REQUISITION: 544-B92036

REQUESTING SERVICE: RADIOLOGY PROGRAM

SHIP TO: WAREHOUSE
V.A. Medical Center
BUILDING #100
6439 GARNERS FERRY ROAD
COLUMBIA, SC 29209

Line #	Part #	Description	Qty
1		**Azurion 7 C20 Catalyst Upgrade**	**1**

The Philips Catalyst Conversion Program is a cost-effective way to transform your current system into the Philips Azurion 7C20. The end result after conversion is fully equal to a completely new Philips Azurion 7C20 system, including lifetime support, compatibility, functionality and upgradeability.

The Philips Azurion 7C20 is an advanced solution for vascular, non-vascular, embolization to interventional oncology procedures

Key benefits
• Optimized utilization of your lab by procedure based workflow
• Superb image quality to evaluate small details and vessels with clarity.
• Intuitive user interaction delivering an easy to use, easy to learn system
• Significant reduction of room reconstruction costs and down time

Changing interventions
With our Live Image Guidance we aim to remove barriers to safer, effective and reproducible treatments, delivering clinical value where it's needed most - at the point of patient treatment. Intelligent and intuitive integration of live imaging, patient information, and procedure-based applications optimize real time therapy guidance.

The 7 series C20 ceiling system is designed to enhance all the different procedures your interventional lab faces, from vascular, non-vascular and embolization to interventional oncology procedures. This future proof solution is designed around a single, standardized hardware and software platform that can be upgraded and expanded as new needs arise or requirements change. Its architecture is made to easily integrate with third party applications and devices. A new workflow approach aims to support interventional teams in carrying out procedures for their patients, consistently and efficiently with great ease of use.

The Philips Azurion 7C20 uses a range of Procedure Cards to help optimize and standardize system set-up for your cases, from routine to mixed procedures.
Procedure Cards can increase the consistency of exams by offering presets (e.g. most-frequently used, default protocols and user-specified settings) on procedure-, physician- or departmental level. In addition, hospital checklists and/or protocols can be uploaded into the Procedure Cards to help safeguard the consistency of interventional procedures and help to minimize preparation errors.

The Philips Azurion 7 C20 interventional X-ray suite has been specifically designed to save time by enabling the interventional team to work on all activities in the exam room - and at one or more work spots in the control room at the same time - without interrupting each other. This leads to higher throughput and faster exam turnover and contributes to quality of care.

To improve dose management, Philips Zero dose positioning enables you to move the stand and table to the region of interest shown on the last clinical image hold before a new acquisition is started, without any radiation.

Specifications
The Philips Azurion series contain a number of features to support a flexible and patient centric procedural workflow.
The Philips Azurion series (within the limits of the used Operating Room table) are intended for use to perform:

• Image guidance in diagnostic, interventional and minimally invasive surgery procedures for the following clinical application areas: vascular, non-vascular, cardiovascular and neuro procedures.
• Cardiac imaging applications including diagnostics, interventional and minimally invasive surgery procedures.

The Philips Azurion 7 C20 system comprises five functional building blocks:
1. Geometry
2. X-ray Generation
3. Image Detection
4. User Interface
5. Viewing
Each functional building block is explained in further detail including accessories.

1. Geometry
A. 7 C20 stand
The Philips Azurion 7 C20 stand is a stable assembly of a C-arm and a ceiling suspended L-arm. The X-ray tube and the flat detector are integrated into the C-arm. This provides a compact assembly completely free from the floor, with maximal positioning flexibility and unrestricted access to the patient. The robust design ensures excellent reproducibility of projections, needed in for example subtracted imaging procedures and advanced 3D imaging. The L-arm can be rotated and 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.
B. Patient Support
The patient support provides very light manual float movement, even for heavy patients, thanks to the mono-bearing technology. The long flat carbon fiber tabletop provides ample space to place e.g. catheters and endovascular tools. On customer request, the standard table top can be replaced by a table top for neuro procedures. This table top has a smaller width at the head end for better imaging results in neuro procedures.
- Table top length of 319 cm, width 50 cm (neuro table top is 45cm at head end)
- Metal-free cantilever 125 cm
- Floating table-top movement of 120 cm longitudinal and +/- 18 cm transversal
- Motorized height adjustment range is 74 -102 cm cm for a table without swivel nor cradle/tilt.
- Maximum cantilever of 223 cm , for full patient coverage
- Table tilt +17 /-17 degrees (optional)
- Table cradle +15 / -15 degrees (optional)
- Pivot range 270 degrees (-90 to +180 or +90 to -180 degrees), table can be locked at any position and has stops at 0, +/-13, +/- 90 and +/- 180 (optional)
- Table swivel, 78.2 cm longitudinal displacement, motorized (optional).
- Maximum load: 275 kg (up to 250 kg patient weight plus 25kg accessories or 225kg patient weight plus 50kg accessories) plus 500 N for CPR in any longitudinal position of the table top

The UIM modules are not accessories; make consistent with "AD7 accessories Cardiac"
The Philips Azurion system can be fitted with a comprehensive set of accessories to help you perform your procedures as conveniently as possible. Included are
- 1 cerebral filter
- 3 rail accessory clamps
- 1 drip stand

-Set of patient Straps
-1 Arm Support Board

-1 Head Support
- 1 mattress
The mattress is a slow recovery foam mattress with a density of 58 kg/m3. The mattress has a thickness of 7 cm and adapts to the body shape of the patient. It makes the pressure being divided equally and it recovers when the patient is taken off the mattress. The light yellow cover is easy to clean. Patients are more relaxed due to the comfort of this mattress.

System & table APC

Helps to save time and manage X-ray dose with automatic positioning

Positioning the X-ray system to visualize relevant anatomy from different perspectives can involve a great deal of time and many scout images during interventional procedures. To help save time and manage X-ray dose while working, the Automatic Position Controller (APC) provides an easy way for interventional team members to store and recall stand-related positions.

