

# DR 400

## Scalable radiography system

The DR 400 system is a flexible and affordable solution. Floor-mounted and easy to install, it takes little space and does not require expensive ceiling supports. At the same time, its adaptable configurations allow it to be tailored to the specific needs of most customers.

### SCALABLE AND AFFORDABLE FLOOR-MOUNTED RADIOGRAPHY SYSTEM

- Flexible configurations and options for most needs
- Floor-mounted for cost-effective and easy installation and use
- Best-of-breed solid components, offering reliability and maximum uptime
- Can be equipped with CR and DR technology
- DR systems can be combined/integrated with Agfa HealthCare CR systems for even greater versatility



### Solid hardware provides reliability and maximum uptime

The robust table, with floating table top and double click foot switches, is user-friendly for both the operator and the patient. An additional benefit is the under-table mounted generator, which eliminates the need for placement within the X-ray room.

### Flexible to meet every need

All versions can be offered with elevating or non-elevating radiographic tables that can handle a patient weight of up to 705 lbs (320 kg).

All configurations of the DR 400 can be enhanced with options such as the wall stand with tilting bucky, which provides the operator with versatility for any exam positioning. The tubehead has an integrated digital inclination display with the option to add a 10 inch interactive display. Other options include motorized tracking of the tubehead and table, wall stand, or automatic collimator.

### Floor-mounted suspension provides ease of installation and use

The DR 400 can be configured with fixed, tethered and wireless DR detectors. Floor-mounted, the DR 400 is quick and easy to install, without requiring expensive ceiling supports. Its compact size even fits into limited spaces 13.12 x 6.56 ft (4 x 2 m). The generator settings are preconfigured in the software for each individual exam but can easily be changed via a user-friendly touch screen GUI interface. This efficient design adds to its flexibility.



## No-excuses, best-of-breed hardware

From the robust radiographic table, to the wall stand, to the tubehead and beyond, the DR 400 offers no-nonsense, best-of-breed hardware for all its components. By improving uptime and reliability, productivity is increased as well. Less maintenance means a lower total cost of ownership (TCO), and better protection of the hospital's investment.

## Services & Support

Agfa HealthCare offers service agreement solutions tailored to the individual customer's situation. The service agreements are available in Basic, Comfort, Advanced and Privilege levels, making lifecycle costs predictable. A worldwide team of some 1000 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.

## Generators

Generator model	Editor HFe 401	Editor HFe 501	Editor HFe 601	Editor HFe 801
Input power	3 Phase 400V	3 Phase 400V	3 Phase 400V	3 Phase 400V
Max. power (kW)	40	50	65	80
Max. mA	500	625	800	800
kV-range	40-150 kV	40-150 kV	40-150 kV	40-150 kV
Power output @ 0.1s	500 mA @ 80 kVp 400 mA @ 100 kVp 320 mA @ 125 kVp 266 mA @ 150 kVp	625 mA @ 80 kVp 500 mA @ 100 kVp 400 mA @ 125 kVp 333 mA @ 150 kVp	800 mA @ 80 kVp 650 mA @ 100 kVp 520 mA @ 125 kVp 430 mA @ 150 kVp	800 mA @ 80 kVp 800 mA @ 100 kVp 640 mA @ 125 kVp 530 mA @ 150 kVp
Compatible X-ray Tubes	E7884X E7252X E7254FX E7869XX	E7884X E7252X E7254FX E7869XX	E7252X E7254FX E7869XX	E7254FX E7869XX

### Range of radiographic parameters

mA	From 10 mA to 800 mA through the following mA stations: 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320, 400, 500, 650, 800. (Depending on the Generator model)
mAs	Product of mA x time values from 0.5 mAs to 600 mAs (32 steps)
ms	From 1 to 6300 milliseconds through the following time stations: 1, 2, 3, 4, 5, 6, 8, 10, 11, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 130, 160, 200, 250, 320, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6300.
AEC (Automatic Exposure Control)	mAs: 0.5 mAs to 600 mAs exposure time: Nominal shortest irradiation time = 2 ms

## X-ray tubes

Housing	Focal spot	Target angle	Heat capacity (kHU)	Anode speed
Toshiba E7884X	0.6 - 1.2	12°	300	Low
Toshiba E7252X	0.6 - 1.2	12°	300	High/Low
Toshiba E7254FX	0.6 - 1.2	12°	400	High/Low
Toshiba E7869XX	0.6 - 1.2	12°	600	High/Low

## Technical Specifications

### PATIENT TABLE

#### Dimensions

- Height (non elevating table): 27.56 in (700 mm)
- Height (elevating table): Min 21.65 in (550 mm), Max 35.43 in (900 mm)
- Width: 30.31 in (770 mm)
- Length of table base: 55.12 in (1400 mm)
- Tabletop width: 31.89 in (810 mm)
- Tabletop length: 86.61 in (2200 mm)
- Tabletop detector distance: < 2.36 in (60 mm)
- Radiation absorption: < 0.03 in Al (0.7 mm) equivalent
- Tabletop travel longitudinal: 43.31 in (1100 mm)
- Tabletop travel transverse: 9.45 in (240 mm)
- Max. patient weight: 705 lbs (320 kg)
- Bucky travel along table access: 19.69 in (500 mm)
- Automatic exposure control: 3-field ionisation chambers

