



AC1000  
Cargo Inspection System

EN

# NUCTECH™ AC1000

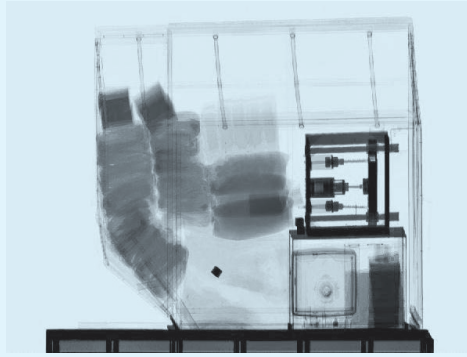
## Cargo Inspection System

### Summary

The NUCTECH™ AC1000 Cargo Inspection System is specially designed for middle-sized air cargo inspection with a middle-energy Electron Linear Accelerator (LINAC) as its X-ray source, which can help operators inspect the prohibited articles concealed in cargos quickly without opening them. With the characteristic of high penetration, high-quality scanning images, powerful image processing tools, ease of operation, reliable safety and deluxe appearance, the system allows the inspection of middle-sized palletized cargos and airfreight containers.

### Technical Features

- Most efficient and cost-effective security solution for middle-sized air cargo
- Excellent image quality and high penetration
- Easy operation
- Elegant design and smart appearance
- Small footprint and reliable radiation safety
- All the core technologies for the system are owned by NUCTECH



# AC1000

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## Technical Data

Type of X-ray source	Electron Linear Accelerator
X-ray energy	1MeV
Penetration	160mm steel
Max. dim. of scanned object	1.8m (W) x 2.0m (H)
Scanning speed	0.1m/s~0.3m/s (0.2m/s as standard)
Throughput	60 units of cargo per hour
Scanning method	Air cargo is transported through the scanning tunnel by conveyor and scanning system keeps stationary
Standard operator number	1 (one system control and image inspection)
Radiation protection area	≤ 11m (L) x 5.5m (W)
Dim. of scanning tunnel	2.3m (W) x 2.1m (H)
Max. weight of scanned object	3,000 kg
Dose rate on the system boundary	≤ 1 μSv/h
Absorbed dose to cargo per scan	≤ 10 μSv
Occupational annual effective dose	≤ 1 mSv
Public annual effective dose	≤ 0.1 mSv
Power consumption	≤ 24 kW
Voltage	380±10%VAC, 3-phase 5-wire or configured according to customers' requirement
Frequency	50±1 Hz or configured according to customers' requirement
Operating temperature	-20°C ~ +50°C (-30°C ~ +50°C optional)
Storage temperature	-30°C ~ +55°C
Humidity range	0% ~ 99%, non-condensing
Image acquisition mode	Real-time, synchronized
Zoom	1/4x, 1/2x, 1x, 2x, 4x
Image analysis	Pseudo colour transformation; edge enhancement; filter; linear/logarithm transformation; histogram equalization; suspicious item mark and comments; multi-image comparison; area calculation; user define macro; image format transformation, etc.

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