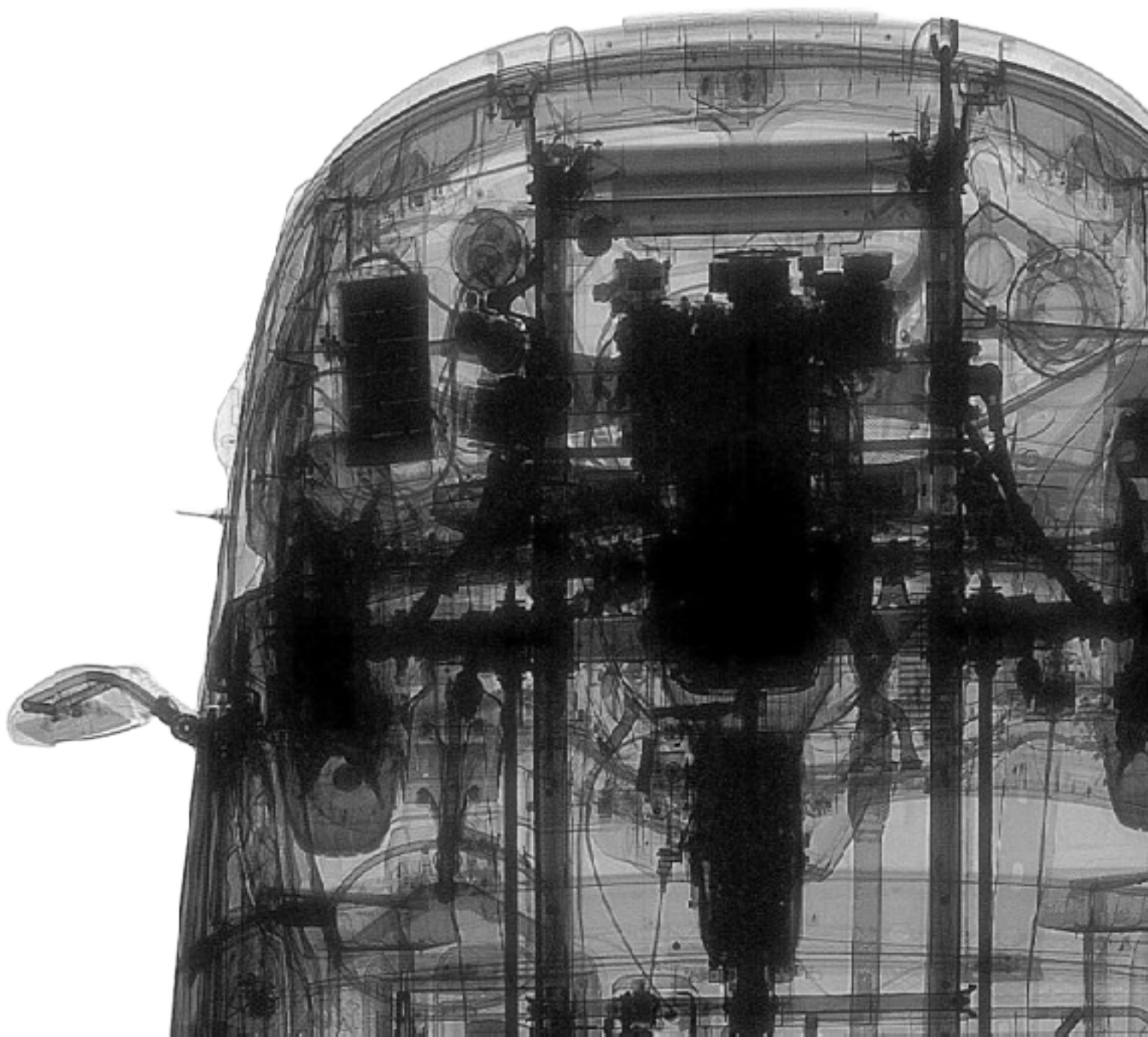


BORDER SECURITY

HOMELAND PROTECTION

AIRPORT & SEAPORT SECURITY

www.tudor-tech.ch



TUDOR SCAN OCV-M

MOBILE X-RAY SCANNER FOR OCCUPIED CARS AND VANS

OVERVIEW

The constant increase of terrorist activities calls for fast and reliable methods of screening vehicles. High-security facilities need high-tech equipment and efficient measures to address this new challenging environment. Our response is a safe and cost-effective mobile scanner that achieves top imaging performance with an extremely low radiation dose for the vehicle occupants.

Tudor Scan OCV-M incorporates our proprietary technology that has received considerable international acclaim over the past years. Developed with a constant focus on high performance and unparalleled reliability, it can scan up to 400 vehicles per hour in search for contraband or threats such as weapons, improvised explosive devices or other forbidden items.

The flexibility of OCV-M allows fast adjustments of the scanning frame allowing optimal scanning of small and large vehicles. In case of atypical vehicles, the boom holding the X-ray generator can be elevated and more detection modules can be added.

