

REQUESTING SERVICE: MEDICAL SERVICE  
SHIP TO: WAREHOUSE/RECEIVING  
V.A. Medical Center  
1100 TUNNEL ROAD  
ASHEVILLE, NC 28805-2043  
PURCHASE ORDER: 637-B70005

Line #	Part #	Description	Qty
1		<b>AlluraClarity_FD20 Ceiling</b>	1

The AlluraClarity FD20 (Ceiling) single-plane cardiovascular system comprises a ceiling mounted C-arm stand and digital imaging X-ray system for cardiovascular diagnostic and interventional procedures.

ClarityIQ technology is the foundation of AlluraClarity systems touching every part of the imaging system.

ClarityIQ incorporates powerful state-of-the-art image processing technology, developed by Philips research, all working in real-time enabled by the latest computing technology:

- Noise and artifact reduction, also on moving structures and objects
- Image enhancement and edge sharpening;  
Automatic real-time patient and accidental table motion correction on live images.
- Flexible digital imaging pipeline
- ClarityIQ systems have a flexible digital imaging pipeline from tube to display that is tailored for each and every application area such as Cardio or Neuro. This gives the flexibility to select virtually unlimited application-specific configurations.
- With ClarityIQ over 500 system parameters are fine-tuned for each application area; the result of years of Philips clinical leadership. It is now possible to filter out more X-ray radiation, use smaller focal spot sizes, shorter pulses, thereby fully utilizing the unique capabilities of the Philips MRC X-ray tube.

The AlluraClarity FD20 system uses an integrated single-host concept. The system is comprised of five functional building blocks: Geometry, X-ray Generation, Image Detection, Viewing, and User Interface. Each functional building block is explained in further detail including accessories.

#### **GEOMETRY**

##### **The AlluraClarity FD20 Stand**

The Allura stand consists of a ceiling-mounted C-arm. The stand has the following capability:

- The L-arm can be rotated and can be moved in longitudinal direction allowing a three-sided patient approach and total body coverage.
  - L-arm rotation around the patient table: +90, 0, -90 degrees.
  - L-arm longitudinal movement: 300 cm
  - This movement features auto-stops at the parking position, cardio/neuro position and lower peripheral position.

The Allura stand allows a very wide range of projections, including PA and AP imaging.

- In the head position (0 degrees position, L-arm parallel to patient table):
    - C-arm rotation range (degrees): 120 LAO to 185 RAO
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Line #	Part #	Description	Qty
		<ul style="list-style-type: none"> <li>C-arm angulation range (degrees): 90 CA to 90 CR</li> <li>(Full angulation capability determined by patient position)</li> <li>In the side position (+90 / -90 degrees position, L-arm perpendicular to patient table): <ul style="list-style-type: none"> <li>C-arm rotation range (degrees): 90 LAO to 90 RAO</li> <li>C-arm angulation range (degrees): 185 CA to 120 CR or 120 CA to 185 CR</li> <li>(Full angulation capability determined by patient position)</li> </ul> </li> <li>The stand provides fully motorized fast movements with variable and configurable maximum speed. <ul style="list-style-type: none"> <li>Variable C-arm rotation speed, up to 25 degrees per second</li> <li>Variable C-arm angulation speed, up to 18 degrees per second</li> </ul> </li> <li>L-arm rotation and longitudinal movement: motorized and manual</li> <li>C-arm depth is 90 cm</li> <li>The FD20 Dynamic Flat Detector features Xper Access which allows the flat detector to be positioned in either portrait or landscape imaging modes in 3 seconds.</li> <li>The variable source image distance between focus and Dynamic Flat Detector input screen is motorized from 86.5 to 123 cm.</li> <li>The stand features BodyGuard a capacitive sensing collision avoidance system for patient protection.</li> </ul>	

## Patient support

### The Xper Table

- Patient support with flat carbon fiber tabletop
- Table top length of 319 cm, width 50 cm
- Metal-free overhang 125 cm
- Floating table-top movement of 120 cm longitudinal and 35 cm transversal range.
- 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 set

- One cerebral filter
- Three rail accessory clamps
- One IV stand
- One slow recovery foam mattress
- One Set of Arm Supports (FCV0248)
- One Set of Patient Straps (FCV0250)
- One Head Support (FCV0251)
- One Arm Support (FCV0258)
- One Table-mounted Radiation Shield
- One anti-fatigue mat with Philips logo

## X-ray Generation

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The AlluraClarity FD20 comprises an integrated dedicated X-ray system, micro-processor controlled Certeray generator based on high frequency converter technique. The user interface control of this X-ray Generator is incorporated in the Xper module, Xper Desktop Viewing 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
  - Each mode can be set to different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, and adaptive harmonization).
- Roadmap Pro
  - Roadmap Pro can be selected from the Xper imaging module and/or Xper module.
  - A vessel map is created and superimposed with (un)subtracted live fluoroscopy. Acquisition runs can be done during Roadmap without losing the vessel map. Roadmap Pro features Smart Settings in special clinical modes that are optimized to visualize special materials such as coils and glue. Live processing of the vessel map, the device map and the landmark map can be done on the Xper Module. Xres for vascular procedures is standard part of Roadmap Pro.
    - **Disclaimer:** AMC only corrects movement artifacts in two dimensions. Three dimensional movements such as swallowing or rotation of the head cannot be corrected.
  - In Roadmap Pro R2 "Automatic Motion Compensation" (AMC) is added to the roadmap functionality. During roadmap, small movements of the patient can lead to subtraction artifacts. These artifacts might conceal important clinical information. "Automatic Motion Compensation" compensates for rigid, uniform (skeletal/table) translations and is therefore very effective in interventional (neurology) applications where subtraction imaging is applied.
- **Disclaimer:** AMC only corrects movement artifacts in 2 dimensions. 3 dimensional movements like swallowing or rotation of the head cannot be corrected.

