

Connexity

Connexity is a 90/90 universal Remote tilting table System with single end support, variable height tabletop designed for radiographic and fluoroscopic examinations using 43 x 43cm R/F flat panel.

The special single end support tabletop allows full rear access and easy patient transfer from the stretcher to the tabletop. The longitudinal displacement of the X-Ray tube and of the detector assembly of 160 cm allows a 203 x 43 cm patient coverage area eliminating the need of patient repositioning.





Positioner

Maximum tilt angle:	+ 90°
Maximum Trendelenburg angle:	- 90°
Tilting speed:	4,5 °/sec.
Tilt angle display:	Alpha-numeric LCD display with +/- 1° accuracy

Patient tabletop

Tabletop dimensions:	2435 x 732 mm
Radio - transparent area:	2345 x 510 mm
Tabletop material:	Carbon Fiber
Tabletop inherent filtration:	0.7 mm Al/eq at 100 Kvp
Patient maximum weight:	180 Kg as per IEC601-1
Tabletop minimum height:	500 mm
Tabletop vertical travel:	800 mm
Tabletop vertical travel speed:	Stepless from 0 to 50 mm/sec
Tabletop lateral travel:	300 mm
Tabletop lateral travel speed:	Stepless from 0 to 30 mm/sec
Maximum tabletop rear access distance:	530 mm
Tabletop - detector distance:	93 mm

Tubestand

Longitudinal travel of RX tube:	1850 mm
Longitudinal travel of SFD/RX tube:	1605 mm
Useful radio transparent area:	2035 x 810 mm
Longitudinal travel speed:	Stepless from 0 to 150 mm/sec
RX tube angulations:	± 40°
Minimum SID:	1150 mm
Maximum SID:	1800 mm
SID adjustment possibility:	Stepless
SID adjustment speed:	35 mm/sec
Minimum Beam/Floor distance (Tilt = + 90°):	420 mm
Maximum Beam/Floor distance (Tilt = + 90°):	2125 mm
Minimum Beam/tabletop edge distance:	285 mm
RX tube rotation movement:	Manual
RX tube rotation angle:	± 180°

Compression device

Motorized compression cone with double safety system (mechanical and electrical)

Flat panel support

Potter bucky for dynamic flat panel detector including GRID Auto focusing device	
Detector model:	Pixium RF4343
Useful area:	43 x 43 cm
Grid material:	Carbon fiber
Lines/cm:	80 l/cm
Grid focalization:	From 115 to 180 cm with "GRID AUTOFOCUSING" device
Grid Ratio:	12:1
Grid removal possibility:	Yes. Manual removal

Automatic collimator

Motorized beam hardening filters: 0.1 mm Cu + 0.5 mm Al - 0.2 mm Cu + 0.5 mm Al.

Anti collision safety features

The unit is equipped with different HW/SW safety devices that prevent the possibility of collision with floor, ceiling or walls. In addition, the most important movements are protected by double level safety circuits. The first level, when activated, stops the related movement and the activation of signaling LED corresponding to the allowed movements. The second level is activated only if the first level fails, and disables immediately the motor.

Power requirements

Power supply voltage:	400 Vac 3 phase
Power supply voltage tolerance:	+/- 10%
Power supply frequency:	50 / 60 Hz
Maximum power:	4 KVA

Weights and Dimensions

Unit maximum dimensions (LxHxW):	2460 x 2530 x 1928 mm
Unit weight:	1.300 Kg
Control desk weight:	20 Kg

X-ray tube and housing

Rotating anode Max. RPM:	3.000/9.000 rpm
Anode material:	Rhenium -Tungsten - faced Molybdenum - Graphite
Anode diameter:	102 mm
Target angle:	12°
Maximum tube voltage (Kvp):	150KV
Maximum power (KW) at 9.000 rpm:	40KW small focus - 100 KW large focus
Maximum power (KW) at 3000 rpm:	30KW small focus - 60 KW large focus
2 Focal spots (mmxmm):	0.6x0.6 - 1.2x1.2
Anode thermal capacity:	600 kHU - 425 kJ
Housing thermal capacity:	2.000.000 HU - 1.480.000 J
Maximum Anode cooling rate:	168.000 HU/MIN - 2000W
Maximum Housing cooling rate with fan:	36.000 HU/MIN - 445 W

