Replace Cardiac Cath Lab
Project #6098 HT

Mercy Hospital South
St. Louis, MO

June 2024

Certificate of Need Program

EQUIPMENT REPLACEMENT APPLICATION

Applicant's Completeness Checklist and Table of Contents

Project Name: Replace cardiac catheterization lab Project No: 6098 HT

Project Description: Mercy Hospital South intends to replace a cardiac catheterization lab

Done	Page	N/A	Description
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✔	7		2. Representative Registration (From MO 580-1869)
✔	8		3. Proposed Project Budget (Form MO 580-1863) and detail sheet with documentation of costs.
			Divider II. Proposal Description:
✔	10		1. Provide a complete detailed project description, CON project number of the existing equipment (if prev. CON approved), and include the type/brand of both the existing equipment and the replacement equipment.
✔	11		2. Provide a listing with itemized costs of the medical equipment to be acquired and bid quotes.
✔	11		3. Provide a timeline of events for the project, from CON issuance through project completion.
			Divider III. Service Specific Criteria and Standards:
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✔	13		2. Document if the existing equipment has exceeded its useful life.
✔	13		3. Describe the effect the replacement unit would have on quality of care.
✔	13		4. Document if the existing equipment is in constant need of repair.
✔	13		5. Document if the lease on the current unit has expired.
✔	13		6. Describe the technological advances provided by the new unit.
✔	14		7. Describe how patient satisfaction would be improved.
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✔	14		10. Describe any new capabilities that the new unit would provide.
✔	14		11. By what percent will this replacement increase patient charges.

(If replacement equipment was not previously approved, also complete Divider IV below.)

			Divider IV. Financial Feasibility Review Criteria and Standards:
✔	16		1. Document that sufficient financing is available by providing a letter from a financial institution or an auditor's statement indicating that sufficient funds are available.
✔	16		2. Provide Service-Specific Revenues and Expenses (Form MO 580-1865) projected through three (3) **FULL** years beyond project completion.
✔	16		3. Document how patient charges are derived.
✔	16		4. Document responsiveness to the needs of the medically indigent.

Divider I

Application Summary

DIVIDER I – Application Summary

1) Application Identification and Certification (Form MO 580-1861)

The Application Identification and Certification form is included in Divider I – Attachments

2) Representative Registration (Form MO 580-1869)

Representative Registration form is included in Divider I – Attachments

3) Proposed Project Budget (Form MO 580-1863)

The proposed budget form is included in Divider I – Attachments

Attachments

Divider I
Application Summary

Certificate of Need Program

APPLICANT IDENTIFICATION AND CERTIFICATION

*The information provided must match the **Letter of Intent** for this project, without exception.*

1. Project Location *(Attach additional pages as necessary to identify multiple project sites.)*

Title of Proposed Project	Project Number
Replace cardiac catheterization lab	6098 HT
Project Address *(Street/City/State/Zip Code)*	**County**
10010 Kennerly Road St. Louis, MO 63128	St. Louis County

2. Applicant Identification *(Information must agree with previously submitted Letter of Intent.)*

List All Owner(s): *(List corporate entity.)*	Address (Street/City/State/Zip Code)	Telephone Number
Mercy Health East Communities	615 S. New Ballas Road, St. Louis, MO 63141	314-251-1952

List All Operator(s): *(List entity to be licensed or certified.)*	Address (Street/City/State/Zip Code)	Telephone Number
Mercy Hospital South	10010 Kennerly Road St. Louis, MO 63128	314-525-1000

3. Ownership *(Check applicable category.)*

☑ Nonprofit Corporation	☐ Individual	☐ City	☐ District
☐ Partnership	☐ Corporation	☐ County	☐ Other_____

4. Certification

In submitting this project application, the applicant understands that:

(A) The review will be made as to the community need for the proposed beds or equipment in this application;
(B) In determining community need, the Missouri Health Facilities Review Committee (Committee) will consider all similar beds or equipment within the service area;
(C) The issuance of a Certificate of Need (CON) by the Committee depends on conformance with its Rules and CON statute;
(D) A CON shall be subject to forfeiture for failure to incur an expenditure on any approved project six (6) months after the date of issuance, unless obligated or extended by the Committee for an additional six (6) months:
(E) Notification will be provided to the CON Program staff if and when the project is abandoned; and
(F) A CON, if issued, may not be transferred, relocated, or modified except with the consent of the Committee.