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- Xper Fluoro Storage, a grab function allows storage and archiving of both a fluoro image and the last 20 seconds of Fluoroscopy, called Xper Fluoro Storage. These fluoro images or fluoro runs can be archived as a regular exposure run.

### **X-ray tube**

The AlluraClarity FD20 has the Maximus ROTALIX Ceramic grid switch tube assembly MRC 200 GS 0407 integrated in the C-arc. This MRC tube has an anode heat storage capacity of 2.4 MHU and 0.4/0.7 mm. nominal focal spot values. The tube has a maximal loading of 30 and 67 kW. Dynamic pulsed fluoroscopy uses grid switching technology to eliminate soft radiation and improve image quality. SpectraBeam allows for filtration of the x-ray beam with (a combination of) 0.2, 0.5 or 1 mm CU-equivalent filters.

Tube housing ROT-GS 1004 is for oil-cooling and has a build-in thermal safety switch. A rotor control unit is build-in for continuous rotation of the anode disk. The heat exchanger CU 3101 is for direct and continuous forced cooling with oil.

### **IMAGE DETECTION**

The AlluraClarity FD20 comprises the following image detection chain:

- A 30 cm by 40 cm FD20 Dynamic Flat Detector with eight imaging modes.
  - 30 x 38, 30 x 30, 26 x 26, 22 x 22, 19 x 19, 16 x 16, 13.5 x 13.5, and 11 x 11 cm
- The digital output of the FD20 flat detector is 2k\*2.5k image matrix at 16 bits depth for the largest mode
- The flat detector subsystem features Xper Access, the detector can be rotated over 90 degrees, it moves from portrait to landscape back & forth
- DQE (Detective Quantum Efficiency) >77 %
- The pixel pitch: 154 x 154 microns

### **Viewing**

The AlluraClarity FD20 comprises the following components in order to display the clinical images in the control and examination room:

#### **Displays**

#### **Examination Room**

Two 19-inch monochrome LCD monitors designed for medical applications. The first display is used for viewing live images. The second display is the reference monitor.

- 19-inch monochrome TFT-LCD display with a 160 degree viewing angle.
- 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.

Line #	Part #	Description	Qty
		<ul style="list-style-type: none"> <li>Of the two medical monochrome LCD monitors included in the MCS, one is used for viewing of live images and the other serves as the first reference display. Reference images or runs are controlled by infra-red remote-control Xper ViewPad.</li> <li>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. For cardiac applications, the system also monitors and displays body zone specific Air Kerma data (10 zones).</li> </ul>	

## Control Room

One 19-inch color LCD monitor used as a data monitor.

- 19-inch color TFT-LCD display
- Native format 1280x1024 SXGA

One 19-inch monochrome LCD monitor (Xper review monitor) designed for medical applications.

- 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.

The Graphical User Interface on the monochrome monitor has the following features and functions:

- Step through file, run, or images
- File, and run overview
- Contrast, brightness, and edge enhancement settings
- Flagging of runs or images for transfer
- Applying text annotation in images
- Optional DICOM printing
- Executing Quantitative Analysis Packages if available
- Subtraction functionality
- Zoom/pan functionality
- Electronic shutters
- Video invert
- View trace, stacking of images
- Landmarking

## Acquisition

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

Exposure techniques:

- Serial imaging for DA and DSA with automatic exposure setting
- Single shot mode



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- Acquisition frame rates:
  - 0.5 to 6 fps at 2048 x 2048
  - 15 and 30 fps at 1024 x 1024

The AlluraClarity FD20 offers a storage capacity of:

- 50,000 images at matrix size of 1024 x 1024
- 12,500 images at matrix size of 2048 x 2048
- 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 uses User Interface modules in the Examination Room with On-Screen Display.

The On-Screen Display is positioned on the left side of the reference monitor. The following system information is displayed

- X-ray indicator and X-ray tube temperature condition
- Gantry position in rotation, angulation, and Source Image Distance
- Detector field size display
- General System messages
- Selected Frame speed
- Fluoroscopy mode
- Integrated fluoroscopy time
- Skin Dose and Dose Area Product
- Stopwatch

The Xper ViewPad contains the preprogrammed function settings. The system is provides 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
- Laser pointer, intended to point at regions of interest on the imaging monitors
  - LED indication of laser pointer on/off and battery low
- Subtraction on/off
- Remasking
- Landmarking

Remote Intercom

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The 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.

#### Table Side Modules

Two Xper Modules are provided for use. The first Xper Module is mounted tableside. The Second Xper Module (NCVA778) is located in the control room. These modules use 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
- Image Processing

The Xper Geometry module can be positioned on all sides of the patient table, while keeping the button operation intuitive. The Xper Geometry module 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 module can also be positioned on three sides of the patient table, while keeping the button operation intuitive. The Xper Imaging module 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
- Shutter positioning
- Reset of the fluoroscopy buzzer

#### Pan Handle

- The Pan Handle is an extension of the control facility for floating movements of the tabletop.

#### Control Room

The control room comprises a Xper Review Module, Xper Desktop Module, a keyboard, and 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
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Line #	Part #	Description	Qty
		<ul style="list-style-type: none"> <li>• File, Run, Image stepping and run and file overview</li> <li>• Delete run</li> <li>• Image invert and digital zoom</li> <li>• Reset fluoroscopy timer and enable/disable X-ray</li> </ul>	

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

- Stopwatch and Time
- System guidance information
- Dose Area Product (DAP) and 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

### **Scheduling**

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

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, like 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 own room protocols. This preparation page makes hard copies of the protocol instructions redundant.

