

## PRODUCT SPECIFICATIONS

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### ***VISION RFD 3D Flat Panel Digital Mobile C-arm motorized on four axes with Advanced Vascular Package and 25 kW Generator***

Unsurpassed digital image quality with optimum dose efficiency. Four motorized axes movements with distance control for collision protection. Designed to perform a wide range of surgical imaging applications including pediatric with leading edge technology and state-of-the-art functionality. System includes 1.5k x 1.5k high resolution, 30cm x 30cm flat panel detector digital imaging, rotating anode x-ray tube, high-power 25kW generator and Unique Liquid Cooling of x-ray tube/generator for unlimited fluoroscopy time. Proprietary Object Detected Dose Control (ODDC) software optimizes image quality and minimizes dose levels through automatic motion detection, automatic metal object correction, automatic dose reduction and automatic object detection for image optimization even when subject anatomy is at the periphery of the field of view. Simple user interface provided by intuitive Vision Center TFT control panel that includes anatomic program selection and technologist reference image display. Innovative SmartVascular user interface provides unequalled ease-of-use for angiographic procedures.

#### **X-Ray Generator**

- 40kHz High Frequency, Monoblock
- 25kW Power including high power boost caps, microprocessor controlled

#### **X-ray Tube**

- Rotating anode x-ray tube with 0.3/0.6 mm focal spots
- Max. anode heat content; 260 kJ/ 350 kHU
- Max. anode heat dissipation: 1,000W
- Tube housing heat capacity:
  - Advanced Active Cooling and heat management system
  - 10 million HU system heat capacity
  - 100,800 HU/Min. continuous dissipation in clinical performance

#### **Collimator System**

- Dedicated pre-collimator for FPD
- Asymmetric slot collimator for flat panel detector
- Collimator Rotation: +/- 90
- Iris Collimator: 50 – 289 mm diameter
- Asymmetric slot Collimator: 50 – 289 mm diameter
- Virtual Collimation without radiation

#### **Operating Values**

- Pulsed Fluoroscopy
  - kV range: 40 – 120 kV
  - mA range: 1.5 – 250 mA
  - pulse width: 4 – 40 ms
  - pulse rate: 1, 2, 4, 8, 12.5, 25 pulses/sec
- Digital Snapshot Mode
  - kV range: 40 – 120 kV
  - mA range: up to 250 mA

#### **Flat Panel Detector System**

- 30cm x 30cm, amorphous silicon photodiode TFT technology
- Detector matrix: 1,536 x 1,536 pixels
  - Magnifier 1 : 1,024 x 1,024 pixels
  - Magnifier 2: 768 x 768 pixels
- System resolution 2.4 lp/mm
- Dynamic Range: 84dB
- Anti-scatter grid
- Laser aimer integrated in detector housing

## Monitors

- Two, ultra-high resolution and brightness, 19" flat screen
- Resolution: 1,280 x 1,024 pixels
- Viewing angle: 178, Tilting +/- 10
- Brightness: 1,000 cd/m<sup>2</sup>

## Digital Image Processing

- Real-Time Processing Functions
  - Recursive Filter: 4 levels
  - Stack filter: 5 levels
  - Edge enhancement: 5 levels
  - Window and level
  - Digital image rotation without radiation
  - Grayscale inversion
  - Digital shutters
- Post processing Functions
  - Edge enhancement
  - Zoom
  - Image rotation
  - Windowing
  - Grayscale inversion
  - Image cropping

## Application-Oriented Anatomical Programs

- Bone: Extremities, Trunk
- Heart, Adomen, Soft
- Vascular: Extremities, Trunk, Bolus

## Additional functions

- Large Patient
- High quality
- Metal
- Pediatric

## Object Detected Dose Control

- Automatic object detection
- Automatic motion detection
- Automatic dose reduction
- Automatic metal correction

## Image Acquisition

- Auto save
- Digital cine pulse with cine loop up to 25 frames/ second

## Digital Image Storage & Archiving

- 100,000 image memory
- USB 2.0 port, USB stick

## Advanced Vascular Package

- Innovative SmartVascular user interface
- DSA, Maximum Opacification (MSA), and Roadmap (RSA) functions
- Pixel shift and Land marking
- Measurement Functions
- Anatomical Marking Tool
- Extremity, torso, and bolus chase programs for optimized image quality
- CO Package

## User Interface

- TFT touch screens on C-arm and workstation with Smart-Eye technologist reference image
  - Intuitive icons for easy use
  - Patient annotation
  - SmartArchive for easy, fast image archive access and selection
  - 1, 4, or 16 image mosaic
  - Live image display on C-arm touch screen
- Remote Vision Center (RVC)
  - 4 axes movement control
  - Fluoro button
  - Emergency stop button
  - Radiation lamp
- Position Control Center (PCC)
  - 4 axes movement control
  - Save and recall of up to 3 positions
  - Home/ 0 position button
  - Emergency stop button
- HIPAA security package
- X-ray enable key lock
- Air kerma dose display
- Footswitch
- Injector interface (cable not included!)
- Mobile Cart for RVC & PCC

#### **Ziehm Netport DICOM Package**

- Includes interface and software for:
  - Storage Class and Storage Commit
  - Worklist Class, including MPPS
  - Query Class
  - Media Class
  - DICOM viewer software with auto-run for DVD or USB

#### **Video Output Connector(s)**

- CCIR connector provides signal for stand-alone printers or standard resolution monitors
- Two video connectors for external display of right and left monitors

Sony UP-991AD Printer (paper & film) integrated in (optional) Viewing Station

Ziehm WLAN W1 Kit (one access point at the Monitor Cart) NOTE: The possibility of integration into an existing WLAN network has to be confirmed by Ziehm Imaging individually

#### **Z-Complete Care:**

On-Site Service Coverage and Technical Phone Support Coverage on weekdays from 7:00 am to 7:00 pm (Eastern Time Zone); One Preventative Maintenance (PM) per Year during contract hours; Service may be performed by Ziehm Service Technician or an Authorized Service Provider; Covers Glassware – Full Coverage of the systems I.I., Flat Detector, X-Ray Tube and Monitors. After-hours service available at standard hourly rate.

Three consecutive days of additional in-service by Ziehm ARRT certified Applications Specialists. **In-service training must be performed within 12 months from date of installation.**