



# WESTMINSTER

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### WG CP Single View Full Body X-Ray Screening System

The WG CP Single View Full Body X-Ray Screening System is an effective solution for the detection of contraband, concealed weapons, explosives and other dangerous substances, including liquid explosives concealed **ON** and **IN** the Body including prosthetic devices.



NARCOTICS IN BODY CAVITIES



ELECTRONICS AND DETONATORS



EXPLOSIVES AND LIQUIDS



CERAMIC AND PLASTIC BLADES



WEAPONS

### Applications

- Airports,
- Borders
- Critical infrastructure sites
- Embassies
- Government facilities
- Mines
- Prisons
- Public events
- Railway and bus stations
- Seaports,
- VIP Security

### Features

It uses algorithms for automatic intellectual detection and indications of contraband ON and IN the human body.

It uses Automated Detection Assistance Software to classify threats.

It provides High definition X-ray images in 5 seconds.

The person being screened is subjected to a Low radiation dose, up to 0,25  $\mu$ Sv.

Modular 4-joint construction, fast installation & easy alignment, easily relocated, country independent power source, ultra-light construction.

### Software Image Presentation

- Software will colour code clothing items, green
- Software will colour code foreign object on the body, Orange
- Software will colour code electronic items with PCB's, Blue
- Software will colour code dense potential threats such as weapons, Red
- Reports on mismatch alerts, and the ability to confirm when contraband is intercepted via a series of drop down windows
- Self-learning software will "learn" from input given by operators, administrators thus improving sensitivity and decreasing false alarms



### Detectable Substances

- Ceramic and plastic blades
- Electronics and detonators
- Explosives and liquids
- Narcotics in body cavities
- Weapons

### Options

- Barcode reader
- CCTV
- Face camera
- Fingerprint scanner
- Intercom system
- Laser printer
- Multi-operator functionality (two additional workstations)
- Passport reader
- Software for automatic narcotics detection
- Touchscreen operation instead of standard monitors

High Definition X-ray images in just 5 seconds with traditionally low dose (Up to 0.25  $\mu$ Sv).



### Power Requirement

- Consumption: Max. 1.5 Kva
- Voltage: 230 V  $\pm$  10%, Single Phase



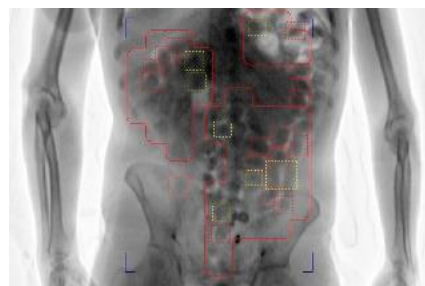
### Transportable

The system can be easily relocated without disassembly



### Automatic Threat Detection Software

- Software Algorithms For Automatic Drugs Search And Indication;
- Operator Assistance; User Performance Control.



### General Operation Features

- Inspection Method: Low-Dose Transmission X-Ray Technology
- Inspection Type: Full-Body Inspection
- Detection of Objects: Prohibited items Hidden ON or IN the body.
- Method of Inspection: Moveable platform
- Scanning process: The Person being screened is moved through X-Ray beam a platform
- Process time: 5 Seconds
- Process is Bi-Directional
- Operating Mode: 24/7
- Capacity: >240 Persons per hour
- Real time Image visualisation
- Operation Temperature Range: 0°C to 45°C
- Humidity: Up to 90%
- General Dimensions: 2,232  $\times$  1,805  $\times$  2,447 mm
- Weight: 550 Kg
- Maximum person weight: 300 Kg

