



Z PORTAL AS&E

MULTI-VIEW, MULTI-TECHNOLOGY,
CARGO AND VEHICLE SCREENING SYSTEM

- MULTI-VIEW, MULTI-TECHNOLOGY SYSTEM FOR COMPREHENSIVE DETECTION
- HIGH-THROUGHPUT, DRIVE-THROUGH SCREENING
- AVAILABLE IN TWO SIZES FOR CARS AND TRUCKS/BUSES
- SMALL FOOTPRINT AND CONSTRUCTION-LESS DESIGN

The system uses Z Backscatter®, Forwardscatter®, and dual-energy transmission (optional) technology to simultaneously capture two images from each side of the vehicle and two images from the top of the vehicle—six views in total.

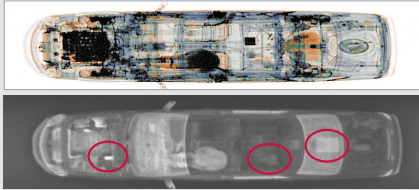
The Z Backscatter technology produces photo-like images, ideal for detecting organic contraband such as drugs or cigarettes.

The top-down, dual-energy image is ideal for detecting anomalies hidden in the dashboard, gas tank, and center of a vehicle. Forwardscatter technology enables the enhanced detection of dense materials, such as artillery shells.

Armed with multiple images, customers can more effectively stop threats from crossing borders or entering facilities, and successfully recoup lost revenue from trade fraud. The system can scan up to 400 cars or 250 trucks per hour and its efficient design allows it to easily fit into existing traffic lanes.



THE AS&E Z PORTAL® SYSTEM GIVES OPERATORS THE POWER TO CONFIDENTLY SCREEN CARS AND TRUCKS BY LEVERAGING A UNIQUE COMBINATION OF X-RAY TECHNOLOGIES THAT PROVIDE MULTIPLE VIEWS OF THE ENTIRE VEHICLE.



TOP: Top-down transmission view
BOTTOM: Top-down Z Backscatter view



TOP: Left-side Z Backscatter view
BOTTOM: Left-side Forwardscatter view



TOP: Right-side Z Backscatter view
BOTTOM: Right-side Forwardscatter view



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OPERATING FEATURES

X-ray source	225 keV
Crew	One X-ray system operator inspector standard; additional traffic coordinator is optional
Scan modes	Operator initiated or continuous
Scan direction	Single or optional bi-directional
Scanning speed	4-20 kph (2.5-12.4 mph)
System throughput	Up to 400 cars or up to 250 trucks per hour
Power requirements	50 Hz: 400 V, 90 A, 50 kVA
	60 Hz: 480 V, 75 A, 50 kVA

TYPICAL GANTRY-MODE PERFORMANCE

	Truck	Car
Overall dimensions¹		
Width	6.6 m	5.9 m
Height	6.0 m	4.1 m
Length	8.2 m	6.9 m
Tunnel dimensions¹		
Width	4.2 m	3.4 m
Height	4.7 m	2.8 m
Maximum vehicle dimensions²		
Width	3.5 m	2.7 m
Height	4.6 m	2.7 m

ENVIRONMENT

Operating temperature	-30° C to 55° C
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HEALTH AND SAFETY

- **Radiation exclusion zone dimensions (400 cars or 250 trucks per hour):** at system boundary
- **Radiation dose at exclusion zone boundary:** 0.5 µSv in any one hour
- **Radiation dose:** the typical dose to the scanned vehicle and driver is 0.04 µSv (4.0 QRem) at 8 kph (5 mph)
- **Radiation standards:** system conforms to manufacturers' requirements of ANSI N43.17-2009 radiation safety for personnel security screening systems using X-Ray or gamma radiation

¹Does not include vehicle ramp (top-down transmission option)

²Allows for vehicle clearance of 0.3 m on each side

SYSTEM OPTIONS

- **Top-down transmission imaging :** creates a dual-energy transmission X-ray image from top down, using surface mounted detectors
- **Bi-directional scan mode :** allows operator to easily switch the direction of traffic flow
- **Integrated peripheral devices :** license/number plate recognition system, container code recognition system, and under-vehicle inspection system
- **Radiation portal monitor :** gamma or gamma/neutron
- **CIM Server networking solution :** enables images from one or more systems to be sent to a centralized database and connects one or more analyst workstations for local or remote image analysis
- **Scan activation station (Z Portal for trucks only) :** driver or operator initiates X-rays to avoid scanning the cab of the truck
- **Automatic cab exclusion (Z Portal for trucks only) :** technology that automatically avoids scanning the cab of the truck
- **Extreme cold operating temperature option :** extends the system operating temperature to -40° C
- **Vehicle protection kit :** vehicle guides and flags to direct traffic through the tunnel and decrease vehicle collisions with the system

OPERATOR ALERT TOOLS

- **Reference vehicle compare :** (Z Portal for cars only)
- **Fusion imaging™ technology :** (available with top-down transmission imaging option)

HTDS

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