### **Acquisition**

The acquisition page contains information on the current selected patient.

### **Review**

The review page allows for reviewing of patients:

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

### **Vascular Quantification Software Package**

Functions:

- vessel diameter / stenotic index
  - automated vessel analysis
  - calibration routines
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In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.

#### **RIS/CIS DICOM Interface**

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 auto-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

Line #	Part #	Description	Qty
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- 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.

**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 (NCVA090)

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

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, archive formats can be selected to the individual needs and wishes for programming under the Xper Settings,

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, 1024x1024 2048 x 2048 (unprocessed) matrix.
- The examination can be sent to multiple destinations for archiving and reviewing purposes.

Line #	Part #	Description	Qty
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- 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.

#### Remote Service

Access to the system from a Remote location is possible via network or modem connection. Remote access to a system can shorten the time needed for e.g. changing system settings or problem diagnosis.

#### Clinical Education Program for the Allura Xper System

##### 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

Line #	Part #	Description	Qty
		<p>The FlexVision XL8 input package provides eight isolated wall connection boxes.</p> <p>Isolated Wall Connection Box</p> <p>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.</p> <p>The quantity of the VWCB's has to be calculated as follows:</p> <p>For each video signal to FlexVision XL on Vascular System: 8 VWCB</p> <p>Note:</p> <p>No VWCB is required in case a video signal is connected directly to a dedicated LCD from the following sources:</p> <p>1) Xper Live/ref Slaving</p> <p>2) Interventional HW (XtraVision), ViewForum, Xcelera (only if workstations are powered by Allura Xper)</p> <p>3)Xper IM</p>	
3		<p><b>30Fr/sec Extension</b></p> <p>Frame Rate Extension increases the system acquisition speed for cardiac applications that require high speed imaging. The frame rate extension increases the acquisition speed to 15fps and 30fps with a 1024x1024 matrix.</p>	1
4		<p><b>FlexVision XL,XperHD,Snapshot</b></p> <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>XperHD on FlexVision XL brings High Definition viewing for clinical images. Native resolution of FD20 can be displayed. Excellent sharp and crisp clinical images can be displayed at full size without digital zoom.</p> <p>Xper HD brings:</p> <ul style="list-style-type: none"> <li>• High Definition imaging</li> <li>- Sharp images at full size without zoom</li> <li>• High Definition display at native resolution</li> <li>- Up to 2k*2k image display fully integrated</li> <li>• High Definition for the ultimate detail</li> <li>- Enhanced small vessel visualization</li> </ul> <p>The FlexVision XL consists of:</p> <ul style="list-style-type: none"> <li>• DVI video composition unit.</li> </ul>	1

Line #	Part #	Description	Qty
		<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 tableside 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> <li>• Medical grade, high resolution color LCD in the Exam Room</li> <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/m2 (typical) stabilized: 400 Cd/m2</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)</li> <li>o Resize and/or enlarge information at any stage during the case via the Xper tableside 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> <li>o Create new layouts by matching inputs to desired locations on preset templates.</li> </ul>	
		<ul style="list-style-type: none"> <li>• Monitor Ceiling Suspension</li> <li>o Monitor ceiling suspension for use in the Exam Room carries the 58-inch color LCD screen, providing highly flexible viewing capabilities. The monitor ceiling suspension is height-adjustable and moveable along ceiling rails. It can be positioned on either side of the table.</li> </ul>	
		<ul style="list-style-type: none"> <li>• Snapshot</li> <li>o The snapshot function allows the user to store/save a screen-capture of any image on the 58-inch display as a DICOM Secondary Capture image to a connected PACS. The snapshot-all function allows the user to store/save a screen-capture for each displayed image in the Exam Room / Control Room as separate DICOM Secondary Capture images .</li> </ul>	
5		<p><b>Set of 2 additional 21in. LCDs</b></p> <p>Two 21inch additional displays are located on top of the monitor ceiling suspension frame which carry the 56 inch large screen color LCD display.</p> <p>These 2 additional LCD's can be used to display additional video sources or used as display back up for Hemo and Xray Live images. These LCD's have a fixed content.</p> <p>Main characteristics of back-up displays are:</p>	1



Line #	Part #	Description	Qty
		<ul style="list-style-type: none"> <li>• 21.3 inch, 2 Megapixel color LCD display</li> <li>• Max. resolution: 1600x1200</li> <li>• Brightness: 450 Cd/m2</li> <li>• Contrast ratio : 550:1</li> <li>• Wide viewing angle (approx. 170 degrees)</li> <li>• Constant brightness stabilization control</li> <li>• Independently selectable brightness settings for monochrome and color images</li> <li>• Independently selectable lookup table for gray-scale, color and DICOM transfer function</li> </ul>	
		FCV0587, "XPer Live/Ref Slaving" required when displaying X-Ray Live as back-up.	
6		<b>2ND REF for FlexVision XL</b>	1
		2nd REF for FlexVision XL is optional on FlexVision XL. Second Ref images will be displayed on the large screen monitor.	
7		<b>StentBoost Complete</b>	1
		<p>The StentBoost package improves the visualization of devices in the coronary and non-coronary arteries during interventions. Before and after the deployment of the devices such balloons and stents the position can be checked and stent expansion can be confirmed in relation with the vessel wall. The StentBoost package enables physician to take any corrective action required immediately, while the catheter is still in place.</p> <p>StentBoost automatically detects the stent delivery markers image after image. In each image StentBoost aligns the markers with the markers of the previous image.</p> <p>StentBoost can be used with and without contrast. Without contrast the images are acquired with only a short cine run of 1 to 2 sec (recommended with 40 frames out) to show all radiopaque material in the close proximity of the markers will be enhanced resulting in enhanced stent visualization.</p> <p>With contrast the images are acquired with a cine run of 5 to 6 sec. Contrast media is required only for the last 3 to 5 sec (typical recommendation of total 100 frames which of 100 frames cine run of which last 60 frames are with contrast) to show all radiopaque material in the close proximity of the markers will be enhanced resulting in enhanced stent visualization.</p> <p>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 resulting in enhanced stent visualization. A contrast enhanced image run results in a dynamic representation of the enhanced stent in relation with the vessel wall.</p> <p>The Stentboost package functionality includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>• Pre-defined Region of Interest to indicate the location of the stent/balloon markers.</li> <li>• Real time link for immediate data transfer.</li> <li>• Automatic stent detection.</li> <li>• Manual correction possibility for marker identification</li> <li>• Review of StentBoost runs, before and after processing</li> <li>• Measurements to supports decision-making in determining the percentage of remaining in the stent.</li> <li>• Store image snapshot.</li> <li>• Automatic pre-defined Region of Interest to indicate the location of the stent/balloon markers.</li> <li>• Fading in/out of contrast vessel and StentBoost image.</li> <li>• Viewing selection of StentBoost with and without contrast,</li> <li>• Manual image contrast and brightness adjustment of the boost and contrast image</li> <li>• Manual correction possibility for marker, boost and contrast identification.</li> <li>• Create and store as movie.</li> </ul> <p>With the touch screen module, StentBoost can be performed at table side with the touch screen module. It provides full control in the examination room during a procedure at the table side.</p>	

