

**100481 VERADIUS Mobile C-arm with FD**

**System Type:** New  
**Freight Terms:** FOB Destination  
**Warranty Terms:** Part numbers beginning with two (2) asterisks (\*\*) are covered by a Per Contract. All other part numbers are third (3rd) party items.  
**Special Notations:** Contingencies must be removed 120 days before scheduled shipment to assure delivery on specified date.  
Any rigging costs are the responsibility of the Purchaser.  
**Additional Terms:**

Line #	Part #	Description	Qty
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1	**NNAL041	Veradius Gen/Ortho Surg Pkg	1
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The Veradius is a powerful mobile C-arm with flat detector and rotating anode that brings the advantages of flat detector technology to the operating room, incorporating Philips new flat detector design for mobile fluoroscopy. Compact and easy to operate and transport, the system consists of a mobile C-arm stand for image acquisition and a Mobile View Station with two LCD monitors for image processing, review, archiving and display. The additional stand monitor supports visual control for the operator.

The Veradius flat detector was developed by Philips' imaging experts to deliver excellent imaging performance in a design robust enough for mobile use. Benefiting from Philips years of market leadership in flat detector catherization lab design, the Veradius flat detector delivers superb image quality with higher dynamic range and less distortion than is possible with an image intensifier. In addition the super thin flat detector frees up valuable space. It gives more room to see team members and coordinate tasks. The removable grid allows superb IQ with much less X-ray dose for imaging small anatomies.

The powerful pulsed technology and exceptional heat management capabilities of this system allow you to go the distance in lengthy cardiovascular / interventional procedures. The rotating anode technology and 15 kW generator give the power to see through virtually any patient and to see fine details in the steepest projections.

Veradius provides the technology, power, and image quality to handle the most advanced interventions as well as all routine procedures.

See more:

- Opens up extra space around the patient and working area
- Provides extra visibility of the region of interest and team members

See clearly:

- Delivers exceptional fluoroscopic images with superb contrast thanks to the high dynamic range of the detector
- Philips Amorphous silicon detector designed and produced in-house: 27 x 27 cm, 1.4 x 1.6 k
- Consistent high image quality thanks to the unique automatic calibration of the detector
- Rotating anode power to image larger patients

See what matters:

- Removable grid allows superb IQ with much less X-ray dose for imaging small anatomies
- Integrated laser to accurately position the system without radiation

See what works:

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- Stand monitor to support visual control for the operator
- Extra handgrips to maneuver the C-arm easily into position
- Fast start-up time supports optimized workflow in the OR

### Mobile C-arm Stand:

- Counterbalanced multi-directional C-arm with compact flat detector (27 x 27 cm)
- Ultra-compact foot, with rear-wheel steering, including pushbar and handles for easy manoeuvrability and positioning of the stand
- 135 degrees rotation (+90/ -45 degrees) for maximum projection flexibility
- 12" positioning monitor at the stand that helps the operator to accurately position the system
- Extended vertical movement to fit desired working height, especially for obtaining low lateral positioning
- Dedicated parallel movement for easy positioning along operating table
- Automatic cable deflectors
- Flat, easy to clean, user-friendly control desk with lighted display and soft-buttons for flexible application-driven control
- Handswitch, footswitch
- Hand held remote control that enables easy access to fluoroscopy mode selection and main image processing functionality for an optimized workflow
- Radiation indicator
- System lock (requires a key to enable or disable X-ray control)
- Privacy protection: protects patient information from unauthorized access by the means of a password
- Springbow to hold sterile drapes at the C-arm

### Flat detector Imaging system:

- Philips amorphous silicon detector
- Cesium Iodide Scintillator
- Active detector size: 28.7 x 26.5 cm
- Field of view: 26.5 x 26.5 cm
- Matrix: 1560 x 1440 pixels
- Pixel pitch 184 µm
- Three user selectable zoom formats (field input sizes: 27, 18, 13 cm)
- Automatic dose-rate control
- Removable grid, makes it easy to visualize small anatomy and extremities with less X-ray dose
- Grid 70 lines/ cm, grid ratio 13:1
- Integrated FD laser for easy positioning without X-ray

### X-ray modes:

- Low Dose Fluoroscopy (max 15 pps, max 23 pps optional)
- Fluoroscopy (max 15 pps, max 23 pps optional)
- High Quality Fluoroscopy (max 15 pps, max 23 pps optional)
- Boost fluoroscopy mode, for the most challenging procedures to produce high-quality images of virtually every patient