We certify the information and date in this application as accurate to the best of our knowledge and belief by our representative's signature below:

5. Authorized Contact Person *(Attach a Contact Person Correction Form if different from the Letter of Intent.)*

Name of Contact Person		Title
Tyler Sturgeon		Chief Financial Officer
Telephone Number	**Fax Number**	**E-mail Address**
314-525-1930		tyler.sturgeon@mercy.net
Signature of Contact Person		**Date of Signature**
[signature]		6/11/24

MO 580-1861 (03/13)

Certificate of Need Program

REPRESENTATIVE REGISTRATION

*(A registration form must be completed for **each** project presented.)*

Project Name	Number
Replace cardiac catheterization lab	6098 HT

(Please type or print legibly.)

Name of Representative	Title
Tyler Sturgeon	Chief Financial Officer

Firm/Corporation/Association of Representative (may be different from below, e.g., law firm, consultant, other)	Telephone Number
Mercy	314-525-1930

Address (Street/City/State/Zip Code)

10010 Kennerly Road St. Louis, MO 63128

Who's interests are being represented?
(If more than one, submit a separate Representative Registration Form for each.)

Name of Individual/Agency/Corporation/Organization being Represented	Telephone Number
Mercy Health East Communities-Mercy Hospital South	314-525-1000

Address (Street/City/State/Zip Code)

10010 Kennerly Road St. Louis, MO 63128

Check one. Do you:

- ☑ Support
- ☐ Oppose
- ☐ Neutral

Relationship to Project:

- ☐ None
- ☑ Employee
- ☐ Legal Counsel
- ☐ Consultant
- ☐ Lobbyist
- ☐ Other (explain):

Other Information:

I attest that to the best of my belief and knowledge the testimony and information presented by me is truthful, represents factual information, and is in compliance with §197.326.1 RSMo which says: *Any person who is paid either as part of his normal employment or as a lobbyist to support or oppose any project before the health facilities review committee shall register as a lobbyist pursuant to chapter 105 RSMo, and shall also register with the staff of the health facilities review committee for every project in which such person has an interest and indicate whether such person supports or opposes the named project. The registration shall also include the names and addresses of any person, firm, corporation or association that the person registering represents in relation to the named project. Any person violating the provisions of this subsection shall be subject to the penalties specified in §105.478, RSMo.*

Original Signature	Date
[signature]	6/11/24

MO 580-1869 (11/01)

Certificate of Need Program

PROPOSED PROJECT BUDGET

Description	**Dollars**
COSTS:*	*(Fill in every line, even if the amount is "$0".)*
1. New Construction Costs ***	
2. Renovation Costs ***	
3. Subtotal Construction Costs (#1 plus #2)	$0
4. Architectural/Engineering Fees	
5. Other Equipment (not in construction contract)	
6. Major Medical Equipment	$1,402,974
7. Land Acquisition Costs ***	
8. Consultants' Fees/Legal Fees ***	
9. Interest During Construction (net of interest earned) ***	
10. Other Costs ***	
11. Subtotal Non-Construction Costs (sum of #4 through #10	$1,402,974
12. Total Project Development Costs (#3 plus #11)	$1,402,974 **
FINANCING:	
13. Unrestricted Funds	$1,402,974
14. Bonds	
15. Loans	
16. Other Methods (specify)	
17. Total Project Financing (sum of #13 through #16)	$1,402,974 **

18. New Construction Total Square Footage	
19. New Construction Costs Per Square Foot *****	
20. Renovated Space Total Square Footage	
21. Renovated Space Costs Per Square Foot ******	

* *Attach additional page(s) detailing how each line item was determined, including all methods and assumptions used. Provide documentation of all major costs.*