Line #	Part #	Description	Qty
		<p>Following StentBoost functions are available on the touch screen module:</p> <ul style="list-style-type: none"> <li>• ROI positioning and ROI resizing.</li> <li>• Snapshot and Movie</li> <li>• Run replay start and stop</li> <li>• Contrast/Brightness control</li> </ul> <p>StentBoost data can be exported:</p> <ul style="list-style-type: none"> <li>• Image transfer to any DICOM compatible device (e.g. PACS/Printer), supported are DICOM XA, DICOM SC.</li> <li>• Support archive on one or multiple DVD's, CD-ROM(s)</li> <li>• Image transfer to a standard PC compatible format (JPEG,AVI)</li> <li>• Store a subset of exportable objects (snapshots and AVI Movies) to a USB device.</li> <li>• Image transfer to any DICOM compatible device (e.g. PACS/Printer), supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D</li> <li>• Image transfer to any PC in a standard PC compatible format (JPEG,AVI)</li> <li>• Image transfer to any DICOM compatible device (e.g. PACS/Printer), supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D</li> <li>• Image transfer to any PC in a standard PC compatible format (JPEG,AVI)</li> </ul>	
8		<p><b>Monoplane LCD support for control room</b></p> <p>Display support to increase display height and create storage volume to put away keyboard, mouse and cabling</p>	1
9		<p><b>Xper Live/Ref Slaving</b></p> <p>This option contains a kit to split the Live or Ref video source from the Allura Xper. The total amount of Xper Live/Ref Slaving that can be selected is maximal. 4. Additional monitors are not included in this option and must be ordered separately. This kit contains a video splitter and a cable set for one slave monitor. The Slave monitor is not powered by Allura.</p>	4
10		<p><b>Automatic Position Control (APC)</b></p> <p>The Automatic Position Controller (APC) for Integris Allura Flat Detector systems provides two modes of operation:</p> <ul style="list-style-type: none"> <li>• Preset Position Sequence; the sequence of projections is determined per Xper Settings. Each set contains a maximum of 10 positions. Positions can be recalled in sequence or directly. The projection sequence comprises rotation, angulation, and SID settings, related to the selected reference image.</li> <li>• Reference driven positioning. The projections on the reference monitors can be recalled with the push of a button. The reference driven positioning recollects the rotation, angulation, and SID.</li> </ul>	1
11		<p><b>Table APC</b></p> <p>The Automatic Position Controller (APC) for the table provides two modes of operation:</p> <ul style="list-style-type: none"> <li>• Auto positioning. The tabletop position and table height will be adjusted automatically to the pre-defined default point of interest. This to save time and x-ray dose at the start of an exam or for setting up the system for rotation scans.</li> <li>• Store/recall of a position of the table top. This includes the height-, longitudinal- and lateral position of the table top.</li> </ul>	1
12	*	<b>FD Rotational Angio</b>	1

Line #	Part #	Description	Qty
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Rotational angiography provides real-time 3D impressions of complex vasculature and coronary artery tree. It acquires multiple projections with just one contrast injection via a fast rotational scan of the region of interest.

Rotational Angiography can be used during screening procedures to quickly determine the optimal projection for the study as the angle (rotation/angulation) of the projection is indicated on each image.

Compared with traditional angiography, Rotational Angiography can save considerable time, dose and contrast, while providing image detail required for diagnostic and therapeutic decisions.

A rotational scan is possible both with the Allura Xper systems in the side position (ceiling mounted systems) and in the head position, providing the flexibility to perform procedures virtually from head to toe.

C-arm in side position:

- Max. rotation Speed: 30 degrees/s
- Max. rotation Angle: 180 degrees

C-arm in head position:

- Max. rotation Speed: 55 degrees/s
- Max. rotation Angle: 305 degrees

Max. Frame speeds are given by the framespeed specifications of the system configuration.

The speed and range of rotation are the highest available (see table). The very high speed allows using less contrast, whereas the very wide rotation range provides a complete evaluation of the anatomy.

A contrast run can be followed up with a mask run, to allow image/run subtraction.

The stand is designed for a very high mechanical stability. It offers precise positioning and high reproducibility, assuring you of high quality images and excellent subtraction studies.

