

WG IS7858VI X-Ray Baggage Scanner

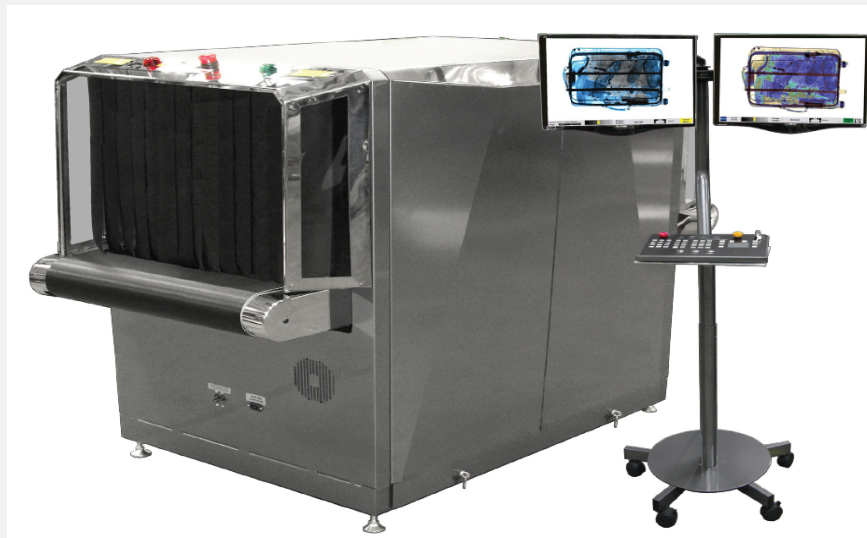
The WG IS7858VI is an advanced X-Ray Baggage Scanner capable of detecting organic and inorganic items such as weapons, explosives and narcotics using unique 6 colour software which significantly enhances the operator's ability to identify suspicious items.

The system has a stainless steel finish and a mobile monitor and keyboard stand.

With a Windows® 7 Operating System and an Intel iCore 7 Processor, the VI Series features an entirely new computer and system processor.

The VI Series provides the latest Data Acquisition System (DAS) for reduced electro-magnetic interference and improved noise immunity. This DAS technology enhances image clarity for better steel penetration and wire resolution.

The WG IS7858VI has a tunnel of 78cm width and 58cm height that will easily accommodate the inspection of hand luggage and parcels.



- **Applications**
- Airports;
- Banks;
- Commercial buildings;
- Courthouses;
- Embassies;
- Government buildings;
- Military installations;
- Prisons;
- Ships;
- Security checkpoints.

Real Time Diagnostics

All Westminster X-Ray Systems are equipped with Real-Time Diagnostics, a unique feature which allows users to monitor their machine health status, thus greatly increasing the system lifespan.

6 Colour Imaging

An exclusive standard feature, 6 Colour Imaging enables operators to view screened objects in 6 colours, with each colour correlating to a specific range of Atomic Z-Numbers. 6 Colour Imaging enables operators to achieve optimal material identification and improve throughput with more effective screening technology.

Standard Features

- 6 Colour image display (normal industry standard is only 3 colour);
- 9 Quadrant zoom;
- Auto image archiving 50,000 Images;
- Auto Z-Number measurement;
- Baggage counter;
- Colour and black / white imaging;
- Continuous Scanning;
- Continuous Zoom 2X to 32X;
- Density alert;
- Edge-Enhancement imaging;
- Geometric image distortion correction;
- High penetration function;
- Heavy duty roller castors;
- Image annotation;
- Image Review (100 Images);
- Manual archive;
- Material discrimination;
- Multi-Tier accessibility;
- Network ready;
- Operator training program;
- Organic / Inorganic imaging;
- Picture perfect;
- Print image capable;
- Pseudo Colour;
- Real-Time image manipulation;
- Real-Time self diagnostics;
- Reverse monochrome;
- Vertical zoom panning.

Specifications

- Operational Penetration & Sensitivity
- Contrast Sensitivity: 24 Visible levels 4,096 Grey levels;
- Penetration: 41mm Steel typical, 40mm Standard;
- Sensitivity: 41 AWG typical, 40 AWG Standard;
- Spatial resolution: 0.5 mm horizontal, 1.0mm vertical.

X-Ray Generator

- Beam direction: Diagonally upward;
- Cooling: Sealed Di-electric oil bath with forced air;
- Detector: 1,664 Channels in an L-Shaped array;
- Duty Cycle: 100%, no warm-up procedure required;
- Tube current: 1.2mA;
- Voltage: 180 kV Operating at 165 kV.

