

OEC 9900

Remanufactured OEC 9900 C-arms from Blue Ox Medical Technologies offer excellent imaging results at a remarkable price. Even more remarkable is our ability to deliver performance and safety features guaranteed to meet or exceed original manufacturer's specifications.

Thoroughly remanufactured, our OEC-9900 C-arms are restored to like-new conditioned through multi-step processes. We disassemble, mechanically and electronically restore, refinish, calibrate, and perform final testing and QA on each C-arm. Our full line of OEC C-arms offers imaging excellence and reliability, at an affordable price.

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 standard wall outlet
- Patented battery buffered design X-ray Tube
- Rotating anode

X-ray tube

- 0.3mm and 0.6mm focal spots
- Anode heat capacity: 300,000 HU (per IEC 60613)
- Anode cooling rate: 85,000 HU/min.
- Housing heat capacity: 1,600,000 HU
- 9" (23cm) Standard C-arm housing cooling rate 15,000 HU/min.
- 9" (23 cm) Super C-arm and 12" (31 cm) standard C-arm housing cooling rate 22,500 HU/min.
- 9" (23 cm) Cardiac Super C-arm and motorized (MD) C-arm housing cooling rate 31,000 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 Cine Pulse Mode

- kVp range: 40 - 120
- mA range: up to 150
- Pulse rate: 15 or 30pps 60 Hz, 12 or 25pps 50 Hz (cardiac and endovascular systems)
- Pulse width: 10ms
- AutoTrak™ ABS, mA, kVp, 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" (31cm): 1.6 lp/mm
 - 9" (23cm): 2.2 lp/mm
 - 6" (15cm): 2.6 lp/mm
- DQE: 65% (typical)

Precision imaging with Dynamic Range Management (DRM) enhances features of interest while attenuating background noise.

- Preset Imaging Profiles
 - 9800
 - General
 - Orthopedic
 - Spine
 - Cardiac Vascular
 - Bolus Chase



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 entire image
- Simplifies operation

Image I.Q.

- Smart Window
 - Dynamically senses the collimator position and automatically adjusts brightness and contrast to produce high image quality.
- Smart Metal
 - Allows 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
 - Denser collimator limits X-ray exposure area
 - Reduces scatter radiation
 - Improves image detail

Video Camera

- 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

- Dual 18" (46cm) 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 workstation
 - Horizontal and vertical viewing angle 170°
- 800 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 SDI-SD formats (optional)

CONFIGURATIONS

GSP Platform

- 1k x 1k x 16 bit image processing
- Preset Imaging Profiles
 - 9800
 - General
 - Orthopedic
 - Spine
- Noise filter with on-screen indicator
- Minimal difference spatiotemporal noise filter (MDST)
- Real-time dynamic range management (DRM)
- Automatic digital brightness and contrast control
- Manual digital brightness and contrast control
- Negate mode
- Save and auto-save feature
- Swap and auto-swap feature
- Patient information
 - Examination list
 - Customized patient information
- Customize functions
 - Workstation set-up
 - Mainframe set-up
 - Patient information set-up
 - Date/time set-up
 - DICOM interface set-up
- Last image hold
- 63 image storage
- CD/DVD burner with DICOM viewer for displaying images on PC platforms
 - 512 x 512 or 1k x 1k
- Integrated DICOM interface (store, print, worklist, and query/retrieve)
- HIPAA SecureView®
 - Password protection
 - Blank screen function
 - Delete all

ESP Platform

Includes all the GSP features and:

- 1000 image storage
 - Zoom and roam function
 - Image annotation
 - Measurement software
- PMCare Platform

Includes all the ESP features and:

- Real-time digital subtraction (DSA)
- Peak opacification
- 8fps Dynamic digital disk
 - Recording/playback rate: 1, 2, 4, 8fps
 - Recording time: 5 minutes @ 8fps
 - Automatic image playback
 - Frame-by-frame review

Basic Vascular Platform

Includes all the ESP features and:

- Vascular preset imaging profile
- Real-time digital subtraction angiography (DSA)
- Roadmapping
- Re-registration
- Variable landmarking
- Mask save/recall
- Peak opacification
- 8fps Dynamic digital disk
 - Recording/playback rate: 1, 2, 4, 8fps

- Recording time: 5 minutes @ 8fps
- Automatic image playback
- Frame-by-frame review

Vascular 15 Platform

Includes all the Basic Vascular features plus:

- Digital cine pulse mode
 - 15 pulses/sec 60 Hz (12 pulses/sec 50 Hz)
 - Up to 150mA
 - 10ms pulse width
- 15fps Dynamic digital disk (60 Hz) 12fps (50Hz)
 - Recording/playback rate: 1, 2, 4, 8, 15fps (60 Hz) 12fps (50 Hz)
 - Automatic image playback capability
 - Frame-by-frame review
 - Recording time: 10 minutes @ 15fps (60 Hz) 12 fps (50 Hz)

Vascular MTS Platform

Includes all the Vascular 15 features plus

- Motion Tolerant Subtraction (MTS) and:
- Bolus chase preset imaging profile
 - Digital cine pulse mode
 - 30 pulses/sec 60 Hz (25 pulses/sec 50 Hz)
 - Up to 150mA
 - 10ms pulse width
 - 30fps Dynamic digital disk 60 Hz (25fps, 50 Hz)
 - Recording/playback rate: 1, 2, 4, 8, 15, 30fps 60 Hz (1, 2, 4, 8, 12, 25, 50 Hz)
 - Recording time: 10 minutes @ 30fps 60 Hz (time depends on record frame rate) (25 fps, 50 Hz)

Cardiac Platform with Interventional Vascular Capability

Includes all the Vascular MTS features and:

- Cardiac preset imaging profile
- Single leaf curved collimator
- Three pedal footswitch

ADDITIONAL FEATURES

9900 Elite MD C-arm - 9" or 12" I.I.

- 9°/sec. Orbital motorized rotation
- 9°/sec. Lateral motorized rotation
- RUI (remote user interface - table side control panel)
 - All 9900 mainframe controls
 - Image review functions
 - C-arm motion joystick control
 - Motorized vertical lift
- Contact/collision detection
- C-arm angle display - real-time and saved images
- Active X-ray tube cooling

Hardcopy Options

- Integrated film/paper printer
 - No film developing required
 - 8" x 10" (20.3 cm x 25.5 cm) laser quality film/paper
 - Multi-format, 1, 2, 4 on 1
 - Thermal printers
- Integrated DICOM interface (storage class/print class/query work-list)*

User Interface

- Entire system is computer controlled and software upgradeable
- Touchscreen control simplifies operation
- Automated system operation requires minimum operator interface
- Multi-functional controls
 - Footswitch
 - IR remote (optional)
 - Hand-held control
- Simplified keyboard with integrated touchpad
- Multi-purpose image directory
 - Retrieve and review images
 - Compose hardcopy films
 - Copy images
- X-ray dose summary

Uninterruptible Power

- Orderly shutdown

Electrical

- Input power (60 Hz or 50 Hz 9900 Elite)
 - 100V @ 20 A
 - 120V @ 12 A
 - 120V @ 16 A Motorized
 - 200V, 220V, 230V, 240V @ 10 A

Regulatory Compliance

- U.S. 21 CFR Subchapter J
- NFPA 99
- UL 60601-1 (CSA/NRTL)
- IEC60601-1 (plus relevant Collateral and Particular Standards)