

FLEXIBLE DIRECT RADIOGRAPHY SYSTEM

DX-D 300



The DX-D 300 DR system unites excellent image quality with complete convenience. It offers top-of-the-line technology, a single detector and a fully-motorized positioner, yet requires limited space. It can be combined with a CR system to allow complete versatility. Its universality, flexibility and affordability make it stand out among DR systems.

The DX-D 300 provides a very cost-effective and straightforward solution to get all the quality and productivity benefits of going Direct Digital. The Cesium Iodide detector technology offers excellent image quality and immediate image availability, while the MUSICA² image processing delivers consistency and superior contrast detail.

The fully-motorized DX-D 300 can handle a broad range of x-ray studies, including lateral exams. This adaptability makes it ideal for use with all patients, even those less mobile, whether in sitting, standing or lying positions. By facilitating positioning, reducing patient waiting times and increasing diagnostic confidence, it answers the need for constant enhancement of patient comfort and performance of your radiology department.

- MUSICA² processing provides superior contrast detail and exam-independent, consistent image quality
- Cesium Iodide DR detector technology offers potential for significant patient dose reduction
- Universal, flexible and affordable modality combines a single detector and a fully-motorized positioner
- Includes NX acquisition station with comprehensive functionality for integrated workflow
- DICOM connectivity to PACS, HIS/RIS and imagers
- Floor mounting and compact size for an ideal fit
- A quick and easy way to go Direct Digital
- Complete versatility with optional CR/DR combination

The ergonomic design of the DX-D 300 allows fast installation and an easy fit into the hospital environment. It is floor mounted and requires limited space. And piloted by the NX workstation, it provides an integrated workflow, improving overall efficiency.



Superior contrast detail provided by MUSICA²

The 'gold standard' MUSICA² image processing in the DX-D 300 has been specially adapted and tuned to provide excellent DR image quality. Exam-independent, it delivers consistent image quality and high contrast detail. And in combination with one of our CR systems linked to the same NX workstation, workflow and flexibility are further improved.

Cesium Iodide technology for dose reduction potential

Like all the DX-D family of detectors, the DX-D 300 includes Cesium Iodide technology, for a high quality, high productivity solution. Its superior image quality provides the potential for significant patient dose reduction, while the immediate availability of images speeds up workflow and reduces patient waiting times.

Universal, flexible and affordable

Offering maximum flexibility, the DX-D 300 has been ergonomically designed to perform a wide range of X-ray exams for patients in standing, sitting or lying positions,

including those who are less mobile. Its fully-motorized U-arm enables lateral exams. Ambulatory patients vs. those in wheelchairs, light emergencies vs. emergencies, chest, extremities and abdominal studies vs. one-shot Full Leg-Full Spine exams for the best geometric measurement accuracy and without motion artefacts (when combined with the CR Easylift system): the DX-D 300 easily handles them all.



This adaptability makes the DX-D 300 ideal for a broad range of applications, from general radiography in any hospital, clinic or private practice; to emergency work in smaller facilities; to specialized fields such as orthopedic clinics or practices.

Single detector and fully-motorized positioner

With patient comfort on everybody's mind, the DX-D 300 X-ray system's fully-motorized design and U-arm positioner make positioning quick and easy even for difficult exams. The motorized arm rotation, arm height, source-image distance and the + 45°/- 45° detector rotation are all operated by two-speed motors that can be activated from the software console, via infrared remote control or using the buttons on the tube head and bucky. Safety sensors are built right in. The automatic collimation takes settings from the pre-stored exam tree in NX, which can then be manually fine-tuned for the study at hand.



An ideal fit

The DX-D 300 has been designed to be ergonomic and user-friendly. Floor mounted, it is quick and easy to install. And its compact size - just 3 m x 3 m x 2.8 m - means it fits into any available space. This efficient design adds to its flexibility and universality.