Computer

- Backup: Uninterrupted 3 minute power supply;
- Memory: 4GB Ram at 1333 MHz;
- Platform: Windows 7o;
- Processor: Intel i7, 2.93 GHz, 8MB cache;
- Storage: 500 GB HDD;
- Video card: 1 GB Video card (Dual digital display).

Video Display

- Display resolution: 1,680 x 1,050, 24 bit/pixel colour;
- Dual 22" LCD Colour monitors.

Environment

- Humidity: Up to 95% Non-condensing;
- Operating temperature: 0°C to 40°C;
- Storage temperature: -20°C to 60°C.

Electrical Connection

- 120VAC, 60 Hz, 15 Amps maximum;
- 198-230VAC 50 Hz, 10 Amps maximum.

Physical

- Bi-Directional conveyor;
- Construction: Custom steel frame / panels;
- Conveyor belt : Seamless low maintenance ;
- Conveyor height: 73cm from floor;
- Conveyor maximum load: 165 kg evenly distributed;
- Conveyor Speed: 0.23 Metres per second in both directions;
- Heavy duty roller castor;
- Levelling: Adjustable screw jack levelling feet;
- Motor: Sealed drum, maintenance free;
- Scanner dimensions: L 188cm x W 103cm x H 140cm;
- Scanner weight: 690 kg;
- Tunnel opening: Width 78cm x Height 58cm.

Shipping Crated

- Crated dimensions: L 221cm x W 117cm x H 183cm ;
- Crated weight: 860 kg.

Operators

- Operators must log on in order to operate the x-ray machine;
- If networked the operator photograph is automatically displayed on supervisor and system screen at all times while operator is logged on.

Safety / Standards

- Complies with published international health and Safety standards including the U.S. F.D.A. Centre for Devices and Radiation Health standards for cabinet x-ray devices (Federal Standard 21-CFR 1020.40);
- Complies with published international operational standards including the U.S. Federal Aviation Administration standards, "Use of X-Ray Systems" (Federal Standards 14 CFR 108.17 and 14 CFR 129.26);
- Dose per inspection: 0.1 mR typical;
- Film safety is guaranteed for high speed films up to ISO 1600;
- Typical radiation leakage is less than 0.1mR/hr.

Options

- Advanced image archiving 100,000 images;
- ASTM 10 Stepwedge / ASTM F0792-01E2 Test Case;
- Custom paint finish;
- Entry / Exit roller conveyors, 1 metre & 1.5 metres;
- Foot mat;
- Heavy duty rubber casters mobility kit;
- Local language support - Arabic, Chinese, French & Spanish & more;

- Radiation meter;
- Remote configuration;
- Screener Assist Threat Detection software;
- Supervisor workstation;
- Suspect search station;
- Threat Image Projection software (TIP);
- Tropical kit up to 50°C operation.

Recommended Options

Threat Image Projection (TIP)

This randomly inserts artificial but realistic x-ray images during the routine baggage x-ray screening operation. When the scanner is in operation scanning a person's luggage and packages the TIP software will occasionally insert a suspicious item i.e. explosive, gun or knife into the scanned image of the item presently passing through the machine. If the operator acknowledges the presence of the item, the programme will tell them it is merely a TIP image; if they miss the item the programme will record this against their login, each operator will have an individual logon.

The administrator can change the random frequency of the TIP image insertions' i.e. every 10, 20, 30, 60 items etc passing through the scanner. The TIP programme has a large library of suspicious images that it selects randomly from. At the end of the day / shift the administrator can check the efficiency of the individual operators. TIP is an excellent training and quality tool for continuously assessing individual operator performance.

Screener Assist

This is a real time threat identification operator alert software package that automatically screens for potential explosives and other threats by utilising advanced material classification and atomic density analysis by drawing a coloured ellipse around the area of suspicion. If multiple threats are perceived in a single image, the system will draw multiple ellipses in the suspect areas. The Screener Assist software is designed to assist vigilant operators in locating and identifying threats;

Networking

The WG IS7858VI is supplied network ready; it can be easily integrated to any pre-existing operational infrastructure and allows the operation of the machine to take place regardless the distance and location.

Administrators have a choice in deciding how to best implement their connectivity without any compromise. The following Options require a networking capability:-

- Remote Operator Workstations;
- Supervisor Workstations;
- Suspect Search Stations.

