Request No. EQR2025-001
Date Received _____
Received By _____

STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

100 NORTH UNION STREET, SUITE 870MONTGOMERY,
ALABAMA 36104

RECEIVED
Dec 10 2024
STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

REQUEST FOR DETERMINATION OF EXEMPTION STATUS FOR REPLACEMENT OF EXISTING EQUIPMENT

A filing fee in the amount of $4,164.71 has been submitted with this application.

Requestor Identification (Check one)

☑ Hospital ☐ Nursing Home ☐ Other (Specify) _____

A. Southeast Health Medical Center
Name of Requestor

1108 Ross Clark Circle	Dothan	Houston
Address	City	County
Alabama	36301	334-793-8177
State	Zip	Phone Number

B. _____
Name of Facility/Organization (if different from A)

Address	City	County
State	Zip	Phone Number

C. _____
Name of Legal Owner (if different from A or B)

Address	City	County
State	Zip	Phone Number

D. Bill Hobbs Radiology Director Southeast Health
Name and Title of Person Representing Proposal and With Whom SHPDA Should Communicate

1108 Ross Clark Circle	Dothan	Houston
Address	City	County
Alabama	36301	334-793-8177
State	Zip	Phone Number

DESCRIPTION OF EQUIPMENT TO BE REPLACED	DESCRIPTION OF PROPOSED NEW EQUIPMENT
A. Manufacturer:	
Philips	Philips
B. Serial Number:	
10004758	TBD
C. Model:	
FD20	Azurion 7 B20
D. Name of Equipment:	
OR28 Fluoro	Vascular OR

E. Fair Market Value of Equipment at Present:

$17,500

E. Cost of Equipment (include written price quote):

$2,099,857 (includes Optional Intrasight Item $120,031.80)

F. Describe Use of Current Equipment:

The equipment supports percutaneous vascular or cases, occasional high-risk TAVR cases, back up unit for stroke cases, and the occasional open vascular case.

G. Describe Use of Proposed Equipment:

The equipment will support percutaneous vascular or cases, occasional high-risk TAVR cases, back up unit for stroke cases, and the occasional open vascular case.

H. List any attachments or additional procedures associated with this new equipment not performed by old equipment:

N/A

H. Can any procedures be performed with the proposed new equipment that cannot be performed with the replaced equipment? If yes, describe in detail:

No

I. Location of Existing Equipment (Include Room Number):

Operating Room 28, room number: OR28. This is located on the 2nd floor of Southeast Health's main hospital (address:1108 Ross Clark Circle Dothan, Alabama 36301).

J. List specially trained or qualified Personnel necessary for operation of equipment:

Radiology Technologists and Physicians

K. What use will be made of old equipment when replaced? (Trade in on new equipment, used as back up, parts, etc.)

Trade-in on new equipment

L. List job titles of any additional Personnel that will be required to operate the new equipment.

Radiology Technologists and Physicians

M. Describe any renovation or new construction that will be necessary for the installation of the replacement equipment and cost.

Southeast Healths current OR-28 room (located in SEH main hosptial at 1108 Ross Clark Circle Dothan, Alabama 36301) equipment is being traded in for equipment to go in our new Hybrid OR. Southeast Health, is planning to combine OR 25 & OR 26 and creating a large hybrid vascular OR on the second floor in our main hospital located at 1108 Ross Clark Circle Dothan, Alabama 36301.The new Hybrid OR will be equipped with new Phillips equipment and all surgical lighting and general room lighting will be new LED fixtures. The new Hybrid OR will have an equipment room, control room and there will be a new clean supply room added with access from the main corridor, for the use of the OR department. We will be installing new SPS Clean Tech welded seam wall cladding and new welded seam vinyl flooring that will cove up the wall a minimum of 6" . The transition between the floor base & wall cladding will be welded. The drywall ceiling and door/window frames will be painted and have a smooth finish. CONSTRUCTION COSTS: $644,000.

N. Describe any new annual operating cost associated with this project such as maintenance contracts, salaries of new employees hired due to equipment, etc.

Support Agreement = $111,264.96/year
4 New Staff = $305,136 (total)/year

COST

A. Equipment Costs
Cost of equipment ONLY; do not list lease cost.
(Costs must be supported by price quote on manufacturer's stationary/letterhead). $ 2,099,857

B. Less Trade-In of Old Equipment -$ 17500

C. Total Cost of Equipment $ 2,082,357

Calculation of fee for this Determination:

Multiply dollar amount in COST section (C. Total Cost of Equipment) by one percent (1%) (the application fee for a Certificate of Need);

- Non-Rural Hospitals:
  Twenty percent (20%) of the calculation obtained above.
- Rural Hospitals:
  Twenty-five percent (25%) of the calculation obtained above.

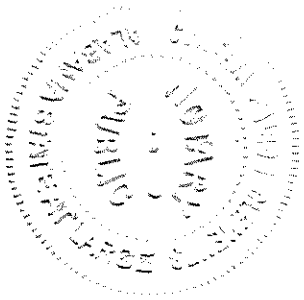
Include manufacturer's literature on old equipment, if available, and on the new equipment.

Include any other information pertinent to the determination.

The Executive Director may request any other information which is relevant to their decision.

CERTIFICATION

I certify that the information provided herein is true and correct and that there is no additional information which would be pertinent to this application which has not been provided. Further, I understand that any misrepresentation on this application or failure to include relevant information may void any favorable determination secured by such misrepresentation or omission.



Signature of Applicant

Richard O Sutton
Printed Name of Applicant

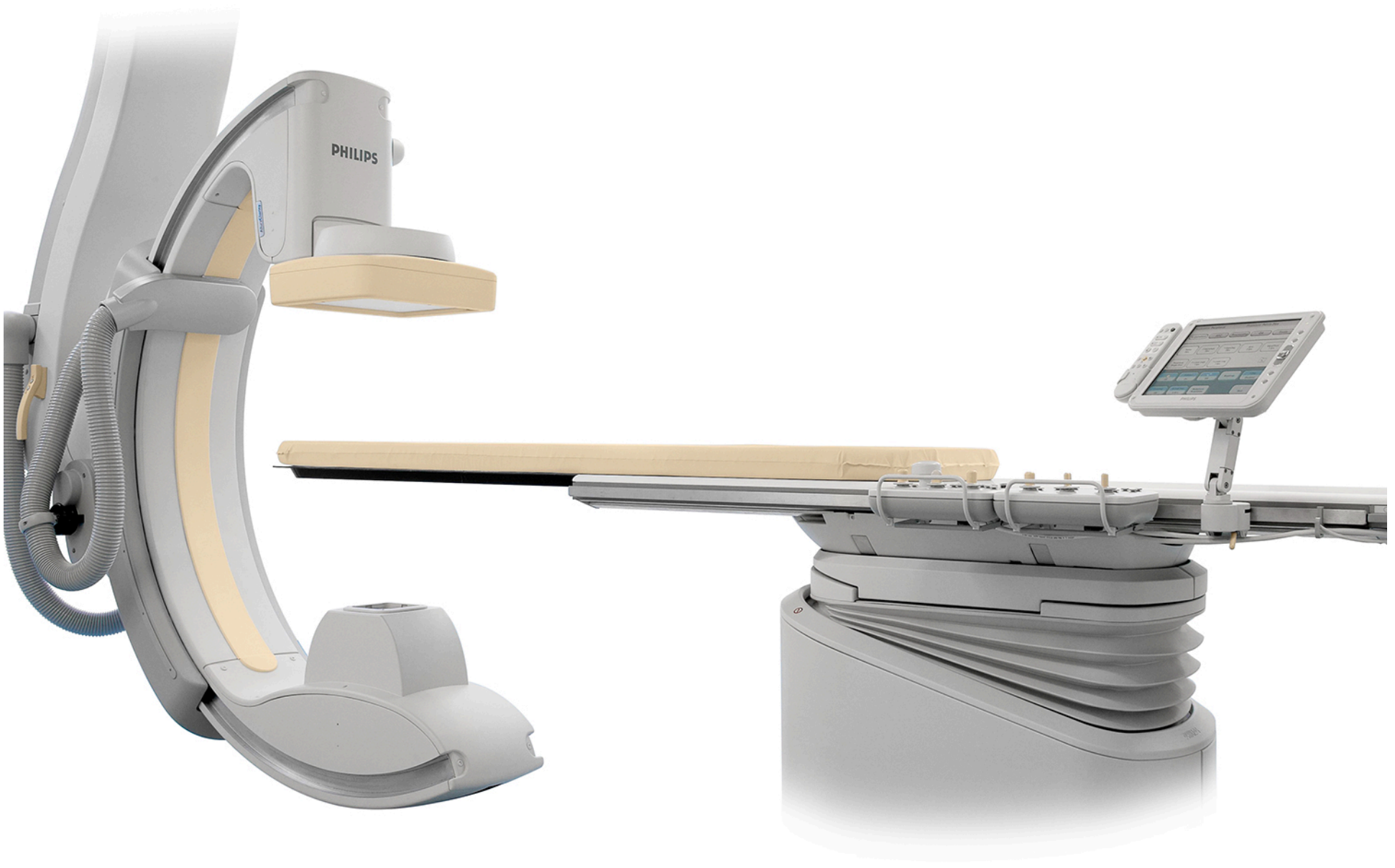
CEO
Title of Applicant

Sworn to and subscribed before me this

27th day of November, 2024.

Cynthia Faison Clements
Notary Public (SEAL)

My Commission Expires 4-14-25



Philips Allura Xper FD20 Cath/Angio System

Brand: **Philips**

Type: **Cath Lab / Angio Equipment**

Web ID: **13790**

Condition: **Refurbished**

Qty: **1**

REQUEST QUOTE

0

Listing Terms & Conditions

DETAILS

Full-featured cath lab imaging system performs the full spectrum of cardiac and vascular interventions

The Philips Allura Xper FD20 is a complete cardiovascular imaging system with a convenient workflow that integrates advanced image acquisition and visualization tools, multimodality access, hemodynamic monitoring, and integrated reporting. For more information on the Philips Allura Xper FD20 Cath Lab/Angio System, available refurbished through Avante Health Solutions, contact an Avante representative today.

System Components

- Gantry with either ceiling or floor mounted motorized L-arm and C-arm
- High output MRC X-ray tube
- FD20 Dynamic Flat Detector
- Xper Table
- Monitor ceiling suspension with height adjustment
- Optional examination light
- Xper data and review LCD monitors
- Xper Module
- Xper Review Module
- Optional: Xper geometry and imaging modules — ask your Avante representative for more information.

Features

- Full-featured cath lab system allows clinicians to perform a full spectrum of cardiac and vascular interventions.
- 2k Flat Detector captures images at a four times greater resolution than conventional x-ray systems.
- Dynamic flat detector provides excellent image quality at a low patient X-ray dose.
- Cath lab integration brings together advanced image acquisition and visualization tools, multimodality access, hemodynamic monitoring, and integrated reporting.
- Compact design provides full patient access during cardiac and vascular procedures.
- XperCT technology enables clinicians to assess soft tissue before, during, or after an interventional procedure.
- The proprietary Xper (x-ray personalized) feature lets each clinician customize the Philips Allura Xper FD20 system for their unique workflow, allowing for confident and fast diagnoses.
- Philips Allura 3D-RA analysis package generates high-resolution 3D images from a single rotation angiography run in only a few seconds.
- 3D-RA also offers enhanced visualization of the anatomical vessel structure.
- StentBoost technology enhances stent visualization.
- BodyGuard patient protection designed to shield the patient from unexpected contact between the detector and the body.
- Xper table is a dedicated cardiovascular table with a free-floating tabletop.
- Xper table features very high patient loadability and can make large floating movements.
- Optional: Automatic Position Controller with programmable extension that allows for up to 10 different stand positions per clinical procedure.
- Optional: Table tilt, iso centric tilt movement, cradle movement, pivot movement, Table Automatic Position Controller.

SPECIFICATIONS

Gantry

Iso-center to floor (FD20 ceiling): 106.5 cm (41.9 in)

C-arm angulation: In head-end position: 90° cranial, 90° caudal. In side position: 185° cranial, 120° caudal

Longitudinal movement: F20 ceiling is manual and motorized for 300 cm (118.1 in) at 15 cm/sec. It includes auto stops at the park position, cardio position, neuro position and lower peripheral position

F20 floor has no longitudinal movement

L-arm rotation: Motorized and manual movement, over 180° with snap positions at 90°, -0°, -90° to allow patient access from three sides of the table

C-arm rotation: In head-end position: 120° LAO, 185° RAO, in side position: 90° LAO, 90° RAO

C-arm rotation speed: Up to 25°/sec and 55°/sec for rotational scan

Source Image Distance: 89.5 - 119.5 cm (35.2 - 47.1 in)

C-arm depth: 90 cm (35.4 in)

Rotation of the flat detector: Xper Access allows re-positioning of the flat panel detector from portrait to landscape within 3 sec

Programmable positions: Standard 2 positions

Xper Table

Tabletop material: Radio translucent carbon fiber tabletop

Tabletop length: 319 cm (125.6 in)

Tabletop width: 50 cm (19.7 in)

Motorized tabletop height adjustment: 79 to 107 cm (31.1 to 42.1 in)

Tabletop metal free overhang: 125 cm (49.2 in)

Longitudinal float: 120 cm (49.2 in)

Transversal float: 36 cm (14.2 in)

Maximum allowable patient weight: 250 kg with additional force of 500 N, allowed in case of CPR. CPR can be performed while the tabletop is set in any longitudinal position

The positioning of the modules: The Xper Module, Xper Imaging, and Xper Geometry Modules can be positioned on three sides of the patient support

Cable integration: cables are incorporated in the table to allow maximum operation flexibility

Patient mattress: The mattress is made of slow recovery foam, with a density of 58 kg/m³ and a thickness of 7 cm that adapts to the patient body shape

Monitor Ceiling Suspension

Number of monitors: two, three, four, six or eight monitors

Rotation range: 350°

Transversal movement: Over a distance of 300 cm (118.1 in)

Longitudinal movement: Over a distance of 330 cm (129.9 in)

Flat Panel Detector

Size of detector housing: 42 x 52 cm (16.5 x 20.5 in), including BodyGuard

Maximum field of view: 30 x 38 cm (11.8 x 14.9 in)

Image matrix: 2480 x 1920 px at 14 bits depth

Detector zoom fields: 30 x 30 cm (11.8 x 11.8 in) | 26 x 26 cm (10.2 x 10.2 in) | 22 cm x 22 cm (8.7 x 8.7 in) | 19 x 19 cm (7.5 x 7.5 in) | 16 x 16 cm (6.3 x 6.3 in) | 13.5 x 13.5 cm (5.3 x 5.3 in) | 11 x 11 cm (4.3 x 4.3 in) square formats

Pixel pitch: 154 µm

Detector bit depth: 14 bits

Nyquist frequency: 3.25 lp/mm

DQE (0): More than 73% at 0 lp/mm

Digital output: $2k^2$ and $1k^2$ and 512^2 at 14 bit depth resolution

MTF at 1 lp/mm: > 60%

MTF at Nyquist frequency: 10%

Velara X-ray Generator

Generated power: Microprocessor-controlled, 100 kW high frequency converter generator

Minimum switching time: Quartz-controlled power-switch, with a minimum switching time of 1 ms

Voltage range: 40 to 125 kV

Maximum current: 1250 mA at 80 kV

Maximum continuous power: 2.4 kW for 0.5 hours, 2 kW for 8 hours

Nominal power (highest electrical power): 100 kW (1000 mA at 100 kV)

MRC-GS 0407 X-ray Tube

Focal spot size and loadability: 0.4/0.7 nominal focal spot values with maximal 30 respectively

Max. heat dissipation of assembly heat: 3400 W

	Fluoro power for 10 minutes: 4500 W Fluoro power for 20 minutes: 3500 W Anode heat dissipation: 11,000 W	Cooling liquid: Oil cooled x-ray tube with thermal safety switch Anode cooling method: Direct anode oil cooling system with 200 mm anode diameter
Monochrome LCD Monitor	Size of monochrome TFT-LCD display: 18-inch monochrome TFT-LCD display Format: Native format of 1280 x 1024 SXGA Grey-scale resolution: 10 bit with grey-scale correction Wide viewing angle: Yes (approximately 160°)	High brightness: Yes (max 600 Cd/m², default 500 Cd/m²), with ambient light dependent brightness control Protection screen: Yes, in the examination room
Color LCD Monitor	Size of color TFT-LCD display: 19-inch color TFT-LCD display Format: Native format 1280 x 1024 SXGA Wide viewing angle: Yes (approximately 160°)	High brightness: Controlled brightness (200 Cd/m²) with ambient light dependent brightness control Protection screen: Yes, in the examination room

PHILIPS

Sold to:
Southeast Health
1108 Ross Clark Cir
Dothan, AL 36301-3024

Presented By
Justin Helms
Philips Healthcare a division of Philips North America LLC
414 Union Street
Nashville, Tennessee 37219
Email: justin.helms@philips.com

Quote #: Q-00222174
Customer #: 94030293
Quote Date: 09/12/23
Valid Until: 12/14/23

Southeast Health Azurion 7 B20 OR 28 Catalyst SID 49034146

Dear Bill Hobbs,

I am pleased to submit the attached proposal for your consideration. I trust this meets your expectation, however should you have any queries or require further information or clarification, please do not hesitate to contact me using the details shown at the bottom of this letter. Orders relating to this proposal should be sent to the email address at the top of this document.