Operation of Rotational Angiography is extremely easy. The procedure is selected, set up and executed virtually in a matter of seconds, supporting the highest patient throughput.

A set of dedicated acquisition programs is available on the Xper Module and can be selected at the touch of a button. The rotation end- and start-positions are easily selected. The procedure is controlled from the exposure hand- or footswitch.

13

### **Xper Swing**

1

XperSwing allows dual-axis rotational coronary angiography to gather more information in less time and with less X-ray and contrast dose. XperSwing acquires simultaneous RAO/LAO cranial-caudal views in just one acquisition run by moving the C-arm in a curved trajectory instead of multiple acquisitions. XperSwing can be used during screening procedures to quickly determine the optimal projection for the study as the angle (rotation/angulation) of the projection is indicated on each image, providing image detail required for diagnostic and therapeutic decisions and to obtain a real-time 3D impression of the coronary artery tree.

Line #	Part #	Description	Qty
		<p>In total seven pre-programmed trajectories are available:</p> <ul style="list-style-type: none"> <li>• Three for Left coronary imaging</li> <li>• Two for Right Coronary imaging,</li> <li>• Two generic trajectories.</li> </ul> <p>The choice depends on size and weight of the patient. These trajectories are designed to fully cover all conventional projections for a diagnostic coronary angiography. Rotation and angulation movements are combined in one complete scan trajectory, using the maximum rotation and angulation speed of the Allura system. (55 resp 30 degr/sec). XperSwing is possible in the side position (ceiling mounted systems) and in the head position</p> <p>XperSwing functionality includes, but is not limited to</p> <ul style="list-style-type: none"> <li>• 15 frames per seconds acquisition to allows using of less contrast.</li> <li>• Wide rotation range provides a complete evaluation of the anatomy.</li> <li>• Precise positioning and high reproducibility, assuring you of high quality images and excellent subtraction studies.</li> <li>• Set up and executed in a matter of seconds.</li> <li>• Set of dedicated acquisition programs with the trajectories available on the Xper Module</li> <li>• The rotation end- and start-positions can be selected.</li> <li>• Acquisition procedure is controlled from the exposure hand or footswitch.</li> </ul>	
14		<p><b>Subtracted Bolus Chase</b></p> <p>For visualization of vessel structures when the blood flow is difficult to estimate, in particular in the lower peripherals.</p> <p>Bolus Chase solves the problem of cumbersome step movements, the mismatch between blood flow and selected program, and lack of real-time image information.</p> <p>During digital acquisition in non-subtracted mode with uninterrupted real-time image display, the contrast bolus is followed (chased) interactively by a motorized table scan movement using a hand-hold speedcontroller to adapt the speed of the table scan to the contrast flow. The framespeed can be adapted as well.</p> <p>The bolus run is followed with a mask run while using the same speedcurve and framespeed as generated during the bolus run. Viewing is possible in the subtracted and non-subtracted mode. If subtracted viewing is not required, the mask run can be skipped.</p> <p>Subtracted Bolus Chase gives fast, accurate results for increased patient throughput and improved patient management. Automated exposure control and precise speed control assure a high quality images and excellent subtraction studies.</p> <p>Comprising:</p> <ul style="list-style-type: none"> <li>• automatic exposure control</li> <li>• tabletop motordrive and hand-held speed controller (tableside)</li> <li>• technique selection using Xper module, available both tableside and in control room (Xper FD20, FD20/10)</li> </ul>	1
15		<p><b>CO2 View Trace Software</b></p> <p>Software package which enables tracing (stacking) of images acquired with CO2 injections. This function can be used during postprocessing next to view trace of images acquired with iodine injection.</p>	1



Line #	Part #	Description	Qty
16		<b>Storage extension</b>	1
		Storage extension	
		Storage extension provides an increased storage capacity for	
		Allura Xper FD20 systems the storage is increased from:	
		- 50.000 to 100.000 images at 1024x1024 matrix	
		- 12.500 to 25.000 images at 2048x2048 matrix	
		Allura Centron system the storage is increased from:	
		- 50.000 to 100.000 images at 1024x1024 matrix	
		Power requirements:	
		refer to system configuration	
17		<b>FD Dual Fluoro</b>	1
		Dual Fluoro for Flat detector systems	
		The Dual Fluoroscopy mode allows digitally processed fluoroscopy in parallel with trace subtract fluoroscopy, providing a non subtracted reference fluoro image for complex interventions.	
		This option provides an additional fluoro channel in parallel to the default fluoro channel. The Dual fluoroscopy mode is selected via the Xper module.	
		The trace subtracted fluoro image will be displayed on the exam monitor, the non-subtracted fluoro image is displayed on the reference monitor.	
		In Dual Floro mode, The fluoroscopy image on the exam montitor can be zoomed digitally with a factor 2, providing a larger view of the region of interest for complex interventions. The fluoro zoom function is controlled via the Xper module.	
18		<b>FD SmartMask</b>	1
		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.	
		SmartMask facilitates pre- and post- intervention comparisons to assess treatment results	
19		<b>FULL AUTOCAL</b>	1
		The AutoCal option is a software package to be used in conjunction with quantitative analysis software packages. It provides an auto calibration procedure for an object to be analyzed that is placed in the iso-center. When the object to be analyzed (e.g. Left Ventricle Vessel Segment) is placed in the iso-center AutoCal avoids the need to:	
		<ul style="list-style-type: none"> <li>• acquire an additional image series containing a sphere or grid for calibration purposes</li> <li>• calibrate manually on a calibration object (e.g. catheter) displayed in the image or image series to be analyzed</li> </ul>	
20		<b>Ventricular Quant.Sw pkg(Xper)</b>	1



