



- The projection angles for the Poly-Diagnost G-arm in the head position (orientated parallel to the table) are:
  - Rotation 120 degrees LAO to 120 degrees RAO
  - Angulation 45 degrees cranial to 45 degrees caudal
- Motorized stand movements are variable speed with a configurable maximum speed, allowing:
  - rotation speed up to 25 degrees per second
  - angulation speed up to 18 degrees second
- The depth of the Poly-Diagnost G-arm is 105 cm.
- The stand features BodyGuard capacitive sensing collision avoidance for patient protection.
- The variable source image distance range between the x-ray tube foci and the Dynamic Flat Detector input screen is 86.5 to 123 cm.

## **Patient Support**

### Xper Table

- Patient support provided with a flat carbon fiber tabletop
- Tabletop length of 319 cm and tabletop width of 50 cm
- Floating tabletop movement of 120 cm longitudinal and 35 cm transverse
- Motorized height adjustment from 74.5 to 102.5 cm
- Maximum cantilever of 223 cm , for full patient coverage
- Maximum patient weight 250 kg plus 500 N for CPR (or 225 kg plus 1000 N) in any longitudinal position of the table top
- Xper Geometry and Imaging Modules for exam room controls.
  - The operating modules can be attached to either side of the table.

### Patient Support Accessories

- Three rail accessory clamps
- Mattress pad
- Translucent catheterization armrest
- IV Pole
- Set of Cable Holders
- Set of Arm Supports (FCV0248)
- Arm Support (FCV0258)
- Patient straps
- Table-mounted radiation shield
- Antifatigue Mat with Philips logo

## **X-RAY GENERATION**

The AlluraClarity FD10 comprises an integrated dedicated X-ray system, micro-processor controlled 100kW generator, based on high frequency converter technology. The user interface control of this X-ray Generator is incorporated into the Xper module, Xper Desktop Console, and the Xper on-screen displays.

The Certeray generator comprises:

- X-ray generator: 100 kW
- Voltage range: 40 - 125 kV
- Program selection:
  - Pulsed X-ray up to 3.75 , 7.5 , 15 , 30, frames/s for digital dynamic exposures
  - Pulsed X-ray for pulsed fluoroscopy (3.75, 7.5, 15, 25, 30 frames/s).
  - Minimum exposure time of 1ms.
  - ECG triggered acquisition: allows acquiring one exposure for each QRS peak with selectable delay time
  - Automatic kV and mA control for optimal image quality prior to run to save dose
  - Optimal X-ray tube load incorporated in the Certeray generator
- An X-ray collimator with single semi-transparent wedged filter with manual and automatic positioning.
- SpectraBeam filtering of low energy radiation to optimize image quality and dose efficiency with the MRC-GS 0508 X-ray tube.
- Xper Beam Shaping, which means that, both shutters and wedges can be positioned on the Last Image Hold without the need for X-ray radiation.

#### Fluoroscopy

Three programmable fluoroscopy modes can be selected from the Xper Imaging T.S.O. Each mode has a different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, and adaptive harmonization).

Xper Fluoro Storage, a grab function allows storage and archiving of a single fluoro frame or the last 20 seconds of fluoroscopy. These images or runs can be archived as a regular run.

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

The AlluraClarity FD10 includes a Maximus ROTALIX Ceramic tube assembly MRC-GS 05 08 and cooling unit CU 3101 for cardio-vascular systems. Comprising:

- 0.5/0.8 mm nominal focal spot values maximal 45 and 85 kW

#### **IMAGE DETECTION**

The Allura Clarity FD10 comprises the following image detection chain:

- A 25 cm (10 in.) diagonal triple-mode Dynamic Flat Detector. It comprises a 6"/8"/10" triple mode Dynamic Flat Detector
- The outer detector box diameter is 37 cm diagonal square
- The digital output of the Flat detector is a 1024 x 1024 matrix at 14 bit depth and the detector pixel pitch is 184 micron by 184 micron
- The DQE (0) is 75% providing high conversion of X-ray into a digital image, while maintaining a high MTF.

#### **VIEWING**

The AlluraClarity FD10 comprises the following components in order to display the clinical images in the control and examination rooms:

##### **Displays**

##### **Examination Room**

Two 19-inch monochrome LCD monitors

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- 19-inch monochrome TFT-LCD display
- Native format 1280x1024 SXGA
- 10-bit gray-scale resolution with gray-scale correction

These monitors are not delivered when FlexVision XL, EP Cockpit or EP Cockpit XL is selected.

