

TECHNICAL

Product Datasheet

X-RAY SECURITY CARGO & BAGGAGE SCANNING & INSPECTION MACHINE

with 100 x 80 cm Tunnel



The GD-XR-1080-SD is a heavy duty complete x-ray scanning and inspection system with a large sized 100 by 80 cm tunnel for cargo, baggage and larger items at any check point.

GD-XR-1080-SD

The GD-XR-1080-SD is a highly efficient and advanced machine designed with security operators in mind equipped with a separate keyboard and a single viewing screen that can be upgraded to a dual viewing screen, the machine also supports automatic explosives and narcotics detection alarm triggering through previously recorded images for simplified detection.

The GD-XR-1080-SD offers a wide variety of technological advancements to simplify the threat detection process, such as multi-color imaging, which allows security operators to accurately distinguish between organic, inorganic, metals, compound materials, and empty spaces, another advancement is Guardex's enhanced imaging technology which allows security operators to shuffle through multiple imaging enhancement technologies such as standard multi-color imaging, reverse color imaging, black and white imaging, Pseudo imaging, variable absorption rate imaging, low-energy penetration imaging, high-energy penetration imaging, elimination imaging (organic or inorganic materials), magnification imaging and region of interest imaging and finally all Guardex X-ray machines have an intelligent AI machine learning software allowing them to learn patterns, image shapes and material compositions to better identify the same items in the future.

The GD-XR-1080-SD x-ray machine has a full lead casing of the generator for radiation control, maintaining an x-ray dose rate close to naturally occurring radiation rate levels.

The GD-XR-1080-SD is compliant with most international standards, including image quality standards, radiation limitation standards and international airport security standards while meeting the requirements of TSA, ECAC, DfT, and STAC.

X-RAY MACHINES SPECIFICATIONS

X-ray Machine

Tunnel Size	39.37 x 31.49 Inch (1000 x 800 mm)
Conveyor Height	12.99 ± 1.18 Inch (330 ± 30 mm)
Monitor	19" Display Monitor
Keyboard	Connected to Machine but Separate from Machine Body
Buttons	Emergency Stop
Maximum Item Size	38.58 x 30.70 inch (980 x 780 mm)
Maximum Item Weight	440.92 Lbs (200 Kg)

Performance

Inspection Speed	Adjustable 8.66 or 15.74 or 26.37 Inches/sec (0.22 or 0.4 or 0.67 m/s)
Detection Resolution	40 AWG
Radiation Penetration	1.33 to 1.57 Inch (34 to 40 mm)
Radiation Leakage	< 0.12 μ Sy / Hour (Measured 50 mm from Machine Enclosure)

Scanning & Inspection

Anode Voltage	160 kV
X-ray Detector	Photodiode
Cooling Method	100% Sealed Oil Cooling Cycle
Single Inspection Dose	< 2.1 μ Gy

Image

Grey Levels	4096
Recognition	Orange for organic materials Blue for inorganic materials Green for metal and compound materials
Image Playback	Last 50 inspected images
Image Storage	More than 100,000 images

Electrical

Operating Voltage	110 - 220 VAC ±5% 50 / 60 Hz
Power Consumption	1,200 Watt

Mechanical

Machine Dimensions	127.95 x 55.51 x 67.71 Inch (3250 x 1410 x 1720 mm) (L x W x H)
Machine Weight	2,866.00 Lbs (1,300 Kg)
Operation Temperature	32 to 104 °F (0 to 40 °C)
Storage Temperature	23 to 122 °F (-5 to 50 °C)
Humidity	10 % to 90 % (Non-condensing)
Installation Environment	Indoors

Regulatory Compliance

Meets International TSA, ECAC, DfT, and STAC Security Standards
Meets International Film Safety of ISO 1800 Standard
Meets International EMC, FDA and CE Regulations and Standards

Note: The above pictures and parameters for reference only, the actual product may differ slightly.