X-ray generator

High Frequency:	200 kHz+
Maximum current:	800 mA @ 81kV; 630 mA @ 100 kV;
Maximum output power:	65 KW
Exposure kV range:	40kV to 150kV
Continuous fluoro kV range:	40kV to 125kV
Pulsed fluoro kV range:	50kV to 125kV
kV selection resolution:	+/- 1 kV
Continuous fluoro mA range:	from 0 to 8.0 mA
Pulsed fluoro mA range:	from 30 to 150 mA
Exposure mA setting resolution:	from 10 to 800 mA in
Exposure times range:	from 0,001 to 6,3 sec

Console Touch screen console with color TFT display
 Anatomical programs: 32x3x3 = 288 anatomical programs
 freely programmable by the operator for each working
 station. Possibility of additional 288 anatomical selection for
 each working station.

Automatic Exposure Control: Computerized automatic dose
 control (AEC). The user can modify the exposure dose within
 a fixed range and can personalize the choice of the optimum
 exposure factors for each anatomical program.

Exposure techniques:

1 point technique with kV selection in AEC mode

2 points technique with kV /mAs selection

3 points technique with kV /mA / mAs selection

Maximum number of chambers: 3

Minimum mAs value: 0.5 mAs

Maximum mAs value: 1000 mAs

Minimum exposure time with AEC: 0,015 S

Minimum exposure time without AEC: 0,001 S

Fluoro timer: Integrated fluoroscopy timer with acoustic
 indicator that informs the operator when 5 minutes of
 fluoroscopy have been exceeded. The operator can reset
 the timer.

Manual operation mode: Free selection of exposure
 factors.

Dose/Area Product detection: Integrated Exposure
 Dose Area Product for the dose registration and printing.
 The measured values can be:

- Displayed on the touch screen console by means of
 a dedicated software
- Printed on an adhesive label.

Detector

Detector model: Pixium RF4343
 Detector type: amorphous silicon
 photodiodes matrix

Active Area Nominal: 43 x 43 cm
 Zoom 1: 30 x 30 cm
 Zoom 2: 20x20 cm
 Acquisition matrix: 2880 x 2880
 Dynamic range: 16 bit
 Pixel size: 148 um
 Maximum acquisition rate: 30 f/s (Continuous
 or pulsed fluoro)

