SYSTEM ACCESSORIES AND OPTIONS

Optional:

- Tomography
- One direction curvilinear tomography
- Angles: 40°, 20°, 10°
- 2 speeds per angle:
  0.5 s max for a 10° angle
  1 s max for a 20° angle
  2 s max for a 40° angle
- Layer height: from 0 to 300 mm
- Layer height value displayed on the control desk
- Automatic layer height increase or decrease
- Software for anti-collision safety
- Micro switches for mechanical safety

Optional:

Motorized and removable compression device. Patient safety system inhibits tabletop and angulation movements when compression is in use. The manual compression device is composed of two winches and one belt.

Optional:

- Automatic stitching (image pasting) software to install on console
- Lateral holder for portable detector
- Shoulder rest, gynecological stirrups, etc.
- One composite footrest, one adjustable stool, two patient handles, two winches & one belt

EQUIPMENT ENVIRONMENT

Dimensions (l x w x h) and weight

- Table: 2,260 x 1,590 x 2,925 mm (88.97 x 62.60 x 115.15 inch) maximum, in horizontal position, higher height, SID at 180 cm and column at 0°, 980 kg (2,160.53 lbs)
- Table cabinet integrated into the table
- Table main console: 600 x 300 x 150 mm (23.62 x 11.81 x 5.91 inch), 6.5 kg (14.33 lbs)
- X-ray tube: 524 x Ø 190 mm (20.63 x Ø 7.48 inch), 29 kg (63.93 lbs)
- Generator cabinet: 592 x 360 x 690 mm (23.31 x 14.17 x 27.16 inch), 95 kg (209.44 lbs)
- Generator control interface integrated into table console
- Flat panel detector: 493 x 503 x 26 mm (19.41 x 19.80 x 1.02 inch), 6 kg (13.23 lbs)
- Acquisition console/computer: 360 x 310 x 100 mm (14.17 x 12.20 x 3.94 inch), 9.8 kg (21.61 lbs)
- Acquisition console/color LCD monitor: 474 x 470 x 220 mm (18.66 x 18.50 x 8.66 inch), 11.5 kg (25.35 lbs)
- LCD monitor in room on trolley: 432 x 251 x 467 mm (17.01 x 9.88 x 18.39 inch), 10.9 kg (24.03 lbs)

Operating environmental conditions:

- Temperature: from 10° C to 35° C
  (the temperature must change progressively)
- Relative humidity: from 30 to 75 % (no condensing)
- Atmospheric pressure: from 700 to 1,060 HPa

Power supply:

- Generator: 400 V ac ± 10 %, three phases, 50/60 Hz
- Table: 400 V ac ± 15 V, three phases + ground + impedance neutral, 50/60 Hz
- Digital system by FPD: 230 V ac ± 10 %, single phase, 50/60 Hz

Protection:

- Generator: 63 A circuit breaker, D power line, with 30 mA differential sensitivity
- Table: 12 A circuit breaker, D power line, with 30 mA differential sensitivity
- Digital system by FPD: 2 x 16 A circuit breaker, D power line, with 30 mA differential sensitivity

* DX-D 800 is not available in the US and Canada

Why Agfa HealthCare?

Agfa HealthCare, a member of the Agfa-Gevaert Group, is a leading global provider of diagnostic imaging and healthcare IT solutions. The company has nearly a century of healthcare experience and has been a pioneer on the healthcare IT market since the early 1990's. Today Agfa HealthCare designs, develops and delivers state-of-the-art systems for capturing, managing and processing diagnostic images and clinical/administrative information for hospitals and healthcare facilities, as well as contrast media solutions to enable effective medical imaging results.

www.agfahealthcare.com

Printed in Belgium
Published by Agfa HealthCare NV
B-2640 Mortsel – Belgium
5SG96 GB 00201601

AGFA HealthCare

DIRECT RADIOGRAPHY SYSTEM

DX-D 800

The DX-D 800*, part of Agfa HealthCare's family of Direct Radiography (DR) solutions, provides enhanced flexibility in diagnostics through its direct digital dynamic remote-controlled fluoroscopy and radiography system. Using an advanced Flat Panel Detector (FPD), it provides optimal versatility and flexibility.

Its many features improve both workflow and patient comfort, including a video camera to assist in positioning the patient, a Source Image Distance (SID) of up to 180 cm - critical for thorax imaging - and optional full leg/full spine imaging. At the same time, it offers the high quality images and productivity gains expected from all of Agfa HealthCare's DX-D range - with immediate image availability.

DYNAMIC, 3-IN-1 DIRECT RADIOGRAPHY SYSTEM OFFERING REAL TIME IMAGES FOR FLUOROSCOPY, GENERAL RADIOGRAPHY AND DIRECT EXPOSURES.