Specifications

The system APC stand and table positions need to be stored and recalled separately

2. X-ray Generation
A. Generator
The 7 C20 system comprises an integrated, micro-processor controlled Certeray generator based on high frequency converter technique. The user interface control of this X-ray Generator is incorporated in the touch screen module, review module, and the on-screen displays. The Certeray generator comprises:
- X-ray generator 100 kW
- Voltage range is 40 - 125 kV
- Maximum current 1000 mA at 100 kV
- Maximum continuous power for fluoroscopy: 1.5 kW
Program selection:
- Pulsed X-ray up to 3.75 , 7.5 , 15 , 30, 60(optional) 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 1 ms
- ECG triggered acquisition: allows acquiring one exposure for each QRS peak with selectable delay time
- Automatic kV and mA control for excellent image quality prior to run to save dose
- X-ray tube load incorporated in the Certeray generator
- Pulsed X-ray for (subtracted) acquisition up to 12 frames/s for vascular applications

Frame rate extension to 30 frames per second.
Designed to enhance visualization in complex interventions
Frame rate extension to 30Fr/sec increases the system acquisition speed up to 30 frames per second for cardio studies requiring high-speed imaging.
Specifications
The frame rate extension increases the acquisition speed to 15fps and 30fps with a 1024x1024 matrix.

Specifications

The frame rate extension increases the acquisition speed to 15fps and 30fps with a 1024x1024 matrix.

B. System intrinsic
- Fully digital imaging chain in maximizing the utilization and technology of the x-ray generator, x-ray tube, flat detector and image processing.
- Customizable EPX protocols to each application according to user preferences for different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, adaptive harmonization)
- Built-in SpectraBeam filtering of low energy radiation to improve image quality and dose efficiency with MRC200+ X-ray tubes.
- Pre-filters of 0.2, 0.5 and 1.0 mm CU equivalent
- Automatic cardiac wedge positioning
- X-ray depth collimator with single semi-transparent wedge filter with manual and automatic positioning.
- 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.
- Xper Fluoro Storage, a grab function allows storage and archiving of both a fluoro image or the last 20 seconds of fluoroscopy run. These images or runs can be archived and reviewed as a regular run.

C. User selections
- removable anti-scatter grid to lower x-ray dose for pediatrics (grid ratio 13:1)
- ECG triggered acquisition, offering the possibility to acquire images at the same phase of the heart cycle. This applies to the low dose fluoro and exposure program for EP applications. This allows patient dose reduction by lowering the pulse rate to 1 pulse per heart and let the physician still focus on relevant items
- three programmable fluoroscopy modes can be selected from the control module. Each mode has a different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, adaptive harmonization)

Roadmap Pro can be selected from the control module.
In the first Roadmap phase a vessel map is created by live fluoroscopy or by selecting an exposure image (SmartMask) with a vessel map which, in the second Roadmap phase, is superimposed with subtracted live fluoroscopy.
Roadmap Pro features Smart Settings in special clinical modes that are optimized to visualize special materials such as coils and glue.
• Acquisition runs can be done without losing the vessel map of Roadmap Pro.
• Live processing of the vessel map, the device map and the landmark map can be done on the touch screen module.
• Field of View (FoV) can be altered during the second phase.
• Xres for vascular procedures is standard part of Roadmap Pro.

In Roadmap Pro "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.

D. User dose awareness

DoseWise program: Philips DoseWise program is a set of techniques, programs and practices built into the X-ray system that ensures excellent image quality during each interventional application, while at the same time reducing x-ray dose at every opportunity. The DoseWise comprises of three building blocks to help reduce x-ray dose without compromising diagnostic quality: system intrinsic, user selection and awareness.

On-system monitor display provides and displays body zone specific Air Kerma data (10 zones for cardiac applications) in numeric and graphical bars.
- Graph displays the accumulated Air Kerma dose for the particular body zone of the actual projection
- When the accumulated Air Kerma dose of the particular body zone reaches the critical skin dose level of 2 Gy, it will be indicated on the display and made visible to the x-ray operator.

Radiation Dose Structured Report
Collection of dose relevant parameters and settings and export to a DICOM database (e.g. PACS) (dose information is sent in MPPS message not as Radiation Dose Structure report), 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. Also, typical system usage can be extracted from the data, helping to identify root causes behind deviations and measures to improve.
- Analysis of individual patient cases: using dose levels and system usage per procedure
- Alerting for high dose cases, timely identifying patients at risk or deterministic effects, for proper follow-up.

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.

3. Image Detection
The system has a 20 inch flat panel image detector. This detector can be rotated over 90 degrees from portrait to landscape and vice versa.

The image chain with the 20 inch flat panel image detector comprises the following:
- A 30 cm by 40 cm (20 in.) diagonal 8 mode Dynamic Flat Detector subsystem for fluoroscopy and cine-fluorography.
- 8 modes 30*38/30*30/26*26/22*22/19*19/16*16/13.5*13.5/11*11 cm, Dynamic Flat Detector
- The outer detector physical housing is 36 x 47.2 cm
- The digital output of the Flat detector is 1904*2586 pixels at 16 bit depth.
- The pixel pitch is 154 micron by 154 micron
- The DQE(0) is >77% providing high conversion of X-ray into a digital image, while maintaining a high MTF.

Philips Azurion offers a storage capacity of (optionally extendable) of 50,000 images at matrix size of 1024 x 1024, in 8 or 10 bit depth. With a matrix size of 2048 x 2048 this is 12,500 images. Maximum number of examinations is 999, with no limit to the maximum number of images per examination.
Xres is a multi-resolution spatial temporal noise reduction and edge enhancement filter for interventional applications. Xres exploits the full benefits of dynamic digital flat detector imaging to enhance sharpness and contrast and has been designed to reduce noise in fluoroscopy and exposure runs. The settings for Xres Cardio can be customized to improve image quality. Xres is a Philips unique image processing algorithm developed at Philips Research for medical applications. Xres is used with Philips MR and US scanners next to Philips Azurion systems.