Thank you,
Justin Helms

PHILIPS

Table of Content

PHILIPS

1. Financial Overview

Line	Article No.	Description	Qty	List Price	Net Price
1	722226	Azurion 7 B20	1	$ 4,453,940.00	$ 1,870,654.80
2	100133	CV Third Party Products	1	$ 92,120.00	$ 38,690.40
3	SP008	MAVIG Central Axis Dual Arm Pt Left	1	$ 35,240.00	$ 35,240.00
4	SP008	MAVIG Central Axis Dual Arm Pt Right	1	$ 35,240.00	$ 35,240.00
5	SP00410_RE	Trade In: Allura Xper FD20	1	$ -17,500.00	$ -17,500.00

Discount Amount: **$ -2,636,714.80**

	Total Price
List Price	$ 4,616,540.00
Contract Discount	$ -1,692,801.20
Additional Discount	$ -943,913.60
Trade In	$ -17,500.00
Total Net Price	**$ 1,962,325.20**

(Optional Items)

Line	Article No.	Description	Qty	Net Price
	797403	**(Opt) INTRASIGHT**	*1*	*$ 120,031.80*

PHILIPS

2. Quote Summary

Line	Article No.	Description	Qty	Unit List Price	Contract Disc	Additional Discount	Net Price
1	**722226**	**Azurion 7 B20**					
1.1	NNAT230	Azurion 7 Biplane 20/15 Vascular LN	1	$ 2,849,890.00	38.00%	20.00%	$ 1,196,953.80
1.2	NNAE535	Full Load Remote UPS	1	$ 0.00	0.00%	0.00%	$ 0.00
1.3	989801278412	Full Load Remote UPS	1	$ 93,610.00	38.00%	20.00%	$ 39,316.20
1.4	NNAT072	Onco Advanced Ent	1	$ 0.00	0.00%	0.00%	$ 0.00
1.5	NNAT073	Onco Premium Ent	1	$ 0.00	0.00%	0.00%	$ 0.00
1.6	NNAE675	Azurion Clinical Education Pkg	1	$ 0.00	0.00%	0.00%	$ 0.00
1.7	NCVD187	ClarityIQ...	1	$ 395,600.00	38.00%	20.00%	$ 166,152.00
1.8	NCVD032	FlexVision XL HD + 2 LCD's	1	$ 238,760.00	38.00%	20.00%	$ 100,279.20
1.9	FCV0834	coupling to video switching	1	$ 15,610.00	38.00%	20.00%	$ 6,556.20
1.10	NCVD062	optional ref biplane	1	$ 11,020.00	38.00%	20.00%	$ 4,628.40
1.11	NCVD064	extension to FlexVision Pro	1	$ 83,510.00	38.00%	20.00%	$ 35,074.20
1.12	FCV0588	Isolated Wall Connection Box	6	$ 3,290.00	38.00%	20.00%	$ 8,290.80
1.13	FCV0824	video WCB on rear side 1st MCS	1	$ 12,680.00	38.00%	20.00%	$ 5,325.60
1.14	NCVA093	Physio Viewing	1	$ 6,990.00	38.00%	20.00%	$ 2,935.80
1.15	NCVA694	Subtracted Bolus Chase	1	$ 46,360.00	38.00%	20.00%	$ 19,471.20
1.16	NCVA695	FD Rotational Angio	1	$ 44,300.00	38.00%	20.00%	$ 18,606.00
1.17	NCVD073	SmartMask Biplane	1	$ 36,960.00	38.00%	20.00%	$ 15,523.20
1.18	NCVD133	FD Dual Fluoro biplane	1	$ 87,450.00	38.00%	20.00%	$ 36,729.00
1.19	NCVA258	CO2 VIEW TRACE	1	$ 6,610.00	38.00%	20.00%	$ 2,776.20
1.20	NCVD099	Quantitative Coronary Analysis	1	$ 16,200.00	38.00%	20.00%	$ 6,804.00
1.21	NCVA082	Intercom	1	$ 4,420.00	38.00%	20.00%	$ 1,856.40
1.22	NCVC200	Wireless footswitch: bi-plane version	1	$ 25,510.00	38.00%	20.00%	$ 10,714.20
1.23	NCVA101	Peripheral X-ray filter	1	$ 2,910.00	38.00%	20.00%	$ 1,222.20
1.24	NCVA851	Swivel for table base.	1	$ 38,640.00	38.00%	20.00%	$ 16,228.80
1.25	NCVD138	table tilt option	1	$ 42,260.00	38.00%	20.00%	$ 17,749.20
1.26	FCV0247	Neuro mattres	1	$ 1,120.00	38.00%	20.00%	$ 470.40
1.27	FCV0249	Table clamp	1	$ 500.00	38.00%	20.00%	$ 210.00
1.28	FCV0625	Table mounted radiation shield	1	$ 4,820.00	38.00%	20.00%	$ 2,024.40

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1.29	FCV0706	Neuro Head Holder	1	$ 6,800.00	38.00%	20.00%	$ 2,856.00
1.30	NCVD092	height-adjustable arm support	1	$ 2,040.00	38.00%	20.00%	$ 856.80
1.31	NCVC858	Onco Advanced.	1	$ 133,360.00	38.00%	20.00%	$ 56,011.20
1.32	NCVC859	Onco Premium.	1	$ 146,140.00	38.00%	20.00%	$ 61,378.80
1.33	NCVB846	Laser Option	1	$ 4,390.00	38.00%	20.00%	$ 1,843.80
1.34	NCVD178	IW Hardware	1	$ 47,380.00	38.00%	20.00%	$ 19,899.60
1.35	NCVA341	neuro tabletop	1	$ 0.00	0.00%	0.00%	$ 0.00
1.36	459801079651	Cabinet Rear Cover	5	$ 1,050.00	38.00%	20.00%	$ 2,205.00
1.37	989600205862	Floorplate Swivel Xper Table	1	$ 5,140.00	38.00%	20.00%	$ 2,158.80
1.38	459800938361	Clip rails for Monitor Ceiling Carriage (390cm, 153.5")	1	$ 2,890.00	38.00%	20.00%	$ 1,213.80
1.39	459800706722	MONITOR CEILING CARRIAGE	1	$ 15,080.00	38.00%	20.00%	$ 6,333.60
							$ 1,870,654.80
2	**100133**	**CV Third Party Products**					
2.1	989801220508	Medrad Mark 7 Arterion Ceiling 580mm	1	$ 91,320.00	0.00%	58.00%	$ 38,354.40
2.2	989801220375	Black Anti-fatigue Floor Mat w/logo.	2	$ 400.00	38.00%	20.00%	$ 336.00
							$ 38,690.40
3	**SP008**	**MAVIG Central Axis Dual Arm Pt Left**	1	$ 35,240.00	0.00%	0.00%	$ 35,240.00
4	**SP008**	**MAVIG Central Axis Dual Arm Pt Right**	1	$ 35,240.00	0.00%	0.00%	$ 35,240.00
5	**SP00410_RE**	**Trade In: Allura Xper FD20**	1	$ -17,500.00	0.00%	0.00%	$ -17,500.00

	Total Price
List Price	$ 4,616,540.00
Contract Discount	$ -1,692,801.20
Additional Discount	$ -943,913.60
Trade In	$ -17,500.00
Total Net Price	**$ 1,962,325.20**

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(Optional Items)

Line	Article No.	Description	Qty	Unit List Price	Contract Disc	Promo & Add'l Disc	Net Price
	797403	**(Opt) INTRASIGHT**					
	NNAW510	(Opt) IntraSight 5	*1*	*$ 268,290.00*	*38.00%*	*20.00%*	*$ 112,681.80*
	NVLV017	(Opt) Spinvision PIMr Option Kit	*1*	*$ 17,500.00*	*38.00%*	*20.00%*	*$ 7,350.00*

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3. Quote Overview

Line	Description	Qty	Included	Optional
1	**Azurion 7 B20**			
1.1	Azurion 7 Biplane 20/15 Vascular LN	1	●	
1.2	Full Load Remote UPS	1	●	
1.3	Full Load Remote UPS	1	●	
1.4	Onco Advanced Ent	1	●	
1.5	Onco Premium Ent	1	●	
1.6	Azurion Clinical Education Pkg	1	●	
1.7	ClarityIQ...	1	●	
1.8	FlexVision XL HD + 2 LCD's	1	●	
1.9	coupling to video switching	1	●	
1.10	optional ref biplane	1	●	
1.11	extension to FlexVision Pro	1	●	
1.12	Isolated Wall Connection Box	6	●	
1.13	video WCB on rear side 1st MCS	1	●	
1.14	Physio Viewing	1	●	
1.15	Subtracted Bolus Chase	1	●	
1.16	FD Rotational Angio	1	●	
1.17	SmartMask Biplane	1	●	
1.18	FD Dual Fluoro biplane	1	●	
1.19	CO2 VIEW TRACE	1	●	
1.20	Quantitative Coronary Analysis	1	●	
1.21	Intercom	1	●	
1.22	Wireless footswitch: bi-plane version	1	●	
1.23	Peripheral X-ray filter	1	●	
1.24	Swivel for table base.	1	●	
1.25	table tilt option	1	●	
1.26	Neuro mattres	1	●	
1.27	Table clamp	1	●	
1.28	Table mounted radiation shield	1	●	
1.29	Neuro Head Holder	1	●	
1.30	height-adjustable arm support	1	●	
1.31	Onco Advanced.	1	●	
1.32	Onco Premium.	1	●	
1.33	Laser Option	1	●	
1.34	IW Hardware	1	●	
1.35	neuro tabletop	1	●	
1.36	Cabinet Rear Cover	5	●	

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1.37	Floorplate Swivel Xper Table	1	●	
1.38	Clip rails for Monitor Ceiling Carriage (390cm, 153.5")	1	●	
1.39	MONITOR CEILING CARRIAGE	1	●	
2	**CV Third Party Products**			
2.1	Medrad Mark 7 Arterion Ceiling 580mm	1	●	
2.2	Black Anti-fatigue Floor Mat w/logo.	2	●	
3	**MAVIG Central Axis Dual Arm Pt Left**	1	●	
4	**MAVIG Central Axis Dual Arm Pt Right**	1	●	
5	**Trade In: Allura Xper FD20**	1	●	
	(Opt) INTRASIGHT			
	(Opt) IntraSight 5	1		●
	(Opt) Spinvision PIMr Option Kit	1		●

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4. Quote Details

Line	Description	Qty
1	**Azurion 7 B20** **Article No. 722226** **Details** The list of items below represent a tailored configuration of our Philips Azurion 7 B20 Image-Guided Therapy system.	
1.1	**Azurion 7 Biplane 20/15 Vascular LN** **Article No. NNAT230** Azurion 7 B20/15 Vascular LN Advanced solution for performing interventions in the neurology domain and complex cardio-vascular interventions **Key benefits** • The unique ceiling mounted lateral double arc provides full projection flexibility • 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 **A vision for innovative neuro interventions** With our Live Image Guidance we aim to remove barriers to safer, effective and reproducible treatments, delivering relevant 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 Philips Azurion 7 B20/15 LN system is designed to enhance your treatment capabilities and support more effective device guidance and placement in neurology interventions. Additionally, can also be used in cardio/cardio-vascular interventions. 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 more procedures for more patients, more consistently and efficiently with great ease of use. The Philips Azurion 7 B20/15 LN uses a range of ProcedureCards to help optimize and standardize system set-up for your cases, from routine to mixed procedures. ProcedureCards 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 Card to help safeguard the consistency of interventional procedures and help to minimize preparation errors.	1

The Philips Azurion 7 B20/15 LN 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 Azurion 7 B20/15 biplane cardiovascular system comprises a floor-mounted C-arm stand, a ceiling suspended double C-arm stand and digital imaging X-ray system for cardiovascular diagnostic and interventional procedures.

The Azurion 7 B20/15 system is an integrated single-host concept. The system comprises five functional building blocks:

- Geometry
- X-ray Generation
- Image Detection
- User Interface
- Viewing

1. Geometry
The geometry segment offers full cardiovascular projection possibility.
It includes:

- Frontal stand
- A motorized frontal floor-mounted -stand.
- A rotatable base plate (motorized and manually operated) enables a clear area around the patient table. All stand movements are motorized. The manual and motorized parking movement consists of floor-mounted rotation. Angulation and Rotation of the C-arm is also motorized at high speeds.

Parking of the stand can be done both manual and motorized, over the full range. With electronic autostop positions. This motorized movement makes positioning in the iso-center easy and accurate. It also features comfortable, single operator control of stand parking. The Azurion 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
- C-arm angulation range (degrees): 90 CA to 90 CR
- (Full angulation capability determined by patient position)

In the side position (185 CR 120 CA degrees position, L-arm perpendicular to patient table):

- The depth of the C arm is 90 cm
- The stand provides fully motorized fast movements with variable and configurable maximum speed. Coupled to the BodyGuard detection system, it allows a very high patient throughput, supporting the busiest schedules.
- Variable C-arm rotation speed, up to: 25 degrees/s
- Variable C-arm angulation speed, up to: 25 degrees/s
- The variable source image distance between focus and Dynamic
- Flat Detector input screen is 89.5 to 119.5 cm

Lateral stand
A motorized lateral ceiling suspended double C-arc stand. It allows longitudinal manual and motorized movement on ceiling rails for convenient parking. Operation is safe and secure due to collision protections on X-ray tube, Flat Detector and inside the double C-arc.

The double C-arc enables:

- motor-driven rotation from frontal to left oblique projections of maximum 90 degrees
- motor-driven angulation in the cranial or caudal direction of maximum 45 degrees
- The double C-arc allows these angulations at any rotation
- manual- or motor-driven axial movement of the Flat Detector
- assembly for adjusting the patient/flat detector input screen
- distance focus/flat detector input screen distance 87.5-130.3 cm.

The speed of the motorized angulation/rotation movement is 8 degrees/sec whenever the double C-arc is out of its parking position.

Parking of the lateral C-arc stand can be done both manually and motorized, over the full range, with electronic autostop positions.

