

# DR-1 12D Mobile C-arm Radiography System



## Features

1. High quality combined high-frequency and high-voltage X-ray generator, greatly reducing the X-ray exposure.
2. It has the function of automatic tracking of perspective kV and Ma, which makes the image brightness and clarity in the best state automatically.
3. The host operation interface of the human graphical LCD touch screen is adopted to make the operation more intelligent and convenient.
4. The design of the hand-held controller makes the operation of the instrument more convenient.
5. The 9-inch three field image intensifier is used, with stable and reliable quality and good image definition.
6. The megapixel ultra-low illumination digital camera is used, with clearer image.
7. Standard workstation and advanced image software processing technology make the image clearer, convenient for doctors' operation and diagnosis, standard DICOM interface and easy to link with hospital information system.
8. New frame design, small and beautiful appearance.
9. Realize the function of digital photographing, make the photographing operation more convenient and the image digital processing more efficient.
10. Appliant to Orthopaedics (Osteopathy, Diaplasia, Nailin) & Surgery (orthopedic, removing foreign body, implanting pace maker, partial radiography, local photography, and other work)

## Configuration

1. New (with electric auxiliary support arm) C-arm Frame
2. High-frequency high-voltage X-ray generator and high-frequency inverter power supply
3. 23.8 inch ordinary LCD, resolution 1920x1200
4. 9 Inch three field image intensifier
5. Megapixel ultra-low illumination digital camera, Camera pixel matrix description:

1024x1024

- 6. Digital acquisition and processing system
- 7. Dense grid 40L / cm grid ratio: 8:1 focal length: 90C
- 8. Electric adjustable beam collimator
- 9. handheld controller
- 10. Laser cross positioner

## Technical Specifications

### 1. Monoblock

1.1 Focus:0.3/1.5

1.2 Anode capacity: 35kJ (47kHu)

1.3 Tube Heat capacity: 650kJ (867kHu)

1.4 Power output: 3.5kW

1.5 Inverter Frequency:  $\geq 40\text{kHz}$

1.6 Continuous Fluoroscopy (Manual/automatic)

1.6.1 Tube voltage: 40kV~110kV

1.6.2 Tube current: 0.3mA~4mA

1.6.3 Automatic brightness tracking function

1.7 Pulse fluoroscopy

1.7.1 Tube voltage: 40kV~110kV

1.7.2 Tube current: 0.3mA~8mA

1.8 Radiography mode

1.8.1 Radiography: 40kV~110kV

1.8.2 Radiography tube current: 25mA~63mA

1.8.3 Radiography mAs: 1.0mAs~125mAs

1.9 Beam limiter: Electric iris + linear symmetrical rotatable

1.10 Working environment conditions

1.10.1 Environment temperature :  $10^{\circ}\text{C} - 40^{\circ}\text{C}$

1.10.2 Relative humidity: 30%—75%

1.10.3 Atmospheric pressure: 700hpa—1060hpa

1.11 Operating power condition

1.11.1 Power supply voltage and phase number: single-phase 220V  $\pm$  22V

1.11.2 Power frequency: 50Hz  $\pm$  1Hz

1.11.3 Internal resistance of power supply: no more than 1  $\Omega$

### 2. Imaging system

2.1 image intensifier: 9 " three field e5764sd-p3, center resolution 4.8lp/mm

2.2 Ultra low illuminance, megapixel black and white progressive scanning camera  
pixel matrix description: 1024x1024

2.3 LCD: 23.8 inch LCD, resolution 1920x1200, working frequency: 60Hz

2.4 image acquisition and processing workstation

2.4.1 Registration: Registration preservation, medical record query, worklist

2.4.2 Acquisition: start acquisition, prepare recording, reset, horizontal mirror, vertical mirror, window adjustment, magnifying glass, negative image, edge  
Edge enhancement, recursive noise reduction

2.4.3 Processing: four windows, nine windows, sharpening, horizontal mirror, vertical mirror, text annotation, length measurement

2.4.4 Report: save, preview, expert template

2.4.5 DICOM function: DICOM browsing, network service

2.5 image definition index

2.5.1 gray level:  $\geq 11$

2.5.2 line pair resolution:  $\geq 2.0\text{LP/mm}$

**Clinical images**



### **3. Mechanical part**

3.1 forward and backward movement: 200mm

3.2 rotation around horizontal axis:  $\pm 180^\circ$

3.3 rotation around vertical axis:  $\pm 15^\circ$

3.4 focal screen distance: 960mm

3.5 C-arm opening: 760mm

3.6 arc depth of C arm: 640mm

3.7 sliding along the track:  $120^\circ (+90^\circ \sim -30^\circ)$

3.8 electric lifting of column: 400mm

3.9 guide wheel and main wheel: the guide wheel can rotate in any direction, and the main wheel can rotate  $\pm 90^\circ$

3.10. monitor on frame rotation  $\geq 300^\circ$

3.11 light thrust