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- Motion fluoroscopy mode, optimized for imaging moving objects
- Digital exposure (max 125 mA, max 330 ms pulse) for extra sharp snapshot

### X-ray generation:

- 15 kW Microprocessor controlled X-ray converter generator
- Rotating anode X-ray tube for the most demanding interventional procedures
- Slim tank unit with 0.3/0.6 IEC dual focus
- Integrated beam-filter to reduce the patient skin dose by 40%
- X-ray tank designed for maximum cooling capacity, allowing lengthy procedures
- Automatic setting of fluoroscopy parameters based on anatomy (Anatomical Programmed Fluoroscopy) provides optimal image quality for each examination type

### X-ray collimation:

- Full-lead shutters are independently, asymmetrically rotatable and movable. For optimal adjustment in all anatomies
- Both iris and shutters can be set on Last Image Hold, avoiding the need for unnecessary radiation, or during fluoroscopy
- Philips' unique Automatic Shutter Positioning feature. The shutters can be optimally adjusted to the anatomy of interest with one push of a button to produce superb image quality

### Image processing:

- 12-bit Digital Fluoroscopy Imaging unit, with dedicated video pipeline processor. Featuring the SmartVision imaging chain, providing the optimal image quality with low X-ray dose
- Body Smart anatomic adapting measuring field, allows free positioning of the anatomy, even at the edge of the image by providing automatic image adjustment
- Adaptive noise reduction with pixel based movement detection, to reduce motion blur
- Digital rotation, mirror left/right and up/down on last image hold
- The system automatically optimizes contrast and brightness to provide the optimal image quality.
- Post-processing edge enhancement, contrast and brightness
- Annotation
- Video invert
- Digital zoom and roam (factor 2x real-time magnification, freely movable to any section of an image), applicable in all detector zoom formats
- Measurement (to quantify lengths and angles in images)
- Electronic shutters (to block-out overexposed image areas)

### Mobile view station:

The ultra compact Mobile View Station perfectly fits in the surgical workflow. The unique intelligent viewing concept of the Mobile View Station provides the user with easy transportation, easy system set-up and optimal viewing capabilities.

- Monitors rotate 180 degrees for optimized viewing angle

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		<ul style="list-style-type: none"><li>• Monitor height can be increased or decreased up to 25 cm (10") to conveniently adjust to the surgeons position. For safe and easy transport and storage, simply fold the monitors and move them to their lowest position</li><li>• Digital Video out (2 DVI connectors) to display the images on additional monitors without loss of resolution</li><li>• Video in (1 BNC connector) enables display of external video signals like endoscopy or ultrasound on the right C-arm monitor</li><li>• Easy storage to USB flash-drive (bmp format)</li><li>• Storage of 2.000 images on hard disk</li><li>• Mosaic - overview of 16 images on one monitor</li><li>• Run loop</li><li>• Designed to integrate Medical DVD Recorder, video paper/ transparency printer and to build in ViewForum workstation</li></ul>	

### LCD Monitors:

- Two 18" High Brightness Color LCD monitors for diagnostic image quality
- TFT technology for 170 degrees viewing angle in both horizontal and vertical direction
- Resolution: horizontal: 1280 dots, vertical: 1024 lines
- Maximum light output: 720 cd/m<sup>2</sup>
- Minimal Contrast Ratio: 1/400
- Touch screen user interface: infra-red technology permits touch-screen access to the graphical user interface on the live monitor (left monitor) without sacrificing image quality. Patient administration, post-processing or export functionality are intuitively accessed at the tip of your finger

### DICOM:

The DICOM software converts the digital images of the C-arm into DICOM compatible image formats to send them to PACS systems, PC environment, and/or to a printer within the network. DICOM is seamlessly integrated into the system for digital image to DICOM translation. A highly intuitive user interface simplifies the use.