4. User Interface
User Interface in Examination Room
The User Interface comprises a variety of U ser Interface modules in the Examination Room.
There is the On-Screen Display, the touch screen module, Viewpad and the control modules.
The On-Screen Display is positioned on the left side of the live/ref monitor. The following system information is displayed:
- X-ray indicator
- X-ray tube temperature condition
- Gantry position in rotation and angulation
- Source Image Distance
- Table height
- Table top tilt and cradle angle, if applicable
- Detector field size display
- General System messages ()
- Selected Frame speed ()
- Fluoroscopy mode ()
- Integrated fluoroscopy time ()
- Skin Dose: dose rate during X-ray, cumulated dose when no X-ray ()
- Dose Area Product: dose rate during X-ray, cumulated dose when no X-ray ()
- Graphical bars for Body Zone specific dose-rate and accumulated skin dose levels, related to the 2 Gy level (for cardiac applications)
- Stopwatch

Pan Handle

The pan handle is an extension of the control possibilities for floating movements of the table top in cardio vascular and neuro systems

Key benefits

- Flexible positioning during cardio and neuro procedures

To allow more flexible positioning during cardio and neuro procedures, the pan handle option can be used to perform floating table movements. The pan handle provides a solid grip of the tabletop and can release and apply the tabletop brakes. It can be attached anywhere along the tabletop and accessory rails without affecting the floating range.
Specifications

Pan handle with cable and connector

Table-top attachment clamp

Accessory-rail attachment clamp

Two Touch screen modules
The touch screen module is provided for use at either the tableside or in the control room. Optionally, it is possible to connect in parallel up to three touch screen modules on the system. The touch screen module has a touch screen, which can be operated when covered with sterile covers. The touch screen module allows control of (depending on configuration):
- 3rd party equipment (e.g. CX50, Interventional Tools, EchoNav, DoseAware)
- Monitor layout (FlexVision, switchable viewing)
- X-Ray settings (Collimation, Projections, Table, Series and Processing)

- Quantitative Analysis (optional) User can only start QA from the touch screen module. No controls like coronary analysis, left ventricular and vessel analysis can be performed on the touch screen module.
- Operation of Xcelera, XperIM and IntelliSpace Portal viewing (optional)

- Operation of CX50 Ultrasound (optional)

Viewpad
The Viewpad contains the preprogrammed function settings. The system is provided with two 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 Viewpad function from life to reference monitor
- Laser pointer, intended to point at regions of interest on the image monitors
- LED indication of laser pointer on/off and battery low

- Subtraction on/off
- Remasking
- Landmarking

- Access flat detector rotation

User Interface in Control Room
The control room comprises a review module, data color monitor and review monitor. The data and review functions are controlled by a single keyboard and mouse. The review module offers the basic functions for review. The most prominent functions can be controlled by the push of a button. The review module comprises the following functionality:
- Power on/off
- File and run cycle
- File, Run, and Image stepping
- Run and file overview
- Reset fluoroscopy timer
- Enable/disable X-ray
- Geo disable

Acquisition monitor. A standard keyboard and mouse control the user interface. The acquisition monitor is intended to follow live case in the ER. System information is displayed on the bottom of the monitor:
- Stopwatch and Time
- System guidance information
- Dose Area Product (DAP) and Skin Dose, as dose rate during X-ray and cumulative dose at no X-ray
- Frame speed settings, fluoroscopy mode, and accumulated Fluoroscopy time
- Exposure and fluoroscopy settings as Voltage (kV), Current (mA) and time (ms)
- Geometry information as rotation, angulation, and SID

The acquisition monitor is designed for standard workflow based on scheduling, preparation, acquisition, review, report, and archive.

Scheduling
In the scheduling page it is possible to add new patients (either querying from RIS/CIS or by creating patient locally). 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 Philips Azurion 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.

Procedure Cards
Procedure Cards provide the information of room and patient preparation for each individual physician. Procedure Cards are customizable per setting and allow each physician to provide their own room protocols. Procedure Cards is intended to make hard copies of the protocol instructions redundant.

Acquisition
The acquisition page contains information on the currently selected patient.

Reviewing
The review page allows for reviewing of patients:
- Previous examination cases
- Review of other DICOM XA or DICOM SC studies.

Quantitative Vascular Analysis

Key benefits

- Allows quantitative assessment of different size vessels such as aortic and peripheral
- Aids confident decision making for device selection, approach angles and follow-up
- Designed for efficiency with single click functions and fast results

Easily obtain objective assessment of aortic and peripheral vasculature to support decision making and allow quantitative assessment of vasculature during vascular interventions, the 2D quantitative vascular analysis option supports quantification such as aortic and peripheral artery dimensions of about 5 to 50 mm from 2D angiographic images. With one click, the relevant segment is detected and a visualization of the obstruction, healthy vessel, reference diameter, stenosis diameter and plaque area is created.

Specifications:

- Automated vessel segmentation
- Diameter measurement along selected segment
- Automated obstruction analysis
- Stenosis diameter, stenosis length
- % stenosis diameter, % stenosis area
- Automated and manual calibration routines
- Store result page

Analysis of the targeted vessel segment has been simplified with the single click function. Position the mouse on or close to the stenotic area and click once to detect the relevant segment. The

visualization shows the obstruction, healthy vessel, reference diameter, stenosis diameter and plaque area.

Archiving
Clinical studies can be archived to a CD/DVD, USB or a PACS. The archive process can be completely automated and customized with settings. Parameters like multiple destinations, archive formats can be selected to the individual needs and wishes for programming under the settings.

With Philips Azurion the control room comprises of an acquisition monitor
and a review monitor. The review monitor is a 24 inch color TFT-LCD medical grade monitor.
The Graphical User Interface on the Review monitor has the following features and possibilities:
- 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
- DICOM printing if available
- Executing Quantitative Analysis Packages if available
- Subtraction functionality if available

This system is delivered with printed instructions for use and/or electronic instructions for use, as well as a quick start leaflet. A printed paper instructions for use can also be ordered at no additional cost.