APPLICATIONS

- Airports
- Correctional facilities
- Governmental buildings
- Temporary checkpoints
- Access points to high-risk urban areas
- VIP security
- Border crossings

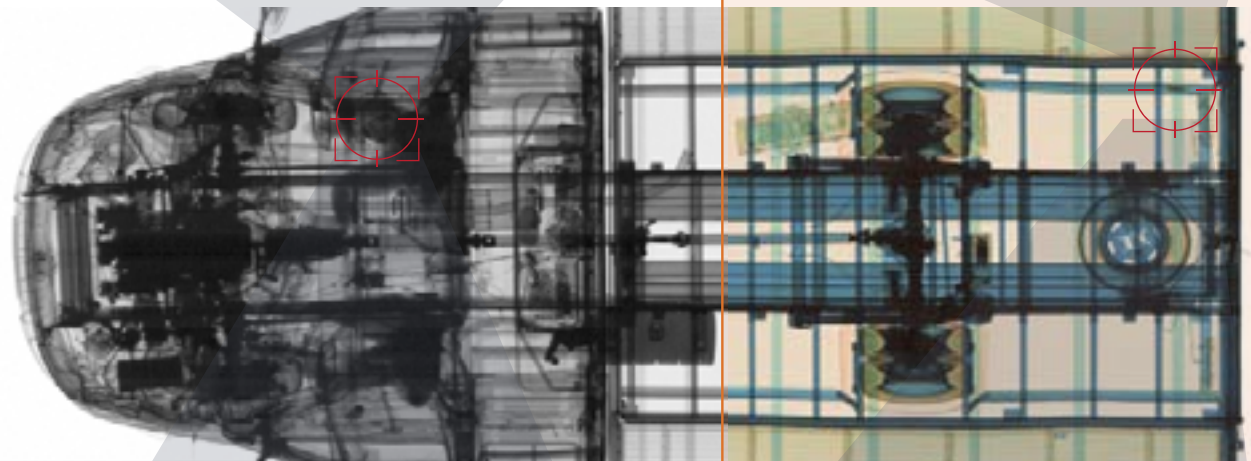
TECHNOLOGY & COMPONENTS

Tudor Scan OCV-M uses transmission imaging, a top-down oriented x-ray generator and optimised geometry in order to provide high-resolution images of vehicles driving through the virtual scanning frame. The dimensions of the scanning frame are adjustable and ensure that any vehicle dimension is scanned with the highest efficiency and the best possible image is provided to the operator.

The dual-energy imaging provides organic / inorganic material separation for fast identification of threats such as explosives or other IED components. It also gives the operator an important tool to identify other dangerous items such as weapons or contraband.



Dual View Material Separation View



An optional radiation detection system is available for detecting smuggling of forbidden material or for identification of dirty bombs.

The proprietary ultra-slim detector unit can handle even the most extreme weights and is derived from TST's unique aircraft scanning systems.

SYSTEM COMPONENTS

1. Transport and support unit

2. X-ray generator unit

3. Proprietary ultra-thin high-resolution detector module

4. Protective elements against tamper attempts

5. Dedicated sensor unit:

- speed sensor for the scanned vehicle;

- license plate recognition camera;



FUNCTIONALITY AND OPERATION

TUDOR SCAN OCV-M is the perfect choice for any temporary security applications due to its extreme mobility and achieves very high throughput thanks to its advanced imaging technology and traffic management system. The traffic management subsystem identifies vehicles through automated licence plate recognition (LPR).

Further integration possibilities are available such as automatic interrogation of law enforcement databases – this allows the operator to have real-time extensive information about the vehicle: owner, registration date and place, registered color etc.

Based on the information provided by the system, the operator can check quickly if the presented information is in accordance with the reality and has an important tool that can help identify a potential threat such as fake licence plates or a stolen vehicle that is often used for terrorist or criminal activities. Additional functionality may be added through an under-vehicle inspection system that provides a high-resolution image of the vehicle's underside. The operator may inspect the image individually in search for modifications made to the vehicle: for example, new welding points may suggest a double floor used to hide contraband, areas of the vehicle that are cleaner than the rest may also suggest those areas were used for hiding threats.

The software application allows parallel visualisation of the radiography and the underside image. This gives the operator the possibility to take easier decisions about the vehicle's status as cleared or suspect.