- DICOM Print
- DICOM Store – enables image transfer to DICOM compliant workstations for off-line processing of images, dynamic reviewing of runs, store images/ runs on CD-R to PACS systems and to a PC environment
- Modality Worklist Management (MWL) for communications with the RIS/HIS system
- Modality Performed Procedure Steps (MPPS)
- Storage Commit (SC)

### The DICOM image formats are:

- Secondary Capture (SC) with/without text and X-ray
- Angiography (XA – multi frame)

### **Clinical Education Program for Veradius Surgery Systems**

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Clinical Education Specialists will provide sixteen (16) hours of Surgery OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEU credits may be available if the participant meets the guidelines provided by Philips. Depending on your system configuration, the first four (4) hours onsite may be spent configuring new equipment for specific clinical needs, as well as reviewing important safety features and quality procedures. Please read guidelines for more information. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Follow-Up OnSite Education: Clinical Education Specialists will provide sixteen (16) hours of tailored XR OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases.

Education entitlement expires one (1) year from equipment delivery date. Ref#150308-080611

<b>2</b>	<b>**NMCA250</b>	<b>Vascular extension Veradius</b>	<b>1</b>
<p>The vascular extension offers the optimal support for vascular cases. It provides an extensive range of vascular imaging tools and memory extension to 10000 images.</p> <p>Vascular Processing:</p> <ul style="list-style-type: none"> <li>• Subtracted fluoroscopy mode displays digitally subtracted images, for clear visualization of contrast media</li> <li>• Life Trace-mode (peak opacification) shows the maximum opacification of the vessels</li> <li>• View Trace (peak opacification) creates a trace image in post processing</li> <li>• Roadmap functionality supports catheter guidance</li> <li>• Remask to reselect the best image in a run as a mask image for contrast runs</li> <li>• Smart Mask reduces the X-ray dose and contrast medium usage by reusing previously acquired mask images for roadmapping</li> <li>• Landmarking provides a non-subtracted background image for anatomical reference. The visibility of the background can be adjusted to meet user preferences</li> <li>• Real time pixel shift compensates for movement artifacts</li> <li>• Subtraction on/off simplifies the orientation for subtracted images during roadmap procedures (controlled by remote control or User interface on Mobile View Station)</li> <li>• CO2 subtracted fluoroscopy</li> <li>• CO2 trace mode (trace white)</li> <li>• CO2 roadmap with Smart Mask (reuse of previously acquired image)</li> </ul> <p>Memory extension:</p> <ul style="list-style-type: none"> <li>• 10000 image storage space on hard disk</li> </ul>			

<b>3</b>	<b>**NMCA253</b>	<b>Upgr. 10000 to 20000 im. Veradius</b>	<b>1</b>
<p>Increases image storage space from 10000 images to 20000 images on hard disk.</p>			

<b>4</b>	<b>**NMCA030</b>	<b>Video Paper Printer</b>	<b>1</b>
<p>Thermal printer for cost-effective printing of video images from the life(=left) monitor onto paper            Features: Multifomat 1 2 4 6 images to be printed on one page in both landscape and portret format            Comprising:</p> <ul style="list-style-type: none"> <li>• Printing unit UP-960 integrated in the Mobile View Station of the system</li> <li>• Printing paper roll (UPP-210HD) Compatible with: . BV Libra release 1.1 . BV Endura release 1.1 . BV Pulsera release 1.1</li> </ul>			

<b>5</b>	<b>**NMCA042</b>	<b>Medical DVD-recorder</b>	<b>1</b>
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The Medical DVD Recorder records static or dynamic images on DVD (DVD+RW) and replays of these recordings on the left hand monitor.

The recorded DVD can also be played on consumer DVD players / TV sets outside the OR.

Features included:

- At least 2 hours video recording time per DVD
- Recording of clinical images in PAL/ NTSC video format
- Manual recording (after finishing case)
- Allows multiple exam recordings on one disk
- Separated recording of each exam
- Separated recording of each loop in an exam
- Loop playback plus 2x and 4x zoom
- Variable playback speed

6	**FMC0051	<b>2nd set of documents</b>	<b>1</b>
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This set of documents includes the operator manual and service documentation.

7	**989801299678	<b>Airfare to Cleveland for Biomed Training</b>	<b>2</b>
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Includes one (1) participant's airfare from North American customer location to the Cleveland Training Center (CTC) in Cleveland, Ohio. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Expires one (1) year from the earlier of equipment delivery date or purchase date.

8	**989801299679	<b>Food Transpt Lodging for Cleveland Biomed Training</b>	<b>13</b>
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Includes one (1) day of modest lodging, ground transportation, and meal expenses in Cleveland, Ohio for one (1) attendee. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Although this part is only for one day, it is sold in multiple quantities to account for entire length of course. Expires one (1) year from the earlier of equipment delivery date or purchase date.