5. Viewing
A. Viewing in Examination room
Philips Azurion systems come with one 27 inch high brightness color medical grade LCD monitor for clinical image display in the Examination room. This LCD monitor is intended for viewing in the examination room and is designed for medical applications. The monitors is used for combined viewing of live images and reference display. Selection and storing of live to reference monitor is controlled by the infra-red remote-control viewpad or via touch screen module.
The On-Screen Display provides status information on stand rotation-angulation, table height, 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 Air Kerma dose.
The main characteristics are:
- 27 inch high brightness color TFT-LCD display
- Native format 1920x1080 Full HD
- 10 bit gray-scale resolution with gray-scale correction
- Wide viewing angle (approx. 178 degrees)
- High brightness (max 650 Cd/m2, default 400 Cd/m2)
- Long term luminance stability through backlight stabilization circuit
- Automatic brightness control with backlight sensor
- Control functions on side
- User programmable and standard reference setting
- On-Screen Display
- Internal selectable lookup table for gray-scale transfer function, including DICOM
- Internal power supply (100-240 VAC)
- Integrated LCD protection screen

If applicable included is a flat monitor ceiling suspension for 2 monitors (2F MCS). MCS includes motorized height adjustment. The ceiling suspension allows flexible monitor positioning over a range of about 360 x 300 cm. At customer request, this 2 monitor MCS can be replaced by a 4 or 6 fold MCS or an MCS integration kit HD for non-Philips MCS. The MCS integration kit HD contains vital parts for system operation.

Line #	Part #	Description	Qty	Each	Price

B. Viewing in Control room

Philips Azurion includes two 24 inch high brightness color LCD monitors. The color monitors are for acquisition and reviewing display.

The main characteristics for color monitor are:
- 24 inch color TFT-LCD display
- Native format 1920x1080 Full HD
- High brightness (max 400 Cd/m2, default 350 Cd/m2)
- Wide viewing angle (approx. 178 degrees)
- Long term luminance stability through backlight stabilization circuit
- Automatic brightness control with backlight sensor
- Control functions on side
- User programmable and standard reference setting
- On-Screen Display
- Internal selectable lookup table for gray-scale transfer function, including DICOM
- Internal power supply (100-240 VAC)
- Integrated USB hub

A Philips Azurion system includes the DICOM Image Interface which enables the export of clinical images to a DICOM destination like a CD-Medical station or a PACS server. 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 DICOM Image Interface transfers through its fast Ethernet link, making images available on-line within seconds. The archive process can be configured by X-ray settings. The images are sent out either in the background, or manually upon completion of the examination. The export format is configurable in 512x512 or 1024x1024 matrix in 8 or 12 bit depth. The examination can be sent to multiple destinations for archiving and reviewing purposes. The 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 Intercom

Uninterruptable Power System (UPS)

Ensures data integrity

A power failure of the hospital mains during an intervention can cause loss of data. If this occurs, the single phase Uninterruptable Power System (UPS) enables a proper shut-down of the X-ray system processor units.

Specifications

In case a full three phase UPS is selected, the single phase UPS is not delivered.

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.

Environmental

At Philips Healthcare, we feel the responsibility towards society and the environment. The latest 7 C20 system is a perfect example of our EcoVision program. By examining every aspect of the 7 C20 design and development through a green eye, we drastically reduced the products environmental impact.

Clinical Education Program for Azurion System:

The purchase of the Azurion System includes a StartRight entitlement pool that allows for the customized delivery of educational events to improve staff time to proficiency, knowledge on system features, and improve overall lab efficiency. For new users, the recommended series of educational events includes:

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. 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. 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. 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

Initial Handover OnSite Education: The primary 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 ses sions 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).

FollowUp OnSite Education: Philips Education Specialists will provide sixteen (16) hours of education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Students should attend all 16 hours, and must include 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.

Assessment OnSite Year 1: The primary Philips Education Specialist will perform a two day onsite assessment at the customer site on or close to the first anniversary of the Initial Handover. The Specialist will assess through various means not limited to; physical observation of procedure workflow, tool usage data analysis and staff interviews. The Specialist will then review findings with department head and make recommendations thereof. The Specialist may perform refresher training if required.

Education expires one (1) year from installation date (or purchase date if sold separately). Ref#2963392963402963412963 42-20170209

2   **Isolated Wall Connection Box**   **8**

Isolated Wall Connection box to support the display of an external video source on a monitor in the examination room.

Key benefits
- Stream video from other modalities on the interventional X-ray suite:
- Connect external video in the exam room

Easily stream video to other locations
Many interventional facilities use video to record and stream images from other modalities on the interventional X-ray suite for training or presentation purposes. The Video Wall Connection Box facilitates connection of the video source via a standard DVI cable/connector and lossless transfer of the video signal over the approximate 30 meter long cable. It can be mounted in the examination room or in the control room, depending on the location of the video source.

Specifications
The quantity of the VWCB's has to be calculated as follows:
For each video signal via MultiVision: 1 VWCB (max = 4)
For each video signal to FlexVision XL on Cardio System: 1 VWCB (max = 9)
For each video signal to FlexVision XL on Vascular System: 1 VWCB (max = 8)
For each 3rd party video signal directly connected to an LCD in the MCS: 1x VWCB.
Note:
No VWCB is required in case a video signal is connected directly to a dedicated LCD from the following sources:
1) Live/ref Slaving
2) Interventional HW (XtraVision), IntelliSpace Portal, Philips Xcelera (only if workstations are powered by Philips X-ray system)
3)XperIM

3   **live/ref slaving for ER**   **1**

Live/ref slaving for Exam Room.

Key benefits
• Easily display any data or clinical information needed to work efficiently
Simplify workflow with flexible viewing control
Having patient data and clinical information easily available on screen can enhance decision making and efficiency during interventions. The live/ref slaving will enable the option to slave the Live and Ref video source from the X-ray system. The total amount of live/ref slaving that can be selected is max 5, minus the number of FCV0807 Live/ref slaving for CR.

Specifications
Live/ref slaving for ER is possible:
- On Philips MCS (additional monitor excluded from this option)
- In combination with FCV0519 1 or 2 MCS from Skytron/Steris

4   **Standard line rate video input/output.**   **1**

Line #	Part #	Description	Qty	Each	Price

Provides the interface to a standard line rate video peripheral as a VCR.