Integration with the NX workstation: a more efficient workflow

The DX-D 300 operates from the NX workstation, for an integrated workflow. When a specific type of exam is selected, the appropriate X-ray settings are automatically transferred and displayed on the X-ray generator console integrated on the extra wide screen. NX automatically adds the exposure settings used to the digital image file, and communicates seamlessly with PACS, HIS/RIS and imagers, eliminating manual data entry.

A quick and easy way to go Direct Digital!

With the DX-D 300, healthcare facilities of any size can enjoy the productivity benefits of Direct Digital, including a lower cost per exam. The immediate image acquisition typically doubles the number of exams per X-ray unit compared to conventional rooms, and permits a faster release of patients. And as the operator can stay with the patient at all times, operator productivity and patient comfort are all improved. Patients also benefit from shorter waiting times, higher diagnostic confidence and lower doses.



Uniting CR and DR for top versatility

For top versatility, the DX-D 300 can be further enhanced by combining it with a CR system, such as the DX-S, DX-G or CR 30-X. This unites the DX-D 300's excellent image quality and DR productivity with CR versatility. The result is a mixed CR/DR radiology environment that suits each customer's unique needs. Furthermore, with the Directrix CR detectors on the DX-S and DX-G, Agfa HealthCare uniquely offers high DR image quality from its CR digitizer, all from the same NX workstation.

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

The DX-D 300 standard configuration contains:

- U-arm positioner with control unit
- On-tube touchscreen
- 64 kW generator (50kW or 80kW optional)
- Single detector (CsI or GOS)
- Automatic collimator with integrated DAP meter
- AEC (*Automatic Exposure Control*)
- 2 focused grids
- Remote control
- NX workstation with comprehensive functionality
- Wide-screen touchscreen monitor
- Uninterruptable power supply

UNIVERSAL X-RAY UNIT

Positioner

- Maximum height (under table position):
2,650 mm (104.3")
- Maximum height (of positioner):
2,775 mm (109.25")
- Maximum length: 2135 mm (84")
- Maximum width: 1680 mm (66")
- Weight: 324 kg (714.3 lb)
- Vertical travel of central carriage:
1,265 mm (49.8")
- Minimum source-image distance (SID):
1,000 mm (40")
- Maximum source-image distance (SID):
1,800 mm (70.8")
- SID adjustment speed: 87 mm/s (3.4"/s)
- Rotation of U-Arm: +120°/-30°
(rotation may be limited by cables)
- Rotation of Tube-Collimator Assembly: ±180°
(rotation may be limited by cables)
- Rotation of DR Detector : ±45°
- Grids: Interchangeable grids
Ratio 8:1, Focus: 1 m - 50 lines/cm
Ratio 8:1, Focus: 1.80 m - 50 lines/cm

Power line requirements positioner

- Single phase:
50/60 Hz, 230/240 V~ ± 10 %
- Minimum input power required: 2.5 kVA
- Power Consumption in stand-by: 80 W
- Room size requirements: 300 x 300 x 280 cm
(Length x Width x Height)
(118 x 118 x 110")

Rolling radiographic table (optional)

- Height x Width x Length:
700 x 2,000 x 650 mm
(27.5 x 80 x 25.5")
- Weight: 46 kg (101 lb)
- Maximum Patient weight: 200 kg (440.92 lb)

Operating environmental conditions

- Working temperature: 15°C to 35°C
(59°F to 95°F)
- RH (relative humidity): 30 % to 75 %
- Air pressure: 700 hPa to 1060 hPa

Storage / transport environmental conditions

- Temperature range: -20°C to 70°C
(-4°F to 158°F)
- Relative humidity range: 10 % to 100 %
- Atmospheric pressure range:
500 hPa to 1060 hPa

Control box

- Height x Width x Length:
600 x 592 x 422 mm
(23.6 x 23.3 x 16.6")
- Weight: 39 kg (86 lb)

technical

SPECIFICATIONS

COLLIMATOR

- Motorized collimation plates
- Integrated DAP-meter
- Integrated filtration
- Direct control from the workstation
- High luminosity of collimation field via single power LED