### TABLE MOUNTED TUBESTAND

#### Dimensions

- Height of tubestand: 91.73 in (2330 mm)
- Minimum room height: 98.43 in (2500 mm)
- Tubestand longitudinal travel: 51.38 in (1305 mm)
- Length of the X-ray tubestand arm: 36.61 in (930 mm)
- Maximum height of X-ray tube focus (vertical position) 70.78 in (1800 mm)  
Exact height of the focus depends on the tube type
- Rotation of column with respect to its vertical axis:  $\pm 90^\circ$  (The positions are determined by indents at  $0^\circ$ ,  $\pm 45^\circ$ ,  $\pm 90^\circ$ )
- Rotation of Tube-Collimator Assembly with respect to its transverse axis:  $\pm 110^\circ$
- Transversal movement of tubehead:  $\pm 2.76$  in (7 cm)

### COLLIMATOR (manual)

- Dimensions: 7.2 x 9.48 x 6.61 in (183 x 241 x 168 mm) (W x D x H)
- Inherent filtration: 0.07 in (2 mm) Al equivalent
- Full field light localizer: >160 lx
- Additional internal filtration:
  - 0.03 in (1 mm) Al + 0.03 in (0.1 mm) Cu
  - 0.03 in (1 mm) 1 mm Al + 0.007 in (0.2 mm) Cu
  - 0.07 in (2 mm) Al
  - No additional filtration
- Rotation: up to maximum  $\pm 180^\circ$
- External Dose Area Product Meter (optional)

### COLLIMATOR (automatic)

- Dimensions: 9.60 x 11.10 x 8.50 in (244 x 282 x 216 mm) (W x D x H)
- Inherent filtration: 0.07 in (2 mm) Al equivalent
- Full field light localizer: >160 lx

- Motorized shutter movement
- Motorized additional internal filtration:
  - 0.03 in (1 mm) Al + 0.03 in (0.1 mm) Cu
  - 0.03 in (1 mm) 1 mm Al + 0.007 in (0.2 mm) Cu
  - 0.07 in (2 mm) Al
  - No additional filtration
- Build-in Dose Area product meter (optional)
- Rotation: up to maximum  $\pm 180^\circ$

### WALL STAND

#### Dimensions

- Height: 88.39 in (2245 mm)
- Width: 25.63 in (651 mm)
- Depth: 14.45 in (367 mm)
- Minimum height detector center: 13.19 in (335 mm)
- Maximum height detector center: 72.83 in (1850 mm)
- Bucky vertical motion: 59.84 in (1520 mm)
- Radiation absorption (front panel attenuation, excluding the AEC): < 0.7 mm Al equivalent
- Angle bucky (tilting bucky):  $-20^\circ$  to  $+90^\circ$
- Wall stand surface – detector plane distance: < 1.97 in (50 mm)
- Max load on bucky wallstand: 70.54 lbs (32 kg)
- Automatic exposure control: 3-field ionisation chambers

### BUCKY

- Bucky has always removable grids
- Bucky available for 16.92 x 16.92 in (43 x 43 cm) fixed detector
- Bucky available for 13.77 x 16.92 in (35 x 43 cm) cassette size detector (can be used for CR & DR)
- Cassette size bucky can rotate from landscape to portrait

### OPTIONS & SYSTEM-ACCESSORIES

- Tubestand can be motorized for vertical tracking of tubehead on table or wall stand
- Automatic collimator
- 10 inch (25.4 cm) interactive tubehead display
- Auto Cassette Size Sensing in cassette size bucky (ACSS)
- Mattress
- Lateral cassette holder
- Compression belt for table
- Tilting bucky for wall stand
- Spacer for wall stand
- Babyholder for wall stand
- Anti-scatter grids: parallel grid and focused grids with 178 l/inch, ratio 10:1 focal distances 39.37/59.06/70.87 in (100/150/180 cm)

## Technical Specifications

### INSTALLATION DATA

- **Line voltage:** 3-phase plus N plus PE, 400 V
- **Automatic line compensation:**  
+5%, -10% @ 400 V for 40 kW/50 kW/65 kW Generator  
± 5% @ 400 V for 80 kW Generator
- **Power consumption:**  
24 kVA; 72 A (0,2s) Generator 40 kW  
24 kVA; 89 A (0,2s) Generator 50 kW  
35 kVA; 112 A (0,2s) Generator 65 kW  
44 kVA; 134 A (0,2s) Generator 80 kW
- **Minimum Ceiling height:** 98.43 in (2500 mm)

### Ambient conditions (operation)

- **Temperature range:** +50° to +95° F (+10° to +35° C)
- **Relative humidity (no condensing):** 30% to 75%

- **Storage/Transport temperature:**  
+5° to +122° F (-15° to +50° C)
- **Storage/Transport relative humidity (no condensing):**  
15% to 90%
- **Atmospheric pressure:** 700 hPa to 1060 hPa
- **Max altitude:** 9,842.51 ft (3,000 m)

### PRODUCT WEIGHTS

- **Patient table incl tubestand and generator: non elevating:**  
1212.54 lbs (550 kg)
- **Patient table incl tubestand and generator: elevating:**  
1344.82 lbs (610 kg)
- **Wall stand:** 346.13 lbs (157 kg)  
432.10 lbs (196 kg) in case of tilting

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