Resolution: 3,2 lp/mm
 DQE@0,0 lp/mm: 65%

RQA5 BEAM AND 10 µGy
 MTF @1.0 lp/mm: 55 %
 @2.0 lp/mm: 25 %

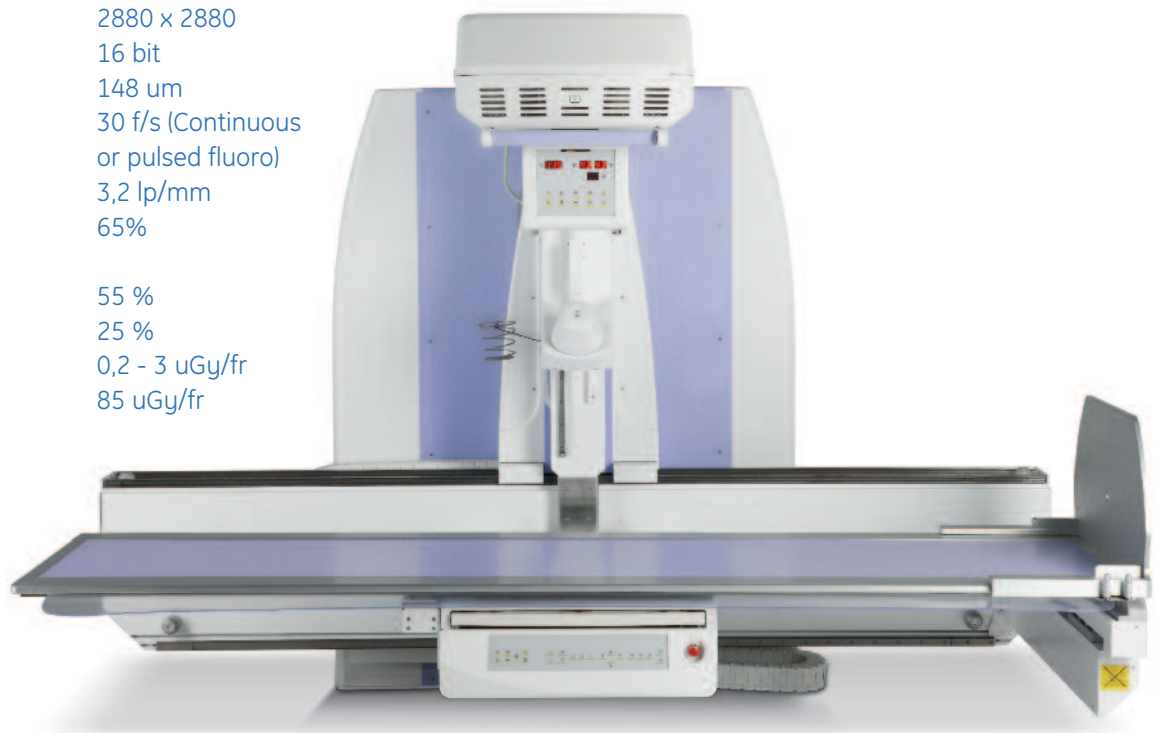
Dose levels: 0,2 - 3 uGy/fr
 Maximum linear dose: 85 uGy/fr

Digital image processor

Model: HIRIS RF43
 Host computer memory (Mbyte): 2 Gb
 Operative system: Microsoft Windows Xp
 Images storage device: Hard Disk
 Dimension of storage device: 160 Gb
 Maximum number of images
 stored Standard: 8.000 images with
 2880x2880x14 bit matrix

Operative Features

- Images acquisition in Continuous Fluoro mode
 Nominal size (43x43 cm): 960x961x14 bit 18 f/sec.
 (16.384 grey levels)
 Zoom1 (30x30 cm): 1024x1024x14 bit
 15 f/sec. (16.384 grey levels)
 Zoom2 (20x20 cm): 0,7Kx0,7Kx14 bit
 30 f/sec. (16.384 grey
 levels) low dose
- Images acquisition in Pulsed Fluoro mode
 Nominal size (43x43 cm): 960x961x14 bit with
 variable acquisition rate
 from 0,5 to 15 f/sec.
 Zoom1 (30x30 cm): 1024x1024x14 bit with
 variable acquisition rate
 from 0,5 to 15 f/sec.
 Zoom2 (20x20 cm): 0,7Kx0,7Kx14 bit with
 variable acquisition rate
 from 0,5 to 15 f/sec.
 low dose
- Possibility to save on the fly the interesting images.
 Last Image Hold.
 Noise reduction with motion sensitivity.
 Windowing.
 Multi step edge enhancement.
 Digital image reversal H/V.



- Images acquisition in Spot mode
HR mode (High Resolution):
useful area 43x43 cm: 2880x2881x14 bit with
variable acquisition rate
from 1 to 3 im/sec.
- HS mode (High Speed):
useful area 43x43 cm: 1440x1440x14 bit with
variable acquisition rate
from 1 to 8 im/sec.