Line #	Part #	Description	Qty
		<p>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.</p> <p>Functions:</p> <ul style="list-style-type: none"> <li>• Various LV-volumes</li> <li>• Ejection Fraction</li> <li>• Cardiac Output</li> <li>• Centerline Wall Motion</li> <li>• Slager Wall Motion</li> <li>• Regional Wall Motion</li> <li>• Calibration routines</li> </ul> <p>In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.</p> <p>Comprising:</p> <ul style="list-style-type: none"> <li>• software license</li> </ul> <p>Compatible with:</p> <p>. Allura Xper FD 10 Rel 3 and FD10/10 Rel 2 onwards</p> <p>. Allura Xper FD20 Rel 2, FD20/10 Rel 2 onwards</p>	
21		<p><b>Coronary Quant.Sw pkg(Xper)</b></p> <p>Functions:</p> <ul style="list-style-type: none"> <li>• diameter measurement along the selected segment</li> <li>• cross sectional area</li> <li>• %-stenosis</li> <li>• pressure gradient values</li> <li>• stenotic flow reserve</li> <li>• calibration routines</li> </ul> <p>In addition the package allows manual measurements of line lengths (absolute and ratio's) and angulations. Multiple measurements in one image are possible.</p> <p>Comprising:</p> <ul style="list-style-type: none"> <li>• software license</li> </ul> <p>Compatible with:</p> <p>. Allura Xper FD 10 Rel 3 and FD10/10 Rel 2 onwards</p> <p>. Allura Xper FD20 Rel 2, FD20/10 Rel 2 onwards</p>	1
22		<p><b>Wireless footswitch: mono-plane version</b></p>	1

Line #	Part #	Description	Qty
		One wireless footswitch in the examination room.	
		<b>Key benefits</b> <ul style="list-style-type: none"> <li>• Reduces clutter around the examination table</li> <li>• Simplifies preparation and cleanup</li> <li>• Streamlines workflow in the interventional suite</li> </ul>	
		<b>Reduce clutter and streamline workflow</b> <p>The wireless footswitch option streamlines workflow, reduces clutter, and simplifies preparation and cleanup in the interventional suite. Clinicians can use the footswitch to wirelessly control the X-ray system in the examination room, from any convenient position around the table. No sterile covers are needed with the IPX8 certified waterproof design.</p>	
		<b>Specifications</b> <ul style="list-style-type: none"> <li>• The mono-plane wireless footswitch is a 3 pedal version; one pedal for fluoroscopy, one for exposure and one to control the room light/single shot. The pedals can be configured according customers preferred lay-out.</li> <li>• The wireless footswitch is working via RF technology and is fully tested and released for medical use. It has an active range up to 10 meters, depending on structures within this range.</li> <li>• The wireless footswitch has a lithium battery which only needs to be recharged once per week. During recharging the footswitch still can be used and is fully functional. In parallel, a wired footswitch can also be used.</li> <li>• The status of the battery is indicated by an LED-indication on the footswitch itself, so that the user can decide when the footswitch needs to be recharged.</li> <li>• The wireless footswitch has high water ingress protection standard (IPX8), it can easily be cleaned in water.</li> </ul> <p>The wireless footswitch has an on/off switch. It can be switched off when not in use. When the footswitch is active, but not in use, it will go into a sleep-mode. It will be re-activated when touched or when one of the pedals is pressed.</p>	
23		<b>Cath Arm Support</b> <p>For brachial catheterisation and digital imaging technique The support is made of X-ray transparent material with exception of the fixingclamp and pivots.</p>	1
24		<b>Pulse Cath Arm Support</b> <p>Facilitates catheterization trough 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.</p> <p>Size: 100 x 85 cm Material: carbon-fibre reinforced material</p>	1
25		<b>Peripheral X-ray Filter</b> <p>Set of flexible x-ray filters to provide an uniform density in angiographic examinations of the lower peripheral area. Comprising:</p> <ul style="list-style-type: none"> <li>· one central filter, at the top edge provided with sizing markers at every 5 cm, length : 1 m</li> <li>· two side filters, length: 1 m</li> </ul>	1
26		<b>Pivot for table base.</b>	1

Line #	Part #	Description	Qty
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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

27	<b>Xper Table Tilt</b>	<b>1</b>
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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

Line #	Part #	Description	Qty
28		<b>Cradle extension</b> <ul style="list-style-type: none"> <li>• Moves the tabletop in a cradle motion from side to side to support surgical and puncture procedures</li> <li>• Improves access to patients</li> <li>• Allows precise imaging of contrast medium or blood</li> </ul> <b>Precise imaging during surgery and puncture procedures</b> To obtain high quality imaging results and help in avoiding re-takes during surgical or puncture procedures, it can be useful to swing the tabletop from side to side in a cradle movement. This extension moves the tabletop in a cradle motion to improve access to patients. It also allows precise imaging of contrast medium or blood.	1
29		<b>Table top brake kit</b> <ul style="list-style-type: none"> <li>• Prevents tabletop movement when power goes off</li> </ul> <b>Prevents tabletop from floating during power off situation</b> The tabletop brake kit prevents the tabletop from floating in case of a power off situation. A friction brake is applied to stop the tabletop from moving longitudinally or laterally.	1
30		<b>Table base Auxiliary OP rail</b> <ul style="list-style-type: none"> <li>• Position operating modules and/or accessories conveniently</li> <li>• Work comfortably at the head end of the table</li> </ul> <b>Work comfortably at the head end of the table</b> To provide more flexibility when working at the head end of the table, the auxiliary OP (operation profile) rail can be used to position operating modules and/or accessories closer to the head end of the tabletop. This allows the user to work comfortably when performing pacemaker implantations, venous jugular catheter insertions, and other procedures near the patient's head.	1
31		<b>Add.op-rail with cable ext.kit</b> <p>The content of the additional OP-Rail kit is:</p> <ul style="list-style-type: none"> <li>• [A] One additional OP-Rail (mechanical)</li> <li>• [B] Cable Extension for OP-Rail               <ul style="list-style-type: none"> <li>• One Extension cable for Geo Module</li> <li>• One Extension cable for Imaging Module</li> <li>• One connection box (wherein the extension cables are coupled with the UI-Module cables.</li> </ul> </li> </ul> <p>[A]</p> <ul style="list-style-type: none"> <li>• An extension for the table op-rail (30cm).</li> <li>• The additional op-rail can be mounted at the both sides of the tabletop part where no op-rails are mounted.</li> <li>• The additional op-rail is compatible with AD5 and XperTable (cardio and neuro) patient-tabletops.</li> <li>• The op-rail has the same profile /dimensions as the current standard op-rail</li> <li>• The maximum load (downwards) on the additional op-Rail is 100 N (F=100N)               <ul style="list-style-type: none"> <li>• (this is limited by the tabletop of the Patient Table)</li> </ul> </li> <li>• The maximum mechanical moment on the additional op-Rail is 40Nm downwards and 20Nm upwards               <ul style="list-style-type: none"> <li>• (this is limited by the tabletop of the Patient Table)</li> </ul> </li> </ul>	1

