

XR PORT C-ARM VAMC HINES, IL

PO# 578-B48014

1 **OEC 9900 Elite™ Digital Mobile Motorized C-arm VasMTS(Vascular MTS Platform with 30 fps digital disk and 12" I.I.)**

High performance mobile C-arm for use in vascular and endovascular procedures. Provides flexible mechanical features, rotating anode x-ray tube, user-friendly touch screen user interface, and superb image quality.

The physical dimensions and the open design of the C-arm allow the system to be easily transported throughout the hospital and provide unobstructed imaging access around the patient and procedural table.

**Digital Image Processing and Workstation**

- Dynamic Range Management (DRM) controls for image management
- Six pre-set imaging profiles for optimized anatomical capture
- Dual articulating, high resolution flat screen black & white monitors
- Integrated keyboard touchpad - cursor/tap controls
- DICOM 3.0 interface with send and query/retrieve
- CD/DVD on-board media storage, read/write compatible
- USB 2.0 mass storage device, write only, .jpg/.bmp/.avi file formats

**Generator**

- 60 kHz 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
- 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

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- Anode heat capacity: 300,000 HU (per IEC 60613)
  - Anode cooling rate: 85,000 HU/min.
  - Housing heat capacity: 1,600,000 HU
  - Standard housing cooling 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
- 1.0 - 20 HLF (high level fluoro)
- Auto and manual fluoro modes
- AutoTrak™ ABS varies mA, kVp, camera gain

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#### **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
- kVp range: 40 - 120

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#### **Digital Cine Pulse Mode**

- kVp range: 40 - 120
- mA range: up to 150
- Pulse rate: 15 or 30pps 60 Hz, 12 or 25pps 50Hz
- 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

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#### **Radiographic Mode**

- mA range: Up to 75
- mAs range: up to 300
- Computer controlled exposure time

#### **12" Image Intensifier**

- Tri-mode 12"/9"/6" (31cm/23cm/15cm) image intensifier
- Minimum central resolution (at the 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
  - 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 Quality**

- Smart Window:
  - Dynamically senses the collimator position and automatically adjusts brightness and contrast to produce high image quality
- Smart Metal:
  - Allow 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 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°
  - 1200 CD/M2 maximum brightness
  - Touch screen system control
  - 1280 x 1024 high resolution monitors

**Vascular MTS Platform**

- 1k x 1k x 16 bit image processing
- Preset Imaging Profiles
  - 9800
  - General
  - Orthopedic
  - Spine
  - Vascular
  - Bolus Chase
- 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
- 1000 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
  - Zoom and roam function
  - Image annotation
- Measurement software
  - Real-time digital subtraction (DSA)
  - Peak opacification
  - Roadmapping
  - Re-registration
  - Variable landmarking
  - Mask save/recall
  - Motion tolerant subtraction (MTS)
  - Digital cine pulse mode
    - 30 pulses/sec 60Hz (25 pulses /sec 50Hz)
    - Up to 150mA
    - 10ms pulse width
  - 30fps Dynamic digital disk 60 Hz (25 pulses/sec, 50Hz)
  - Recording/playback rate: 1,2,4,8,15,30fps, 60 Hz (1,2,4,8,12, 25fps, 50 Hz)
    - Recording time: 10 minutes @ 30fps 60 Hz (time depends on record frame rate) (25 fps, 50 Hz)

### **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
  - 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

### **C-arm Mechanics**

- Motorized C configuration: 33" depth in arc and 122° orbital rotation
- 9°/sec of orbital and lateral motorized rotation
- Remote user interface - table side control panel
- All 9900 mainframe controls
- Image review functions
- C - arm motion joystick control
- Contact/collision detection
- C - arm angle display - real - time and saved images
- Dual, illuminated C-arm operator control panels

### **OEC Clinical Excellence Onsite Training**

- Pre-training package with interactive CD-ROM
- Up to three days\* of in-service by our ARRT certified Clinical Imaging Specialists (CIS) during the one-year warranty period.
  - Post-training skills assessment & test
  - Participants may be eligible for Continuing Education (CE) credits from the American Society of Radiologic Technologists\*\*

### **Warranty**

- One year warranty

### **Notes: WSP - Wireless Service Platform**

- The OEC 9900 comes with a device called the WSP which facilitates these capabilities:
  - 1) USB 2.0 mass storage. The USB functionality is write only, and ~~saves images in .jpg/.bmp/.avi file formats. USB storage devices must be unencrypted and unprotected~~
  - 2) If purchased, Wireless DICOM. Wireless utilizes a Wireless LAN 802.11 b/g/n, 10/100MB device, runs a custom embedded Windows implementation, and currently supports WEP-64, WEP-128, WPA-PSK(TKIP), WPA2-PSK (AES-CCMP) security methods

### **Notes: OEC Clinical Excellence Onsite Training**

- \* Onsite training provided from 8am to 5pm, Monday through Friday. Includes all CIS travel & living expenses.\*\* Training produces the best results when a dedicated core group of technologists complete the session. Those who complete the entire OEC Clinical Excellence curriculum should be competent to perform the tasks required for basic operation of the system. Competency will be measured through a skills assessment completed while the CIS is on-site.

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12" Twelve Month Extended Warranty, 9900