Using this motorized movement makes positioning in the isocentre easy and accurate. It also features comfortable, single operator control of stand parking.

The motorized longitudinal movement is max 12 cm/sec over max 315cm.

Patient support
The Standard Table provides feather-light manual float movement, even for heavy patients, thanks to the unique mono-bearing technology. The long flat carbon fiber tabletop provides ample space to place e.g. catheters and guidewires.

It comprises:

- Table top length of 319 cm including OR rails (316 cm excluding OR rails), width of 50 cm
- Metal-free overhang 125 cm
- Floating table-top movement of 120 cm longitudinal and 2 x 18 cm transversal
- Motorized height adjustment from 74 - 102 cm
- Maximum patient weight 250 kg plus 500 N in any longitudinal position of the table top

Table accessory set includes:

- Cerebral filter
- Drip stand
- Rail accessory clamp
- Set of cable holders
- Patient straps
- Arm Support Board
- Set of Elbow Supports
- Head Support
- Lower Body Protection
- Black anti-fatigue floor mat w/logo
- 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.

Prep Table for Volcano
Prep Table for Volcano prepares the table with the cabling needed for an integrated version of the Volcano IntraSight system. This preparation will facilitate the installation of the integrated system and reduce the cable clutter around the table. The user interface can be placed on the table OP rails, while the Volcano IntraSight unit is typically placed in the control room. The Volcano IntraSight Bedside Utility Box (BUB) that is used to connect the IVUS and FFR PIM cables can be stored on the Auxiliary OP-Rail mounted at the foot of the table base.

The Prep Table for Volcano option cannot be purchased in combination with Swivel AND Prep Table for Table Mount Injector.

Content:

- OP rail at table foot
- Cables

2. X-ray Generation
The Azurion 7 B20/15 comprises an integrated dedicated X-ray system, micro-processor controlled Certeray CFD 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.

For each plane, the Certeray CFD 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: 2.5 kW for 0.25 hours, 1.5 kW for 8 hours

- Program selection
- pulsed X-ray up to 3.75 , 7.5 , 15 , 30 (optional), 60 (optional) frames/s for digital dynamic exposures
- pulsed X-ray for pulsed fluoroscopy (30 | 15 | 7.5 | 3.75 | 1.875 | 1.0 | 0.5 img/s (non Clarity settings))
- minimum exposure time of 2 ms
- automatic kV and mA control for optimal image quality prior to run to save dose
- optimal X-ray tube load incorporated in the Certeray CFD generator

The Azurion 7 B20/15 includes a Maximus ROTALIX Ceramic tube assembly MRC200+ GS 0407 and cooling unit CU 3101 for cardiovascular systems for frontal plane and for the lateral plane a Maximus ROTALIX Ceramic tube assembly MRC200+ GS 05 08 and cooling unit CU 3101 for cardiovascular systems.

The X-ray tube MRC200+ GS 04 07 assembly comprising:

- 0.4/0.7 mm nominal focal spot values maximal 30 and 65 kW short time load
- grid switching at pulsed fluoroscopy
- continuous loadability: 4000 W (at 21 degrees C room temp.)
- application of SpectraBeam dose management
- tube housing ROT 1001 for oil-cooled X-ray tube with thermal safety switch
- cooling unit CU 3000 heat exchanger for use in oil-cooled X-ray tube systems
- high voltage cables

The X-ray tube MRC200+ GS 05 08 assembly comprising:

- 0.5/0.8 mm nominal focal spot values maximal 45 and 85 kW short time load
- grid switching at pulsed fluoroscopy
- continuous loadability: 4000 W (at 21 degrees C room temp.)
- application of SpectraBeam dose management
- tube housing ROT 1001 for oil-cooled X-ray tube with thermal safety switch
- cooling unit CU 3000 heat exchanger for use in oil-cooled X-ray tube systems
- high voltage cables

DoseWise program

Philips DoseWise program is a set of techniques, programs and practices built into the Azurion 7 B20/15 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.

System intrinsic

- optimized 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 optimize image quality and dose efficiency with MRC-GS 0508 X-ray tubes
- pre-filters of 0.2, 0.5 and 1.0 mm CU equivalent can be applied for each plane
- automatic cardiac wedge positioning
- anti-scatter grid, ratio 13:1 in each plane

User selections

- three programmable fluoroscopy modes can be selected from the Imaging UI Each mode has a different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, adaptive harmonization)
- X-ray depth collimator with single semi-transparent wedge filter with manual and automatic positioning.
- Beam Shaping, which means that both shutters and wedges can be positioned on the Last image Hold without the need for X-ray radiation.
- Fluoro Storage, a grab function allows storage and archiving of both a fluoro image or the last 20 seconds (service configurable time) of fluoroscopy run. These images or runs can be archived and reviewed as a regular run.
- removable anti-scatter grids to lower x-ray dose for pediatrics.

User awareness

Radiation Dose Structured Report for 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 analysis, to further reduce X-ray dose.

On-system monitor display provides and displays body zone specific Air Kerma data (10 zones for cardiac applications) in numeric and graphical bars.

- A graphical bar and numeric displays the actual dose rate (during x-ray) or predictive dose rate (at no radiation)
- Second graphical bar and numeric 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.

3. Image Detection

The Azurion 7 B20/15 comprises the following image detection chain for frontal plane and Frontal imaging chain:

- 30 x 40 cm (11.6 x 16 inch) (48 cm / 18.9 inch diagonal) 8- mode 20"Dynamic Flat Detector subsystem for fluoroscopy and fluorography procedures

- 8 imaging modes are available, 6"/7"/8"/10.5"/13"/14.4"/17"/19"
- The flat detector subsystem features Access, the detector can be rotated over 90 degrees, it moves from portrait to landscape back and forth
- The digital output of the 20"flat detector is 2480*1920 image matrix at 16 bits depth for the largest mode
- DQE (Detective Quantum Efficiency) >77 % providing high conversion of X-ray into a digital image, while maintaining a high MTF
- The pixel pitch is 154 x 154 microns

Lateral plane:

- A 26 x 33 cm (10 x 13 in.) diagonal 7 mode Dynamic Flat Detector subsystem for fluoroscopy and cine-fluorography.
- A 6"/7"/8"/10.5"/13"/14.4"/15.2"mode Dynamic Flat Detector
- The digital output of the Flat detector is max 1560 x 1440 matrix at 16 bit depth.
- The pixel pitch is 184 micron by 184 micron
- The DQE(0) is 70%, providing high conversion of X-ray into a digital image, while maintaining a high MTF.

Top performance is achieved by a Dedicated Image Pipeline Processor that has an equivalent capability of more than 8000 MIPS and is designed for video speed image processing.

It includes:

- adaptive contour enhancement at 9 x 9 kernel
- adaptive harmonization enhancement at 192 x 192 kernel
- Xres is an award-winning image processing algorithm. Xres is a multiresolution spatial temporal noise reduction and edge enhancement filter. It exploits the full benefits of the digital detector to enhance sharpness and contrast and to reduce noise in the clinical images.

The Azurion 7 B20/15 has a storage capacity of 100,000 images at matrix size of 1024 x 1024, 10 bit for each plane. A maximum number of examinations is 999, with no limit to the maximum number of images per examination.

4. User Interface

User Interface in Examination Room

The User Interface comprises a variety of User 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, depending on configuration, at the bottom of the live and reference monitors or on the left side of the FlexVision monitor 58-inch 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 and cumulated dose
- Dose Area Product: cumulated dose
- Graphical bars for Body Zone specific accumulated skin dose levels, related to the 2 Gy level (for cardiac applications)
- Stopwatch

Touch screen module

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 includes multi-modality function that allows control of (depending on configuration):

- Compatible other equipment (e.g. IntraSight, CX50, Interventional Tools, EchoNav, DoseAware, Philips Hemo system)
- Monitor layout (Flexvision, switchable monitors)
- X-Ray settings (Collimation)
- Geometry (Projections and Table)
- Viewing (Series selection and image Processing)
- Quantitative Analysis (optional) - User can start QA from the touch screen module

Viewpad

The Viewpad contains the preprogrammed function settings. The system is provided with two Viewpads. The following functions are provided:

- Series and image selection
- Study cycle
- Study overview
- Store to Reference image file
- Copy image to photo file
- 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
- Control modules.

The geometry control module can be positioned at three sides of the patient table, while keeping the button operation intuitively logical. The control module biplane provides the following functionality:

- Tabletop float
- Table height position
- Table tilt angle if function is applicable
- Source Image Distance selection
- Gantry positioning (both frontal and lateral)
- Gantry rotation in an axis perpendicular to the floor (both frontal and lateral)
- Geometry reset button, which resets stand and table to a factory-default starting position
- Emergency stop button
- Execute button of the Automatic Positioning Control (APC) if applicable
- Unlocking button for table pivot function (if option is installed)
- Table tilt and cradle controls (if option is installed)

The imaging control module can also be positioned at three sides of the patient table. It provides the following functionality:

- Fluoroscopy Flavor selection defined per setting
- Shutters and Wedge positioning (for both frontal and lateral plane)
- Manual or automatic semi-transparent wedge filter
- Fluoro Storage
- Selection of the Detector field size
- Reset of the fluoroscopy buzzer
- Roadmap Pro activation if function is available

The control module is provided with a protection bar. This removable bar protects the buttons from unintended control.

User Interface in Control Room

With Philips Azurion the control room comprises of a review module, an acquisition monitor and a review monitor The acquisition and review functions are controlled by a single keyboard and mouse.

The review module offers the basic functions for reviewing images on the acquisition monitor. 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 series cycle
- File, Series, and Image stepping
- Series and file overview
- Reset fluoroscopy buzzer
- Enable/disable X-ray
- Disable Geometry movements

The acquisition monitor is intended to follow live case in the ER. The live images for the frontal and lateral channels are always synchronized and displayed side by side on one monitor. System information is displayed on the bottom of the monitor:

- Stopwatch and Time
- System guidance information
- Dose Area Product (DAP), Cumulative Skin Dose, Skin Dose rate as well as graphical bars for Body Zone specific accumulated skin dose levels
- 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

Patient Administration

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 photo file.

ProcedureCards

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

Acquisition

The acquisition page contains information on the currently selected patient and allows control of the acquisition settings.

Reviewing
The review page allows for reviewing of patients:

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

Archiving

Clinical cases 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.

The review monitor is a 24 inch color TFT-LCD medical grade monitor.

The Review monitor can be used while acquisition is being performed in the examination room and has the following features and possibilities:

- Step through file, series, or images
- File, and series overview
- Contrast, brightness, and edge enhancement settings
- Flagging of series 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

Viewing in the Examination room
The Azurion 7 B20/15 system comes with two 27 inch color medical grade LCD monitors for clinical image display in the Examination room. These LCD monitors are intended for viewing in the examination room and are designed for medical applications.

One of the monitors is used for viewing of frontal and lateral live images. The other monitor serves as the frontal and lateral reference displays. Selection and storing of live to reference monitors is controlled by the infra-red remote-control Viewpad.

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 color TFT-LCD display
- Native format 1920x1080 Quad HD
- 10 bit gray-scale resolution with gray-scale correction
- Wide viewing angle (approx. 178 degrees)
- High brightness (max 500 Cd/m2, default 400 Cd/m2)
- Push buttons for control functions on front
- User programmable and standard reference setting
- On Screen Display
- Internal selectable lookup table for gray-scale transfer function
- Internal power supply (100-240 VAC)
- Integrated LCD protection screen

Unless otherwise stated a flat monitor ceiling suspension for 2 widescreen monitors (2F MCS) is included. MCS includes motorized height adjustment. The Ceiling suspension allows flexible monitor positioning over a range of about 360 x 300 cm.

Viewing in Control room
DICOM compatibility
The Azurion 7 B20/15 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 configured by 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 10 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.

Security
The Philips Azurion system runs on the Windows 10 Operating system and offers features such as OS Hardening, AppLocker, & BitLocker functionality.

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.

Full System APC
Store and recall stand-related positions

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 & table related positions. Operators can select a sequence from a pre-defined list or from positions stored during a procedure or use an image to define the position to be recalled.

Specifications

Different modes of Automatic Positioning Control for system are defined:

- Sequence: for recalling a list of user customizable positions of the stand
- Store / Recall: for storing and recalling stand positions during system use.
- Image Reference: an image is used to determine the stand & table position that has to be recalled
- Image Reference 3D: an image from a 3D work spot is used to recall.
- The operator can define a new point of the table (longitudinal, lateral and height) as the new iso-center and recall this table position.

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.

RIS/CIS Interface

This package allows communication of the X-ray system with a local information system (CIS or RIS).

Key benefits

- Reduce errors in patient information
- Facilitate X-ray dose management

Reduce data errors and facilitate X-ray dose management

Connecting the X-ray system with your local information system (CIS or RIS) helps streamline exam workflow and promote radiation management. The RIS/CIS DICOM interface package allows your X-ray system to communicate with a local CIS or RIS information system. The interface uses the DICOM Worklist Management (DICOM WLM) and Modality Performed Procedure Step (DICOM MPPS) standards.
If a hospital has an X-ray system and an information system it can receive patient and examination request information from the information system and report examination results to:

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

Specifications

Upon request from the X-ray system the complete worklist with all relevant patient and examination data is returned from the IS to the X-ray system. For each patient the following information will be shown on the -ray system 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 X-ray system in case of an emergency or in case the local Information System connection is down.

On request of the clinical user the X-ray system will report the following information about the selected patient to the IS:

- Patient Identification: Patient name, Patient ID, Birth date, Sex
- Examination/Request Information: Accession number, Performed procedure step status start/end date and time, Performing physician's name, Referenced image sequence
- Radiation dose: Total time of fluoroscopy, Accumulated fluoroscopy dose, Accumulated exposure dose, Total dose, Total number of exposures, Total number of frames

Further detailed information can be found in the X-ray system DICOM Conformance Statement.
The interface requires an EasyLink (hardware and software) if the RIS/CIS is not compliant with DICOM WLM and DICOM MPPS.

Contrast Injector Interface

Simplify contrast injection timing and enhance imaging results

The Contrast Injector Interface allows the injection of contrast to be coupled to the start of X-ray acquisition. This simplifies contrast injection timing during interventions.
Specifications

The Contrast Injector Interface allows injection of contrast coupled to the start of X-ray acquisition, controlled by the X-ray ON button. The timing of the X-ray start related to the contrast injection is programmable.

Pan Handle
An optional 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
- 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

Marker tool

Marker tool allows you to easily mark areas of interest on a 2D image. Clear and precise markings on the image as the marking scales with the image when it's zoomed or panned
Key benefits

- Allows you to mark areas of interest on an image during your procedure (e.g. to indicate where to put stent/grafts)

Enhance functionality on the touch screen module
This option extends the functionality of the touch screen module, allowing markings on images.
Affordable alternative vs expensive 3rd party applications

PHILIPS

Specifications

- Enhance functionality on the TSM
- Provides intuitive zooming and panning functionality (also during fluoroscopy)
- Turns the touchscreen into the marking device in order to improve communication during the procedure

Hemo on TSM
Control Xper Flex Cardio from table side
Key benefits

- Helps to perform a complete hemodynamic study from tableside.
- Optimizes workflow in the interventional lab by seamlessly integrating Xper Flex Cardio with the X-ray system.

The touch screen module interface acts as a remote control to the Xper Flex Cardio system. The "Hemo" menu on the touch screen module contains a subset of the Xper Flex Cardio features. Changes selected on the touch screen module will be displayed on the Xper Flex Cardio system.