The monitor ceiling suspension in the exam room can be configured to accommodate 3, 4, 6, or 8 LCD monitors and includes motorized height adjustment. The height adjust feature is dependent on the room ceiling height. When FlexVision XL, EP Cockpit or EP Cockpit XL is selected the monitor ceiling suspension is configured for one of those options.

- The first reference channel is for the display of reference images or runs, controlled by infra-red remote-control Xper Viewpad.
- The On-Screen Display provides status information on stand rotation, angulation, display of system messages, X-ray tube load status, selected fluoroscopy mode, selected detector Field of View, and both the rate and accumulation of the dose area product and skin dose.

### **Control Room**

One 19-inch color LCD monitor

- 19-inch color TFT-LCD display

### **Control Room**

One 19-inch monochrome LCD monitor

- 19-inch monochrome TFT-LCD display
- Native format 1280x1024 SXGA
- 10-bit gray-scale resolution with gray-scale correction

These control room monitors are not delivered when EP Cockpit or EP Cockpit XL is selected.

### **Acquisition**

The acquisition segment coordinates the parameters for automatic exposure control. The program is selected via the Xper module or Xper Desktop Console.

This AlluraClarity offers a storage capacity of:

- 100,000 images at matrix size of 1024 x 1024, 10-bit
- Maximum number of examinations is 999, with no limit to the maximum number of images per examination

### **USER INTERFACE**

Xper is comprised of three elements: 1) Xper Settings, which customizes the system to each user preferred settings; 2) Xper User Interface 3) Xper Integration, which makes advanced integration functionality available such as DICOM Query / Retrieve, background archiving, and Xper Fluoro Storage.

The Xper User Interface comprises a range of User Interface modules in the Examination Room, including On-Screen Display.

### **On-Screen Display**

- X-ray indicator and X-ray tube temperature condition
- Gantry position in rotation and angulation and Source Image Distance
- Detector field size display
- Selected Frame speed
- Fluoroscopy mode
- Integrated fluoroscopy time
- Stopwatch
- Skin Dose: dose rate with X-ray, cumulated dose with no X-ray
- Dose Area Product: dose rate with X-ray, cumulated dose with no X-ray
- Graphical bars for indication of Body Zone specific dose rate and accumulated skin dose levels, related to the 2 Gy level

### **Remote Intercom**

A separate intercom, which is connected independently from the system that allows separate placement of the intercom at the preferred working position in the control room and examination room.

### **Xper ViewPads**

The Xper ViewPad contains the preprogrammed function settings. The system is provided with two Xper ViewPads. The following functions are provided:

- Run and image selection
- File and run cycle
- File overview
- Store to Reference image file
- Copy image to photo file
- Digital (fixed) zoom and panning
- Recall reference images, which means switching control of Xper ViewPad function from live to reference monitor
- Laser pointer, intended to point at regions of interest on the imaging monitors
- LED indication of laser pointer on/off and battery low

### **Tableside Modules**

One Xper Module is provided for use at either the tableside or in the control room. This module uses a touch screen, which can be operated when draped with sterile covers. The Xper Module contains the following functionality:

- Acquisition settings
  - Selection of Xper Setting allows the user to set frame rates and x-ray generation settings applicable for the type of the preferred intervention
  - Automatic positioning recall to allow the stand position to match the reference image.
  - Image Processing
-

The Xper Geometry T.S.O. module can be positioned on all sides of the patient table, while keeping the button operation intuitive. The Xper Geometry T.S.O. provides the following functionality:

- Tabletop float and table height position
- Source Image Distance selection
- longitudinal movement of the Gantry along the ceiling
- Gantry rotation in an axis perpendicular to the ceiling
- Store and recall of two scratch gantry positions including SID
- Emergency stop button

The Xper Imaging T.S.O. module can also be positioned at three sides of the patient table, while keeping the button operation intuitive. The Xper Imaging T.S.O. provides the following functionality:

- Fluoroscopy Flavor selection defined per Xper Setting
- Shutters and Wedge positioning
- Xper Fluoro Storage and Grab
- Selection of the Detector field size
- Shutters positioning
- Reset of the fluoroscopy buzzer

#### Pan Handle

The Pan Handle is an extension of the control facility for floating movements of the table top.