** *These amounts should be the same.*

*** *Capitalizable items to be recognized as capital expenditures after project completion.*

**** *Include as Other Costs the following: other costs of financing; the value of existing lands, buildings and equipment not previously used for health care services, such as a renovated house converted to residential care, determined by original cost, fair market value, or appraised value; or the fair market value of any leased equipment or building, or the cost of beds to be purchased.*

***** *Divide new construction costs by total new construction square footage.*

****** *Divide renovation costs by total renovation square footage.*

Divider II

Proposal Description

DIVIDER II – Proposal Description

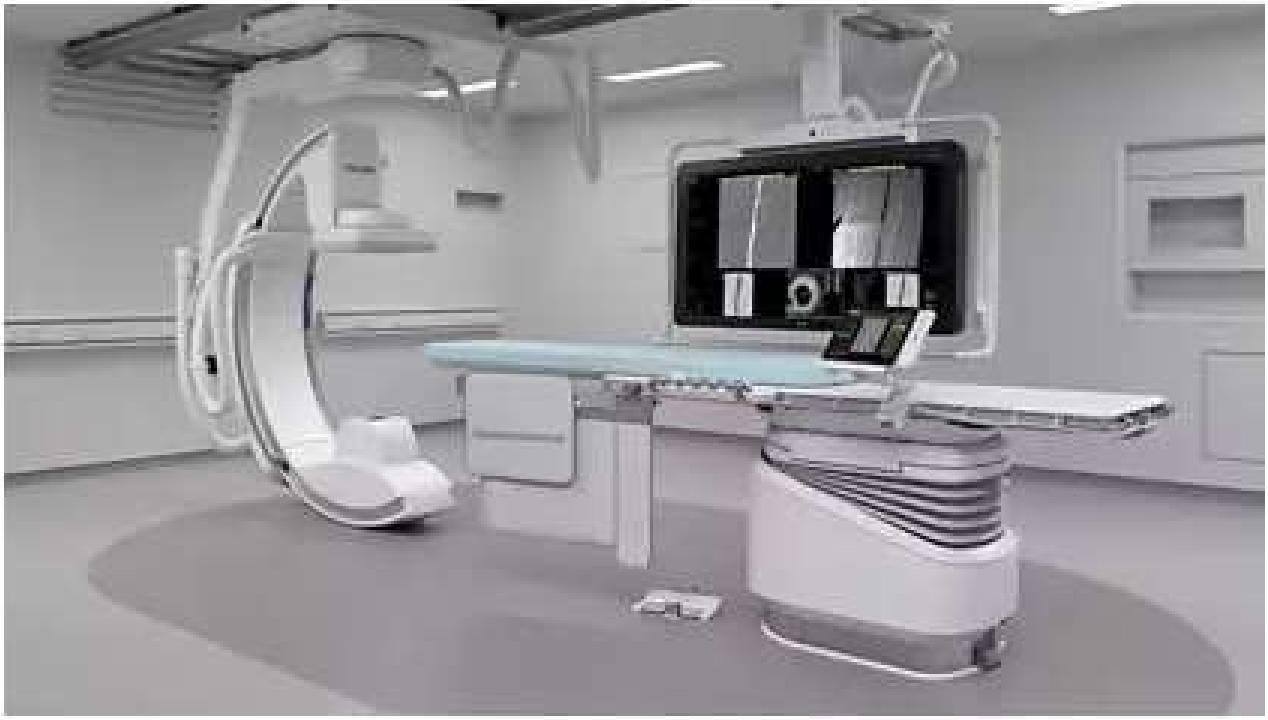
1) Provide a complete detailed project description, CON project number of the existing equipment (if prev. CON approved) and include the type/brand of both the existing equipment and the replacement equipment.

Mercy Hospital South intends to replace its existing Siemens Axiom Artis system located in cardiac cath lab (CCL) room 2. The existing Siemens system has been in operation since 2008 and was not previously approved by the committee.

The new equipment is a Philips Azurion 7. This new equipment will provide the ability to complete more accurate procedures, at lower levels of radiation exposure, and decrease patient wait times for procedures.

Frequent maintenance issues and down times create an unreliable system and inhibit our ability to complete procedures safely. The proposed replacement equipment will be installed in the same location on the second floor of Mercy Hospital South.