Specifications

Now you can perform common FlexCardio features at table side:

- SNAP (Auto record)
- Obtain/Capture and store hemodynamic waveforms and ECG's
- Cardiac Output measurements
- Monitor scale and sweep speed
- FFR measurements
- NIBP measurement

1.2	**Full Load Remote UPS** **Article No. NNAE535** MGE Galaxy 5000 80 kVA Full Load 40kW UPS with remote capability. Includes top feed cabinet and optional side panels, ISX0001369526 G5TUPSU80KPAdjacent MGE Galaxy 5000 Battery Cabinet with one full string of batteries and standard Galaxy 5000 Adjacent battery Temp sensor. High Voltage 6 Alarm Relays Card MGE GALAXY 5000 Remote Alarm Status Panel MGE SNMP/Web Communication Card Top Feed Auxiliary Cabinet In the event of a power loss the UPS provides emergency power to allow system function and full X-Ray exposure and fluoroscopy for up to 15 minutes.	1
1.3	**Full Load Remote UPS** **Article No. 989801278412**	1

Details

"Schneider Galaxy VS Full Load 80kva UPS

Schneider Galaxy VS Full Load 80kva UPS:

Enough battery for full functionality for 15 minutes (assumes batteries are in good condition) (2 cabinets plus remote display panel).

In the event of a power loss the UPS provides emergency power to allow system function and full X-Ray exposure and fluoroscopy for up to 15 minutes.

UPS has a compatibility statement with Philips Imaging Systems."

Features

KBA-MON

Please remove the reference to this dummy and replace with a different feature.

Please remove the reference to this dummy and replace with a different feature.

1.4 **Onco Advanced Ent** 1
Article No. NNAT072

SmartCT Soft Tissue OnSite Education: Philips Clinical Applications Specialist will provide eight (08) 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# 296509-29062020

1.5 **Onco Premium Ent** 1
Article No. NNAT073

XperGuide OnSite Education: Philips Clinical Applications Specialist will provide eight (08) 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.

XperGuide Ablation OnSite Education: Philips Clinical Applications Specialist will provide eight (8) 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.

SmartCT Soft Tissue for LUMI OnSite Education: Philips Clinical Applications Specialist will provide eight (08) 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.

EmboGuide OnSite Education: Philips Clinical Applications Specialist will provide eight (8) 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# 29233629625329650929625O-29062020

1.6 **Azurion Clinical Education Pkg** 1
Article No. NNAE675

Azurion Clinical Education Pkg

Clinical Education Program for Azurion System:

Essentials Offsite Education: Philips will provide two (2) Cardiovascular Technologists, Registered Technologists, Registered Nurse, or other system operators 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 Azurion 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.** Clinical Services cancellation policies apply and will be provided during scheduling process.

Introductory e-Learning: Introductory electronic learnings are provided on the Philips Learning Center educational portal. These courses introduce the Philips IGT systems. Course topics include system startup and shutdown, system functionalities, helpful quick-steps and more. The modules will provide the technologist familiarity with the workflow and software prior to onsite training. It is recommended that this online self-paced learning be completed prior to the onsite applications training. The

eLearning modules can be accessed by technologists as needed for reference and refresher. Clinical Services cancellation policies apply and will be provided during scheduling process.

Initial Handover OnSite Education: The primary Philips Education Specialists will provide one consecutive session of 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).** Clinical Services cancellation policies apply and will be provided during scheduling process.

FollowUp OnSite Education: Philips Education Specialists will provide one consecutive session of 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. Clinical Services cancellation policies apply and will be provided during scheduling process.

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

1.7 **ClarityIQ...** 1
Article No. NCVD187

Introduction

Low dose across clinical areas, patients and operators

Key Benefits

- High-quality imaging at low dose levels
- Enhanced work environment for staff through active management of scatter radiation
- Expands treatment options
- Enables longer procedures to treat obese and high-risk patients with confidence

Details

Azurion with its unique ClarityIQ technology gives you exceptional live image guidance during treatment. What's more, you can confidently manage low X-ray dose levels without changing your way of working. In short, you can see what you have to regardless of patient size.

Specifications
ClarityIQ technology is the foundation of Philips X-ray systems with Azurion. It offers:
- Noise and artefact reduction, also on moving structures and objects
- Image enhancement and edge sharpening
- Automatic real-time patient and table motion correction on live images

- A flexible digital imaging pipeline from tube to display that is tailored for each application area
- Over 500 clinically fine-tuned system parameters making it possible to filter out more X-ray radiation and use smaller focal spot sizes and shorter pulses with the grid switching technology of Philips MRC tube and accompanying generator

Pulsed X-ray for pulsed fluoroscopy
25 | 12.5 | 6.25 | 3.125 | 2.5 | 1.25 | 0.625 img/s

Includes

See with confidence every time Interventions are becoming increasingly complex, which lengthens fluoroscopy time and increases the need for high resolution imaging. New devices can be more difficult to visualize, making it harder to position them precisely. The prevalence of patients with a high BMI can also require increased dose levels to visualize anatomy. All of these factors inspired us to completely redefine the balance in interventional X-ray with Azurion.

1.8 **FlexVision XL HD + 2 LCD's** 1
Article No. NCVD032

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.

1.9 **coupling to video switching** 1
Article No. FCV0834

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. Coupling to Video switching enables coupling of maximum 4 color outputs (e.g. Interventional tools, Xcelera, XperIM and IntelliSpace Portal).

Specifications

Video splitter box to enable coupling of maximum 4 color outputs (e.g. Interventional tools, Xcelera, XperIM and IntelliSpace Portal) to the switching concept from our partner.
In combination with the MultiSwitch option, the Video splitter box is used to connect a maximum of 3 workstation with a total power dissipation of maximum 1380 W.
For the remaining workstations, up to 4 in total, a second video splitter box needs to be ordered.
In addition, 4 splitter units are delivered to enable coupling of up to 4 of the X-ray system Live and Ref signals to the partner video switching system.
The partner system provides fully galvanically isolated DVI extender cables to connect these signals.

1.10 **optional ref biplane** 1
Article No. NCVD062

Additional Reference 3 and Reference 4 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 biplane offers an additional video output of the X-ray system offering an additional Ref3 and Ref4 viewport on one LCD monitor.
Combined with the Dual Fluoro option, this enables users to zoom live images during acquisition, while having the Dual Fluoro image of the frontal channel visible on the Ref3 viewport and the Dual Fluoro image of the lateral channel visible on the Ref4 viewport.

1.11 **extension to FlexVision Pro** 1
Article No. NCVD064

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

1.12 **Isolated Wall Connection Box** 6
Article No. FCV0588

Introduction

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

Key Benefits

- Easily stream video to other locations
- Stream video from other modalities on the interventional X-ray suite
- Connect external video in the exam room

Details

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

Includes

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.

1.13 **video WCB on rear side 1st MCS** 1
Article No. FCV0824

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

Key benefits
• Easily connect external video in the exam room

Specifications
A wall connection box to connect external video (input only), USB and Ethernet. One or two WCB's (option) can be attached on the rear side of the 1st MCS with a bracket. A cable box (also attached to rear side of 1st MCS) can be used to store connected equipment cables. A maximum of two WCBs/cable boxes can be attached.

1.14 **Physio Viewing** 1
Article No. NCVA093

Physio Viewing is an extension for acquisition storage and display of up to four physiological signals in the X-ray system.

The operator can select one of the recorded physio signals for display together with the acquired image.
It allows ECG-triggered acquisition: allows acquiring one exposure for each QRS peak with a selectable delay time.

Specifications
-Acquisition and storage of a maximum 4 channels of physio data together with the X-ray images
-Setting determined storage on/off of all inputs; recording only in parallel with X-ray acquisition
-Operator can select one recorded physio channel for display

1.15 **Subtracted Bolus Chase** 1
Article No. NCVA694

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.

1.16 **FD Rotational Angio** 1
Article No. NCVA695

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.

1.17 **SmartMask Biplane** 1
Article No. NCVD073

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
Alternative to the roadmap Vessel phase, the user can directly select an image from any stored run and use it as the VesselMask ('SmartMask') for the Device phase.

1.18 **FD Dual Fluoro biplane** 1
Article No. NCVD133

An additional fluoro display in parallel to the standard fluoro channel

Key benefits
- View subtracted fluoroscopy next to 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.

1.19 **CO2 VIEW TRACE** 1
Article No. NCVA258

Software package enabling tracing (stacking) of images acquired with CO2 injections. This function can be used during postprocessing next to view trace of images acquired with CO2 injections.

1.20 **Quantitative Coronary Analysis** 1
Article No. NCVD099

Key benefits
- Allows quantitative quantification of coronary artery dimensions
- 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 coronary artery
To support decision making and allow assessment of vasculature during cardiac interventions, the 2D quantitative coronary analysis supports quantification of coronary artery dimensions of about 1 to 6

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 segmentation of selected coronary
- Diameter measurement along the 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.

1.21 **Intercom** 1
Article No. NCVA082

- Enhance communication between exam room and control room

Enhance communication
The remote intercom is used to communicate between the examination and control room. A separate intercom can be connected to the system and placed in the preferred working position in the control room or examination room. The listen function can be selected separately on each intercom. Activating the talk function on a selected intercom automatically disables this function on the other intercom.

1.22 **Wireless footswitch: bi-plane version** 1
Article No. NCVC200

One wireless footswitch in the Examination Room.

Key benefits
- Reduces clutter around the examination table
- Simplifies preparation and cleanup
- Streamlines workflow in the interventional suite

Reduce clutter and streamline workflow
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.

Specifications
- The bi-plane wireless footswitch is a 6 pedal version;

1. Bi-plane fluoro
2. Channel selection
3. Room light control/Single shot
4. Frontal fluoro
5. Exposure

6. Lateral fluoro.
• The pedals can be configured according customers preferred lay-out.
• 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.
• 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.
• 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.
• The wireless footswitch can easily be cleaned in water. It has high water ingress protection standard (IPX8).
• 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.

1.23 **Peripheral X-ray filter** 1
Article No. NCVA101

• 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.

1.24 **Swivel for table base.** 1
Article No. NCVA851

• Simplifies patient positioning
• Easy patient transfer

Simplifies patient positioning
The swivel option with pivot movement allows you to easily move the table to reach upper and lower peripherals for angiographic and interventional procedures. Swivel the table from side-to-side or pivot the table on its vertical axis. The table moves with less friction, making it easier to move larger patients. A secure mechanism locks the tabletop in place to prevent it from moving.

1.25 **table tilt option** 1
Article No. NCVD138

Table tilt option provides precise imaging of contrast medium, blood, or objects in the body.

Key benefits
• Tilts the table to support gravity oriented and puncture procedures
• Keeps the region of interest in the isocenter of rotation and angulation
• Allows more precise imaging of contrast medium, blood, or objects in the body

Precise imaging during gravity oriented and puncture procedures

To obtain high quality results and avoid re-takes during gravity oriented or puncture procedures, it's important to keep the region of interest centered at all times. The tilt option allows you to tilt the table. As the table tilts, the X-ray beam automatically adapts to the movement to keep the region of interest in the isocenter of rotation and angulation of the stand. As a result, your region of interest always remains centered to allow more precise imaging of contrast medium, blood, or objects in the body.

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, the table tilt option enables phlebography to be performed with a head-up tilted patient.

Specifications
- Motorized table height from 78.5 - 103.5 cm
- 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 36cm)
- Easy to use controls

1.26 **Neuro mattres** 1
Article No. FCV0247
- Enhances patient comfort
- Adapted shape at the head end
- Conforms to the shape of the patient's body

Enhance patient comfort
To enhance patient comfort during neuro procedures, the inflatable, latex free mattress is placed on the tabletop for every procedure. The shape is adapted at the head end to accommodate neuro accessories and allow free access to the patient's head. It is 7 cm thick and conforms 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: 2000mm
Width: 440/500mm
Height: 70mm
Radius: 150mm

1.27 **Table clamp** 1
Article No. FCV0249

Table top clamp for mounting on CV patient table.

Key benefits
- Easily mount accessories on patient table

Easily mount accessories on patient table
The table clamp is attached to the sides of the tabletop and is used to mount accessories on the tabletop.

Quantity: 1x

1.28 **Table mounted radiation shield** 1
Article No. FCV0625

Introduction

Protect the upper body from scatter radiation

Details

Specifications
- Lower shield measuring 70 cm high x 80 cm wide curved shape, 0.5 mm Pb equivalence
- Upper shield measuring 40 cm high x 50 cm wide 0.5 mm Pb equivalence
- Mounting clamp
- Docking device for wall mounting.

The Radiation Shield is a Medical Device as defined in Regulation (EU) 2017/745 (EU-MDR)

Includes

Radiation shields can provide substantial protection from scatter radiation during interventions. The table mounted radiation shield is designed to offer additional protection for the physician and staff against scatter radiation during procedures. The shield consists of two protective parts: a lower shield and an upper shield.

The shields can be mounted to either the right or left table accessory rails. Each radiation shield can be easily pivoted into the required working position and parked underneath the tabletop to facilitate patient preparation. The upper shield can be positioned upright to provide protection, or can be folded down for free access to the patient.

1.29 **Neuro Head Holder** 1
Article No. FCV0706

Introduction

The neuro head holder is designed to position and immobilize the head, improving patient comfort and image quality

Key Benefits

- Enhance patient comfort
- Reduce image artifacts

Details

Specifications
The neuro head holder consists of:
- Head support
- Inlay

- 2 head straps

The neuro head holder is compatible with all X-ray system tables & table tops (excluding the MAQUET tables).

Neuro Head Holder is a Medical Device as defined in Regulation (EU) 2017/745 (EU-MDR)

Includes

Enhance patient comfort and reduce artifacts During procedures, patient movements can cause imaging artifacts. The neuro head holder is designed to position and immobilize the head, improving patient comfort and image quality. It can be rotated, angulated, and adjusted in height to the desired position. The unique clamp assembly enables the patient's head to be turned left or right without changing the height, to facilitate easy patient transfer. The aluminum equivalence of the neuro head holder is between 1.0 and 0.5 mm for excellent X-ray translucency.

1.30 **height-adjustable arm support** 1
Article No. NCVD092

• Enhance patient comfort during catheter usage

Enhance patient comfort during catheter usage
To support the patient's arm when a catheter is used for brachial catheterization and digital imaging techniques, the arm support can be attached to the tabletop. The support is made of X-ray transparent material and includes a mattress pad for increased patient comfort. The fixation clamp and pivot mechanism are not made of X-ray transparent material.

1.31 **Onco Advanced.** 1
Article No. NCVC858

NCVC858 Onco Advanced.

The Onco Advanced bundle offers advanced Cone Beam CT 3D imaging of soft tissue, vascular and bone structures. SmartCT Soft Tissue enables 3D acquisition of an arterial phase to visualize vascular structures and a post-arterial (delayed phase) to visualize accumulation of contrast medium in tumors in a single automatic step. The Open Trajectory enables unobstructed rotational scans which eases patient positioning especially in bariatrics; it also enables off center positioning of the patient table for better centering of the FOV to help visualize tumors on the periphery of the organ.

SmartCT Soft Tissue
SmartCT Soft Tissue offers a Cone Beam CT (CBCT) acquisition technique augmented with step-by-step guidance, Advanced 3D visualization and measurement tools all accessible on the touch screen module at table side. To support you perform a fast and first-time-right* CBCT image and streamline your workflow, you are guided though 4 key steps.

1. Room setup
2. Proper 3D protocol with corresponding suggested injection protocol (when applicable)
3. Visual feedback on field of view for a collision free table iso-centring with the possibility to use a required image for zero-dose iso-centring.

4. Visual support on when to press and release the acquisition button.

Once the CBCT scan is successfully performed, the acquired 3D image is automatically displayed in the SmartCT 3D visualization tool with the adequate rendering settings and the 3D measurement tools tailored for the selected 3D protocol.