Key benefits
• Store imaging data on a portable medium

Store imaging data on a portable medium
This option allows you to store fluoro and acquisition data on a DVD/CD during exams so it can be shared for consultation or teaching purposes or archived. It provides the interface to a standard line rate video peripheral like a DVD, CD, or VCR.

Specifications
• This interface is a standard 625 (525) lines 50 (60) Hz. video input/output unit. It provides the required video signal for recording VCR images from the live monitor of the system.
• The option has an automatic start-and-stop recording control that is linked to the X-ray system. In case of fluoro boost in excess of 10 R/min and in case of exposures the X-ray system provides the start/stop recording signal for a VCR.
 Review monitor.

5   **CS universal cable carrier**   **1**

• Increase workflow flexibility

Increase workflow flexibility
To accommodate different room layouts, this option provides an additional monitor cable carrier for the clip rails on the ceiling rails. The extra monitor cable hose rail is mounted between the monitor ceiling carriage and the ceiling inlet. This can be used in situations where the ceiling inlet cannot be placed in the middle of the clip rails due to room restrictions. This item is not suitable for mounting the monitor ceiling carriage or the stand hose.

6   **MultiSwitch.**   **1**

MultiSwitch is an option that provides the ability to share the X-ray system workspot in the Control Room with other applications that are loaded on separate PC modalities.

Key benefits
• Save space in the control room by running multiple applications on one workspot

Save space in the control room
To reduce clutter in the control room, the MultiSwitch option provides the ability to run applications that are loaded on separate (up to three) PC modalities or on the X-ray system from the X-ray system workspot in the control room. You can switch the (color LCD) data monitor, keyboard, and mouse, normally connected to the X-ray system, to a separate PC modality. This saves a great deal of space in the control room by letting you use one monitor and keyboard for multiple applications, like Xcelera, 3D RA, StentBoost, IntelliSpace Portal, as well as Radiology/Cardiology Information Systems.

Specifications
A workstation can only be connected to the MultiSwitch if it complies with the following requirements:
- preferred resolution for the color LCD display: 1920*1080 DVI
- USB keyboard- and mouse interface
- complies with UL60950 regulations and EMC level A

The MultiSwitch (5Vdc) as well as the workstations (230Vac) are supplied from the X-Ray system. The maximum power supply requirement for three workstations (including accessories) in total should not exceed 1380 Watts at 230Vac.
The MultiSwitch option comprises:
- KVM Switch box (4 inputs, 1 output)
- cable sets for video, keyboard, mouse

Line #	Part #	Description	Qty	Each	Price

The Window Switch is an option that provides the ability to integrate networked functionality in the Control Room of the X-ray system. The Window Switch provides the possibility to switch to CIS/RIS applications that are available on the network and are basically data-only oriented.

Window Switch to any RIS/CIS.

The Control Room workspot can be switched to the hospitals' Cardiology/Radiology Information System. Only the user-interface devices data monitor, keyboard, and mouse are switched via standard available solutions: "X-window", and "HTML browser" to become a standard UI for the RIS/CIS system.

This option is a software key which enables the specific switch functionality for only the applications, which are available on site.

7   **peripheral X-ray filter**   **1**

• Obtain uniform density of lower peripheral areas

Enhance consistency of lower peripheral images
To help clinicians obtain consistent images of lower peripheral anatomy, this option provides a set of flexible X-ray filters. They provide uniform density in angiographic examinations of the lower peripheral area.

8   **Subtracted Bolus Chase**   **1**

Helps to visualize vessel structures when blood flow is difficult to estimate.

Key benefits
• Bolus Chase improves results in case of challenging step movements, a mismatch between blood flow and selected program, or lack of real-time image information.

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 hanbd-hold speed controller to adapt the speed of the table scan to the contrast flow. With biplane systems, this Bolus Chase is applied with the lateral channel.

Specifications
• Framespeed can be adapted.
• Bolusrun is followed with a maskrun, using the same speed curve and framespeed that was generated during the bolusrun.
• Viewing is possible in the subtracted and non-subtracted mode. If subtracted viewing is not required, the maskrun can be skipped.
• Subtracted Bolus Chase gives fast, accurate results high patient throughput and efficient patient management.
• Automated exposure control and precise speed control generate high quality images and excellent subtraction cases.

9   **optional ref monoplane**   **1**

Additional Ref2 and Ref3 viewport

Key benefits
• Easily display any data or clinical information needed to work efficiently
Simplify workflow with flexible viewing control
Having patient data and clinical information easily available on screen can enhance decision making and efficiency during interventions. Optional ref monoplane offers an additional video output of the X-ray system offering an additional Ref2 and Ref3 viewport on one LCD monitor. Combined with the Dual Fluoro license this enables users to zoom live images during acquisition, while having the Dual Fluoro image visible on the Ref3 viewport.

10   **MRC200+ GS 04/07**   **1**

Line #	Part #	Description	Qty	Each	Price

Maximus ROTALIX Ceramic grid switch tube assembly MRC200+ GS 0407

The MRC 200+ GS 04 07 tube assembly and cooling unit CU 3101 for cardiovascular systems comprises:
- 0.4/0.7 mm nominal focal spot values maximal 30 and 65 kW short time load
- Grid switching at pulsed fluoroscopy and low load exposure (to eliminate soft radiation and improve image quality)
- Continuous loadability: 3400 W (at 21 degrees C room temperature) / 4000 W (= Max assembly continuous heat dissipation)
- Application of SpectraBeam dose management
- Tube housing is oil cooled with thermal safety switch
- Maximum anode cooling rate of 1820 kHU/min
- Anode heat storage capacity of 6.4 [MHUeff]

11   **table pivot option**   **1**
• Flexible positioning for upper extremity angiography
• Easy patient transfer

Flexible positioning and transfers
Transradial access, upper extremity angiography, and patient transfer have never been simpler with our optional Pivot feature. One finger push-to-pivot allows effortless patient positioning. It moves with less friction, making it easier to move larger patients. A secure mechanism locks the tabletop in place to prevent it from moving.