- Single touch, remote-controlled user-interface and table auto-positioning, improving workflow and maximizing patient comfort
- Wide range of fluoroscopy, general radiography and portable applications, including optional full leg/full spine and tomography
- Increased mobility, for a high level of productivity and flexibility

AGFA HealthCare

Versatility, across the range of applications

With its latest generation Flat Panel Detector (FPD), the DX-D 800 can handle a very wide range of both radiographic and fluoroscopic examinations, and provide images immediately. The fluoroscopy applications include gastrointestinal examinations, urogenital, angiography and interventional radiology, while the broad range of radiography applications includes skull, thorax, abdomen, spine and pelvis. Options are also available for full leg/full spine examinations and tomography.

At the same time, the FPD can be moved for direct exposure, for example on a stretcher or bed. This makes it ideal for pediatric, extremity and lateral images, as well as for use with patients with reduced mobility.

Ease of use and fast workflow enhance productivity

This versatile, real-time imaging solution accelerates workflow by reducing examination preparation time. The single touch, remote-controlled user-interface and table auto-positioning control all table movements; collimation and spectral filtration settings and exposure; and digital acquisition parameters, for a user-friendly operation and smooth workflow. By enabling a greater number of patients to be seen in the same amount of time, it further enhances productivity.

Optimizing patient comfort

The DX-D 800 has also been designed to provide optimal comfort for the patient. The remote controlled table and video camera for positioning the patient without irradiation both contribute to a quick and easy procedure for the patient. The predetermined automatic collimation and filters for each protocol allow a potential dose reduction, while optimizing image quality.

Services & Support

Agfa HealthCare offers service agreement solutions tailored to the individual customer's situation. The service agreements are available in Basic, Comfort and Advanced levels, making lifecycle costs predictable.

A worldwide team of some 1,000 service professionals is at your disposal to provide support at all phases of your project. As an additional service, they can help you customize your examination tree or link RIS protocol codes, for an even higher return on investment. Furthermore, this team carries out tasks that go well beyond maintenance, including value added services such as super user training, staff training and software upgrades.

technical
SPECIFICATIONS

65KW HIGH FREQUENCY GENERATOR

- Nominal output: 65 kW using EN 60336 standards at 100 kV during 0.1 s, constant potential high frequency generator
- Maximum power line impedance: 0.135 Ohm
- Ripple rate: < 1 kV at 100 kV
- Maximum voltage at the maximum current: 100 kV at 650 mA
- Maximum current at maximum voltage: 400 mA at 150 kV

Radiography parameters:

- From 40 to 150 kV, by steps of 1 kV (or displacement in the range by slider), accuracy ± (3 % + 1 kV)
- From 10 to 650 mA, accuracy ± (4 % + 1 mA), 19 values (10, 12.5, 16, 20, 25, 32, 40, 50, 65, 80, 100, 125, 160, 200, 250, 320, 400, 500, 650)
- From 1 ms to 10 s, accuracy ± (2 % + 0.1 ms), 38 values 1, 2, 3, 4, 5, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 65, 80, 100, 125, 160, 200, 250, 320, 400, 500, 650, 800 ms and 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 6.5, 8, 10 s
- From 0.1 to 500 mAs

Fluoroscopy parameters:

- From 40 to 120 kV, by steps of 1 kV, accuracy ± (3 % + 1 kV)
- From 0.5 to 5 mA (low dose) and up to 7 mA (higher dose)

Operating modes:

- 999 customizable anatomical protocols
- 3 points (kV, mA, s)
- 2 points (kV, mAs)
- 1 point (kV, AEC)

Dimensions of active areas: 2 x (90 x 40) mm + 1 x (100 x 40) mm.
Sensitivity difference between sensor fields: < 10 %.

X-RAY TUBE

Tube specification:

- Nominal focal spot values: 0.6 and 1.2 mm
- Anode rotation speed: 9,000 rpm
- Nominal anode input power: 43 and 100 kilowatts
- Anode diameter: 102 mm
- Anode material: Rhenium - Tungsten - Molybdenum
- Anode angle: 13°
- X-ray coverage at 1 m: 43 x 43 cm
- Inherent filtration: 0.7 mm
- Radiation protection: complies with IEC 60-601-3 standard
- Anode heat storage capacity: 600 kHU
- Anode heat dissipation rate: 1,000 W (81.1 kHU/min; 60 kJ/min)
- Housing: C 100 XT
- House heat storage capacity: 2,025 kHU (1,000 kJ)
- Housing heat dissipation rate: 1,000 W (81 kHU/min; 60 kJ/min) with fan
- Cooling: Air
- High Voltage cable length: 12 m

DOSE AREA PRODUCT MEASURING SYSTEM

- Active area: 147 x 147 mm
- Stabilization time: 6 minutes
- Measuring range: from 10 to 99,999,999 mGy.cm²
- Digital resolution: 1 mGy.cm²
- Sensitivity uniformity: < 6 %
- Accuracy: ± 25 %
- Filtration: Eq Al (70 kV) 0.2 mm
- Transparency: > 70 %

REMOTE CONTROLLED TABLE

Specifications:

- Tabletop dimensions: 2,250 x 810 mm (600 mm, net width)
- Ground to tabletop distance: 640 to 930 mm
- Radiation attenuation: 0.4 mm eq. Al
- Lateral movement: motorized at 4 cm/s
- Clearance: +180 mm/-180 mm
- Longitudinal movement: motorized at 4.35 cm/s
- Clearance: +1,200 mm/-600 mm or +600 mm/-1,200 mm

Software provides anti-collision safety.