Key benefits
- Aids in assessment of soft tissue, bone structure, contrast filled vessels and stent deployment
- Fast reconstructions support fast decisions during procedures
- Dual Phase acquisitions allow visualization of arterial and post-arterial contrast enhanced images to support the visualization of the vasculature of interest and the enhancing tissue .

Supports assessment of soft tissue, bone structure, and stent deployment
One of the challenges during interventional procedures is to treat the region of interest without affecting surrounding healthy tissue. SmartCT Soft Tissue provides high resolution, high contrast images within seconds. Physicians can use the CBCT images to assess soft tissue, bone structure, contrast filled vessels and stent deployment before, during, and after interventions.

Specifications
SmartCT Soft Tissue protocols are available for brain, thoracic, abdominal and pelvic imaging to support the treatment of patients with vascular diseases, cancer or trauma. Furthermore, 3D brain imaging in stroke patients enables the detection of early ischemic changes and identification of bleedings. All protocols can be selected at the tableside via the touch screen module.

With SmartCT Soft Tissue offers:
- up to 60 frames/sec. (frame rate extension to 60 frames/sec is included)
- fast abdominal protocols with 5 to 8 second acquisition times for the X-ray system, thereby minimizing respiratory artifacts.
- Automatic display of the CBCT volume within 8 to 15 seconds after acquisition. No user interaction is required.

SmartCT Soft Tissue offers the possibility to acquire a CBCT using open trajectory with start and stop positions of +55° to -185° respectively. This protocol opens the arc to the left side of the patient allowing for a wider translation of the angiographic table towards this direction; thereby shifting the isocenter of the C-arm to the right lateral side of the patient. This enables visualizing off-centered regions of interest (such as the periphery of the liver) in a single sweep.

The Dual Phase dual view functionality provided by XperCT Dual allows the simultaneous visualization of two 3D datasets acquired at different times of the procedure such as the arterial and post-arterial contrast enhancement in oncologic liver imaging. In this DualView, it is possible to segment multiple lesions at the same time in the viewed datasets.

The CBCT volume can be viewed in the control room and in the examination room on both the FlexVision and the touch screen module. The viewing package comprises:
- 3D volume viewing in any desired orientation
- Slice viewing in any desired orientation
- Slice viewing at any slice thickness with a minimum of 0.125 mm
- Unlimited distance measurements calculated in the same volume, including "Quick measurement" feature
- Unique high-resolution reconstructive zoom technique
- Graphical display of stand position including rotation and angulation parameters

- Contrast and brightness control
- Contrast resolution 5-10 Hu
- Spatial resolution of the initial reconstruction: 10 lp/mm
- Contrast range -1000 to 2000 Hu
- High resolution imaging mode produces
- 512x512x512 volume rendered reconstructions
- Can be controlled via the touch screen module and the mouse at tableside.

The CBCT volume can be matched with (when additional options are available) 3D-RA (3D Rotational Angiography) and pre acquired CT, PET/CT or MR volumes. This view allows combining multiple images from different modalities in order to provide additional anatomical insight. This multimodality volume can be viewed with the following functionalities:
- Registration of the two volumes from the same patient
- The resulting volume can be viewed with complete 3D-RA viewing functionality
- The CBCT slice can be overlaid onto the 3D vessel for better assessment of the region of interest
- Three different contrast rendering options to allow viewing of the 3D vessel in the soft tissue structure
- (128x128x128, 256x256x256, 384x384x384 and 512x512x512 volumes)
- Movie clip recording functionality (AVI) to capture dynamic views
- 3D automatic position control at tableside: When a working position is selected from the CBCT volume the C-arc steers itself to the selected position
- 3D Follow C-arc at tableside
- CBCT data and 3D-RA with Dual View (provided by XperCT Dual) overlay is stored in the same patient file as all other patient related data. All this data can be reviewed at any time.

CBCT data can be exported to:
- Any optional DICOM compatible device (e.g. PACS/Printer), supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D
- Support archive on one or multiple DVD's, CD-ROM(s)
- Image transfer to a standard PC compatible format (JPEG, AVI)
- Store a subset of exportable objects (snapshots and AVI Movies) to a USB device.

*Evaluated with clinical users in a simulated lab environment with a total of 17 teams consisting of a physician and a radio-tech, with different levels of experience

SmartCT Vessel Analysis
SmartCT Vessel Analysis allows easy inspection of the vessel and device positioning with straightened, curved and cross-section reformats to support treatment planning. The curved MPR view allows you to see the whole vessel segment on one plane. The straightened reformat view of the vessel segment, where the curvature is extracted from the vessel, while preserving the longitudinal and angular position, contains a graph showing the vessel diameter along the segment. The straightened cross-section view displays an indication of the minimum and maximum diameters at the pointer location as you move it over the curved, reformat or straightened reformat view. You can choose your preferred rendering to enhance visibility of guidewires and the stretched vessel view allows you to measure the diameter of the vessel/lumen and the length of the segment/stenosis at three locations. Ring landmarks can be used to mark feeder vessels to aid navigation.

SmartCT Artifact Reduction
SmartCT Artifact Reduction offers the possibility to reduce the artifacts caused by metal presence in the vicinity of the region of interest.

When abdominal CBCT runs are selected a Body Mass Index noise reduction is offered..

1.32 **Onco Premium.** 1
Article No. NCVC859

NCVC859 Onco Premium.

The Onco premium bundle provides a comprehensive solution for planning your biopsy, ablation and embolization procedures. It supports treatment of multiple lesions simultaneously with advanced live guidance. XperGuide provides tools for planning and live image guidance of needle trajectory. It offers a unique Parallax Correction to plan needle trajectories for off-center lesions. XperGuide allows you to overlay your pre-procedural PET, MR or CT images on your peri-procedural CBCT, for planning your needle trajectory, and on your fluoro for live guidance. XperGuide Ablation facilitates the planning of tumor ablation procedures. It supports all thermal percutaneous ablation techniques (Radio Frequency, microwave and cryo-ablation) by displaying the isotherm of the chosen ablation needle.
For your Liver embolization procedures, EmboGuide offers an automatic feeder detection solution that significantly improves feeding artery detection compared to using CBCT alone. It supports you in maximizing the efficacy of your TACE procedures. SmartCT for LUMI offers optimized protocols for the visualization of radiopaque BTG LUMI beads.

XperGuide
XperGuide provides live 3D needle guidance.

Key benefits
- Shows live advancement of needle for extra guidance
- Requires less X-ray dose than regular CT scans
- Can reduce procedure time significantly compared to regular CT interventions

Perform needle interventions in the angio suite
Having advanced live image guidance tools on your X-ray system can bring new applications to your angio suite. XperGuide provides live 3D needle guidance to support a wide range of non-vascular image-guided needle procedures. Virtual needle paths are created on an XperCT dataset or on the previously acquired CT or MR dataset. XperGuide overlays the real-time 2D fluoroscopy images with the 3D volume of XperCT, CT, or MR to visualize the actual needle path versus the virtual path previously planned.

By using an X-ray overlay with CT-like imaging to guide needle interventions, XperGuide can shorten procedure times significantly and support physicians in reducing risks during procedures.

Specifications
The volumetric dataset can be viewed in any slice direction.
A wide range of gantry projections can be used to define the needle path.
Path planning can be done:
- By drawing a virtual needle path on an XperCT, MR or CT slice
- By defining entry and target points on different XperCT, MR or CT slices
- By defining a help line on a 3D volume

The calculated virtual needle paths can be viewed on the XperCT, MR or CT slices, to verify if this path is feasible.
XperGuide supports planning of multiple needle trajectories.

During the needle procedure, XperGuide is fully controlled at tableside.
When XperGuide is active, guidance is automatically active when the fluoro pedal is pressed. The gantry can be positioned in the calculated gantry positions or controlled manually.
The XperGuide images (live 2D fluoro projected over the XperCT, MR or CT volume) will follow the gantry projections.

At table side, XperGuide adapts in real-time to the following parameters:
- Changes in the angulation of the C-arm
- Changes in the rotation of the C-arm
- Changes in the field of view
- Changes in the source image distance

XperGuide runs are stored in the same patient file as all other patient related data. This data can be reviewed at any time.

XperGuide runs can be sent to any optional DICOM compatible device (supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D), any PC in a standard PC compatible format (JPEG,AVI) and stored/archived on:
- A PACS systems as DICOM Secondary Capture images or movies
- USB device
- One or multiple DVD's, CD-ROM(s) for easy archiving
- Hard copy via the (DICOM Print) protocol

XperGuide Ablation
The XperGuide Ablation Program consists of the XperGuide Ablation software; a dedicated peer to peer training and a three day follow up on site.
Together with the XperGuide Ablation software, this option includes the enrollment of one physician to a Tumor Ablation Training, which will take place at a Philips'reference hospital for tumor ablation procedures.
The training through an experienced clinician is provided in a one and half day workshop with hands-on in-depth training on the clinical use, indications and best practices of XperGuide Ablation..
A subsequent three day follow up Clinical Application Support in Tumor Ablation at the customer site by experienced Philips staff; will guide through the first procedures.

XperGuide Ablation is an extension to XperGuide Software to facilitate the
planning of tumor ablation procedures. It supports all percutaneous ablation techniques (RF, microwave and cryo-ablation) by displaying the isotherm of the chosen ablation needle. It allows the visualization of multiple needles by entering their thermal characteristics, and the assessment of their combined impact in the ablation zone.

A virtual ablation needle with its thermal characteristics is displayed on an 3 dimensional XperCT volume or previously acquired CT or MR data to
verify optimal positioning of the needle and obtain total tumor coverage.
The termal characteristics of each needle consists of the width, breadth and front of its ablation zones. Per needle up to three ablation zones of different isotherms can be defined. XperGuide Ablation allows to plan and store up to 60 different types of thermal needle characterics simultaneously.

All thermal characteristics can be stored and transferred to other Allura systems.
After the needle planning is performed, 2D fluoroscopy overlaid on the 3D volume, allows real time needle guidance along the planned trajectory on XperCT, MR and CT dataset.

During live needle guidance is possible to adjust the ablation transparency and the modify the previous plan.
After the needle(s) are positioned, it's possible to control the effective ablation target with the previous plan.

With the completion of the product training, a voucher entitles to enroll to the regular Tumor Ablation Training and to three days follow up by on-site Clinical Application Support in Tumor Ablation .
The validity of the voucher is three years.

SmartCT for LUMI
SmartCT for LUMI protocols are optimized for the visualization of radiopaque BTG LUMITM beads (i.e. LC Bead LUMITM and DC Bead LUMITM) used in the endovascular oncologic procedures of the liver. The protocol allows visualization of bones, soft tissues and vessels in case of contrast enhanced acquisition and are available for embolization (i.e TACE) procedures. The DualView functionality will also be available with this protocol and allows visualizing two 3D datasets acquired at different times of the procedure such as the arterial and post-arterial contrast enhancement in oncologic liver imaging.

Specifications
The SmartCT for LUMI protocol acquires up to 60 frames/sec. and supports fast abdominal protocols with 5 to 8 second acquisition times, thereby minimizing respiratory artifacts. The CBCT volume is displayed automatically within 8 to 15 seconds after acquisition. No user interaction is required. The protocols (5 sec, 8 sec and abdominal single shot) can also be chosen at the table side monitor.

EmboGuide
EmboGuide is an interventional tools that provides workflow-guided embolization support

Key benefits
- 3D imaging enhances detection of HCC feeders compared to DSA
- 3D lesion segmentation allows fast detection and volume measurement
- 3D roadmap with lesion and feeding paths overlay supports precise navigation to target

Workflow-based embolization guidance
For interventional suites that already have XperCT and want to decide with confidence during embolization procedures, EmboGuide provides workflow-guided embolization support in three steps. The first step allows identification and segmentation of multiple lesions. The second step automatically detects the feeders of the segmented lesions. Finally, EmboGuide creates a real-time overlay and registration of the 3D volume (3D roadmap) on the live X-ray images to support precise navigation of the device/catheter to reach each of the identified feeders for a selective or super-selective embolization.

Specifications
The essential components of EmboGuide are:
- 3D lesion segmentation tool for 3D target(s) identification and volume measurement.
- Workflow-driven planning tool with automated feeding vessel detection and marking.
- 3D roadmap navigation with lesion and feeding paths overlay.

EmboGuide provides the following functions:
- Automatic Feeder Detection; supports the user in analyzing the vasculature of lesions by giving the initial suggestions of the feeding vessels of the segmented lesions. The detected feeding vessels will be annotated and added to the planning.

• Manually add and/or remove feeding vessels; after running the automatic feeder detection function, the user can verify and refine the planning by manually adding and/or removing feeding vessels.
• Follow Feeder; for verification, the user may use the Follow Feeder function. This function allows the user to trace the path of a single annotated feeding vessel to verify whether it traces into a targeted lesion.
• 3D Landmarks; landmarks can be put on the 3D volume as additional information to support with the navigation of the catheter.
• Live 3D Image Guidance; real-time overlay and registration of the 3D volume on the live 2D X-ray images from the X-ray system of the same anatomy, can provide additional 3D image guidance to help the user with navigating the device/catheter to the embolization target.
• Storage of the live 2D-3D overlay runs; the real-time overlay of the 3D volume with the live 2D X-ray images from the X-ray system can be recorded and stored for reviewing at any time.
• Table-side control; to provide efficient work-flow during the interventional procedures, the most frequently used functions can be controlled from table-side.
Image data for EmboGuide is stored together with the EmboGuide movies and snapshots and can be sent to any optional DICOM compatible device (e.g. PACS/IntelliSpace Portal/Xcelera). Supported are DICOM XA, DICOM SC, DICOM CT and DICOM 3D and any PC in a standard PC compatible format (JPEG, AVI). All this data can be reviewed at any time.
EmboGuide movies and snapshots can be stored/achieved on:
• A PACS systems as DICOM Secondary Capture images or movies.
• USB device.
• One or multiple DVD's, CD-ROM(s) for easy archiving.
• Hard copy via the (DICOM Print) protocol.

1.33 **Laser Option** 1
Article No. NCVB846

The XperGuide laser option is a positioning aid designed to simplify manual effort during percutaneous interventional procedures.

Key benefits
• Illuminates the needle entry point on the skin
• Allows you to concentrate on the Progress View without switching back to the Entry View
• Provides a clamp to assist in holding the needle in the correction position and orientation

Simplifying positioning during needle interventions
Performing image-guided needle procedures requires the utmost concentration. The XperGuide laser option is a positioning aid designed to simplify manual effort during percutaneous interventional procedures. The laser tool is attached to the patient table and marks the needle entry point on the skin. It also provides a clamp to assist in holding the needle in the correct position and orientation. Using the laser tool with XperGuide allows you to concentrate on the Progress View without switching back to the Entry View.

Specifications
The laser tool has an LED to indicate its status: when the LED is lit, the laser is active.
Laser tool components:
• Laser tool
• Laser tool holder and table clamp for fixation to the patient table
• Laser tool charger

1.34 **IW Hardware** 1
Article No. NCVD178

Details

The Interventional Hardware comprises at least: - Computer Workstation; - Control Room 24" display; - Internal/external 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

Interventional Workspot is a Medical Device as defined in Regulation (EU) 2017/745 (EU-MDR)

Includes

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 Link. It enables import and viewing of DICOM compatible data from other imaging modalities.

1.35 **neuro tabletop** 1
Article No. NCVA341

1.36 **Cabinet Rear Cover** 5
Article No. 459801079651

Cabinet Rear Cover

1.37 **Floorplate Swivel Xper Table** 1
Article No. 989600205862

Required as predelivery material for installation of the swivel for table base.

1.38 **Clip rails for Monitor Ceiling Carriage (390cm, 153.5")** 1
Article No. 459800938361

Introduction

The clip rails for the Monitor Ceiling Carriage (MCC) are part of the ceiling rail construction, which holds the exam room monitors. Depending on country of delivery, these rails can be delivered and installed

before the actual delivery of the Philips Azurion IGT system to support a more efficient installation process.