**Software Features**

- Manual parameter setup for image viewing:
  - Scale
  - Auto scale
  - Positioning
  - Brightness
  - Contrast
  - Edge enhancement
  - Pseudo colours
  - Contrast adjustment
  - Export into DICOM, BMP and JPG formats
  - Black/white inversion
- Contrast and brightness pre-set: The operator can choose and save the contrast and brightness pre-sets and apply them during image processing
- X-ray image comparison: Two images can be viewed simultaneously for visual comparison
- Printing X-ray images: The operator can print out the current X-ray image or its fragment; this is also possible with typed notes appearing on the printed X-ray image
- Full control of the hardware system
  - X-ray generators
  - X-ray detectors
  - Control electronics
  - Dosimeter
  - Periphery
- Automatic real-time imaging: The operator only needs to initiate the scan – the software manages the rest
- Automatic narcotics detection in the abdominal cavity: A unique feature for assisting an operator to detect narcotics in the abdominal cavity and stomach, as well as controlling the operator's work efficiency and accuracy
- Automatic image storage control: After the inspection is completed, each X-ray image is automatically transferred to the image database for storage and possible further evaluation
- Archive image search option: Each image in an archive can be located by the inspected person's ID code or name
- Automatic parameter setup for image viewing: The viewing parameter optimisation filter is launched automatically when the image is opened for a review, thus reducing the image processing time
- Automatic location and hiding of the genital area on the image (optional): The software automatically locates and hides the genital area on the image, if required. To deactivate this function, enter the administrator password
- Automatic detection of prohibited objects and drugs in the genital area: The software automatically detects objects in the genital area and highlights them, without disclosing the genital area to the operator

**Detectability**

- Scanning Field: 2,080 X 800 Mm
- Min. Seen Wire: 32 AWG Guaranteed (38 AWG Optionally)
- Penetration: 34 mm steel guaranteed. up to 38 mm steel if used on high penetration mode with extra scanning time
- Detector Type: Linear array, 2.5 pixel (1.5 mm optionally) detector plates
- Bit Count: 6 Bits
- Anode Voltage: 160 Kv
- Anode Current: 0.1 – 1.25 Ma

**Radiation Safety**

- ANSI Classification: Full Body Scanner (Class A, As In ANSI/HPS N47.17-2009)
  - General Use (Dose Of 0.25  $\mu$ sv or Less)
  - Limited Use (Dose Of 0.25  $\mu$ sv or more)
- Dose Scanned Individual/Objects /Applicability: 0,1 – 4  $\mu$ sv (Fully adjustable with multiple pre-set levels)
- Min. Dose: 0,1  $\mu$ sv Detection of highly dense objects: no limit to number of scans per year
- Low Dose (1,000 Scans Per Year Ref. ANSI Classification): 0,25  $\mu$ sv For detection of small, highly dense objects/large, low-density objects/weapons, explosives, etc.
- Standard Quality (250 scans per year ref. ansi classification): 1  $\mu$ sv for the detection of small dense objects/small organic light objects
- High Quality (125 scans per year ref. ansi classification): 2  $\mu$ sv for the detection of small dense objects and small organic light objects IN the body
- Delivered Dose Control: Embedded dosimeter (calibrated during the installation). installed as an optional extra
- X-Ray Protective Shutter: It uses an electronic protective shutter, which switches off x-rays after scanning or in an emergency. a mechanical protective shutter can be installed at the request of the customer

**Software Features - Continued**

- Prohibited object image database maintenance: If prohibited objects are seen on an image, the operator can copy this image to the database and arrange for its simplified access for further comparison and evaluation
- Image Marking: The Operator can place marks on suspicious image areas and save them with the marks and annotations
- Scanned Individuals' info registration and saving into the database: this function can be enabled to allow for scanning only after the id info of the person to be inspected has been added to the database. in this case, if that person has already undergone inspection via scanning, his/her info can be searched within the database
- Automatic dose count received during a scan: the dose received by an individual during a scan is registered in the database, thus ensuring that the person will not be overexposed to radiation in the course of multiple scans over a period of time
- Multiple workstation solution for increased operational efficiency: software settings allow for the distribution of operational functions among several device users. setup example:
  - One operator manages the scanner and the individuals being inspected
  - Two other operators (or more) review and evaluate the x-ray images taken by the system
- Reporting: The scanner database contains information related to scanned individuals, accumulated radiation doses and operator statistics. the customer can print reports with information about a scanned person and the accumulated dose in any time period. access to this information may be protected by an administrator password
- Block software architecture allows integration into various security access control systems at minimum financial and time expense
- Operating System: Microsoft Windows 8 Embedded X64, Win10 Pro
- Unauthorised Access Protection: the system can be used by authorised personnel only and is protected by multi-level password
- Exporting X-Ray Images: the operator can save the x-ray images in a format (dicom, bmp and jpg) viewable on any pc, without the need for specialised software
- Medical Advisement Possibility: the operator can save the x-ray images in a format supported by medical diagnostic equipment for further medical assessment