#### **Control Room**

The control room comprises an Xper Review Module, a keyboard, a mouse. The Xper Review Module offers the basic functions for review. The Xper Review Module contains the following functionality:

- Power on/off
- Tagarno wheel to control the review of a patient file
- File and run cycle
- Contrast, Brightness, and Edge enhancement settings
- File, Run, Image stepping and run and file overview
- Delete run
- Image invert and digital zoom
- Reset fluoroscopy timer and enable/disable X-ray

System information is displayed on the bottom of the data monitor:

- Stopwatch and Time
  - System guidance information
  - Dose Area Product (DAP), Skin Dose, and accumulative dose
  - Frame speed settings, fluoroscopy mode, and accumulated fluoroscopy time
  - Exposure and fluoroscopy settings as Voltage (kV), Current (mA) and pulse time (ms)
  - Geometry information as rotation, angulation, and SID
-

The workflow is divided in scheduling, preparation, acquisition, review, and archive.

### **Scheduling**

The patients can be added, listed and selected per date, physician, and intervention type. Previous DICOM patient studies can be uploaded with the DICOM Query Retrieve function.

Patient management protocols are flexible and allow for multiple studies to be selected under one patient identification number. This means that new studies can be appended to an earlier patient file. Furthermore, each study can contain multiple examinations to allow for split administrative purposes. Each examination contains multiple files, i.e. acquisition file, reference file, and QA results file.

### **Preparation**

The preparation page provides the information of the room and patient preparation of each individual physician. The preparation page is customizable per Xper Setting and allows each physician to provide his or her own room protocols.

### **Acquisition**

The acquisition page contains information on the current selected patient.

### **Review**

The review page allows for reviewing of patient's:

- Previous examination cases
- Review of other DICOM XA or DICOM SC studies.

### **Radiation Dose Structured Report**

Collection of dose relevant parameters and settings and export to a DICOM database (e.g. PACS, RIS), according IEC60601-2-43, 2nd Edition.

The reported data can be used for, for example:

- Quality improvement: evaluating trends in X-ray dose performance per facility, system and operator.
- RDSR enables analysis of average dose levels & variance for routinely performed exams and procedures.
- Typical system usage can be extracted from the data.

### **Secondary Capture Dose Report**

- The Secondary Capture Dose Report function allows the user to save & transfer, manually or automatically, a patient Dose Report to PACS in DICOM secondary capture format.
- The dose report will be stored in the related patient image folder.

### **Archive**

Continuous Autopush

Continuous Autopush is an archive accelerator which ensures that background archiving continues with minimal disruptions.

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Clinical studies can be archived to a CD or a PACS. The archive process can be completely automated and customized with Xper Settings. Parameters like multiple destinations and archive formats can be selected to the individual needs.

The Xper DICOM Image Interface enables the export of clinical images to PACS. The export formats are based on DICOM 3.0 protocols. The system exports clinical studies in Cardiac DICOM XA Multi-Frame or DICOM Secondary Capture formats.

- The export format is configurable in 512x512 or 1024x1024.
- The examination can be sent to multiple destinations for archiving and reviewing purposes.
- The Xper DICOM Image Interface provides DICOM Storage and DICOM Storage Commitment Services.
- The DICOM Query/Retrieve function allows older DICOM XA MF and DICOM SC studies to be uploaded in the system. Furthermore, additional information can be appended to a study, while keeping the patient identification the same.

## **Clinical Education Program for Allura Systems**

### **Essentials OffSite Education:**

Philips will provide up to two (2) Cardiovascular Technologists, Registered Technologists Registered Nurses, or other system operator as selected by customer, with in-depth didactic, tutorial, and hands-on training covering basic functionality and work-flow of the cardiovascular imaging system. In order to provide trainees with the ability to apply all fundamental functioning on their system, and to achieve maximum effectiveness, this class should be attended no earlier than two weeks prior to system installation.

**In the event that an EP Navigator workstation has also been ordered, the offsite training course will be tailored to focus on the electrophysiology functionality of the FD system and the EPN workstation.**

**In the event that your main FD system will be dedicated to Cardiac applications your offsite training course will be tailored to focus on the Cardiac functionality.**

This twenty-eight (28) hour class is located in Cleveland, Ohio, and is scheduled based on your equipment configuration and availability. Due to program updates, the number of class hours is subject to change without notice. Customer will be notified of current, total class hours at the time of registration. This class is a prerequisite to your equipment handover OnSite Education. CEU credits may be available for each participant that meets the guidelines provided by Philips. Please refer to guidelines for more information. **Travel and lodging are not included, but may be purchased through Philips. It is highly recommended that 989801292102 (CV Full Travel Pkg OffSite) is purchased with all OffSite courses.**