SOFTWARE

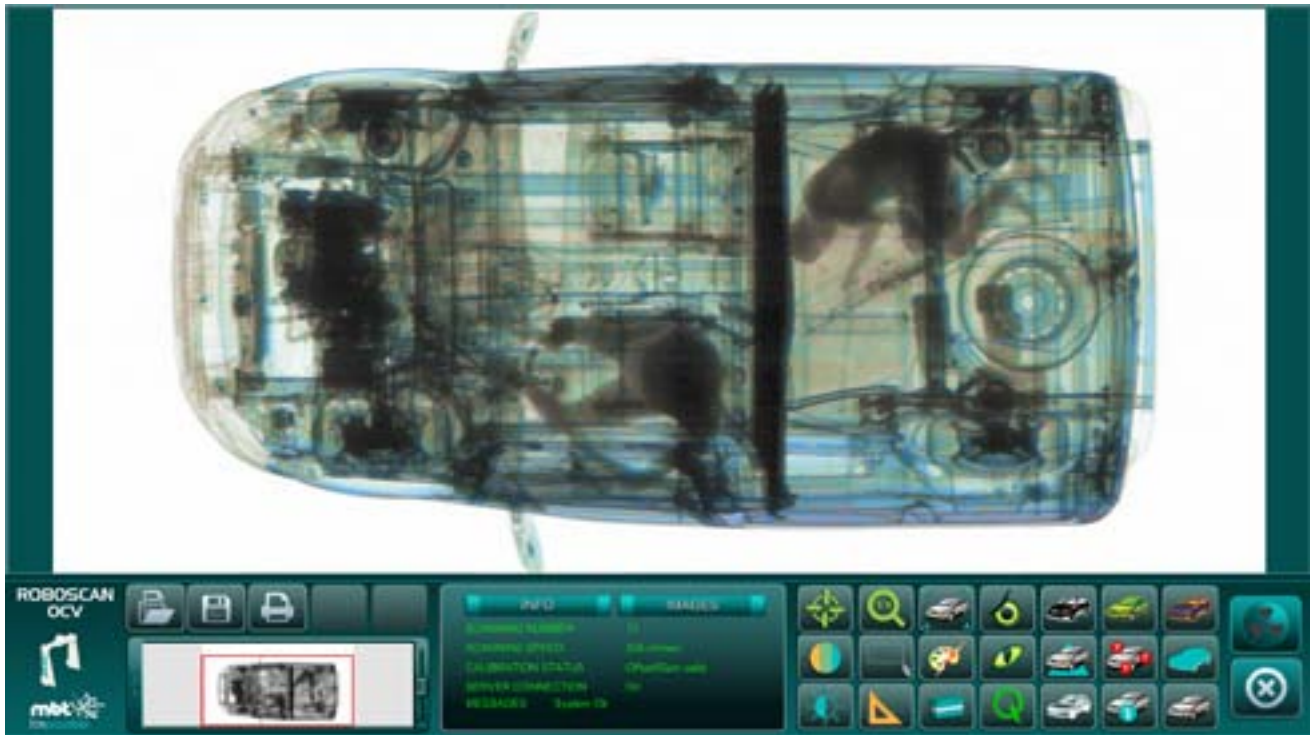
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ADVANCED INTEGRATION OPTIONS

Effective supervision of scanning activities and prevention of corrupt practives has always been a aserious concern for security authorities.

All Tudor Scan security scanners can be remotely supervised in real time from a central management location with or without knowledge of the operators and can even be operated from the supervisor console.

In case of high-traffic situations, each scanner can be operated by up to five image analysts through it’s operator multiplexing feature that ensures scanned images are always sent to the operator that has the longest analysis time.

TECHNICAL DATA

IMAGING SPECIFICATIONS

X-ray Energy	300keV
Steel penetration	40mm
Wire resolution	1 mm in air
Contrast sensitivity	4%
Driver&passenger radiation dose	less than 400 nSv / scan
Material separation	Organic/Inorganic/Metal

OPERATION

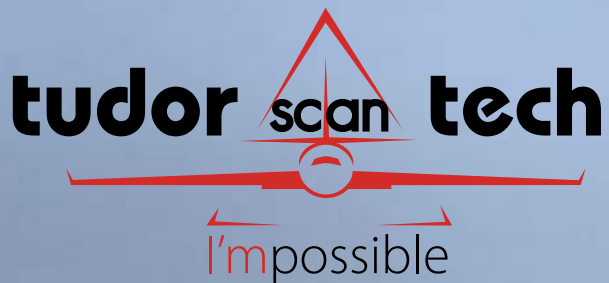
Triangle Scanning Frame	6m base x 7m height
Scan mode	Drive-through
Scanning speed	Variable 5 to 15 km/h, more than 400 vehicles per hour
Operating personnel	One operator per shift
Remote operation	Yes, by internet connection or portable operation console
Collision protection	Yes
Special Features	Data integration in Command and Control Centre (optional)
Continuous Operation	24 / 7 / 365

HEALTH & SAFETY

Megapixel Video Surveillance Subsystem	Yes (standard)
Optic and Acoustic Warning Signals during Scanning	Yes (standard)

ENVIRONMENTAL SPECIFICATIONS

Operation Temperature range	0°C ÷ +60°C standard
Storage Temperature Range	-25°C ÷ +60°C standard
Relative Humidity	Max. 98% non-condensing



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