12   **extension to FlexVision Pro**   **1**
Extension to Flexvision large 58 inch high resolution LCD for exam room, enabling flexible screen lay outs and full control (seamless mouse) of up to 11 external sources including third party systems.
Key benefits
- Full control at table side of all applications with seamless mouse control or via touch screen module
- Full flexibility of screen layouts (live resize, drag and drop, unlimited number)
- To simplify and standardize system set-up for your FlexVision Pro, your personalized layout will come up automatically with ProcedureCards.

Easy tableside control
With FlexVision Pro, user can control FlexVision and video sources on FlexVision through wireless mouse in Examination Room as well as virtual keyboard and touchpad on the touch screen module in the Examination Room. An operator can resize images and adjust the screen layout during the procedure without going into configuration.

Specifications
Full control at table side of all applications in the interventional lab (view and control) with a single wireless mouse or with a Touch Screen Module
• Integration: control of up to 11 external sources
• Possibility to configure unlimited flexible screen layouts
• Screenshots: with single click all displayed inputs can be captured
• Live resize the video window and adjust the screen layout during the procedure without going into configuration
• Operate all the video sources displayed on the monitor using the wireless mouse at tableside
• Mouse and keyboard function on the touch screen module (TSM) to control (external) sources

13   **3D-RA Complete**   **1**

The 3D-RA Complete package combines 3D-RA (3D Rotational Angiography) with 3D Roadmap.

Key benefits
• Automates 3D-RA and 3D Roadmap workflow in the interventional suite to streamline procedures
• 3D-RA supports accurate assessment of vascular pathologies by providing high-resolution 3D reconstructions of small vessels and lesions
• 3D Roadmap provides full 3D view to enhance navigation of guide wire and catheter through complex vascular structures

Efficient 3D imaging workflow
Visualizing the complex spatial relationship between anatomical structures and vasculature often involves several sequential DSA acquisitions and radiation dose for the patient. To make imaging workflow efficient during procedures, the 3D-RA Complete package combines 3D-RA (3D Rotational Angiography) with 3D Roadmap. It provides a completely automated process from 3D acquisition to image reconstruction and viewing of 3D Roadmap images on the monitor. No user action is required.

3D Roadmap provides a sustainable 3D Roadmap to support interventional procedures. It matches the real-time 2D fluoro images with the 3D-RA angiography volume (3D Roadmap) or a previously acquired CT or MR data set (CT/MR Roadmap). With the roadmap a better understanding of the anatomy can be obtained for procedure planning or risk assessment. The integrated 3D solution assists physicians in decision making for treatment strategy and in assessment after treatment in endovascular procedures, neuro or vascular surgery, cardiac procedures.

Specifications
3D-RA
3D-RA (3D Rotational Angiography) provides extensive 3D visualization of anatomy and vessels in just four seconds based on one rotational angiography run and one contrast injection. Its high-resolution 3D reconstructions provide critical information about depth and the relationship of one vessel to another to support the accurate assessment of anatomy and vasculature.

Image Acquisition
Image acquisition is performed with the Rotational Angiography feature of the X-ray system with the flexibility to position the C-arm in either head or side position.
C-arm in head position: scan range of 240 degrees with a rotation speed up to 55 degrees/sec.
C-arm in side position: scan range of 180 degrees with a rotation speed up to 30 degrees/sec.

3D Vessel Reconstruction
The rotational run is automatically transferred and displayed as a 3D vessel model: with the Real-Time digital link (option) 120 images are reconstructed into a 3 dimensional model within seconds. Additional reconstructions, using the Reconstructive Zooming Technique, can be performed as well.

Workflow
Automated 3D-RA process from 3D acquisition to 3D Viewing,
3D at touch screen module (option),
3D Automatic Position Control (3D-APC),
3D Follow C-arc.

Calibration
3D-RA calibrations are performed by Philips Customer Support.
3D-RA calibration data are stable over at least 6 months' time.

Viewing
Real Time user interface.
Philips' CRM (Contrast Resolution Management) Technology.
Image rendering:
• Volume/Surface Rendering,
• MIP,
• Endoscopy,
• SUM (pseudo X-ray image)
• Gradient rendering,
• Cut-plane function,
• Orthoviewer,
• MPR (Multi-Planar Reformatting),
• SpineView,
• 5 distance measurements calculated in the same volume, including "Quick measurement".
• Volume calculation
• Automated Vessel Analysis (AVA),
• Computer Assisted Aneurysm Analysis (CAAA),
• Catheter tip shape simulation,
• Virtual stenting,
• Annotation,
• Interpolative Zoom
• Reconstructive Zooming Technique,
• Subtraction of reconstructed volumes,
• Automatic Voxelshift,
• Set grey values WW/WL,
• Store/Recall of user defined projections.

3D-RA ON TOUCH SCREEN MODULE
From the 3D-RA menu on the touch screen module, you can rotate, translate, and take snapshots of images. Views can be stored and recalled. You can select 3D-APC (3D Automatic Position Control) and follow stand mode.
Other 3D-RA functions on the touch screen module:
• Start mouse mode
• Segmentation (window-width/window-level control)
• 3D zoom control
• Recall Anterior-Posterior view

3D AND MR/CT ROADMAP
3D Roadmap overlays real-time 2D fluoroscopy images on a 3D reconstruction of the vessel tree acquired with 3D-RA or XperCT, both available on the X-ray system or previously acquired CT/MR data of the vessel tree. The resulting roadmap shows the progress of a guide wire, catheter, or coil in real-time. It is designed to improve visualization and navigation for complex neuro, vascular, and oncology interventions.
Specifications
3D Roadmap is based on the visualization of the vessel tree from 3D-RA acquisitions. The MR/CT roadmap is based on visualization of the anatomy on previous acquired CT or MR data sets. Both are activated with one button touch at tableside.

Viewing:
• Table side control: bidirectional link between the X-ray system and 3D Roadmap,
• 3D Automatic Position Control,
• 3D Follow C-arc,
• The 3D roadmap provides the freedom to change:
o The angulation of the C-arc,
o The rotation of the C-arc,

Line #	Part #	Description	Qty	Each	Price

o The Field of View,
o The Source to Image Distance,
• Landmarking,
• 3D blending,
• WW/WL settings,
• Store and review runs,
• Store snapshots and movies.