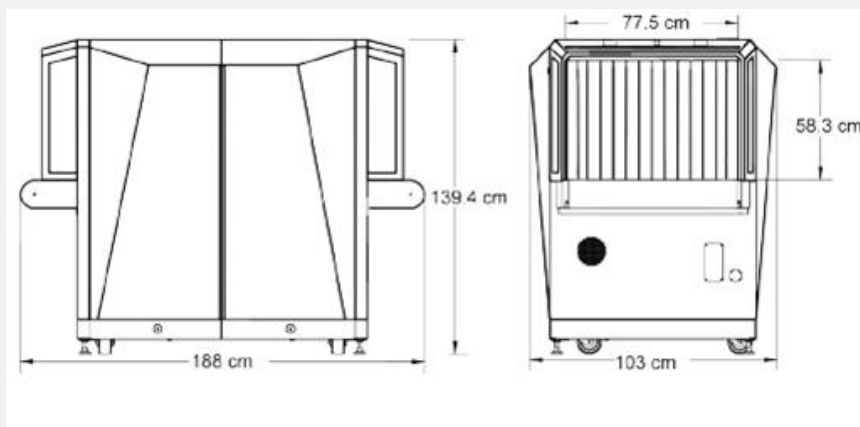
Please see the associated Westminster document:- "Networking WG IS X-Ray Scanners" this document describes WG IS Networking and the three options above in detail.

Operator Image Analysis

- 2x to 32x zoom without pixel distortion;
- 5 steps for high penetration and 6 steps for Low Penetration modes;
- Automatic Density alert (Red colour display, Adjustable threshold);
- By selecting 'Screen 1' or 'Screen 2' operators can choose the screen they want to perform image manipulation, without affecting the image manipulation performed on the other monitor, operators can quickly manipulate and compare images with different imaging tools;
- High & Low energy detectors are used to identify specific materials / organic / inorganic / calculate atomic weight;
- Image retrieval based on bag number, time and date;
- Images are displayed on the monitors with a reduced geometrical distortion;
- Operator can annotate images in real time, images are saved with annotations;
- Operator can see standard images on one monitor and modified images on the other;
- Print on any standard printer.

- Retrieve last 100 images with single push of image retrieval button;
- Select and print any image that is displayed on the screen;
- Select images and record on a CD, USB key;
- Standard image manipulation on all retrieved images;
- The system displays on first monitor colour / organic / and inorganic images;
- The system displays on second monitor B/W, reverse, and pseudo colour images.

Dimensions



Unique 6 Colour Imaging

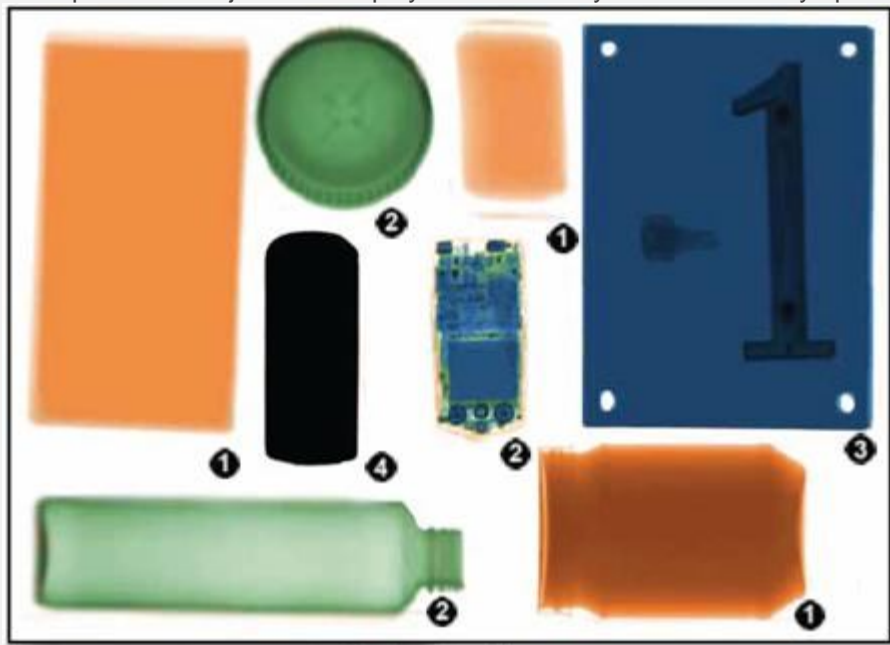
The WG IS7858VI six colour imaging software is a new and unique in the world of X-Ray Security scanning all other manufacturers' only use 3 colour imaging software.

