RADEX™

Direct-to-Digital General Radiographic System

Specially designed for ambulatory and outpatient general radiography exams.

The Hologic RADEX™ General Radiographic System is a direct-to-digital, fully integrated, imaging system for general purpose outpatient radiology. It utilizes a single digital detector to perform a wide variety of general radiography procedures, replacing both the wall and table Bucky in a conventional radiographic room. The system is designed for ambulatory patients providing high throughput, excellent image quality, and long-term reliability.

Built to optimize DirectRay direct-to-digital image technology

DirectRay technology directly captures and converts X-ray photons into a digital image, with no intermediate steps to compromise image quality.

The RADEX system consists of five major components:
- DirectRay® X-ray image capture system
- DirectRay Operator Console
- Wall-mounted U-arm
- X-ray generator
- Radiographic table

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Product Specifications:

DirectRay® direct-to-digital X-ray image capture system

- Digital detector array with full field, 14 x 17 inch/34 x 42 cm active image area
- 139 μm detector element pitch
- Amorphous selenium semiconductor X-ray absorber coating over thin-film transistor detector element matrix
- 3.6 cycles/mm detector Nyquist frequency
- Exposure factors available equivalent up to 400 speed screen-film systems
- Detail equivalent to high-resolution screen-film systems
- Wide dynamic range–14-bit data captures; 12-bit output to PACS and film printers

DirectRay Operator Console

The Operator Console interfaces with the DirectRay Detector Array and the X-ray exposure equipment, while providing upstream and down-stream connectivity to acquire and transmit patient, exam, and image data in digital format.

Wall-mounted U-arm

- U-arm linked X-ray tube and Bucky
- Vertical travel: 43 inches/109 cm
- Horizontal beam height, to floor: 20-63 inches, 51-160 cm
- Arm rotation: ±135°
- Motorized SID: 40-72 inches, 100-180 cm
- Digital SID display
- Electromechanical positioning brakes
- Automatic collimation with manual override
- Bucky tilt: ±45°
- Bucky rotation for portrait and landscape array orientation
- Removable 10:1 grid
- 400,000 heat unit X-ray tube
  – 0.6/1.2 mm focal spots
  – 34/100 kW, 13.5° target angle
- Optional bracket provides 18" clearance from wall, allowing stretcher-based chest exams
- Optional patient grip

X-ray generator system

- 80 kW high frequency output
  – 1000 mA @ 80 kVP
  – 800 mA @ 100 kVP
  – 500 mA @ 150 kVP
  – 40 - 150 kVP
  – 25 - 1000 mA
- Generator control integrated into DirectRay Operator Console
- Anatomically programmed radiography (APR) and automatic exposure control (AEC)
- Two-point and three-point manual techniques and manual APR/AEC override capabilities
- Dual speed starter
- Line voltage range ± 10%
- 400 VAC, 480 VAC, 3 phase

Patient support device

- 300 lb/136 kg weight capacity
- Polycarbonate/plexiglass table top
  – Width: 24 inches/61 cm
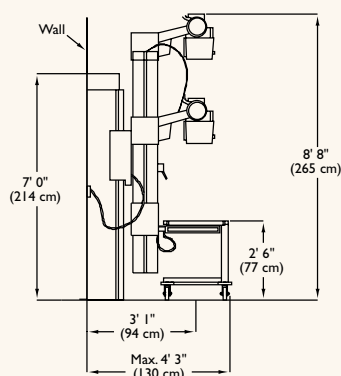 – Length: 78 inches/199 cm
  – Height: 30 inches/77 cm

Typical RADEX system room layout
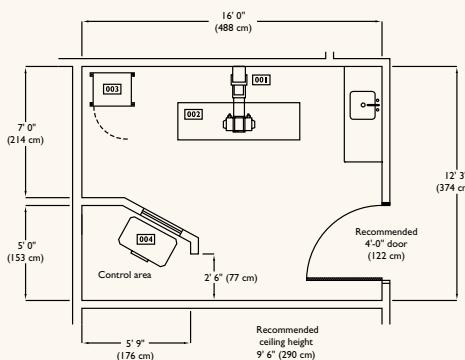
Equipment legend					
Item	Description	Wt/lbs	Width	Depth	Height
001	**RADEX - wall-mounted U-arm**	900	Var.	40"	84"
002	**RADEX - patient support device**	110	78"	24"	Var.
003	**X-ray generator cabinet**	500	28"	43"	71"
004	**DirectRay Operator Console**	350	34"	20"	40"
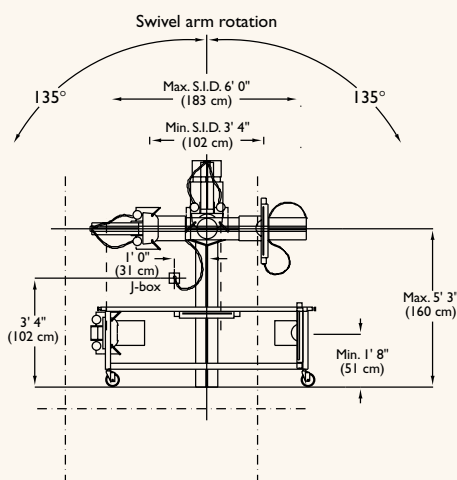
Front View

Side View

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