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The BV Pulsera is a powerful mobile fluoroscopy system for the most challenging interventional procedures.

The powerful pulsed technology allows you to go the distance in longer studies, capture moving anatomy and see through your largest patient. It consists of a mobile C-arm Stand for image acquisition and a Mobile View Station, with two 19" LCD monitors for image processing, review, archiving and display.

The BV Pulsera provides system providing outstanding image quality at lowest possible dose.

The system is compact, easy to operate and is highly reliable.

Upgradeability is ensured by a large variety of application packages. Choice of languages is incorporated.

Mobile C-arm Stand:

- Light-weight counterbalanced multi-directional C-arm with compact image intensifier, designed for effortless positioning
- Ultra-compact foot, with rear-wheel steering, including pushbar and handles for easy maneuverability and positioning of the stand
- 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
- Including:
 - footswitch and handswitch
 - radiation indicator
 - system lock (requires a key to enable or disable X-ray control)

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
- Tank temperature measuring device for over-temperature detection and protection
- Integrated beam-filter to reduce the patient skin dose by 40%
- X-ray tank designed for maximum cooling capacity, allowing lengthy procedures

- Anatomical Programmed Fluoroscopy (automatic setting of fluoroscopy parameters) providing optimal image quality for each examination type

X-ray collimation:

- Full-lead shutters are independently, asymmetrically rotatable and movable
- Both iris and shutters can be set on Last Image Hold, avoiding the need for unnecessary radiation, or during fluoroscopy
- Automatic Shutter Positioning feature detects anatomy and positions shutters automatically

Imaging system:

- 9" (23cm) triple mode high contrast image intensifier
- Three user selectable field input sizes: 9" / 7" / 5" (23/17/14cm)
- High resolution 1kx1k digital CCD-TV system with automatic dose-rate control

X-ray modes:

- Low Dose Fluoroscopy
- High Definition Fluoroscopy
- Continuous fluoroscopy with $\frac{1}{2}$ and $\frac{1}{4}$ dose modes
- Pulsed fluoroscopy (12.5 pulses per second)
- Pulsed exposure technique 5 pulses per second (optional to 30 pps)
- Digital Exposure
- Radiographic mode for cassette exposures

Image processing:

12-bit Digital Fluoroscopy Imaging unit, with dedicated video pipeline processor. Featuring the SmartVision imaging chain, providing the optimal image quality with lowest possible dose.

- Patient database including 16 images RAM memory
- Body Smart anatomic adapting measuring field
- Digital 1k x 1k throughout the entire image chain
- Adaptive temporal recursive filtering for noise integration
- Vignette correction
- Digital rotation, mirror left/right and up/down on last image hold
- Dynamic movement detection to avoid motion blur
- Real-time 2D edge enhancement, contrast and brightness
- Post-processing edge enhancement, contrast and brightness
- Automatic contrast and brightness on the mobile view station
- Annotation
- Video invert
- Zoom and roam (factor 2x real-time magnification, freely movable to any section of an image)
- Measurement (to precisely quantify lengths and angles in images)
- Electronic shutters (to block-out over-exposed 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.

- Rotatable monitors for optimized viewing angle
- Monitor height can be increased or decreased up to 25 cm (10") to conveniently adjust to the surgeon's position. For safe and easy transport and storage, simply fold the monitors and move them to their lowest position
- Vequion user interface on-screen display, alphanumeric keyboard and touchpad
- Video out, to transfer the images to an additional monitor or recorder
- Video in, to display external video signals like an endoscope
- Easy storage to USB flash-drive, for personal use of images
- Storage of 2.000 images on hard disk at maximum 5 frames per second
- Mosaic - overview of 16 images on one monitor
- Run loop
- Designed to integrate Medical DVD Recorder, video paper/transparency printer and ViewForum Surgical Workstation

Dose awareness enhancements:

To document and analyze dose usage.

- Dose display on Mobile View Station: cumulative dose, dose-rate (fluoroscopy) and DAP (exposure)
- Alert when exceeding a pre-defined examination dose-level
- Dose reporting

Two DVI-D-out connections at the mobile viewing station provide digital output of left and right monitor images without any loss of signal quality for display on compatible external monitors with DVI-D-in

Specifications:

- 2 * DVI-D-out (left and right monitor signal)
- Signal: 1280x1024@60Hz
- Video and USB cables may only be connected when in compliance with the precautions described in IEC 60601-1-1. (e.g. extra grounding or separation, depending on the location and use of the connected system parts)

Video cables may only be connected when in compliance with the precautions described in IEC 60601-1-1. (Refer table BBB.201 of IEC 60601-1-1 for solutions like extra grounding or separation which depend on the location and classification of the connected system parts).