Direct image saving on hard disk.
Automatic windowing.
Multi-step/size edge enhancement.
Digital image reversal H/V.
Real time processing.
Post processing features:
Single image display, overview of 2, 4, 1+5 images on one
monitor.
On line automatic processing with locally optimized contrast
and sharpness.
Zoom with magnification factor from 1,2 to 3 and image
printing.
Lens function with magnification factor from 1,25 to 3 and
image printing.
Windowing /contrast adjustment.
Level/brightness adjustment.
Grey scale inversion.
Image flip Left/right; Up/Down.
Pan & scroll.
Image rotation in 90° steps.
Digital edge enhancement.
High speed spatial filter with kernel dimension selectable
form 3x3 up to 11x11.
Electronic collimator with square/circular shutters.
Text annotation: free and programmed words.
Graphic calculation of angles and relative distances.

DICOM-3 protocol.
Dicom-3 Storage service
Dicom-3 Send service
Dicom-3 MPPS service
Dicom-3 Print class
Dicom-3 Media interchange
Dicom-3 work list

Optional DSA package features: Real time subtraction
Automasking, remasking, landmarking, Pixel Shift.
Pre-programmed automatic sequences with injector-start
synchronization.
Road Mapping with maximum opacification function
Images summation.
8 selectable reference images.
Angio graphic calculation.
Additional LCD monitor on cart (dual monitor cart)

Monitor

Model: 18 LCD
Size and type: 18.1 inch AM -LCD color
display - Medical Grade
Native resolution: 1280 x 1024
Pixel pitch: 0,2805 x.2805

Viewing angle: 170° H/V @ contrast
ratio >10
Brightness: 700 cd/m typ.
Contrast: 600:1 typ.
Vertical frequency: 50 - 75 kHz
Monitor weight (with pedestal): 10 Kg
Monitor dimension (with pedestal): 410x105x429 mm

System power supply

Power supply voltage: 400 V AC - 3 phase
Power supply voltage tolerance: ± 10%
Power supply frequency: 50/60 Hz
Power supply frequency tolerance: ± 1 Hz
Maximum line requirements Apparent: 98 KVA; Active 82 KW
Maximum line resistance: 0,20 ohm
Stand-by power: 2 kVA

UPS unit

Input Voltage: 220/230/240 Vac ± 25%
Input Frequency: 50/60 Hz ± 5%
Power factor: > 95%
Maximum output power: 2000 VA
Output Voltage: 220/230/240 Vac ± 3%
Output Frequency: 50/60 Hz ± 0,5%
Batteries charging time: 8 hours at 90%
maximum power

Stitching module option

Fully automated acquisition and processing of a series of
images with user defined start positions on the anatomical
regions of interest.
Supports anatomies/view combinations of spine antero-
posterior, spine postero-anterior, spine lateral,
leg antero-posterior, leg postero-anterior"
Reconstruction length: 60, 90, 120 cm, user
selectable via anatomical
program selection.
Image matrix: 3000 x 3000 x 14 bit
Average acquisition time for
a 3-image exam: 20s
Image pasting & equalization time < 10 s

Regulations

Unit type per CEE 93/42: Medical device class IIb
Type of certification: The unit is certified
according with annex II
of MDD directive
Unit certifications: CEE 93/42;
IEC 601-1 + Am. 1, Am. 2
IEC 601-1-1
IEC 601-1-2
IEC 601-1-3
IEC 601-2-27
IEC 601-2-28
IEC 601-2-32
IEC 613
IEC 522"
Environment temperature range: +15 °C / +40 °C
Humidity: From 30% to 80 %
non cond.

Data subject to change.
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France
Paris
Fax: +33 (0) 1 30 70 94 35

Japan
Tokyo
Fax: + 81-3-3223-8524

Singapore
Fax: +65 62917006

USA
Milwaukee
Fax: + 1-262-521-6123

About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world.

Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com.

GE Healthcare
Chalfont St.Giles,
Buckinghamshire,
UK



GE imagination at work