### **Handover OnSite Education:**

Philips Education Specialists will provide twenty-eight (28) hours of education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Students should attend all 28 hours, and must include the two OffSite education attendees. CEU credits may be available for each participant that meets the guidelines provided by Philips. Please refer to 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. **It is highly recommended for systems that are fully loaded or for customers with a large number of staff members to also purchase 989801292099 (CV Add OnSite Clin Educ 24h).**

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 106107-110915

The FlexVision XL9 input package provides nine isolated wall connection boxes and nine legacy converters.

**Isolated Wall Connection Box**

This Isolated Wall connection Box facilitates connection of the video source via standard DVI cable/connector and lossless transfer of the video signal over the approximate 30 m cable distance. It can be mounted in the exam room or in the control room, depending on the location of the video source.

The quantity of the VWCB's has to be calculated as follows:

For each video signal to FlexVision XL on Cardiac System: 9 VWCB

Note:

No VWCB is required in case a video signal is connected directly to a dedicated LCD from the following sources:

- 1) Xper Live/ref Slaving
- 2) Interventional HW (XtraVision), ViewForum, Xcelera (only if workstations are powered by Allura Xper)
- 3) Xper IM

**Legacy Video Convertor**

The Legacy Video Convertor enables conversion from VGA towards DVI for supported input resolutions, as listed in the table below.

Signal type Native resolution Image Aspect Ratio

- VGA 640x480 4:3
- SVGA 800x600 4:3
- XGA 1024x768 4:3
- SXGA 1280x1024 5:4
- SXGA+ 1400x1050 4:3
- UXGA 1600x1200 4:3
- WXGA 1280x800 16:10 (8:5)
- WSXGA 1440x900 16:10 (8:5)
- WSXGA+ 1680x1050 16:10 (8:5)
- WUXGA 1920x1200 16:10 (8:5)
- 2K 2048x1080 19:10
- TV1080I/P 1920x1080 16:9
- TV 480I 720x480 4:3
- TV 480P 704x480 4:3

<b>3</b>	**	<b>Xper Live/Ref Slaving</b>	<b>2</b>
		<p>Xper Live/Ref Slaving</p> <p>The Xper Live/Ref Slaving will enable the option to slave the Live or Ref video source from the Allura Xper. The total amount of Xper Live/Ref Slaving that can be selected is max 4.</p> <p>Xper Live/Ref Slaving is possible:</p> <ul style="list-style-type: none"> <li>- In Control Room icw FCV0011(B/W monitor in Control Room)</li> <li>- In Philips MCS (additional monitor excluded from this option)</li> <li>- icw FCV0519 1 or 2 MCS from Skytron/Steris</li> </ul>	
<b>4</b>	**	<b>RIS / CIS DICOM interface</b>	<b>1</b>

This package allows communication of the Allura Xper system with a local information system (CIS or RIS). The interface uses the DICOM Worklist Management (DICOM WLM) and Modality Performed Procedure Step (DICOM MPPS) standards.

If a hospital has an Allura Xper system and an information system it can receive patient and examination request information from the information system and report examination results in order to:

- Eliminate the need for retyping patient information on the Allura Xper
- Prevent errors in typing patient names and registration numbers (ensuring consistency with IS information to prevent problems in archive clusters or to search for a name in case of later retrieval)
- Inform the IS about the acquired images and radiation dose

Upon request from the Allura Xper system the complete worklist with all relevant patient and examination data is returned from the IS to the Allura Xper system. For each patient the following information will be shown on the Allura Xper after it has been retrieved from the IS:

Patient Identification:

- Patient name
- Patient ID
- Birth date
- Sex

Examination/Request Information:

- Accession number
- Scheduled procedure step start time
- Scheduled performing physician's name

It is possible at all times to enter patient demographics information manually within the Allura Xper system in case of an emergency or in case the local Information System connection is down.

On request of the clinical user the Allura Xper will report the following information about the selected patient to the IS:

Patient Identification:

- Patient name
- Patient ID
- Birth date
- Sex

Examination/Request Information:

- Accession number
- Performed procedure step status start/end date and time
- Performing physician's name
- Referenced image sequence

Radiation dose:

- Total time of fluoroscopy
  - Accumulated fluoroscopy dose
  - Accumulated exposure dose
  - Total dose
-

- Total number of exposures
- Total number of frames

Further detailed information can be found in the Allura Xper DICOM Conformance Statement.