Tilting:

- Angulation: +90°/-25° ± 0.5° (Trendelenburg)
- Tilting time: 15 seconds from 0° to 90° (± 2°)

Software provides anti-collision safety.
Micro switches provide mechanical safety.

Maximum patient's weight:

- Maximum allowed patient's weight on the table: 230 kg (500 lbs) without any movement restriction
- Maximum allowed patient's weight on the foot rest: 150 kg (330 lbs)

Tube support:

- Motorized collimator fitted with four pairs of lead shutters, and 100 W halogen bulb and laser; manual rotation of ± 30° possible
- CANbus
- Automatic, semi-automatic and manual modes
- Automatic mode: shutters are opened based on detector format, anatomical region (APR), auto-positioning or selected fluoro field
- Manually: the collimation can be adjusted more precisely to the area to be X-rayed from the main console using the proportional joystick, with the remote hand switch or from the collimator
- For dose reduction, automatic collimation and filters are predetermined in each protocol; video camera for positioning the patient without irradiation. The video images are displayed on the touch screen of the main table console
- Motorized source-image distance: 6 cm/s, variable from 110 to 180 cm

- Manual tube rotation: ± 180°, with electromagnetic brake and mechanical stops every 90° that make it possible to make exposures on the stretcher, with the table in the vertical position, or on the wall bucky depending on the configuration
- Motorized angulations, ± 40° (10°/s maximum), even at the end of the table, for specific procedures and direct exposures with tube rotation

Patient support:

- Motorized variable height, 6 cm/s, from 64 to 93 cm
- The flat tabletop, 225 x 81 cm (60 cm usable) with rails as accessories, has a large width for convenient positioning and centering, especially for bariatric patients. It is made up of carbon fiber with a low absorption of 0.4 mm Al eq
- Maximum patient weight based on IEC 60-601-1 standards; tested up to 230 kg (500 lbs) for all movements without restriction
- Motorized lateral movement: ± 18 cm at 6 cm/s
- Motorized longitudinal movement: 120/50 cm at 10 cm/s
- Tilting: +90°/-25°; motorized at 6°/s

Focus-to-detector distance

- Motorized, with continuous speed from 110 to 180 cm

Tube arm rotation

- Manual rotation with intermediate stops from +180° to -180°
- Magnet-controlled stop

Angulation:

- Motorized, with progressive speed from +40° to -40° (± 0.5°)
- Electronic parallax correction provided
- Angulation value displayed on the control desk
- Micro switches provide mechanical safety

MAIN CONTROL CONSOLE

- Dimensions: 600 x 300 x 150 mm, 6.5 kg, Class 1 Equipment
- Class B Equipment
- Power supply: 120/230 VAC, 60/50 Hz, 2 A/1 A
- User interface: 8 inch color touch screen
- All messages are displayed on this screen: including error messages and warning messages
- Movement of all axes with 4 joysticks and keys
- Infra-red remote control
- Control of X-rays using mechanical keys
- Emergency switch: stops all movements in case of problems

LARGE FIELD FLAT PANEL DETECTOR

- Matrix dimensions: 2,208 x 2,688 pixels, with 160 μm pixel size for a 14 x 17" image
- Resolution: 3.2 lp/mm, 14 bits AD, 4,096 grey levels, weight 6 kg
- Radiographic image display within 3 seconds, fluoro image immediately
- Cine dynamic acquisition, specific post-processing up to 15 images/s for 35 x 43 cm 30 images/s for 23 x 23 cm field
- Fluoroscopy, specific post-processing up to 15 images/s for 35 x 43 cm 30 images/s for 23 x 23 cm field

DETECTOR HOLDER

- Longitudinal movement: 150 cm with fixed tabletop, 135 cm with tabletop longitudinal movement capability; motorized at 14 cm/s. Can rotate, at 40°/s, to change between portrait and landscape format
- Total patient coverage under X-ray: 193 cm with fixed tabletop, 278 cm with tabletop longitudinal movement capability (including tabletop movement) and detector in portrait format

Functionalities:

- Landscape or portrait orientation (43 x 36 cm)
- Detector orientation displayed on the control desk
- Automatic collimation based on the detector orientation
- Space available for automatic exposure chamber (AEC)
- Grid
- Extractable and non moving grid: 40 lp/cm, ratio 10/1, focus distance 110 cm
- Extractable and non moving grid: 40 lp/cm, ratio 10/1, focus distance 180 cm