smiths detection

HCVL

LIGHT VEHICLE X-RAY INSPECTION SYSTEM

Feature Highlights

- High throughput in both configurations; conveyor mode: up to 55 cars/hr, drive-through mode: up to 200 cars/hr
- Highest image resolution and quality available
- X-ray centered view delivering a symmetric X-ray image of the top view for the scanned vehicle
- Compact design for easy integration into existing sites
- Allows connectivity with other systems

HCVL is ideally suited for installation in ports, land borders and city entrances; wherever there is a need for a high throughput of light vehicles to be screened including cars, vans, minibuses and camping cars.

HCVL ensures the continuous flow of vehicles, even at peak times, whilst guaranteeing excellent image quality and reliable screening results for any load.

It offers operators a fast and easy to use tool for detecting threats such as drugs, explosives, weapons, contraband, radioactive materials and people trafficking. Vertical-centric geometry scanning enables entire fully-loaded vehicles to be analysed in one view.

The integrated Cargo Vision platform ensures high levels of security are maintained, by delivering reliable analysis information.

High definition X-ray images of the vehicle can be viewed with the DaiSy dataset management tool, providing quick and accurate analysis either on-site or remotely.

To support local regulation on the scanning of passengers, HCVL is available in either drive-through scanning mode with the HCVL 35D or conveyor scanning mode with the HCVL 40.

When equipped with the optional iCmore radioactivity capability, the HCVL simultaneously carries out both the X-ray inspection and an analysis to detect the presence of radioactive gamma materials within the vehicle.

When equipped with the OCR ALPR option, the license plate number of the inspected vehicle is automatically registered inside the dataset of the vehicle.

General Specifications

Nominal energy (MeV)	4
Scanning principle	Conveyor and pass-thru scanning modes available
Vehicles to be scanned	Cars, vans, minibuses, camping cars (up to 3.60m height)
Top view	Vertical-centric view (top to bottom)

System specifications

Tunnel dimensions (W x H)	3.3 x 3.70m (10.83 x 12.13ft)
Max. vehicle dimensions (WxHxL)	2.8 x 3.6 x 6.5m (9.19 x 11.81 x 21.32ft)
Maximum vehicle weight	4000 kg
Operating temperature	-20° to 40°C (-4° to 104°F)
Storage temperature	-35° to 55°C (-31° to 131°F)
Relative humidity	Up to 99% non-condensing

Computer system

DaiSy workstation	New ergonomic and intuitive dataset interface system
Image analysis tools	Windowing, customization of image processing function, full-screen displaying, Image treatments can be applied in just 2 mouse clicks
Video display terminal	1 x 24in flat LCD screen workstation
Database workstation	SQL database
Data storage	RAID 5-up to 500.000 images

Health & security

Dose in the environment	Less than 1µSv/h
Dose rate in operator cabin	Less than 1mSv/year

Options

OCR	Automatic optical character recognition
iCmore radioactivity gamma	Automatic radioactive material detection (gamma)
TIP	Automatic projection of threat images to be detected by operator
Operator bungalow	Air conditioned
Connectivity (option)	DMS (Dataset Management System) - data centralization and operators pool R2S (Remote Repair System) EDI (Electronic Data Interface)

Configuration	**HCVL 40**	**HCVL 35D**
Steel penetration (mm)	240	200
Throughput for cars up to 5m length (cars / hour)	Up to 55	Up to 200
Safety area (L x W)	22 x 6m (72.18 x 19.68in) with walls	8 x 5 (26.25 x 16.40in) with walls
Typical dose per vehicle occupants	N/A	Less than 160 nSv/scan @ 7km/h or 4mph (limit of 250 nSv/scan defined by ANSI N43.17-2009)
Certification	EC compliance	UL compliance
Max. dose rate in the environment	Less than 1 mSv per year (Note: I.C.R.P 103 allows up to 1mS/year)	
Compliance	Compliant to ICRP 103, WHO	

For product information, sales or service, please go to www.smithsdetection.com/locations

Smiths Heimann S.A.S., 36, rue Charles Heller, 94400 Vitry sur Seine, France

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