Transfer/ export to:
• Optional Hard Copy unit (DICOM Print)
• DICOM compatible device, supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D
• Any PC in a standard PC compatible format (JPEG,AVI)
• One or multiple DVD's, CD-ROM(s)
• USB device.

14   **FD Rotational Angio**   **1**

Realtime 3D impressions of complex vasculature

Key benefits
• Use 3D imaging to quickly determine the projection angle for treatment in complex vascular interventions, surgery and radiotherapy
• Supports assessment of vascular pathologies for diagnostic and therapeutic decisions.

Revealing hidden structures
The complexity of interventional procedures lies in the fact that every person's pathology is unique. Visualization in three dimensions is therefore vital to aid decision making by the clinician. Rotational angiography provides real-time 3D impressions of complex vasculature and the coronary artery tree. Rotational Angio can be used to quickly determine the projection angle for treatment.

Specifications
Rotational Angio acquires multiple projections with just one contrast injection via a fast rotational scan of the region of interest. A rotational scan is possible both with the X-ray 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: 240 degrees
Max. Frame speeds are given by the frame speed specifications of the system configuration.
The very high movement 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. Rotational Angio results are available on the X-ray system.
Operation of Rotational Angiography is straight forward: the procedure is selected, set up and executed virtually in a matter of seconds, supporting high patient throughput.
A set of dedicated acquisition programs is available on the touch screen module and can be selected at the touch of a button. The Rotational Angio is controlled from the exposure hand- or footswitch.

15   **SmartMask Monoplane**   **1**

Line #	Part #	Description	Qty	Each	Price

Key benefits
• Simplifies roadmap procedures by overlaying fluoroscopy with a selected acquired image.
• Enables roadmap procedures to manage radiation dose and contrast media by selecting an image from an acquired series as a mask image.

Supports navigation during interventions without the need of additional contrast media.
SmartMask simplifies roadmap procedures by overlaying fluoroscopy with a selected acquired image in the Live X-ray window.

Specifications
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.

16 **Touch Screen Module Pro**   **1**

Extension of Touch Screen Module for easy control of X-Ray images at table site

Key benefits
- Imaging parameters can be quickly and easily adjusted at tableside
- Clinical image are shown to support easy navigation. Collimate on the clinical image with one finger. Pinch, zoom, pan and flag images for processing. Position shutters and wedges by simply swiping the image on screen.
- All X-ray settings can be easily adjusted to help you effectively manage patient and staff dose

Enhance image navigation on the touch screen module
This option extends the functionality of the touch screen module, allowing live X-ray images and source images from reference monitors to be displayed on the touch screen module. Shutters and wedges can also be easily positioned with a fingertip by simply dragging them into position. A pointer is also available on screen to improve communication in and between the exam room and control room.

Specifications
- enhance image navigation on the TSM
- intuitive control of shutters and wedges by simply dragging the lines shown on top of the image
- provides intuitive zooming an panning functionality (also during fluoroscopy)
- turns the touchscreen into the pointing device in order to improve communication in ER/CR: when activated the pointer is shown on corresponding monitor
!!! Note: Touchpad and Keyboard control from the TSM is NOT part of this option but 'FlexVision Pro' option.
!!! Note: Images shown on the TSM are not meant for diagnostic purposes (image is downscaled, compressed and latency during live/replay maybe higher than on the live monitor)

17 **Table base Auxiliary OP rail**   **1**

• Position operating modules and/or accessories conveniently
• Work comfortably at the head end of the table

Work comfortably at the head end of the table
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.

18 **FD Dual Fluoro monoplane**   **1**

An additional fluoro channel in parallel to the standard fluoro channel

Key benefits
• View the subtracted fluoroscopy next to the default non subtracted fluoroscopy
• View a digitally zoomed fluoroscopy image next to the default fluoroscopy image

Second fluoro image to support complex interventions
For complex interventions, it can be useful to view the subtracted fluoroscopy image next to the normal fluoroscopy image. The Dual Fluoro option provides an additional fluoro channel in parallel to the default fluoro channel. The dual fluoro option allows to view live digitally zoomed fluoroscopy next to non-zoomed fluoroscopy.

Specifications
The Dual fluoroscopy mode is selected via the touch screen module.
The trace subtracted fluoro image will be displayed on the live viewport, the non-subtracted fluoro image is displayed on the reference 3 viewport.
In Dual Fluoro mode, the live fluoroscopy image can be zoomed digitally, providing a larger view of the region of interest for complex interventions. The zoomed live fluoroscopy image will be shown on the live viewport, while the entire non zoomed image will be shown on the reference 3 viewport. The fluoro zoom function is controlled via the touch screen module.

Line #	Part #	Description	Qty
19		**FlexVision XL HD + 2 LCD's**	1

FlexVision XL HD is an integrated viewing solution designed to give you full control over your viewing environment which brings High Definition viewing.
This FlexVision XL HD is delivered with two 27 inch high brightness color medical grade LCD monitors. The monitors can be mounted on top side or on rear side of the MCS.

Key benefits
• Easily access multiple, up to 8, video inputs (including third party systems) video inputs to inform decision making during procedures
• Create custom display templates to support diverse procedures
• The screen layout of the FlexVision XL HD can also be changed from the control room
• Enlarge images to reveal more details and support comfortable working positions

Diagnostic information easily made available at table side
In today's interventional setting, as you perform more complex procedures with smaller devices in complex anatomy, you rely on various types of diagnostic information to guide you. To inform decision making in the exam room, Philips offers an advanced digital workspace called FlexVision HD. You can display multiple images in a variety of custom layouts on a large, high-definition LCD screen. Zoom in and out to enhance fine details, while maintaining an overview of all information. Create custom display templates for specific procedures/physician preferences to easily support diverse procedures.