Two 19" High Brightness Color LCD monitors for diagnostic Image Quality

- Double the light output and increased contrast ratio compared to the standard LCD Monitors
- TFT technology for 160 degrees viewing angle in both horizontal and vertical direction
- Resolution: horizontal: 1280 dots, vertical: 1024 lines
- Maximum brightness: 650 Cd/m2
- Contrast Ratio: >700:1
- Backlight stabilization

Touchscreen to easily operate the system

- Increasing workflow efficiency with touchscreen added to the live monitor finding your way through the different menus, performing patient administration or post processing the acquired images, with the tip of your finger
- Touchscreen is compatible with the High Brightness color LCD monitor and the Standard color LCD monitor
- The (image) quality of the monitors is unaffected by the touchscreen

Extra exam type to obtain low noise images in dense patients to support your patients in an optimal way

- ortho plus license key

Extended rotation to perform an additional 20 degrees rotation of the C-arm for maximum projection flexibility

Features:

- +90 to -45 degrees (standard: +90 to -25 degrees)

Clinical Education Program for Mobile C-arm Systems

Handover OnSite Education: Philips Education Specialists will provide sixteen (16) hours of education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Students should attend all 16 hours, and must include any OffSite education attendees. 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: Site must be patient-ready. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Recommendations: In order to enhance customer satisfaction with image quality over the first year, we highly recommend that part# 989801292145, XR Add OnSite Clin Educ 16h is purchased. This training will assist the customer in maximizing the unique image quality pre-sets to suit their facilities needs. Clinical Education highly suggests the image quality visit occur two to four weeks post initial handover.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 150-100614

The Vascular extension offers a wide range of image processing for vascular studies:

Pulsed exposure at a maximum rate of 8 pps, with a maximum of 60 mA (standard is 5 pps)

Subtracted Fluoroscopy Mode

Trace Mode (for maximum opacification of vasculature)

Roadmap Mode with SmartMask (re-use of previously acquired images)

Remasking (to select the optimal mask for subtraction)

Landmarking (to provide a non-subtracted background image for anatomical reference)

Real-time pixel shift (to minimize movement artifacts)

View Trace (creating a trace image, post processed)

CO2 Subtracted Fluoroscopy Mode

CO2 Trace Mode (Trace White)

CO2 Roadmap Mode with SmartMask (re-use of previously acquired images)

Including:

- Hand-held Remote Control to get tableside access to the imaging modes and to the main image handling functions
- Storage of 10.000 images on hard disk at a maximum of 8 frames per second

Converts the digital images of the C-arm system in DICOM compatible image formats, for transfer onto a hospital network.

The DICOM image formats are:

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

The Basic DICOM 3.0 supports:

- DICOM print
- DICOM store

The Store functionality enables 1k x 1k image transfer to DICOM compliant workstations (for off-line processing of images, dynamic reviewing of runs, storing images/runs on CD-R), to PACS systems and to a PC environment (PC should be equipped with DICOM viewer).

The Basic DICOM package is fully embedded in the BV family system architecture, ensuring top image quality by loss-less digital image to DICOM translation and a highly intuitive, seamless integrated user-interface.

Compatible with:

- BV Endura release 2.x
- BV Pulsera release 2.x

- 4** ** **Advanced DICOM/IHE** **1**
- Advanced DICOM/IHE functionality, for workflow optimization.
The Advanced DICOM/IHE supports:
- Modality Worklist Management (MWL) for communications with the RIS/HIS system
 - Modality Performed Procedure Step (MPPS)
 - Storage Commit (SC)
- The Advanced DICOM/IHE package is fully embedded in the BV family system architecture, ensuring top image quality by digital image conversion to DICOM and a highly intuitive, seamless integrated user-interface.
Full compliance to the IHE Scheduled Workflow integration profile as an Acquisition Modality Actor
- Compatible with:
- BV Pulsera software release 2.4.x
 - BV Endura release 2.3
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- 5** ** **Medical DVD-recorder** **1**
- 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
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- 6** ** **2nd set of documents** **1**
- This set of documents includes the operator manual and service documentation.
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- 7** ** **Application Manual** **1**
- The application manual consists of a set of 'One-Pagers'.
- Each page describes one specific application of a mobile C-arm in Surgery.
- The composition of the one-pagers is as follows:
- first the aim of the procedure

- subsequently the positioning of the C-arm stand and which projections have to be made (also shown in illustrations)
- finally some tips for optimum use of the mobile C-arm system during the surgical procedure are given.

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XR FollowUp OnSite Educ 16h

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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 expires one (1) year from equipment installation date (or purchase date if sold separately).