Line #	Part #	Description	Qty
		[B]	
		<ul style="list-style-type: none"> <li>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</li> <li>Geo and Imaging module cables can be made.</li> </ul>	
32		<b>CABLE CARRIER CS</b>	<b>2</b>
		Additional carrier for suspension of cable hose from X-ray tube assembly or TV monitor.	
33		<b>Xcelera on Xper Module</b>	<b>1</b>
		<p>This option integrates the Xcelera network application in the Allura Xper system. It allows operation of the Xcelera viewer with the Xper module in the examination room during an examination.</p> <p>Display of Xcelera imaging in the examination room has to be arranged for the monitor ceiling suspension with an additional monitor or with MultiVision (sharing an existing monitor). Following Xcelera viewing functions are available on the Xper module:</p> <ul style="list-style-type: none"> <li>study selection</li> <li>replay control (start/stop/autocycle, run step, image step)</li> <li>Report selection (with page step, close report)</li> <li>image settings (adjust Contrast, Brightness, Edge enhancement) and reset to original settings</li> </ul>	
34		<b>Interventional Tools Hardware</b>	<b>1</b>
		<p>The Interventional hardware is the hardware for the interventional tools and enables import and viewing of DICOM compatible data from other imaging modalities.</p> <p>The processing platform provides two visual outputs, one for the control room and one for the examination room.</p> <p>An available color LCD display, or an EP cockpit, EP cockpit XL or FlexVision XL display solution is required for the examination room.</p> <p>The Interventional Hardware comprises at least:</p> <ul style="list-style-type: none"> <li>Computer Workstation</li> <li>CR 19" display • 16 GB memory</li> <li>2 TB disk for the operating system, application software and application data</li> <li>Internal CD-Rom / DVD writer</li> <li>Mouse tablet to interact with all the interventional tools at the table side.</li> </ul> <p>Conditionally: FD Calibration Tool Kit for 3D-RA and/or XperCT.</p>	
35		<b>DoseAware Bundle</b>	<b>1</b>
		<p>DoseAware is a unique solution providing staff working in an X-Ray environment with direct, real time dose feedback, enabling them to optimize their behaviour and reduce exposure to scattered dose. The DoseAware bundle comprises:</p> <ul style="list-style-type: none"> <li>1 BaseStation Package</li> <li>10 PDMs</li> <li>DoseManager</li> </ul>	



Line #	Part #	Description	Qty
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- 2 PDM racks.

### Base Station Package

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

36	<b>Rad Shield w/ Arm (Contoured)</b>	<b>2</b>
	<b>61X76</b>	

Contoured Rad Shield with Arm rest. 61X76

37	<b>MOBILE RADIATION SHIELD</b>	<b>1</b>
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Mobile radiation protection shield on 4 casters with adjustable clear acrylic window. Base is 78cm wide and 107cm high and has 1 lead equivalency. Window is 70cm wide and is adjustable from 115 to 190cm high and has 0.5mm lead equivalency.

Line #	Part #	Description	Qty
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38	**980406190009	<b>PIVOTING TABLE-MOUNTED RADIATION SHIELD</b>	<b>1</b>
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Table-mounted radiation shield for additional protection of physician and staff against scatter radiation. The shield consists of two protective parts: a lower shield and an upper shield. The shield is specially designed for use with the AD5 patient table.

The table mounted radiation shield provides the following features:

- Mounting to either the right or left table accessory rails;
- Pivoting into the required working position;
- Pivoting into the parking underneath the tabletop facilitating patient preparation;
- The upper shield can be positioned upright providing optimal protection or can be folded down for free access to the patient.

The table mounted radiation shield includes:

- Lower shield measuring 70 cm high 80 cm wide 0.5 mm Pb equivalence;
- Upper shield measuring 40 cm high 50 cm wide 0.5 mm Pb equivalence;
- Mounting clamp;

Docking device for wall mounting.

39		<b>Cable Spooler</b>	<b>1</b>
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40		<b>M LED 3MC Light</b>	<b>1</b>
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MAVIG M3 MC LED - Multi Color / power Supply Included  
Includes Portegra2 Ext Spring Arm 75/90cm

41		<b>Mark 7 Arterion, Table Mount</b>	<b>1</b>
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The Mark 7 Arterion Injection System is the latest in MEDRAD's "Mark" series of angiographic injectors. Compared to earlier systems, the Mark 7 Arterion injector head is lighter and easier to use so you can focus more on the patient.