PRODUCT FEATURES & APPLICATIONS

Image Enhancement

Black and white Images
Inverse Coloring
High-energy penetration
Low-energy penetration
Super-enhancement

Variable absorption rate
Pseudo coloring
Region of Interest
64x image magnification / Zoom (with no loss of resolution)
Elimination of organic or inorganic materials

Standard Machine

Date / time display
Baggage counter
User management
System operation clock
Image storage & retrieval
Diagnosis & maintenance

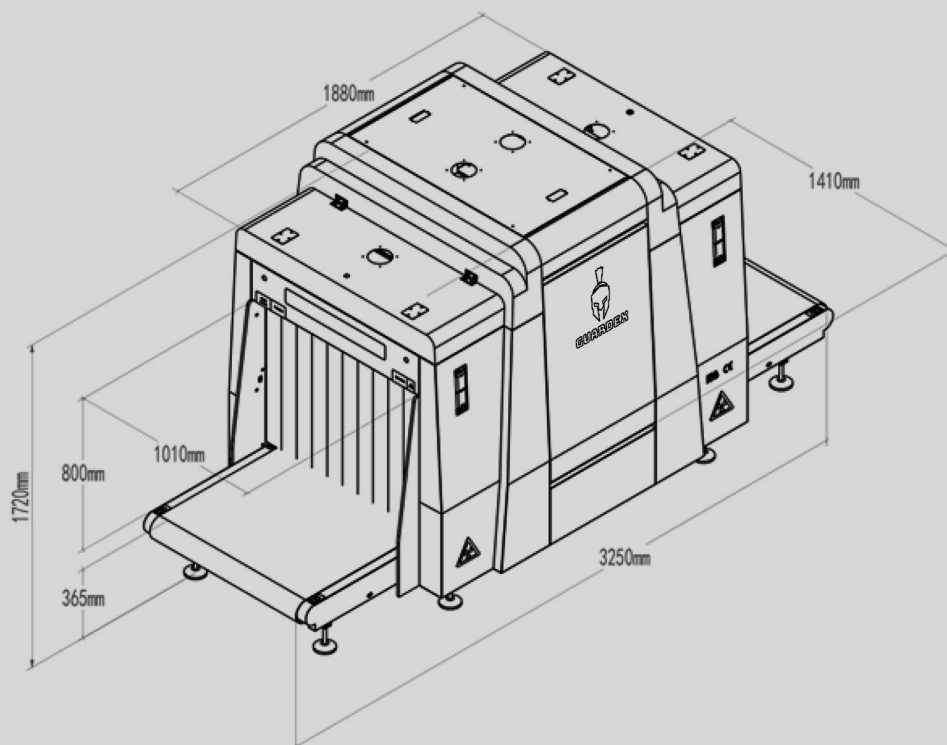
Dual scan
Image Recognition Training
High Density Area Alarm
Explosives and Drugs Auxiliary Examination
Dangerous Goods Image Insertion

Applications

Airports and Sea Ports
Storage and Transit
Warehouses
Train Stations
Hotels and Resorts

Logistic Centers
Cargo and Customs
Inspection Points
Museums and Tourist Attractions
Student Dorm Buildings

MACHINE DIMENSIONS



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ORDERING INFORMATION

GD-XR-1080-SD	X-ray Machine with 100 x 80 cm Tunnel
GD-XR-RGT-05	Loading / Pickup Roller Ground Tables, 500 mm
GD-XR-FT-05	Inspection or Extension Fixed Tables, 500 mm
GD-XR-ST	X-ray Machine Screening Trays
GD-XR-MOC	Monitor Platform with Operator Console
GD-XR-MSW	Management Software
GD-XR-UPS	Uninterruptable Power Supply Unit
GD-XR-KTO	Kit of Test Objects



Guardex Safety

Guardex X-ray machines meet international regulatory requirements for radiation limitation and safety. Guardex x-ray machines have undergone safety research to confirm that have no adverse effect, pose no harm or leave residual radiation on material that have passed through their tunnel.