1.39	**MONITOR CEILING CARRIAGE** **Article No. 459800706722** Monitor ceiling carriage	1

Line	Description	Qty
2	**CV Third Party Products** **Article No. 100133** **Details** Configured offering	
2.1	**Medrad Mark 7 Arterion Ceiling 580mm** **Article No. 989801220508** **Medrad Mark 7 Arterion Ceiling 580mm** OCS MOUNT, MARK 7 ARTERION, MC OCS, 580 Stationary Column Mount Portegra 2 INSTALL MARK 7 ARTERION RACK MNT W/OCS	1
2.2	**Black Anti-fatigue Floor Mat w/logo.** **Article No. 989801220375** **Details** "Black Anti-fatigue Floor Mat with Philips Logo 36"" x 60"""	2

Line	Description	Qty
3	**MAVIG Central Axis Dual Arm Pt Left** **Article No. SP008**	1

Line	Description	Qty
4	**MAVIG Central Axis Dual Arm Pt Right** **Article No. SP008**	1

Line	Description	Qty

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5	Trade In: **Allura Xper FD20** **Article No. SP00410_RE** Serial number: 2336	1

(Optional Items)

Line	Description	Qty
	(Opt) **INTRASIGHT** **Article No. 797403** INTRASIGHT	
	(Opt) **IntraSight 5** **Article No. NNAW510** **IntraSight 5** IntraSight 5 is a scalable, applications-based platform designed to meet the evolving needs of your lab. This platform provides best-in-class physiology and imaging tools.In addition to providing these leading technologies, the IntraSight platform also optimizes lab performance with efficient data management and user controls, remote service diagnostics, and advanced cybersecurity protection while minimizing the learning curve with a modern, intuitive interface that is fast to learn & easy to use. IntraSight interventional applications platform.Includes IntraSight CPU, CPU Base, Operator's Manual, Power Transformer, Cable Pre-Install Kit, Power Supply, Connection Box, Mouse, Keyboard, 19"Monitor Kit, DICOM Network Connection. Imaging (IVUS) License.Includes IntraSight IVUS Software package: Digital (requires PIM hardware, included), Rotational (requires SpinVision/PIMr, hardware optional), and ChromaFlo IVUS. Digital PIM. Includes PIM, Cabling and PIM holder. Physiology (iFR/FFR) License (requires FM-PIM hardware, included).Includes IntraSight Physiology Software Package: iFR Hyperemia Free Lesion Assessment Modality, FFR Modality, iFR Option Manual FFR 2.5. M-PIM. Cabling, FM-PIM holder, and FM-PIM to Verrata Wire Adapter. Touch Screen Module (TSM).Table side touch screen controller and articulating bedrail mount.	1
	(Opt) **Spinvision PIMr Option Kit** **Article No. NVLV017**	1

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5. Local Sales Terms and Conditions

Line	Product Code	Contract Name	Contract No.	Billing Plan
1	722226 Azurion 7 B20	Vizient Supply LLC XR0703	XR0703	0/80/20
2	100133 CV Third Party Products	Vizient Supply LLC XR0703	XR0703	0/80/20
3	SP008 MAVIG Central Axis Dual Arm Pt Left	NONE	NONE	0/80/20
4	SP008 MAVIG Central Axis Dual Arm Pt Right	NONE	NONE	0/80/20
5	SP00410_RE Trade In: Allura Xper FD20	NONE	NONE	0/80/20

Payment Terms US: Net 30 Days

INCO Terms: Carriage and Insurance Paid To Destination

This is a cash price quote, which includes ACH, check, and wire transfer. Any other form of payment will result in different price, which may be higher.

Billing Terms: Are as displayed under the Billing Plan table above. For each item, X/Y/Z milestones are defined as follows (unless an Agreement specifying alternative payment terms has been negotiated between the parties):

X is the percentage invoiced upon signed acceptance of quotation or upon receipt of Customer Purchase Order
Y is the percentage invoiced upon delivery of major components to Customer designated location or Philips warehouse.
Z is the percentage invoiced upon completion of installation or product available for first patient use, whichever occurs first.

If DEMO Equipment is included in this quotation it is sold under the Contact No. Contract Name/Contract Number ("Contract") of the products/solution included in this quotation.

All amounts in this quote are in USD

Additional Terms US:

This purchase is governed by the terms and conditions applicable to Customer Member of the specific Vizient Contract # above, as well as any Philips Standard Terms and Conditions of Sale (available on the Vizient Member Portal) to the extent not in conflict with the applicable Vizient Contract terms.

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6. Signature Page

Invoice to:
Southeast Health
1108 Ross Clark Cir
Dothan, AL 36301-3024

	Total Price
Total Net Price	$ 1,962,325.20

Acceptance by Parties

Each Quotation solution is issued pursuant to and will reference a specific Contract Name/Contract Number ("Contract") representing an agreement containing discounts, fees and any specific terms and conditions which will apply to that single quoted solution. Any PO for the items herein will be accepted subject to the terms of that Contract. If no Contract is shown, Philips Terms and Conditions of Sale including applicable product warranty or Philips Terms of Service ("Philips Terms") located in the Philips Standard Terms and Conditions of the quotation shall solely apply to the quoted solution.

Each equipment system and/or service listed on purchase order/orders represents a separate and distinct financial transaction. We understand and agree that each transaction is to be individually billed and paid. This quotation contains confidential and proprietary information of Philips Healthcare and is intended for use only by the customer whose name appears on this quotation. It may not be disclosed to third parties without prior written consent of Philips Healthcare.

This quotation provides contract agreement discounts and does not reflect rebates that may be earned by Customer, under separate written rebate agreements, from cumulative volume purchases beyond the individual quantity being ordered under this quote. Customer is reminded that rebates constitute discounts under government laws which are reportable by Customers.

The price above does not include sales tax.

Please fill in the below if applicable:

1. Tax Status: Taxable _____ Tax Exempt X
   If Exempt, please indicate the Exemption Certification Number: _____, and attach a copy of the certificate.

2. Requested equipment delivery date _____

3. If you do not issue formal purchase orders indicate by initialing here: _____

4. Our facility does issue formal purchase orders; however, due to our business/system limitation, we cannot issue a formal purchase order until 90 days prior to standard warranty expiration. Initialed: _____

CUSTOMER SIGNATURE by its authorized representative		**PHILIPS SIGNATURE** by its authorized representative	
Signature:	Tammie J Pozzeska	Signature:	
Print Name:	Tammie J Pozzeska	Print Name:	
Title:	Sr Contract Admin	Title:	
Date:	12.5.23	Date:	

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7. Philips Standard Terms and Conditions

GENERAL TERMS AND CONDITIONS OF SALE AND SOFTWARE LICENSE
("Conditions of Sale") Rev 21

1. **Initial Provisions.**

   1.1 The Products (equipment, service, and software) offered on the quotation by the Philips legal entity identified thereon are subject to these Conditions of Sale.

   1.2 The purchase prices set out on the quotation excludes all taxes. All taxes on the Products will be borne by the Customer unless Customer provides a tax exemption certification.

2. **Quotation, Order and Payment.**

   2.1 Any quotation on the Products will be open for acceptance within the period indicated therein and may be amended or revoked by Philips prior to Customer's acceptance. Any purchase orders shall be subject to Philips' confirmation. Any terms and conditions set forth on the Customer's purchase order or otherwise issued by the Customer shall not apply to the Products.

   2.2 The prices and payment terms are set out on the quotation. Orders are subject to Philips' ongoing credit review and approval. If the quotation indicates net prices that are each associated with a payment method then Philips will invoice Customer, and Customer will pay the net price that corresponds to the payment method that Customer elected in its purchase order or signed quote. Prior to invoice, Customer may modify the payment method by providing Philips with an amended purchase order that reflects the new payment method and corresponding price.

   2.3 Interest will apply to any late payments. Customer shall pay interest on any overdue amount not actively disputed paid at the annual rate of twelve percent (12%) which may be billed monthly. If the Customer fails to pay any amounts due or breaches these Conditions of Sale, Philips will be entitled to suspend the performance of its obligations and deduct the unpaid amount from any amounts otherwise owed to Customer by Philips, in addition to any other rights or remedies available to Philips. Philips shall be entitled to recover all costs and expenses, including reasonable attorneys' fees related to the enforcement of its rights or remedies.

   2.4 Customer has no right to cancel an order, unless such cancellation right is granted to the Customer by mandatory law in which case the Customer shall pay the costs incurred by Philips up to the date of cancellation In other cases of cancellation, Customer shall pay a 15% cancellation fee.

   2.5 Philips may make partial or early shipments and Customer will pay such invoice based on the date of invoice for each product in accordance with the payment terms set forth in the quotation

   2.6 Payments may be made by check, ACH or wire. Philips does not accept transaction fees for any electronic fund transfers or any other payment method. All check payments over $50,000 usd must be paid via eCheck or via Philips prepaid FedEx account with tracking to secure against fraud and misappropriation.

3. **Philips Security Interest until Full Payment.**

   3.1 Philips is entitled to retain a security interest in the Philips products, until Philips receives full payment.

4. **Technical Changes; Obsolescence of the Product.**

   4.1 Philips shall be entitled to make changes to the design or specifications of the Products at any time, provided such change does not adversely affect the performance of the Products.

5. **Lease and Trade In**

   5.1 If the Customer desires to convert the purchase of any Products to a lease the Customer shall within ninety (90) prior to the delivery of the Products provide all relevant rental documents for review and approval by Philips. The Customer is responsible for converting the transaction to a lease and is required to secure the leasing company's approval of all these Conditions of Sale. No product will be delivered to the Customer until Philips has received copies of the fully executed lease documents and has approved the same. For any lease, if the lease does not fund then: (i) Customer guarantees the payment of all monies due or that may become due under these Conditions of Sale; (ii) Philips may convert the lease back to a purchase and invoice Customer; accordingly, and (iii) Customer will pay all such invoiced amounts per the invoice terms. In the event that there are multiple Products on one quote, the Product with the longest period for converting the transaction to a lease shall prevail.

   5.2 Philips may provide a rental agreement at its discretion.

   5.3 In the event Customer will be trading-in equipment ("Trade-In"), the Customer will provide the following:

      5.3.1 Customer undertakes to possess good and marketable title to the Trade-In as of the date of the quotation and when Philips takes possession of the Trade-in from Customer's site. In the event Customer is in breach of this undertaking, Customer shall not be entitled to keep a trade-in credit for such Trade-In and shall promptly refund Philips such credited amounts upon receipt of an invoice from Philips.

      5.3.2 The trade-in value set forth on Philips quotation is conditioned upon Customer providing Trade-In no later than the date Philips makes the new Product listed on such quotation available for first patient use. Customer shall bear the costs of any reduction in trade-in value arising due to a delay by the Customer causing the trade-in not to occur by the expected date and promptly pay the revised invoice.

      5.3.3 In the event Philips receives a Trade-In having a different configuration (including software version) or model number than the Trade- In described on the Philips quotation, Philips reserves the right to adjust the trade in value and revise the invoice accordingly and Customer shall pay such revised invoice promptly upon receipt.

5.3.4 Customer undertakes to (i) clean and sanitize all components that may be infected and all biological fluids from the Trade-In; (ii) drain any applicable chiller lines and cap any associated plumbing and (iii) delete all personal data in the Trade-In. Customer agrees to reimburse Philips against any out-of-pocket costs incurred by Philips arising from Customer's breach of its obligations herein.

6. Shipment and Delivery Date.

6.1 Philips shall deliver the Products in accordance with the Incoterms set forth on the quotation. If Philips and the Customer agree any other terms of delivery, additional costs shall be for the account of the Customer. Title (subject to Section 3 entitled Philips Security Interest) to any product (excluding software), and risk of loss shall pass to the Customer upon delivery to the shipping carrier. However, Philips shall pay the cost of freight and risk insurance (during transport to destination). Customer shall obtain and pay insurance covering such risks at destination.

6.2 Philips will make reasonable efforts to meet delivery dates quoted or acknowledged. Failure to deliver by the specified date will not be a sufficient cause for cancellation nor will Philips be liable for any penalty, loss, or expense due to delay in delivery. If the Customer causes the delay, any reasonable expenses incurred by Philips will be paid for by Customer, including all storage fees, transportation expenses, and related costs. If the delay is more than thirty (30) calendar days, Customer shall pay the 80% installment payment; in the event the equipment was built and resides in a Philips warehouse. For the purposes of clarification, "Delay" in this section shall mean a date later than the Customer agreed delivery date identified via confirmation of the delivery date with Customer prior to releasing the Product for production.

7. Installation.

7.1 If Philips has undertaken installation of the Products, the Customer shall be responsible for the following at its sole expense and risk:

7.1.1 The provision of adequate and lockable storage for the Products on or near the installation site. Additionally, Customers shall consider the mfg. labeling requirements for environmental and storge conditions. The Customer will repair or replace any lost or damaged item during the storage period.

7.1.2 Philips or its (affiliate's) representative shall have access to the installation site without obstacle or hindrance in due time to start the installation work at the scheduled date.

7.1.3 The timely execution and completion of the preparatory works, in conformity with Philips' installation requirements. The Customer shall ensure that the prepared site shall comply with all safety, electrical and building codes relevant to the Products and installation thereof.

7.1.4 The proper removal and disposal of any hazardous material at the installation site prior to installation by Philips.

7.1.5 The timely provision of all visa, entry, exit, residence, work or any other permits and licenses necessary for Philips' or Philips' representatives' personnel and for the import and export of tools, equipment, Products, and materials necessary for the installation works and subsequent testing.

7.1.6 The assistance to Philips or Philips' representative for moving the Products from the entrance of the Customer's premises to the installation site. The Customer shall be responsible, at its expense, for rigging, the removal of partitions or other obstacles, and restoration work.

7.2 If Products are connected to a computer network, the Customer shall be responsible for network security, including but not limited to, using secure administrative passwords, installing the latest validated security updates of operating software and web browsers, running a Customer firewall as well as maintaining up-to-date drivers, validated anti-virus and anti-spyware software. Unauthorized Updates, as defined in the Product Schedules, may adversely affect the functionality and performance of the Licensed Software.

7.3 If any of the above conditions are not complied with, Philips or Philips' representative may interrupt the installation and subsequent testing for reasons not attributable to Philips and the parties shall extend the period for completing the installation. Any additional costs shall be for the Customer's account and Philips shall have no liability for any damage resulting from or in connection with the delayed installation.

7.4 Philips shall have no liability for the fitness or adequacy of the premises or the utilities available at the premises for installation or storage of the Products.

8. Product Damages and Returns.

8.1 The following shall apply solely to medical consumables:
The Customer shall notify Philips in writing substantiating its complaints within ten (10) days from its receipt of the Products. If Philips accepts the claim as valid, Philips shall issue a return authorization notice and the Customer shall return the Products. Each returned Product shall be packed in its original packaging.

9. Product Warranty.

9.1 In the absence of any specific Product warranty attached to the quotation, the following warranty provisions will apply to the Product.

9.2 Hardware Products. Philips warrants to Customer that the Product shall materially comply with its product specification on the quotation and the user documentation accompanying the shipment of such Product for a period of one year from the date of acceptance or first clinical use, whichever occurs first, but under any circumstances, no more than fifteen (15) months from the date of shipment, provided the Product has been subject to proper use and maintenance. Any disposable Product intended for single use supplied by Philips to the Customer will be of good quality until the expiration date applicable to such Product.

9.3 Stand-alone Licensed Software Products. Philips warrants that the Stand-alone Licensed Software shall substantially conform to the technical specification for a period of ninety (90) days from the date Philips makes such Stand-alone Licensed Software available to the Customer. "Stand-alone Licensed Software" means Licensed Software sold without a contemporaneous purchase of a server for the Licensed Software.