Atomic Number Allocation 3 Colour Imaging & New Advanced 6 Colour Imaging Table

Atomic Z Number	Material Type	3 Colour Conventional Imaging	6 Colour Advanced Imaging	Examples	Possible Threats
0-8	Organic	1 - Orange	5 - Brown	Wood, Oil	C-4, TNT, Semtex
8-10	Low Inorganic	1 - Orange	1 - Orange	Paper, Alcohol	Cocaine, Heroin
10-12	High Inorganic	2 - Green	6 - Yellow	Glass	Propellants
12-17	Light Metals	2 - Green	2 - Green	Aluminium, Silicon	Gunpowder, Trigger Devices
17-28	Heavy Metals	3 - Blue	3 - Blue	Iron, Steel	Guns, Bullets, Knives
28+	Dense Metals	3 - Blue	7 - Violet	Gold, Silver	High-Value Contraband
	Impenetrable	4 - Black	4 - Black	Lead	Shielding for above threats

Conventional 3 Colour Imaging - used by other Manufacturers

Example of how objects are displayed to the X-Ray Scanner security operative.

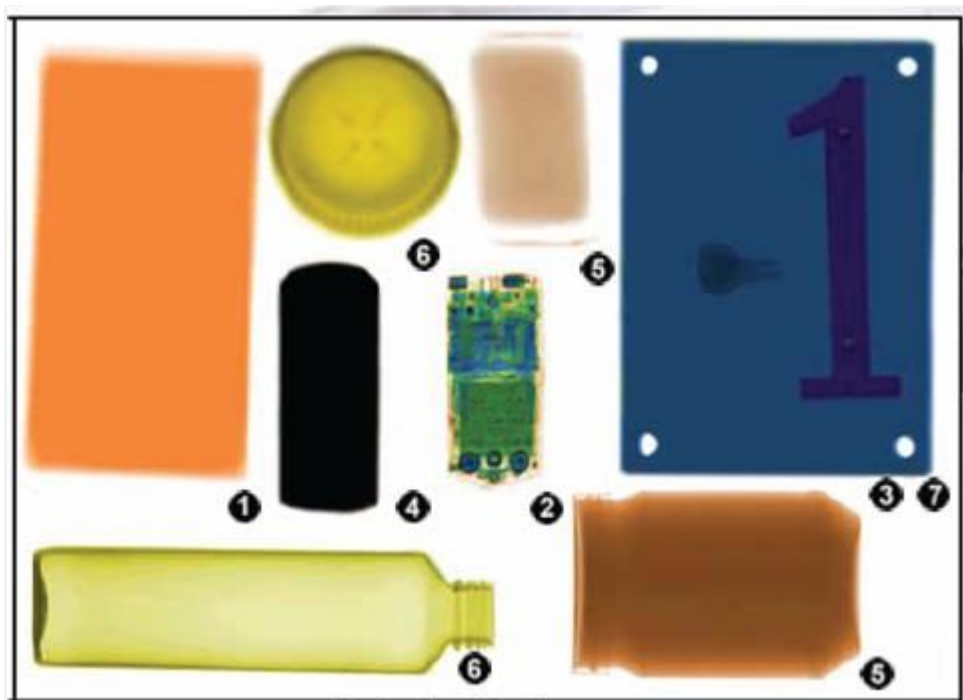


Identification

- 1 - Peanut Butter, Bar of Soap, Small Stack of Paper;
- 2 - Mobile phone, Ashtray, Glass Bottle;
- 3 - Sheet of Metal, Set of Keys, Number Sign;
- 4 - Lead Curtain.

Advanced 6 Colour Imaging - Unique Westminster Feature

Example of how objects are displayed to the X-Ray Scanner security operative.



Identification

- 1 - Stack of Paper;
- 2 - Mobile phone;
- 3 - Sheet of Metal, Set of Keys;
- 4 - Lead Curtain;
- 5 - Bar of Soap, Peanut Butter;
- 6 - Glass Bottle, Ashtray;
- 7 - Number Sign.

Six colour imaging software significantly enhances the X-Ray Scanner security operator's ability to distinguish and recognise all objects quickly and efficiently, and is also allows operators to identify potential threat objects that occur within particular Atomic Z-number ranges i.e explosives in the organic range.

The six colours can be specifically assigned to specific Atomic number ranges allowing the X-Ray Scanner to be targeted to find specific items / substances.

Other manufactures of X-Ray Scanning equipment only have 3 colour imaging available provided limited optimisation of imaging detection capability.

Xuất xứ hàng hóa: England

Đại diện tại Việt nam: Công ty CP Đông Phương Hồng Hà nội

Địa chỉ: 28C Khâm thiên, Đống đa, Hà nội

Website: dongphuonghanoi.vn

Hotline:0903228633