Specifications
FlexVision XL HD offers:
• Native resolution of FD20 can be displayed.
• Sharp images at full size without zoom
• High Definition display at native resolution for ultimate detail
• Up to 2k*2k image display fully integrated
• Enhanced small vessel visualization

1. DVI video composition unit.
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 Examination Room.
• The DVI video composition unit is operated from the touch screen module.
• The DVI video composition unit supports a wide variety of display formats (up to 1920x1200)

• Up to 11 external inputs are connected to the DVI video composition unit via wall connection box or boxes.

2. Medical grade, high resolution color LCD in the Examination Room
This display supports the image quality requirements for monochrome X-ray images as well as color images and replaces all displays normally delivered with the system for the Examination Room.
Main characteristics are:
- 58-inch, 8 Megapixel color LCD
- Native resolution: 3840x2160
- Brightness: Max: 700 Cd/m2 (typical) stabilized: 400 Cd/m2
- Contrast ratio: 1:4000 (typical)
- Wide viewing angle (approx. 176 degrees)
- Constant brightness stabilization control
- Lookup tables for gray-scale, color and DICOM transfer function
- Full protective screen Ingress Protection: IP-21

3. Large color LCD control (touch screen module)
• Enlarge information at any stage during the case via the touch screen module in the Examination Room or Control Room.
• Select viewing lay-outs via the touch screen module in the Examination Room.
• Create new layouts by matching inputs to desired locations on preset templates.
• Adjust the screen layout during the procedure without going into configuration
• 20 layouts; each layout is customizable, size of viewports can be customized by end user X-ray status area visible with all X-ray details

4. Monitor ceiling suspension
Monitor ceiling suspension for use in the Examination Room carries the 58-inch color LCD, 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.

5. Snapshot
The snapshot function allows the user to store/save a screen-capture of any image on the FlexVision HD as a photo image to the current acquisition patient study.

Line #	Part #	Description	Qty	Each	Price
20		**storage extension**	1		

Extends image storage capacity on your X-ray system
As imaging data becomes larger, you can quickly reach the limit of the storage capacity on your interventional X-ray system. The Storage extension extends the storage capacity of your interventional X-ray system.
Specifications
By default 50.000 images are available, this option will give 100.000 images (this is for 1K2 image size).

Line #	Part #	Description	Qty	Each	Price
21		**IW Hardware**	1		

Key benefits
• Facilitates the interventional tools and multimodality viewing in exam room and control room
• Supports import and viewing of DICOM compatible data from CT and MR imaging modalities

View multimodality images in exam room and control room
Images from a variety of sources are being increasingly used during interventions for a variety of Live Image Guidance tools. The Interventional Tools Hardware option provides the hardware for our interventional tools. It enables DICOM compatible data from other imaging modalities to be imported and viewed in the exam room and control room. To support fast results, a real-time digital image link is provided between the Interventional Hardware workstation and the X-ray system.
Specifications
The Interventional hardware is the hardware for the 3D interventional tools that includes Real Time

Line #	Part #	Description	Qty	Each	Price

Link. It enables import and viewing of DICOM compatible data from other imaging modalities.
The Interventional Hardware comprises at least:
• Computer Workstation
• Control Room 24" display
• 16 GB memory
• 1.5 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

22   **Long mattress cardio**   **1**

• Enhances patient comfort
• Adapts to the shape of the patient's body

Enhance patient comfort during cardio exams
To enhance patient comfort during cardio exams, the inflatable, latex free mattress can be used. It is extra-long to accommodate the patient on the tabletop, and adapts to the shape of the patient's body. The pressure within the mattress is evenly distributed so that it recovers its original shape quickly.

Dimensions of the mattress:
Length: 3165mm
Width: 500mm
Height: 70mm
Radius: 150mm

23   **Clip rail 390 cm G-Stand**   **1**

Ceiling rails with clip mounting and isolation parts length 390 cm.

24   **Clip rails for MCC (390cm)**   **1**

Comprising:
- 2 clip rails length 390 cm.
- Mounting material for 200 cm track pitch.

25   **Rad Shield w/ Arm (Contoured)**   **1**
                       61X76

Contoured Rad Shield with Arm rest. 61X76

26   **PIVOTING TABLE-MOUNTED**   **1**
                       RADIATION SHIELD

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 AD57 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.

Line #	Part #	Description	Qty	Each	Price

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.

Line #	Part #	Description	Qty
27		**Cable Spooler**	1

Line #	Part #	Description	Qty
28		**M LED 3MC Light**	1

MAVIG M3 MC LED - Multi Color / power Supply Included
Includes Portegra2 Ext Spring Arm 75/90cm

Line #	Part #	Description	Qty
29		**Ceiling Track w/Column & Handle Ext**	1

Mavig 2.5m Ceiling Track with Ceiling trolley, 360 degree column, and brake handle extension.

Line #	Part #	Description	Qty
30		**Black Anti-fatigue Floor Mat w/logo.**	1

Black Anti-fatigue Floor Mat with Philips Logo

36" x 60"

Line #	Part #	Description	Qty
31		**· Compact Low Load Fluoro UPS – Standard**	1

• Custom designed Schneider UPS for Philips
• Compatible with Allura 8.2 and Azurion IGT imaging systems
• 20kVA (80kVA Peak) Capacity UPS with integrated input 20kVA 480v/400v isolation transformer
• Input Breaker Panel with integrated EPO switch
• Output Switch rated at 80 amp
• Remote Alarm Status Panel (RASP) – Touch screen for UPS monitoring with Dry contact cards for UPS
• Network Management Cards with external Triple Chassis for Optional Network Management
• Factory Start-Up Service (5x8, Normal business Hours) and 2nd year of warranty service (next business day response)

Compatible with Allura R8.2 and Azurion R1.1 and R1.2 IGT imaging systems

Line #	Part #	Description	Qty
32		**CV 3DRA OnSite Educ 16h**	1

Clinical Education Program for 3DRA
CV 3DRA Handover OnSite Education:

Philips Education Specialists will provide sixteen (16) hours of education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. 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.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 222-100615
This training requires the purchase of 3DRA.

Line #	Part #	Description	Qty
33		30Fr/sec Extension	1
34		AD5 TO XPER TABLE ADAPT. PLATE	1