GENERATOR FEATURES

- High Frequency 25 KHz, power requirements
- Three phase 380/480 VAC
- Phase rating: 20 A

Output power

- RS232 Interface to be controlled from the Acquisition Station
- X-ray tube overload protection
- X-ray tube H.U. available indication and continuously monitoring for X-ray tube protection

kVp radiographic range:

- From 40 to 150 kVp in 1 kVp step

mA radiographic range:

- From 10 to 640 mA in 19 step, Renard scale 10, 12.5, 16, 20, 25, 32, 40, 50, 64, 80, 100, 125, 160, 200, 250, 320, 400, 500, 640 mA

mAs range:

- From 0.1 to 500 mAs in 38 step, Renard scale

Exposure time range:

- From 0.001 to 10 seconds

DETECTOR

- Image size: 43 x 43 cm
- Resolution: 139 micron pixels
- Scintillator: Cesium Iodide (or GOS)
- DQE(0) : ~65 % (RQA5 conditions) for CsI
- Photodiode Array
Contiguous Amorphous Silicon matrix
- Fast Preview:
time to start preview: < 1 sec after exposure

DX-D 300 SOLUTION OPTIONS

- CR digitizer
- FLFS CR Easylift
- 2 or 3 MP Barco Monitor via CMS workstation
- NX Platinum for DR
- Hardcopy imager
- 80 kW generator
- Rolling Patient Table

GENERATOR

Generator model	SHF 535	SHF 635	SHF 835
Maximum power kW	50 kW	64 kW	80 kW
Maximum mA	640 mA	640 mA	800 mA
Maximum kVp	150 kVp	150 kVp	150 kVp
Power Output (@ 0.1 s)	640 mA @ 78 kVp	640 mA @ 100 kVp	800 mA @ 100 kVp
	500 mA @ 100 kVp	500 mA @ 128 kVp	640 mA @ 125 kVp
	400 mA @ 125 kVp	400 mA @ 150 kVp	500 mA @ 150 kVp
	320 mA @ 150 kVp		
Compatible X-Ray Tubes	E7252X/E7884X (*)	E7254FX	E7869X

X-RAY TUBES

Type	E7252X	E7884X (*)	E7254FX	E7869X
Nominal voltage	150 kV	150 kV	150kV	150kV
Nominal focus spot value	0.6 mm/1.2 mm	0.6 mm/1.2 mm	0.6 mm/1.2 mm	0.6 mm/1.2 mm
Nominal power small focus	27 kW	20 kW	40 kW	40 kW
Nominal power large focus	75 kW	50 kW	102 kW	100 kW
Anode target angle	12 °	12 °	12 °	12 °
Anode diameter	74 mm	74 mm	100 mm	100 mm
Anode heat content	210 kJ (300 kHU)	210 kJ (300 kHU)	285 kJ (400 kHU)	420 kJ (600 kHU)
Anode rotation speed at 50Hz	Minimum	Minimum	Minimum	Minimum
	2700 min-1	2700 min-1	2700 min-1	2700 min-1
Anode rotation speed at 180Hz	Minimum		Minimum	Minimum
	9700 min-1		9700 min-1	9700 min-1

(*) only for China

Why Agfa HealthCare?

Agfa HealthCare is a global leader in the fast growing market of integrated IT and imaging systems, offering healthcare facilities a seamless flow of information and a 360° view of patient care. The company has a unique, holistic approach, enabling it to provide in-depth clinical know-how and fully integrated hospital-wide solutions. These specialized solutions integrate IT and imaging systems for Radiology, Cardiology, Mammography and Orthopedics. Agfa HealthCare's enterprise-wide IT platform integrates all administrative and clinical data within a healthcare facility and is designed to match the unique needs of specific healthcare professionals.

www.agfahealthcare.com

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