9.4 Service. Philips warrants that all services will be carried out with reasonable care and skill. Philips' sole liability and Customer's sole remedy for breach of this warranty shall be at its option to give credit for or re-perform the services in question. This warranty shall only extend for a period of ninety (90) days after the completion of the services.

9.5 Customer shall only be entitled to make Product warranty claim if Philips receives written notice of the defect during the warranty period within ten (10) days from the Customer discovering the defect and, if required the Product or the defective parts shall be returned to an address stated by Philips. Such defective parts shall be the property of Philips after their replacement.

9.6 Philips' warranty obligations and Customer's sole remedy for the Product shall be limited, at Philips' option, to the repair or replacement of the Product or any part thereof, in which case the spare parts shall be new or equivalent to new in performance, or to the refund of a pro rata portion of the purchase price paid by the Customer solely after a reasonable cure period is given to Philips.

9.7 Philips' warranty obligations shall not apply to any defects resulting from:

9.7.1 improper or unsuitable maintenance, configuration or calibration by the Customer or its agents.

9.7.2 use, operation, modification, or maintenance of the Product not in accordance with the Product specification and the applicable written instructions of Philips or performed prior to the completion of Philips' validation process.

9.7.3 abuse, negligence, accident, damages (including damage in transit) caused by the Customer.

9.7.4 improper site preparation, including corrosion to Product caused by Customer.

9.7.5 any damage to the Product or any medical data or other data stored, caused by an external source (including viruses or similar software interference) resulting from the connection of the Product to a Customer network, Customer client devices, a third-party product or use of removable devices.

9.8 Philips is not responsible for the warranty for the third-party product provided by Philips to the Customer and Customer shall make any warranty claims directly with such vendors. However, if Philips, under its license agreement or purchase agreement with such third party, has right to warranties and service solutions, Philips shall make reasonable efforts to extend to the Customer the third-party warranty and service solutions for such Products.

9.9 During the term of the warranty and any customer service arrangement the Customer shall provide Philips with a dedicated high-speed broadband internet connection suitable to establish a remote connection to the Products in order for Philips to provide remote servicing of the Products by:

9.9.1 supporting the installation of a Philips approved router (or a Customer-owned router acceptable for Philips) for connection to the Products and Customer network (which router remains Philips property if provided by Philips and is only provided during the warranty term.

9.9.2 maintaining a secure location for hardware to connect the Products to the Philips Remote Service Data Center (PRSDC).

9.9.3 providing and maintaining a free IP address within the site network to be used to connect the Products to the Customer's network

9.9.4 maintaining the so established connection throughout the applicable period.

9.9.5 facilitating the reconnection to Philips in case any temporary disconnection occurs.

9.9.6 If Customer fails to provide the access described in this section and the Product is not connected to the PRSDC (including any temporary disconnection), Customer accepts any related impact on Products availability, additional cost, and speed of resolution.

9.9.6 THE WARRANTIES SET FORTH IN THIS CONDITIONS OF SALE AND QUOTATION ARE THE SOLE WARRANTIES MADE BY PHILIPS IN CONNECTION WITH THE PRODUCT, ARE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, WHETHER WRITTEN, ORAL, STATUTORY, EXPRESS, OR IMPLIED, INCLUDING ANY WARRANTY OF NON-INFRINGEMENT, QUIET ENJOYMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PHILIPS EXPRESSLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULR PURPOSE. MOREOVER, PHILIPS DOES NOT WARRANT ANY PRODUCT USING THE CLOUD TO BE UNINTERRUPTED OR ERROR FREE.

10. Limitation of Liability.

10.1 THE TOTAL LIABILITY OF PHILIPS ARISING UNDER OR IN CONNECTION WITH THE PRODUCT FOR ANY BREACH OF CONTRACTUAL OBLIGATIONS, WARRANTY, NEGLIGENCE, UNLAWFUL ACT OR OTHERWISE IN CONNECTION WITH THE PRODUCT IS LIMITED TO THE ACTUAL PURCHASE PRICE RECEIVED FOR THE PRODUCT THAT GAVE RISE TO THE CLAIM.

10.2 PHILIPS SHALL NOT BE LIABLE FOR ANY INDIRECT, PUNITIVE, INCIDENTAL, EXEMPLARY, SPECIAL OR CONSEQUENTIAL DAMAGES AND/OR FOR ANY DAMAGES INCLUDING, LOSS OF DATA, PROFITS, REVENUE, BUSINESS INTERRUPTION OR USE IN CONNECTION WITH OR ARISING OUT OF THESE CONDITIONS OF SALE, REGARDLESS OF WHETHER THEY ARE FORESEEABLE OR NOT AND WHETHER THE CLAIM IS MADE IN TORT (INCLUDING NEGLIGENCE), BREACH OF CONTRACT, AT LAW OR IN EQUITY. NEITHER PHILIPS NOR PHILIPS' SUPPLIERS SHALL BE LIABLE FOR ANY LOSS OR INABILITY TO USE MEDICAL OR OTHER DATA STORED ON OR BY THE PRODUCT.

10.3 THE EXCLUSION OF LIABILITY IN THESE CONDITIONS OF SALE SHALL ONLY APPLY TO THE EXTENT ALLOWED UNDER THE APPLICABLE LAW.

10.4 FOR US CUSTOMERS, THE FOLLOWING ARE NOT SUBJECT TO THE LIMITATIONS OF LIABILITY UNDER SECTION 10.1:

10.4.1 THIRD PARTY CLAIMS FOR DIRECT DAMAGES FOR BODILY INJURY OR DEATH TO THE EXTENT CAUSED BY PHILIPS' NEGLIGENCE OR PROVEN PRODUCT DEFECT.

10.4.2 CLAIMS OF TANGIBLE PROPERTY DAMAGE REPRESENTING THE ACTUAL COST TO REPAIR OR REPLACE PHYSICAL PROPERTY TO THE EXTENT CAUSED BY PHILIPS NEGLIGENCE OR PROVEN PRODUCT DEFECT.

10.4.3 OUT OF POCKET COSTS INCURRED BY CUSTOMER TO PROVIDE PATIENT NOTIFICATIONS, REQUIRED BY LAW, TO THE EXTENT SUCH NOTICES ARE CAUSED BY PHILIPS UNAUTHORIZED DISCLOSURE OF PROTECTED HEALTH INFORMATION.

10.4.4 FINES/PENALTIES LEVIED AGAINST CUSTOMER BY GOVERNMENT AGENCIES CITING PHILIPS' UNAUTHORIZED DISCLOSURE OF PROTECTED HEALTH INFORMATION AS THE BASIS OF THE FINE/PENALTY, ANY SUCH FINES OR PENALTIES SHALL CONSTITUTE DIRECT DAMAGES.

11. Infringement of Intellectual Property Rights to the Products.

11.1 Philips will, at its option and expense, defend or settle any suit or proceeding brought against Customer based on any third-party claim that any Product or use thereof for its intended purpose constitutes an infringement of any intellectual property rights in the country where the Product is delivered by Philips.

11.2 Customer will promptly give Philips written notice of such claim and the authority, information and assistance needed to defend such claim. Philips shall have the full and exclusive authority to defend and settle such claim. Customer shall not make any admission which might be prejudicial to Philips and shall not enter a settlement without Philips' prior written consent.

11.3 If the Product is held to constitute infringement of any intellectual property right and its use by Customer is enjoined, Philips will, at its option and expense, either: (i) procure for Customer the right to continue using the Product; (ii) replace it with an equivalent non-infringing Product; (iii) modify the Product so it becomes non-infringing; or (iv) refund to the Customer a pro rata portion of the Products' purchase price upon the return of the original Products.

11.4 Philips will have no duty or obligation under this clause 11 if the infringement is caused by a Product being:

11.4.1 supplied in accordance with Customer's design, specifications or instructions and compliance therewith has caused Philips to deviate from its normal course of performance.

11.4.2 modified by Customer or its contractors after delivery.

11.4.3 not updated by Customer in accordance with instructions provided by Philips (e.g. software updates).

11.4.4 combined by Customer or its contractors with devices, software, methods, systems, or processes not furnished hereunder and the third-party claim is based on such modification or combination.
The above states Philips' sole liability and Customer's exclusive remedy in respect of third-party intellectual property claims.

12. Use and exclusivity of Product documents.

12.1 All documents and manuals including technical information related to the Products and its maintenance as delivered by Philips is the proprietary information of Philips, covered by Philips' copyright, and remains the property of Philips, and as such, it shall not be copied, reproduced, transmitted, or disclosed to or used by third parties without the prior written consent of Philips.

13. Export Control and Product Resale.

13.1 Customer agrees to comply with relevant export control and sanction laws and regulations, including the UN, EU or US ("Export Laws"), to ensure that the Products are not (i) exported or re-exported directly or indirectly in violation of Export Laws; or (ii) used for any purposes prohibited by the Export Laws, including military end-use, human rights abuses, nuclear, chemical or biological weapons proliferation.

13.2 Customer represents that (i) Customer is not located in a country that is subject to a UN, US or EU embargo and trade restriction; and (ii) Customer is not listed on any UN, EU, US export and sanctions list of prohibited or restricted parties.

13.3 Philips may suspend its obligation to fulfil any order or subsequent service if the delivery is restricted under Export Laws or an export/import license is not granted by relevant authorities.

14. License Software Terms.

14.1 Subject to any usage limitations set forth on the quotation, Philips grants to Customer a non-exclusive, non-transferable license, without the right to grant sub-licenses, to incorporate and use the Licensed Software (as specified on the quotation, whether embedded or stand-alone) in Licensed Products and the permitted use (as referenced in the quotation) in accordance with these Conditions of Sale.

14.2 The Licensed Software is licensed and not sold. All intellectual property rights in the Licensed Software shall remain with Philips.

14.3 Customer may make one copy of the Licensed Software in machine-readable form solely for backup purposes. Philips reserves the right to charge for backup copies created by Philips. Customer may not reproduce, sell, assign, transfer or sublicense the Licensed Software. Customer shall preserve the confidential nature of the Licensed Software and shall not disclose or transfer any portion of the Licensed Software to any third party.

14.4 Customer shall maintain Philips' copyright notice or other proprietary legends on any copies of the Licensed Software. Customer shall not (and shall not allow any third party to) decompile, disassemble, or reverse engineer the Licensed Software.

14. 5 The Licensed Software may only be used in relation to Licensed Products or systems certified by Philips. If Customer modifies the Licensed Software in any manner, all warranties associated with the Licensed Software and the Products shall become null and void. Customer installation of Philips' issued patches or updates shall not be deemed to be a modification.

14.6 Philips and its affiliates shall be free to use any feedback or suggestions for modification or enhancement of the Licensed Software provided by Customer, for the purpose of modifying or enhancing the Licensed Software as well as for licensing such enhancements to third parties.

14.7 With respect to any third-party licensed software, the Customer agrees to comply with the terms applicable to such licensed software. Customer shall indemnify Philips for any damage arising from its failure to comply with such terms. If the third-party licensor terminates the third party license, Philips shall be entitled to terminate the third party license with the Customer and make reasonable effort to procure a solution.

15. Confidentiality.

15.1 If any of the parties have access to confidential information of the other party, it shall keep this information confidential. Such information shall only be used if and to the extent that it is necessary to carry out the concerned transactions. This obligation does not extend to public domain information and/or information that is disclosed by operation of law or court order.

16. Compliance with Laws and Privacy.

16.1 Each party shall comply with all laws, rules, and regulations applicable to the party in connection with the performance of its obligations in connection with the transactions contemplated by the quotation, including, but not limited to, those relating to employment practices federal and state anti-discrimination laws (including Title VII of the Civil Rights Act of 1964 as amended, the Rehabilitation Act of 1973 as amended and the Veterans Readjustment ACT of 1972 as amended), E-Verify, FDA, Medicare fraud and abuse, and the Health Insurance Portability and Accountability Act of 1996 (HIPAA). Health care providers are reminded that if the purchase includes a discount or loan, they must fully and accurately report such discount or loan on cost reports or other applicable claims for payment submitted under any federal or state health care program, including but not limited to Medicare and Medicaid, as required by federal law (see 42 CFR 1001.952(h)).

16.2 Processing of personal data: In relation to the provision of services, Philips may process information, in any form, that can relate to identified or identifiable individuals, which may qualify as personal data. Philips and/or its affiliates will: a) process any protected health information (PHI) as defined by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) on behalf and by instruction of the Customer, the terms, rights and responsibilities of the Parties for such processing of PHI are set forth in a Business Associate Agreement between the parties and b) process information such as log files or device parameters (which may contain personal data), to provide the services and to enable its compliance with and performance of its task as manufacturer of (medical) devices under the applicable regulations and standards (including but not limited to the performance of vigilance, post market surveillance and clinical evaluation related activities).

16.3 Customer agrees that Philips and/or its affiliates may use any data, other than personal data, generated by a Product and/or otherwise provided by Customer to Philips for Philips' own legitimate business purposes including, but not limited to, for data analytics activities to determine trends of usage and advise on the use of products and services, for research, product and service development and improvement (including the development of new offerings), substantiation of marketing claims and for benchmarking purposes.

17. Force Majeure.

17.1 Each party shall not be liable in respect of the non-performance of any of its obligations to the extent such performance is prevented by any circumstances beyond its reasonable control, including, but not limited to, acts of God, war, civil war, insurrection, fire, flood, labor disputes, epidemics, pandemic, cyber-attack, act of terrorism, governmental regulations and/or similar acts, embargoes, export control sanctions or restrictions, Philips' unavailability regarding any required permits, licenses and/or authorizations, default or force majeure of suppliers or subcontractors.

17.2 If force majeure prevents Philips from fulfilling any order from the Customer or otherwise performing any obligation arising out of the sale, Philips shall not be liable to the Customer for any compensation, reimbursement, or damages.

18. Miscellaneous

18.1 Any newly manufactured Product provided may contain selected remanufactured parts equivalent to new in terms of performance.

18.2 If the Customer becomes insolvent, unable to pay its debts as they fall due, files for bankruptcy or is subject to it, has appointed a recipient, is subject to a late fee on payments (temporary or permanent), or has its assets assigned or frozen, Philips may cancel any unfulfilled obligations or suspend its performance; provided that, however, the Customer's financial obligations to Philips shall remain in full force and effect.

18.3 If any provision of these Conditions of Sale is found to be unlawful, unenforceable, or invalid, in whole or in part, the validity and enforceability of the remaining provisions shall remain in full force and effect. In lieu of any provision deemed to be unlawful, unenforceable, or invalid, in whole or in part, a provision reflecting the original intent of these Conditions of Sale, to the extent permitted by the applicable law, shall be deemed to be a substitute for that provision.

18.4 Notices or other communications shall be given in writing and shall be deemed effective if they are delivered in person or if they are sent by courier or mail to the relevant party.

18.5 The failure by the Customer or Philips at any time to require compliance with any obligation shall not affect the right to require its enforcement at any time thereafter.

18.6 Philips may assign or novate its rights and obligations in whole or in part, to any of its affiliates or may assign any of its accounts receivable to any party without Customer's consent. Customer agrees to execute any documents that may be necessary to complete Philips' assignment or novation. The Customer shall not, without the prior written consent of Philips, transfer or assign any of its rights or obligations

18.7 The Customer's obligations do not depend on any other obligations it may have under any other agreement or arrangement with Philips. The Customer shall not exercise any offset right in the quotation or sale in relation to any other agreement or arrangement with Philips.