The interface requires an EasyLink (hardware and software) if the IS is not compliant with DICOM Work List Management and Modality Performed Procedure Step.

<b>5</b>	<b>**</b>	<b>Lab Reporting</b>	<b>1</b>
		<p>Lab Reporting allows the user to generate and print simple reports in modality stand-alone situations. The user is able to incorporate free text and clinical images. The reporting functionality is suited for local printing and email. Part of the report is generated automatically from administrative data (e.g. patient/exam data hospital name) and required data (e.g. run-log dose information and event-log).</p>	
<b>6</b>	<b>**</b>	<b>Digital subtracted Angio</b>	<b>1</b>
		<p>The DSA-option allows to extend the application functions with additional vascular studies. DSA features real-time digital subtraction at low frame speeds of 0.5, 1, 2, 3, or 6 frames per second. The DSA programs can be selected per Xper Settings. It offers exposure technique for uncompromised image quality of subtracted images. In addition, this option also allows subtraction on run basis (run-subtract), which can be applied in the Rotational Scan and Bolus Chase Subtract options</p> <p>This function will comprise following functionality:</p> <ul style="list-style-type: none"> <li>• Fluoro-Trace</li> <li>• Fluoro-Subtract</li> <li>• Exposure subtract on individual image or run basis</li> <li>• Mask selection</li> <li>• Landmarking</li> <li>• Pixel shift</li> </ul> <p>Compatible with:</p> <ul style="list-style-type: none"> <li>. Allura Xper FD10 Rel 3 onwards</li> <li>. Allura Xper FD10/10 Rel 2 onwards</li> </ul>	
<b>7</b>	<b>**</b>	<b>FD SmartMask</b>	<b>1</b>
		<p>SmartMask simplifies roadmapping procedures by overlaying a selected reference image with fluoroscopy on the live monitor in the exam room. The reference image can be faded in/out with variable intensity, controlled from tableside. SmartMask uses the reference image displayed on the reference monitor. Any previously acquired image can be used as reference.</p> <p>SmartMask facilitates pre- and post- intervention comparisons to assess treatment results</p>	
<b>8</b>	<b>**</b>	<b>Ventricular Quant.Sw pkg(Xper)</b>	<b>1</b>

Left Ventricular Quantification Software Package. Software package for the analysis of single plane Left ventricular angiograms. Calculates the Ejection fraction and local wall motion parameters in different formats.

Functions:

- Various LV-volumes
- Ejection Fraction
- Cardiac Output
- Centerline Wall Motion
- Slager Wall Motion
- Regional Wall Motion
- Calibration routines

In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.

Comprising:

- software license

Compatible with:

- . Allura Xper FD 10 Rel 3 and FD10/10 Rel 2 onwards
- . Allura Xper FD20 Rel 2, FD20/10 Rel 2 onwards

**9      \*\*                      Coronary Quant.Sw pkg(Xper)                      1**

Functions:

- diameter measurement along the selected segment
- cross sectional area
- %-stenosis
- pressure gradient values
- stenotic flow reserve
- calibration routines

In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.

Comprising:

- software license

Compatible with:

- . Allura Xper FD 10 Rel 3 and FD10/10 Rel 2 onwards
- . Allura Xper FD20 Rel 2, FD20/10 Rel 2 onwards

**10     \*\*                      Vascular Quant.Sw pkg(Xper)                      1**

Functions:

- vessel diameter / stenotic index
- automated vessel analysis
- calibration routines

In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.

Compatible with:

- Allura Xper FD10 Rel 3 and FD10/10 Rel 2 onwards
- Allura Xper FD20 Rel 2 and FD20/10 Rel 2 onwards
- Allura CV20 R1 onwards

**11**    \*\*                                    **Pulse Cath Arm Support**                                    **1**

Facilitates catheterization through the pulse and provides room for placing catheterization instruments. It is a flat radio translucent board and is placed under the patient while a part projects at either the left or right side of the tabletop to support the arm.

Size: 100 x 85 cm  
Material: carbon-fibre reinforced material

**12**    \*\*                                    **Pivot for table base.**                                    **1**

For angiographic- and interventional procedures of the upper peripherals.  
Provides improved table access for patient transfer.  
Allows pivoting of the table base around its vertical axes.  
Pivot range from -90 degrees to + 180 degrees (or -180 to +90 degrees) with locked positions on 0, -13/+13 (facilitating arm-angiography) and -90/+90 and 180 degrees.