Mercy Hospital South serves patients from St. Louis City, St. Louis County, Jefferson, Franklin, St. Francois and Ste. Genevieve counties.



Philips Azurion 7

DIVIDER II – Proposal Description (continued)

2) Provide a listing with itemized costs of the medical equipment to be acquired and bid quotes.

The project includes the purchase of cardiac cath lab and accessory equipment from Philips Healthcare. (Philips quote is attached after Divider IV)

- Philips Azurion 7
- Laser System
- CV Third Party Products

Total Project Cost $1,402,974

3) Provide a timeline of events for the project, from CON issuance through project completion.

- Equipment Delivery: September 2024
- Installation: September 2024
- Go Live: October 2024

Divider III

Service Specific Criteria & Standards

DIVIDER III – Service Specific Criteria & Standards

1) Describe the financial rationale for the proposed replacement equipment.

The primary rationale for the proposed replacement is not financial. The existing Siemens Axiom Artis equipment is no longer serviceable and not in use. This restricts procedures to two cardiac cath labs instead of three, limiting concurrent capacity for our patients. The existing equipment requires replacement to continue to provide comprehensive care to our community.

2) Document if the existing equipment has exceeded its useful life.

The useful life for cardiac cath equipment is 5 years according to the American Hospital Association. The existing cardiac cath lab has been in service for 16 years and has exceeded its useful life.

3) Describe the effect the replacement unit would have on quality of care.

Replacing this piece of equipment would allow Mercy Hospital South to continue to provide timely care to the community at the same level previously provided.

4) Document if the existing equipment is in constant need of repair.

The existing Siemens Axiom Artis equipment in CCL room 2 is no longer serviceable and not in use. The Siemens system has been deemed unrepairable due to multiple repairs in the past two years.

5) Document if the lease on the current unit has expired.

Not applicable. The current unit is owned by the applicant.

6) Describe the technological advances provided by the new unit.

New advances on the replacement systems include:

- Clarity – Ultra low dose software and hardware which drastically reduces dose without affecting image quality.
- Dynamic Coronary Roadmap – Combines live fluoroscopy and angiogram images into a single image, which provides immediate feedback on the position of the device and its relationship to the anatomy to guide navigation.

DIVIDER III – Service Specific Criteria & Standards (continued)

7) Describe how patient satisfaction would be improved.

Three functional cardiac cath labs would improve patient satisfaction by decreasing scheduling time for elective procedures.

8) Describe how patient outcomes would be improved.

The new systems will reduce procedure times and radiation exposure for patients and staff. The systems will help speed up final outcomes, improve convenience and allow for increased patient throughput and processing.

9) Describe what impact the new unit would have on utilization.

System utilization may increase for those procedures that historically take longer, such as peripheral procedures. These procedures tend to lead to an increased radiation dose for the provider and patient due to procedure time. The new equipment will decrease radiation exposure which will make this room ideal for those procedures.

10) Describe any new capabilities that the new unit would provide.

As described above under #6. This unit will provide lower dose radiation through new software and hardware. This unit will also allow better navigation through anatomy with dynamic Coronary Roadmap.

11) By what percent will this replacement increase patient charges.

The applicant does not expect this project to impact patient charges directly. Charges are based on market conditions and are the result of payment policy established by Medicare and Medicaid, as well as agreements with commercial payers. Such charges are not directly affected by specific equipment replacements.

Divider IV

Financial Feasibility Review Criteria and Standards

DIVIDER IV – Financial Feasibility Review Criteria and Standards

1) Document that sufficient financing is available by providing a letter from a financial institution or an auditor's statement indicating that sufficient funds are available.

Ernst & Young LLP conducted the external audit for Mercy Health, the applicant's parent organization, for fiscal year ending June 30, 2023. The consolidated balance sheet (included in Divider IV – Attachments) verifies the ability of the applicant to fund this project.

2) Provide Service-Specific Revenues and Expenses (Form MO 580-1865) projected through three (3) FULL years beyond project completion.

Mercy's fiscal year runs from July 1-June 30 each year.