18.8 These Conditions of Sale shall be governed by the laws of the country or state wherein the Philips legal entity identified in the quotation is situated, and the parties submit to the exclusive jurisdiction of the courts of that country or state, provided that Philips will be entitled to start legal proceedings against the Customer in any other court of competent jurisdiction. The United Nations Convention on Contracts for the International Sale of Goods and the Uniform Computer Information Transactions Act (UCITA), in any form, is expressly excluded.

18.9 Customer will report immediately to Philips any event of which Customer becomes aware that suggests that any Products provided by Philips, for any reason:

18.9.1 may have caused or contributed to a death or serious injury, or

18.9.2 have malfunctioned where such malfunctions would likely cause or contribute to a death or serious injury if the malfunction were to occur again. Additionally, Customer will also report to Philips complaints it receives from its personnel and patientsor any other person regarding the identity, quality, performance, reliability, safety, effectiveness, labels, or instructions for use of the Products provided by Philips. Philips shall be solely responsible for submitting any filings or reports to any governmental authorities with respect to the Products provided by Philips hereunder, unless otherwise required by law.

18.10 To the extent applicable to your country or state, Philips and Customer shall comply with the Omnibus Reconciliation Act of 1980 (P.L. 96-499) and it's implementing regulations (42 CFR, Part 420). Philips agrees that until the expiration of four (4) years after furnishing Products pursuant to these Conditions of Sale, Philips shall make available, upon written request of the Secretary of the Department of Health and Human Services, or upon request of the Comptroller General, or any of their duly authorized representatives, these Conditions of Sale and the books, documents and records of Philips that are necessary to verify the nature and extent of the costs charged to Customer hereunder. Philips further agrees that if Philips carries out any of the duties of these Conditions of Sale through a subcontract with a value or cost of ten-thousand U.S. dollars ($10,000.00) or more over a twelve (12) month period, with a related organization, such subcontract shall contain a clause to the effect that until the expiration of four (4) years after the furnishing of such Products pursuant to such subcontract, the related organization shall make available, upon written request to the Secretary, or upon request to the Comptroller General, or any of their duly authorized representatives the subcontract, and books and documents and records of such organization that are necessary to verify the nature and extent of such costs. This paragraph relating to the retention and production of documents is included because of possible application of Section 1861(v) (1) (1) of the Social Security Act (42 U.S.C. 1395x (v) (1) (I) (1989)), as amended from to time to these Conditions of Sale. If Section 1861(v) (1) (1) should be found to be inapplicable, then this paragraph shall be deemed inoperative and without force and effect.

18.11 As of the date of the sale of this Product, Philips represents and warrants that Philips, its employees and subcontractors, are not debarred, excluded, suspended or otherwise ineligible to participate in a federal or state health care program, nor have they been convicted of any health care related crime for Products provided under these Conditions of Sale (an "Excluded Provider"). Philips shall promptly notify Customer if it becomes aware that Philips or any of its employees or subcontractors providing Products hereunder have become an Excluded Provider under a federal or state healthcare program, whereupon Customer shall provide Philips with a reasonable opportunity to discuss and attempt to resolve in good faith with Customer any Customer related concerns in relation thereto, and/or will give Philips a reasonable opportunity to dispute its, or its employee's or subcontractor's, designation as an Excluded Provider. In the event that the parties are unable to resolve any such Customer concerns of the applicable party's designation as an Excluded Provider, then Customer may terminate this order by express written notice for Products not yet shipped or rendered prior to a date of exclusion.

18.12 To the extent applicable to your country or state, it is Customer's responsibility to notify Philips if any portion of the order is funded under the American Reinvestment and Recovery Act (ARRA). To ensure compliance with the ARRA regulation, Customer shall include a clause stating that the order is funded under ARRA on its purchase order or other document issued by Customer.

18.13 To the extent applicable, Customer acknowledges it shall comply with all Medicare. Medicaid or state cost reporting requirements, including discounts afforded to Customer under these Conditions of Sale, for any Products purchased hereunder.

19. <u>Product specific terms</u>

Product specific schedules are incorporated herein as they apply to the Products listed in the quotation and their additional terms shall apply solely to the Products specified therein. If any terms set forth in the Product specific schedules conflict with terms set forth in these Conditions of Sale, the terms set forth in the Product specific schedule shall take precedent.

PHILIPS

8. Warranty

INTERVENTIONAL X-RAY (iXR) SYSTEMS PRODUCT WARRANTY

This product warranty document is an addition to the terms and conditions set forth in the quotation to which this warranty document is attached. Unless specifically listed below, this warranty does not apply to replacement parts. The terms and conditions of the quotation are incorporated into this warranty document. The capitalized terms herein have the same meaning as set forth in the quotation.

1. **Twelve (12) Month System Warranty.**

   1.1 Philips Healthcare, a division of Philips North America LLC (Philips) warrants to Customer that the Philips' Interventional X-Ray Systems (System) will perform in substantial compliance with its performance specifications, in the documentation accompanying the System, for a period of twelve (12) months after completion of installation and availability for first patient use.

   1.2 Any glassware or flat detectors provided with the System is subject to special warranty terms set forth below.

2. **Planned Maintenance.**

   2.1 During the warranty period, Philips' personnel will schedule planned maintenance visits, in advance, at a mutually agreeable time on weekdays, between 8:00am and 5:00pm local time, excluding Philips' observed holidays.

3. **System Options, Upgrades or Accessories.**

   3.1 Any Philips' authorized upgrades, options or accessories for the System which are delivered and/or installed on the System during the original term of the System warranty shall be subject to the same warranty terms contained in the first paragraph of this warranty, except that such warranty shall expire:

      3.1.1 upon termination of the initial twelve (12) month warranty period for the System on which the upgrade, option or accessory is installed; or

      3.1.2 after ninety (90) days for parts only from the date of installation.

4. **MRC X-Ray Tubes.**

   4.1 Philips warrants to Customer, for the warranty periods further specified in this section, that the Philips' X-Ray Tubes (tube) will be substantially free from defects in material and manufacturing workmanship, which impair performance under normal use as specified in Philips' System descriptions and specifications.

   4.2 The warranty period for MRC Tubes provided with Customer's purchase of a new or refurbished X-Ray System shall be the shorter of thirty-six (36) months after installation or thirty-eight (38) months after date of shipment from Philips.

   4.3 The warranty period for purchases of replacement tubes shall be the shorter of twelve (12) months after installation or fourteen (14) months after date of shipment from Philips.

5. **MRC Tube Warranty Exclusions.**

   5.1 The above warranty shall not apply to X-Ray Tubes outside the United States and Canada.

   5.2 Philips' obligations under the System warranty do not apply to any System defects resulting from: improper or inadequate maintenance or calibration by Customer or its agents; Customer or third party supplied software, interfaces, or supplies; use or operation of the System other than in accordance with Philips' applicable System specifications and written instructions; improper site preparation; abuse, negligence, accident, loss or damage in transit; improper site preparation; unauthorized maintenance or modifications to the System; or, to viruses or similar software interference resulting from the connection of the System to a network.

6. **MRC Tube Warranty Remedies.**

   6.1 If a tube is found to fail during the warranty period, and if, in the best judgment of Philips, the failure is not due to neglect, accident, improper installation, use contrary to instructions, or the exclusions stated above, Philips' tube warranty liability hereunder is limited to, at Philips' option, the repair or replacement of the tube.

   6.2 Any replacement tube would have a warranty period equal to the balance of the warranty period left on the tube replaced.

7. **Dynamic Flat Detectors.**

   7.1 Philips warrants the Dynamic Flat Detectors (detector) provided with the System, if any, will be free from defects in material and manufacturing workmanship for twelve (12) months.

   7.2 Claims must be made within twelve (12) months after installation or fifteen (15) months after date of shipment from Philips, whichever occurs first.

   7.3 If a detector fails to meet this warranty, as Customer's sole and exclusive remedy, upon return of the detector, Philips will provide Customer a replacement detector at no additional charge.

8. **System Software and Software Updates.**

   8.1 The software provided with the System will be the latest version of the standard software available for that System as of the ninetieth (90th) day prior to the date the System is delivered to Customer.

   8.2 Updates to standard software for the System that do not require additional hardware or equipment modifications will be performed as a part of normal warranty service during the term of the warranty.

8.3 All software is and shall remain the sole property of Philips or its software suppliers.

8.4 Use of the software is subject to the terms of a separate software license agreement.

8.5 No license or other right is granted to Customer or to any other party to use the software except as set forth in the license agreements.

8.6 Any Philips maintenance or service software and documentation provided with the System and/or located at Customer's premises is intended solely to assist Philips and its authorized agents to install and to test the System, to assist Philips and its authorized agents to maintain and to service the System under a separate support agreement with Customer, or to permit Customer to maintain and service the System.

8.7 Customer agrees to restrict the access to such software and documentation to Philips employees, those of its authorized agents and its authorized employees of Customer only.

9. Warranty Limitations.

9.1 Philips' sole obligations and Customer's exclusive remedy under any product warranty are limited, at Philips' option, to the repair or the replacement of the product or a portion thereof within thirty (30) days after receipt of written notice of such material breach from Customer (Product Warranty Cure Period) or, upon expiration of the Product Warranty Cure Period, to a refund of a portion of the purchase price paid by the Customer, upon Customer's request.

9.2 Any refund will be paid, to the Customer when the product is returned to Philips.

9.3 Warranty service outside of normal working hours (i.e. 8:00am - 5:00pm, Monday through Friday, excluding Philips' observed holidays), will be subject to payment by Customer at Philips' standard service rates.

9.4 This warranty is subject to the following conditions: the product:

9.4.1 is to be installed by authorized Philips' representatives (or is to be installed in accordance with all Philips' installation instructions by personnel trained by Philips);

9.4.2 is to be operated exclusively by duly qualified personnel in a safe and reasonable manner in accordance with Philips' written instructions and for the purpose for which the products were intended; and,

9.4.3 Is to be maintained and in strict compliance with all recommended and scheduled maintenance instructions provided with the product and Customer is to notify Philips immediately if the product at any time fails to meet its printed performance specifications.

9.5 Philips' obligations under any product warranty do not apply to any product defects resulting from improper or inadequate maintenance or calibration by the Customer or its agents; Customer or third party supplied interfaces, supplies, or software including without limitation loading of operating system patches to the Licensed Software and/or upgrades to anti-virus software running in connection with the Licensed Software without prior approval by Philips; use or operation of the product other than in accordance with Philips' applicable product specifications and written instructions; abuse, negligence, accident, loss, or damage in transit; improper site preparation; unauthorized maintenance or modifications to the product; or viruses or similar software interference resulting from connection of the product to a network.

9.6 Philips does not provide a warranty for any third-party products furnished to Customer by Philips under the quotation; however, Philips shall use reasonable efforts to extend to Customer the third-party warranty for the product.

9.7 The obligations of Philips described herein are Philips' only obligations and Customer's sole and exclusive remedy for a breach of a product warranty.

9.8 THE WARRANTIES SET FORTH HEREIN WITH RESPECT TO A PRODUCT (INCLUDING THE SOFTWARE PROVIDED WITH THE PRODUCT), ARE THE ONLY WARRANTIES MADE BY PHILIPS IN CONNECTION WITH THE PRODUCT; THE SOFTWARE, AND THE TRANSACTIONS CONTEMPLATED BY THE QUOTATION, AND ARE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, WHETHER WRITTEN, ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

9.9 Philips may use refurbished parts in the manufacture of the products, which are subject to the same quality control procedures and warranties as for new products.

10. Philips' Remote Services Network (RSN).

10.1 Customer will:

10.1.1 provide Philips with a secure location at Customer's premises to store one Philips' Remote Services Network router and provide full and free access to this router, (or a Customer-owned router acceptable to Philips) for connection to the equipment and to Customer's network; or

10.1.2 provide Philips with outbound internet access over SSL; at all times during the warranty period provide full and free access to the equipment and the Customer network for Philips' use in remote servicing of the product, remote assistance to personnel that operate the products, updating the products software, transmitting automated status notifications from the product and regular uploading of products data files (such as but not limited to error logs and utilization data for improvement of Philips' products and services and aggregation into services).

10.2 Customer's failure to provide such access will constitute Customer's waiver of the scheduled planned maintenance service and will void support or warranty coverage of product malfunctions until such time as planned maintenance service is completed or RSN access is provided.

10.3 Customer agrees to pay Philips at the prevailing demand service rates for all time spent by Philips' service personnel waiting or access to the products.

11. Transfer of System.

11.1 In the event Customer transfers or relocates the System, all obligations under this warranty will terminate unless Customer receives the prior written consent of Philips for the transfer or relocation.

11.2 Upon any transfer or relocation, the System must be inspected and certified by Philips as being free from all defects in material, software and workmanship and as being in compliance with all technical and performance specifications.

11.3 Customer will compensate Philips for these services at the prevailing service rates in effect as of the date the inspection is performed.

11.4 Any System which is transported intact to pre-approved locations and is maintained as originally installed in mobile configurations will remain covered by this warranty.

12. Limitation of Liability.

12.1 THE TOTAL LIABILITY, IF ANY, OF PHILIPS AND ITS AFFILIATES FOR ALL DAMAGES ANBASED ON ALL CLAIMS, WHETHER ARISING OR RELATING TO BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, INDEMNITY, STRICT LIABILITY OR OTHER TORT, OR OTHERWISE, ARISING FROM A PRODUCT, LICENSED SOFTWARE, AND/OR SERVICE IS LIMITED TO THE PRICE PAID HEREUNDER FOR THE PRODUCT, LICENSED SOFTWARE, OR SERVICE GIVING RISE TO THE LIABILITY.

12.2 THIS LIMITATION SHALL NOT APPLY TO:

12.2.1 THIRD PARTY CLAIMS FOR DIRECT DAMAGES FOR BODILY INJURY OR DEATH TO THE EXTENT CAUSED BY PHILIPS' NEGLIGENCE OR PROVEN PRODUCT DEFECT;

12.2.2 CLAIMS OF TANGIBLE PROPERTY DAMAGE REPRESENTING THE ACTUAL COST TO REPAIR OR REPLACE PHYSICAL PROPERTY TO THE EXTENT CAUSED BY PHILIPS' NEGLIGENCE OR PROVEN PRODUCT DEFECT;

12.2.3 OUT OF POCKET COSTS INCURRED BY CUSTOMER TO PROVIDE PATIENT NOTIFICATIONS, REQUIRED BY LAW, TO THE EXTENT SUCH NOTICES ARE CAUSED BY PHILIPS' UNAUTHORIZED DISCLOSURE OF PHI; and

12.2.4 FINES/PENALTIES LEVIED AGAINST CUSTOMER BY GOVERNMENT AGENCIES CITING PHILIPS' UNAUTHORIZED DISCLOSURE OF PHI AS THE BASIS OF THE FINE/PENALTY, ANY SUCH FINES OR PENALTIES SHALL CONSTITUTE DIRECT DAMAGES.

13. Disclaimer.

13.1 IN NO EVENT SHALL PHILIPS OR ITS AFFILIATES BE LIABLE FOR ANY INDIRECT, PUNITIVE, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR PROFITS, BUSINESS INTERRUPTION, LOSS OF DATA, OR THE COST OF SUBSTITUTE PRODUCTS OR SERVICES WHETHER ARISING FROM BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, INDEMNITY, STRICT LIABILITY OR OTHER TORT.

14. Force Majeure.

14.1 Philips and Customer shall each be excused from performing its obligations (except for payment obligations) arising from any delay or default caused by events beyond its reasonable control including, but not limited to: acts of God, health pandemic, acts of any civil, military, or government authority, fire, floods, war, embargoes, labor disputes, acts of sabotage, riots, accidents, delays of carriers, voluntary or mandatory compliance with any government act, regulation or mandatory direction, or request. For clarity, Customer requests shall not be considered 'government' requests under this section.

Philips' system specifications are subject to change without notice.

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