Comprising:

- pivot device with graduated scale to be mounted on the universal floor plate of the table.

Compatible with Xper Table

**13**    \*\*                                    **Xper Table Tilt**                                    **1**

This innovating SyncraTilt enhances the accuracy and efficiency of gravity-oriented procedures. It is available as an option for the Xper table in Allura Xper series systems.

SyncraTilt is ideal for interventional, myelography, phlebography and head down procedures because it provides more precise imaging of contrast medium, blood, or objects in the body.

With SyncraTilt, the isocentre is automatically located at the isocentre of rotation and angulation of the stand. If the longitudinal position of the stand changes, the tilt isocentre is changed to match with the new stand position. As a result, the region of interest is always centred

As the table tilts, the X-ray beam automatically coordinates to the movement.

The table floats even when tilted, and the region of interest can be followed by panning the tabletop.

When combined with the Bolus Chase option, SyncraTilt enables phlebography to be performed with a head-up tilted patient.

The option provides:

- maximum tilt range:
- 17 degrees (head down) to +17 degrees (head up).
- tilt speed: 2 degrees/sec
- automatic safeguarding system with manual override
- panning range in tilted plane: equal to the standard
- tabletop specifications (longitudinal 120cm, lateral 35cm)
- easy to use controls  
Comprising:
  - Tilt drive with user controls

Compatible with:

- . Xper table in Allura Xper FD series Rel 3 onwards (monoplane versions) and Rel 2 onwards (biplane versions)
- . Bolus Chase
- . Pivot for table base
- . swivel for table base

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**Add.op-rail with cable ext.kit**

1

The content of the additional OP-Rail kit is:

- [A] One additional OP-Rail (mechanical)
- [B] Cable Extension for OP-Rail
  - One Extension cable for Geo Module
  - One Extension cable for Imaging Module
  - One connection box (wherein the extension cables are coupled with the UI-Module cables).

[A]

- An extension for the table op-rail (30cm).
- The additional op-rail can be mounted at the both sides of the tabletop part where no op-rails are mounted.
- The additional op-rail is compatible with AD5 and XperTable (cardio and neuro) patient-tabletops.
- The op-rail has the same profile /dimensions as the current standard op-rail
- The maximum load (downwards) on the additional op-Rail is 100 N (F=100N)
  - (this is limited by the tabletop of the Patient Table)
- The maximum mechanical moment on the additional op-Rail is 40Nm downwards and 20Nm upwards
  - (this is limited by the tabletop of the Patient Table)

[B]

- The cable extension consists out of two cables with a length of 1.3 m; one for the Geo and one for the Imaging module, and an interface box were the coupling to the
- Geo and Imaging module cables can be made.

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### **StentBoost sw Rel. 2.0**

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StentBoost is a unique interventional tool to improve visualization of stents in the coronary arteries during interventions. This, Philips exclusive, innovative interventional tool produces a highly augmented image of a deployed stent in coronary arteries - while the catheter is still in place. The StentBoost image helps clinicians to make a thorough check of stent expansion, and see the position of stents in relation to other objects, like other stents, without the use of extra contrast or other 'expensive' consumables. This allows interventional cardiologists to immediately take any corrective action required while your patient is still in the examination room.

The way it works

StentBoost automatically detects the stent delivery markers image after image. In each image StentBoost aligns the markers with the markers of the previous image. By doing this all radiopaque material in the close proximity of the markers will be enhanced and items further away from the markers will be greyed out.

The result provides enhanced contrast of the environment surrounding the markers, including the stent, while background noise is faded out.

StentBoost Workflow

#### 1. Image acquisition

StentBoost is based on a maximum of 40 frames out of a cine run. Depending on the frames speed this takes the user 2-3 seconds.

#### 2. Image transfer

The run will automatically be transferred to the interventional workstation and show up in the StentBoost software.

The Real time link (NCVA590) is a unique option within the Allura Xper FD10 R.2 and Allura Xper FD10/10 and allows instant access to the StentBoost image.

#### 3. Region of Interest definition

The StentBoost software shows the acquired run with a predefined Region of interest. With the region of interest user has to indicate where the markers of the stent delivery markers are located in the image run.

#### 4. StentBoost

After definition of the region of interest, the user presses next and within seconds, the boosted image shows up on the screen.

