

C-Arm

# GE OEC 9900 ELITE

## ABOUT

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The GE OEC 9900 Elite C-arm offers improved image quality and monitoring. The 9900 Elite can perform DSA (Digital Subtraction Angiography) while either moving the c-arm or the patient. The c-arm has an easy-to-use interface and a deeper arch to allow for better access to the patient for specific procedures like cardiovascular and pain management. The GE system applies algorithms and a variety of different bandwidths that are preprogrammed - this can provide improved accuracy and definition to the images. The GE 9900 Elite comes with a dual flat panel and touchscreen monitor. This makes it easier to maneuver the monitor to comfortably view the c-arm images from any angle. Another C-arm by GE is the GE OEC 9800 Plus C-Arm.



## FEATURES

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- 1k2 High-Resolution Imaging Chain
- Dynamic Range Management (DRM)
- Tri-Mode 9 or 12-inch Image Intensifier
- Digital Imaging Rotation
- 1k x 1k CCD Camera
- Full Frame Capture AutoTrak
- Automatic Brightness Stabilization
- Bolus Chase Preset - 30 Pulse/second
- Recording Playback up to 30 FPS
- Dual 18-inch Anti-Glare Touch Flat Panel Displays on an Articulating Arm
- 15kW power generator – 60kHz high frequency- Up to 120Vp
- Rotating anode X-ray tube
- Digital Image Rotation

- Fluoro Mode
- Pulsed Fluoro Mode
- High-Level Pulsed Fluoro
- Digital Spot Mode
- Radiographic Mode
- Easy archiving and documentation
- Physician-controlled x-ray footswitch and hand switch
- High-Power pulse anode
- Dynamic studies at up to 30 pps without motion artifact
- Dicom 3.0 – Print

# SPECIFICATIONS

## X-RAY SYSTEM

### GENERATOR

60kHz high frequency

15kW power

Up to 120kVp

Up to 75mA for radiographic film exposure

Continuous high-level fluoro (HLF) up to 20mA

Digital spot up to 75mA

Digital cine pulse

- 15 or 30 pulses per second, 60 Hz
- 12 or 25 pulses per second, 50 Hz
- Up to 150mA
- 10ms pulse width

Full power from the standard wall outlet

Patented battery-buffered design

### X-RAY TUBE

Rotating anode X-ray tube

0.3 and 0.6 nominal focal spots

Anode heat capacity: 300,000 HU

Anode cooling rate: 85,000 HU/min.

Housing heat capacity: 1,600,000 HU

Housing cooling rate:

- 9" I.I. Super C- 22,500 HU/min
- 12" I.I. – 22,500 HU/min

### DIGITAL IMAGE ROTATION

Digitally adjusts image display

Automatic image update

- Image rotation
- Image reversal (side-to-side)
- Image invert (top-to-bottom)

Image positioning without additional exposure

### PREVIEW COLLIMATOR

On-screen collimator position indication

PreView iris collimator

PreView Tungsten rotatable double leaf collimator

Adjusts collimators without X-ray exposure

### FLUORO MODE

kVp range: 40 -120

mA range:

- 0.2 – 10 normal mode
- 1.0 – 20 HLF (high level fluoro)

Auto and manual fluoro modes

AutoTrak ABS varies mA, kVp, camera gain

### PULSED FLUORO MODE

kVp range: 40 – 120

mA range: 0.2 – 10

Pulse rate: 1, 2, 4, 8

Pulse width: 25 or 50ms

AutoTrak ABS, mA, kVp, camera gain

Reduces X-ray dose to patient and operator

## HIGH LEVEL PULSED FLUORO

kVp range: 40 – 120

mA range: 1 – 40

Pulse rate: 1, 2, 4, 8

Pulse width: 25 or 50ms

AutoTrak ABS, mA, kVp, and camera gain

## DIGITAL SPOT MODE

kVp range: 40 – 120

mA range: Up to 75

Automatic exposure termination and automatic image save

## RADIOGRAPHIC MODE

mA range: up to 75

mAs range: up to 300

Computer controlled exposure time

Optional film cassette holder

- 10" x 12" (24cm x 30cm) for 9" I.I.
- 14" x 14" (35cm x 35cm) for 12" I.I.

# VIDEO IMAGING SYSTEM

## 9" IMAGE INTENSIFIER

Tri-mode 9"/6"/4.5" (23cm/15cm/11cm) image intensifier

Minimum central resolution (at monitor):

- 9" (23cm): 2.2 lp/mm
- 6" (15cm): 3.0 lp/mm
- 4.5" (11cm): 3.5 lp/mm

DQE: 65% (typical)

## 12" IMAGE INTENSIFIER

Tri-mode 12"/9"/6" (31cm/23cm/15cm) image intensifier

Minimum central resolution (at monitor):

- 12" (23cm): 1.6 lp/mm
- 9" (15cm): 2.2 lp/mm
- 6" (11cm): 2.6 lp/mm

DQE: 65% (typical)

## PRECISION IMAGING WITH DYNAMIC RANGE MANAGEMENT (DRM)

Preset Imaging Profile: Orthopedic

Enhances features of interest while attenuating background noise

## AUTOTRAK AUTOMATIC BRIGHTNESS STABILIZATION (ABS)

Automatically seeks the subject anatomy anywhere within the imaging field and selects the optimum imaging technique

Automatically adjusts to anatomical size and location

Provides uniform image quality throughout the entire image

Simplifies operation

## IMAGE QUALITY FEATURES

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### Smart Window

- Dynamically senses the collimator position and automatically adjusts brightness and contrast to produce high image quality

### Smart Metal

- Allows the user to adjust automatic brightness and contrast sensitivity levels to metal
- Provides optimum image quality even when metal is introduced to the field

### Tungsten Collimator

- A dense collimator limits the X-ray exposure area
- Reduces scatter radiation
- Improves image detail

## VIDEO CAMERA

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High-resolution 1k x 1k CCD camera

Full frame capture

Motorized rotation

On-screen orientation indicator (real-time feedback without fluoro)

Left-right image reversal

Top-bottom image invert

## VIDEO DISPLAY

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Dual 19" (48cm) display anti-glare, LCD flat panel monitors mounted on an articulating arm

- 22" horizontal travel
- 7° up/10° down
- Monitors viewable from all four sides of the workstation
- Horizontal and vertical viewing angle 170°

1200 CD/M2 maximum brightness

Touch screen system control

1280 x 1024 high-resolution monitors

Integrated color monitor for display of VGA, DVI, DVI-D, S-VHS, and SDISD formats