The clear and intuitive user interface guides you through proper set-up, and highlights the information you need to perform safe procedures.

Unique to the market, the front load system simplifies set-up and makes for a cleaner tear down. The clear syringe provides a higher level of confidence that you are ready to inject.

Made from a clear material, the Mark 7 Arterion syringe (Catalog ART 700 SYR) allows you to easily view the inside of the syringe for smoother purging of air. And MEDRAD's famous fluid dots are still there to help-round for fluid, oval for air.

The table mount injector solution ensures the contrast injector is conveniently placed and always available when it is needed. It provides a clean workspace without occupying valuable floor space. System includes:

- Table Mount
- display control panel
- 6 ft. coiled hand switch
- operation manual (CD)
- 10 ft. head cable
- syringe heat maintainer

Line #	Part #	Description	Qty
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- imaging system interface cable for the Allura / Allura Xper
- consumables starters kit

For the MEDRAD Mark7 Injector system Philips is only the distributor. MEDRAD provides the service as well as the application support of both versions unless stated differently in the Philips Service Agreement

**System Specifications:**

- Flow Rate 0.1-45.0 ml/s in 0.1 ml increments
- 0.1-59.9 ml/m in 0.1 ml increments
- Volume 1-150 ml in 1 ml increments
- Pressure Limit 100-1200 psi in 1 psi increments
- (150ml syringe) 689-8273 kPa in 1 kPa increments
- Rise Time 0.0-9.9 seconds in 0.1 increments
- Delay Time 0.0-99.9 seconds in 0.1 increments
- Fill Speed 1-20 ml/s
- Fill Volume 1-150 ml
- Syringe Size 150 ml
- Syringe Heat Maintainer 35 °C (95 °F) ± 5 °C (9 °F)
- Protocol Memory 40 Protocols
- Injection Memory History

42	<b>Ceiling Track w/Column &amp; Handle Ext</b>	2
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Mavig 2.5m Ceiling Track with Ceiling trolley, 360 degree column, and brake handle extension.

43	<b>ISM Premium Audio Package</b>	1
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The Premium Audio Package is comprised of the following items:

Control System - Touchscreen Control Package offers touchscreen control with 7" Touch panel

Advanced Audio Communication System with Hands Free Telephony - Advanced audio uses an echo cancelling audio communication system with the EasySuite touchscreen to call or receive a telephone call. The hands-free system utilizes O.R. loudspeakers and 1 boom mounted microphones with no handset required.

MP3 Audio and Charging Interface - Universal MP3 music interconnection system allows any 3.5mm jack-enabled personal audio device to play music through the Advanced Audio System. Provides integrated charging capability via USB.

Speaker Upgrade for AAC (adds 2 additional speakers for Exam Room) Upgrade adds two recessed ceiling mounted speakers to the Standard Audio System, or Advanced Audio System, for a total of four speakers per Operating Room.

Line #	Part #	Description	Qty
		PTT Control Room Communication System with Control Room Loudspeakers - Push to talk intercom microphone system for control room plus two recessed ceiling mounted speakers for Control Room.	
		Ambient Room Lighting Control Enables touch panel control of room lights using customer provided lighting controller. Functions include on/off and ability to select multiple lighting presets.	
44		<b>Personal Wireless Bidirectional Audio</b>	1
		Personal Wireless Bidirectional Audio with One Wireless Microphone Set - Provides bidirectional audio communication for one user with one wireless microphone set.	
45		<b>Add'l Wireless Microphone Set for Personal Audio</b>	1
		Additional Wireless Microphone Set for Personal Bidirectional Audio - Adds a second user to Personal Wireless Bidirectional Audio Option plus additional wireless microphone set.	
46		<b>Volcano CORE IVUS Mobile - Cardiac Bundle</b>	1
		CORE Mobile Precision Guided Therapy System Set of Accessories: CORE Mobile system with trackball controller, Phased Array PIM, Medical grade printer, 19" monitor, DICOM Network connection, Blu-ray/DVD drive, and Operator's Manual.	
		iFR Hyperemia-Free Lesion Assessment Modality CORE Interface, Operator's Manual. Customer agrees that use of the iFR Application Software License Application with interface to CORE is subject to the terms of the End User License Agreement. A copy of the End User License Agreement is also available from your VOLCANO representative or online at <a href="http://www.volcanocorp.com">www.volcanocorp.com</a>	
		CORE Control Pad	
		Bedside touchscreen controller offering system control from the sterile field	
47		<b>CORE Revolution Option</b>	1
		CORE Revolution Option Includes SpinVision PIMr and PIM Cable	
48		<b>CORE™ Printer Option</b>	1
		CORE Printer Option	
49		<b>Single Phase UPS</b>	1
		The single phase UPS (Uninterruptable Power System) enables a proper shut-down of the Allura system processor-units in case of a hospital mains power failure.	
		Note: In case a (local) three phase UPS is used, the single phase UPS is not required.	
50		<b>AD5 TO XPER TABLE ADAPT. PLATE</b>	1
51		<b>25 kVA Fluoro only UPS - UPC</b>	1

Line #	Part #	Description	Qty
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25 kVA Fluoroscopy Only Solution, Release 8.2 Ready.  
This system includes the following components:

#### 25 kVA UPS

- 480v AC 3 phase input; 480v AC 3 phase output
- Fully rated Static Bypass Switch
- 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
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Line #	Part #	Description	Qty
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- Weight: 25lbs

Included in UPC:

- Contactor MC3

52		<b>Black Anti-Fatigue Floor Mat w/ Blue Logo</b>	1
		Blue Anti-Fatigue Floor Mat w/ Logo	