A real time operation user interface is available with StentBoost, providing:

- Review of StentBoost runs, before and after processing
- Viewing tools like Brightness/Contrast, Pan and Zoom to optimize the image displayed
- Automatic stent delivery system marker identification
- Reliability feedback regarding the enhanced run
- Manual quality improvement; Manual correction possibility for marker identification
- View patient info like, Birth date, Gender, Patient ID, Exam ID, Exam date, Run date, Run time, Hospital name, Physician name, RAO/LAO
- Creation of exportable items:
  - movies (AVI format)

- snapshots (jpeg format)
- The step 5, 6 and 7 are not mandatory.

#### 5. Calibration

To create a StentBoost image no calibration is needed. For the measurement support tool four calibration methods are included:

- No calibration
- Auto calibration based on calibration data generated by the Allura Xper system when the autocal function is installed (MCV5681),
- Marker distance of the stent delivery markers,
- Catheter calibration

#### 6. "Measurement"

"Measurement" an option within the StentBoost package supports the clinician in his/her decision-making in determining the percentage of remaining stenosis in the stent.

#### 7. Archiving

Transfer to:

- Optional Hard Copy unit (DICOM Print)
- Optional third party station (snapshots images in DICOM Secondary Capture format)
- Any computer via a web server functionality with images in a standard file format (JPEG, AVI movies)
- One or multiple DVD's, CD-ROM(s) for easy archiving
- Store a subset of exportable objects (snapshots and AVI Movies) to a USB removable memory device.

#### 8. StentBoost release 2.0 comprises:

- StentBoost release 2.0 Software Package
- User manual on compact disc
- Software release bulletin
- DICOM Conformance Statement
- StentBoost IQ verification Phantom

#### 9. Compatible with:

- Allura Xper FD10 R 1.x
- Allura Xper FD20
- Allura Xper FD10 R. 2
- Allura Xper FD10/10

#### 10. Pre-requisite for StentBoost R 2.0:

- Interventional Hardware (NCVA106)

The Interventional hardware is the hardware for the 3D interventional tools and enables import and viewing of DICOM compatible data from other imaging modalities.

The Interventional Hardware comprises at least:

- Computer Workstation
- CR 19" display
- 16 GB memory
- 2 TB disk for the operating system, application software and application data
- Internal CD-Rom / DVD writer
- Mouse tablet to interact with all the interventional tools at the table side.

Conditionally:

FD Calibration Tool Kit for 3D-RA

17	**	<b>FlexVision XL,Snapshot</b>	<b>1</b>
		<p>FlexVision XL is an integrated viewing solution designed to give you full control over your viewing environment.</p> <p>The FlexVision XL provides the ability to:</p> <ul style="list-style-type: none"><li>• Display information from up to 8 sources simultaneously (incl. third party systems) on the Philips 58-inch color LCD with LED backlight in the Exam Room.</li><li>• Resize and/or enlarge information at any stage during the case.</li><li>• Select and customize viewing lay-outs of the Philips 58-inch color LCD via the Xper table-side module</li><li>• Overview connected equipment (incl. third party systems) from a single location.</li></ul> <p>The FlexVision XL consists of:</p> <ul style="list-style-type: none"><li>• DVI video composition unit.<ul style="list-style-type: none"><li>o The DVI video composition unit allows the user to direct and switch the video output of all connected medical equipment to specific sub windows of the Philips 58-inch color LCD with LED backlight in the Exam Room.</li><li>o The DVI video composition unit is operated from the Xper table-side module.</li><li>o The DVI video composition unit supports a wide variety of display formats (up to 1920x1200)</li><li>o Up to 9 external inputs are connected to the DVI video composition unit via Wall Connection Box(es).</li></ul></li><li>• Medical grade, high resolution color LCD in the Exam Room<ul style="list-style-type: none"><li>o This display supports the image quality requirements for monochrome X-ray images as well as color images and replaces all displays normally delivered with an Allura Xper FD or AlluraClarity system for the Exam Room.</li><li>o Main characteristics are:<ul style="list-style-type: none"><li>- 58-inch, 8 Megapixel color LCD</li><li>- Native resolution: 3840x2160</li><li>- Brightness: Max: 700 Cd/m<sup>2</sup> (typical) stabilized: 400 Cd/m<sup>2</sup></li><li>- Contrast ratio: 4000:1 (typical)</li><li>- Wide viewing angle (approx. 176 degrees)</li><li>- Constant brightness stabilization control</li><li>- Lookup tables for gray-scale, color and DICOM transfer function</li><li>- Full protective screen Ingress Protection: IP-21</li></ul></li><li>• Large color LCD control (Xper Module)<ul style="list-style-type: none"><li>o Resize and/or enlarge information at any stage during the case via the Xper table-side module in the Exam or Control Room</li><li>o Select viewing lay-outs via the Xper table-side module in the Exam Room</li></ul></li></ul></li></ul>	



The Base Station is the heart of the DoseAware system. It offers Online View, which displays real time dose rate and immediate dose data for any Personal Dose Meter (PDM) in range. The Walk-Up View enables easy access to personal dose history and PDM settings.