The Service-Specific Revenues and Expenses Form for the projected periods are included in Divider IV – Attachments.

3) Document how patient charges are derived.

The applicant does not expect this project to impact patient charges directly. Charges are based on market conditions and are the result of payment policy established by Medicare and Medicaid, as well as negotiations with commercial payers. Such charges are not directly affected by new equipment or replacements.

4) Document responsiveness to the needs of the medically indigent.

Mercy Hospital South is a Catholic, not-for-profit organization. Collection policies are sensitive to those patients who do not have the ability to meet full financial obligations. Mercy Hospital South provides financial assistance to patients based on need as determined by the Federal Poverty Guidelines. Patients who qualify for financial assistance will not be required to pay more than amounts normally billed to individuals who have insurance. The amount billed is a discounted percentage of the amount due based on federal poverty guidelines.

In fiscal year 2023, Mercy Hospital South provided $6.6 million in unreimbursed charity care (based on the cost of providing services) and $26.3 million in unreimbursed care for Medicaid patients.

Divider IV

Attachments

Mercy Health

Consolidated Balance Sheets
(In Thousands)

	June 30 2023	2022
Assets		
Current assets:		
Cash and cash equivalents	**$ 529,638**	$ 766,187
Accounts receivable, net	**830,562**	847,319
Inventories	**133,162**	131,315
Short-term investments	**46,883**	46,421
Other current assets	**198,850**	131,922
Total current assets	**1,739,095**	1,923,164
Investments	**3,392,083**	3,366,968
Property and equipment, net	**3,455,079**	3,362,960
Other assets	**895,036**	886,149
Total assets	**$ 9,481,293**	$ 9,539,241
Liabilities and net assets		
Current liabilities:		
Current maturities of long-term obligations	**$ 29,558**	$ 32,709
Accounts payable	**445,718**	459,449
Accrued payroll and related liabilities	**502,586**	499,880
Accrued liabilities and other	**440,021**	628,273
Total current liabilities	**1,417,883**	1,620,311
Insurance reserves and other liabilities	**669,710**	650,023
Pension liabilities	**231,654**	269,048
Long-term obligations, less current maturities	**2,173,361**	2,198,157
Total liabilities	**4,492,608**	4,737,539
Net assets:		
Without donor restrictions	**4,806,304**	4,626,359
With donor restrictions	**182,381**	175,343
Total net assets	**4,988,685**	4,801,702
Total liabilities and net assets	**$ 9,481,293**	$ 9,539,241

See accompanying notes.

Certificate of Need Program

SERVICE-SPECIFIC REVENUES AND EXPENSES

Project Title: Mercy South-Replace cardiac cath lab **Project #:** 6098 HT

Historical Financial Data for Latest Three Full Years plus Projections Through Three Full Years Beyond Project Completion

Use an individual form for each affected service with a sufficient number of copies of this form to cover entire period, and fill in the years in the appropriate blanks.

	Year 2021	Year 2022	Year 2023
Amount of Utilization:*	4,590	4,450	5,122
Revenue:			
Average Charge**	$22,849	$23,656	$22,010
Gross Revenue	$104,876,910	$105,269,200	$112,735,220
Revenue Deductions	80,844,033	81,137,957	86,688,051
Operating Revenue	24,032,877	24,131,243	26,047,169
Other Revenue	0	0	0
TOTAL REVENUE	**$24,032,877**	**$24,131,243**	**$26,047,169**
Expenses:			
Direct Expenses			
Salaries	1,430,283	2,791,338	3,180,353
Fees	0	0	0
Supplies	6,275,567	12,730,747	13,460,282
Other	200,410	811,645	1,440,836
TOTAL DIRECT	$7,906,260	$16,333,730	$18,081,470
Indirect Expenses			
Depreciation	162,061	423,941	734,464
Interest***	0	0	0
Rent/Lease	0	0	0
Overhead****	1,230,391	1,352,151	1,379,567
TOTAL INDIRECT	$1,392,451	$1,776,092	$2,114,031
TOTAL EXPENSES	**$9,298,711**	**$18,109,822**	**$20,195,501**
NET INCOME (LOSS):	**$14,734,166**	**$6,021,422**	**$5,851,668**

*Utilization will be measured in "patient days" for licensed beds, "procedures" for equipment, or other appropriate units of measure specific to the service affected.

