HTDS
Hi-Tech Detection Systems

EAGLE R60

AS&E

HIGH-ENERGY RAIL CARGO INSPECTION

- AUTOMATED SCANNING OF RAIL CARS
- AVAILABLE FOR SINGLE OR MULTIPLE TRACKS
- HIGH-SPEED CONFIGURATION FOR SCANNING AT UP TO 60 KM/HR
- MATERIAL DISCRIMINATION AND OPTIONAL RADIOACTIVE THREAT DETECTION

The Eagle R60 is designed to inspect a variety of rail cars and cargo. It scans double stacked containers, single 40-foot containers and two 20-foot containers on one rail car.

The train travels through the scanner at speeds up to 15 km/hr without significant loss of image quality.

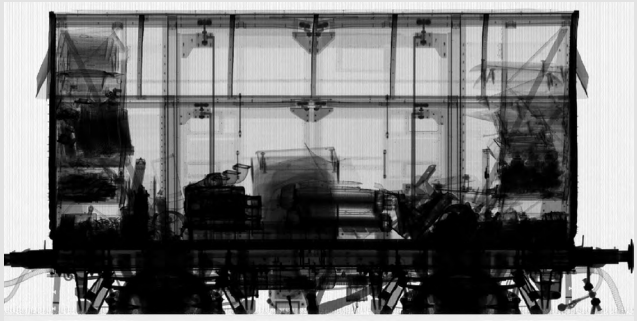
The train does not need to move at a precise, constant speed because the speed of the train is measured by a speed sensor.

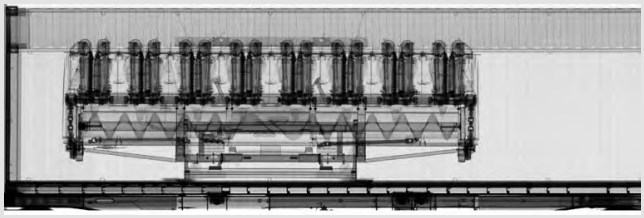
The linear accelerator pulse rate is adjusted according to the measured speed, to eliminate image distortion and minimize radiation output.

With high-quality X-ray images and Cargo Viewer software, the Rapiscan Eagle Rail Cargo Series reduces the need for manual inspection. The systems include a fully automated scanning control system that monitors the flow of rail cars, captures identification numbers, acquires high-resolution images of all cargo passing through the system, and controls the X-ray beam to scan only rail cargo specified by the operator.

The system is available for single or multiple tracks as well as single or bi-directional scanning. A high-speed, single-track option is also available.

THE RAPISCAN EAGLE® RAIL CARGO SERIES OF HIGH-ENERGY INSPECTION SYSTEMS ENABLE AUTOMATED SCANNING OF DENSE CARGO TRANSPORTED BY RAIL, FOR VERIFYING MANIFESTS AND DETECTING CONTRABAND.





TOP: Transmission image of a 40-ft container
BOTTOM: Transmission image of a rail car

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TYPICAL PERFORMANCE

	R60	R60-HS	R90
X-ray source	6 MeV	6 MeV	9 MeV
Steel penetration	310 mm	310 mm	340 mm
Wire resolution	2 mm	2 mm	2 mm
Spatial resolution	5 mm (H) 5 mm (V)	5 mm (H) 5 mm (V)	5 mm (H) 5 mm (V)

SYSTEM DIMENSIONS

	R60	R60-HS	R90
Overall length	20 m	20 m	20 m
Overall width	24 m	19 m	24 m
Overall height	11 m	7 m	11 m
Tunnel width	8 m	2.5 m	8 m
Tunnel height	3.4 m	3.4 m	3.4 m

OPERATING FEATURES

Crew	Minimum of one operator/analyst
Scan modes	Fully automated
Scan direction	Single or optional bi-directional
Scanning speed	R60 and R90: 2–15 km/hr
	R60-HS: 8–60 km/hr
System throughput	Up to 200 rail cars per hour

ENVIRONMENT

Operating temperature	-10° C to 40° C
Maximum wind speed	40 km/hr

HEALTH AND SAFETY

Radiation dose at exclusion zone boundary	0.5 µSv in any one hour
Shielded radiation exclusion zone	Site specific
Radiation dose to crew	0.5 µSv in any one hour
Radiation dose to cargo	< 20 µSv per scan

The following specifications may vary based on individual site requirements

SYSTEM OPTIONS

- **Integrated radiation detection :** gamma or gamma/neutron
- **Extreme cold weather package :** extends the system operating temperature to -40° C
- **Extreme hot weather package :** extends the system operating temperature to +55° C
- **Low minimum scan height :** scan to rail (scan to base of cargo is standard)

HTDS
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