9	**989801299939	<b>XD3950C Bio Veradius R1.1 Imaging CTC3</b>	<b>1</b>
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The CS engineer is trained to a technical and applicational level which will enable him to do installation, PM and CM on the Veradius Imaging part according to the service philosophy.

Course Aims: During this course the engineer will be provided with knowledge of: Veradius Flat Detector and Imaging.

- Planned maintenance procedures
- Safety aspects
- Simplified block diagrams

He will learn how to:

- Install and Configure the Flat Detector
- Configure the Imaging part of the system
- Work with the Field Service application Service software
- Perform mechanical and imaging adjustments
- Perform corrective maintenance on FRU-level

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- Perform Remote Service

Prerequisites: Engineers attending this course must have

- Mechanical skills
- Basic Computer skills
- Knowledge of Surgery system architecture
- Knowledge of Dicom/networking
- Operating experience with measuring equipment

Prior attendance to: XD3733 or XD3734 BV Family (Pulsera).

Before attending the course, the student must take XD9039, E-Learning course.

Accreditation: None.

Location: CTC; Cleveland, OH, USA.

Class Length: 3 days.

Materials: Student manual + CD

\* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF A PHILIPS RIGHTFIT SERVICE AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

10	**989801299954	<b>XD3739C Bio BV Family part 2 CTC 10</b>	<b>1</b>
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BV Family part 2  
Course Number: XD3739  
Class Length: 9.5 days  
Delivery Method: Instructor-led  
Modality: Surgery  
Location: Best, Cleveland, Singapore  
Accreditation:  
Audience: Field Service Engineers

### DESCRIPTION:

This BV Family course is offered as blended learning. This means that BV Family part 1 is offered as an e-learning and BV Family part 2 is an instructor-led training in Best, Cleveland and Singapore. BV Family part 2, consisting of XD3737 and XD3738, will train the Field Service Engineer to a technical and application level, which will enable him to perform full installation, PM and CM according to the service philosophy for the BV Family. (Including Dicom connectivity for Surgery systems). The BV Family part 2 course is primarily a hands-on workshop.

System codes: 71815, 71818, 718070, 718090, 71816, 71819, 718080, 718100, 718020, 718030, 718071, 718081, 718091, 718101, 718021, 718022, 718031, 718072, 718073, 718082, 718092, 718093, 718092, 718074, 718094, 718095.

### PREREQUISITES:

Prior attendance to:

\* XD3002 X-Ray Systems Basic part 2 (bundled with: XD9015-X-ray Systems, Basic Part1)  
or other basic X-ray course, or prior X-ray modality service training/experience

AND

Prior to arrival at the Training Academy, the engineer will need to successfully complete the following prerequisite modules and their associated certification tests (where appropriate) which are available on the Philips On-line Learning center. The following prereqs are part of this course and there will not be any extra cost to obtain these classes.

- \* XD9011 BV Family part 1
- \* CS9020 Basic Networking
- \* CS9021 Dicom and Unix

### COURSE AIMS:

After attending this course, the engineer will have knowledge of:

- \* Configurations and product structure
- \* Physical and mechanical aspects
- \* Technical aspects of Application
- \* CM procedures
- \* (Pre)-installation and PM procedures
- \* Image Quality and safety aspects
- \* Block,- simplified- and system diagrams
- \* Configurations and product structure
- \* Basic technical aspects of Applications
- \* Image Quality and safety aspects
- \* Block,- simplified- and system diagrams

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- He will be capable of:
- \* Operating the system
- \* Programming the system
- \* Handling test software
- \* Calibrating the system
- \* Performing adjustments
- \* Making performance tests
- \* Implementing new releases
- \* Performing FCO's
- \* Performing Corrective Maintenance
- \* Performing Planned Maintenance
- \* Performing BV Family system Installation

**KEY TOPICS:**

- \* Application
- \* Installation
- \* Setting-to-work
- \* Software loading
- \* II & HT
- \* XTV8 & XTV7
- \* Software loading
- \* Adjustments
- \* Alarms/Fluoroscopy/Radiography commands
- \* Troubleshooting
- \* Setup service PC for communication with DFI/DFI-2/DFI-3 (X-scope, BV-Scope)
- \* DFI replacement
- \* Installation Dicom interface
- \* Installation embedded Dicom in DFI-2/DFI-3
- \* RIS/WLM connections

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