The Base Station has a touch screen interface and wireless communication with the PDM. The PDM dose information is stored within the Base Station and can be retrieved by the DoseAware Dose Manager software via a standard network interface to complete the DoseAware system with archiving and reporting functions.

The Base Station package includes also:

- a cradle and the DoseView software package that can be installed on a local PC (not included), which has Windows XP or Vista as operating system.
- Mounting material for the Base Station, facilitating mounting on a wall or on a Philips Monitor Ceiling Suspension or a Philips mobile C-arm system.

### 10 Personal Dose Meters

The Personal Dose Meter (PDM) is a small and easy to wear active X-ray dose meter intended to measure and store received X-ray dose of staff, present in an X-ray room during radiation. The PDM has build-in radio-frequency wireless communication (868.3 Mhz for Europe version, 915 Mhz for USA version) to connect to the DoseAware Base Station for real time dose-rate indication and has a long battery life for maintenance-free usage. In addition it can be personalized to increase interest and awareness. The PDM not only records warning level profiles every second for a total of 3600 sec (cyclic overwritten), but also stores accumulated dose data every hour for maximum 5 years. A clip and a lanyard holder are included to facilitate easy wearing.

The PDM can be configured via the cradle, DoseView, and Dose Manager Software.

### Dose Manager Package

The Dose Manager is a software program that serves as archive and reporting facility for all dose data of the DoseAware system. It allows tracking of multiple PDM's at a location.

Core functionality is:

- Store and manage dose history for multiple PDM's
- Collect all dose history from connected Base Stations via the network
- Browse dose history of PDM's as graph or table
- Export dose data for personal analysis with other software tools, like Windows Excel
- Create and print reports of dose history

<b>20</b>	**	<b>Black Anti-Fatigue Floor Mat w/ Blue Logo</b>	<b>2</b>
		Blue Anti-Fatigue Floor Mat w/ Logo	
<b>21</b>	**	<b>Rad Shield w/ Arm (Contoured) 61X76</b>	<b>1</b>
		Contoured Rad Shield with Arm rest. 61X76	
<b>22</b>	**	<b>Cable Spooler</b>	<b>1</b>



- Input Isolation Transformer; Output AutoTransformer
- Dimensions: 36.3D x 20"W x 59.8H"
- Weight: 998 lbs (approximate).

#### Universal Power Controller (UPC)

- Combines the Battery Cabinet and Universal Transfer Switch Functions.
- Provides 12.5 Minutes of runtime at full load on battery
- Provides all interconnections to fully integrate into CV Lab.
- All previous 480V system functionality retained from previous separate component design.
- All connections are via external terminal blocks, rear access.
- All breakers are externally accessible from front.
- Isolated compartments for Battery and Switch sections.
- Fully ETL tested and certified UL, cUL and CSA Compliant.
- Dimensions: 31.5"D x 17.2"W x 59.8"H
- Weight: 1020 lbs (approximate).

#### DC Power Supply

- Artesyn/Emerson Part Number 73610129
- Single Unit Included for Mono Plane Systems
- Dimensions: 13.9" L x 6" W x 3" H
- Weight: 40 lbs (approximate).

#### Wiring Harness

- Complete Harness connecting UPC and UPS to MA Cabinet, includes control and Auxiliary connections and wire sizes per schematics. 50ft UPC to MA and 15ft UPC to UPS.
- Shipping Dimensions: Approx 31"L x 28"W x 22"D
- Weight: 140 lbs (approximate).

#### R8.2.1 UPS Control Kit

- Knife Switch rated 100A at 600V
- 120V rated Aux Switch Contacts
- Wall Mounted NEMA Enclosure
- Dimensions: 20"Hx 15"W x 8"D
- Weight: 25lbs

#### Included in UPC:

- Contactor MC3
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