**Indicate how the average charge/procedure was calculated.

***Only on long term debt, not construction.

****Indicate how overhead was calculated.

Certificate of Need Program

SERVICE-SPECIFIC REVENUES AND EXPENSES

Project Title: Mercy South-Replace cardiac cath lab **Project #:** 6098 HT

Historical Financial Data for Latest Three Full Years plus Projections Through Three Full Years Beyond Project Completion

Use an individual form for each affected service with a sufficient number of copies of this form to cover entire period, and fill in the years in the appropriate blanks.

	Year 1	Year 2	Year 3
Amount of Utilization:*	5,284	5,292	5,293
Revenue:			
Average Charge**	$23,164	$23,850	$24,565
Gross Revenue	$122,398,576	$126,214,200	$130,022,545
Revenue Deductions	94,689,667	97,920,032	101,160,909
Operating Revenue	27,708,909	28,294,168	28,861,636
Other Revenue	0	0	0
TOTAL REVENUE	**$27,708,909**	**$28,294,168**	**$28,861,636**
Expenses:			
Direct Expenses			
Salaries	3,440,465	3,531,556	3,620,105
Fees	0	0	0
Supplies	14,500,566	14,946,942	15,395,935
Other	1,576,974	1,626,775	1,675,707
TOTAL DIRECT	$19,518,005	$20,105,273	$20,691,747
Indirect Expenses			
Depreciation	1,015,058	1,015,058	1,015,058
Interest***	0	0	0
Rent/Lease	0	0	0
Overhead****	1,476,052	1,510,980	1,545,080
TOTAL INDIRECT	$2,491,110	$2,526,038	$2,560,138
TOTAL EXPENSES	**$22,009,115**	**$22,631,311**	**$23,251,885**
NET INCOME (LOSS):	**$5,699,793**	**$5,662,857**	**$5,609,751**

*Utilization will be measured in "patient days" for licensed beds, "procedures" for equipment, or other appropriate units of measure specific to the service affected.

**Indicate how the average charge/procedure was calculated.

***Only on long term debt, not construction.

****Indicate how overhead was calculated.

Attachments

Vendor Quotes

PHILIPS

Sold to:
Mercy Hospital South
10010 Kennerly Rd
Saint Louis, MO 63128-2106

Presented By
Rosie Fore
Philips Healthcare a division of Philips North America LLC
414 Union Street
Nashville, Tennessee 37219
Email: rosie.fore@philips.com

Quote #: Q-00304468
Customer #: 94067978
Quote Date: 05/01/24
Valid Until: 08/02/24

Mercy South Lab 2, Comp IB, #IGTEoL

Dear Valued Customer,

I am pleased to submit the attached proposal for your consideration. Philips Healthcare is transitioning to a new quoting system and you will notice that this quote looks different than the ones you are used to receiving from us.
I would like to point out a specific area of change to you. Promotions are applied to the line item price of individual items, instead of to the total net price as you are used to. As a result the line item prices appear lower than you might expect based on previous quotations. Please note that the list price of the system has not changed and promotion values are subject to availability.
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.
Please note that all necessary initial applications training is included in the offer price. Further application training can be purchased separately by contacting our Customer Care Center.
Orders relating to this proposal should be sent to the address or fax number at the top of this document.

Thank you,

Rosie Fore

PHILIPS

Table of Content

PHILIPS

1. Quote Summary

Line	Article No.	Description	Qty	Net Price
1	**722224**	**Azurion 7 M20**		
1.1	989806130836	480V - IGT Compact Low Load Fluoro - Modulys 75KVA	1	$ 44,625.00
1.2	NNAT211	Azurion 7 C20	1	$ 645,910.75
1.3	NNAE597	IXR Dynamic Coronary Roadmap OnSite Education	1	$ 0.00
1.4	NNAE675	Azurion Clinical Education Pkg	1	$ 0.00
1.5	NCVD069	ClarityIQ.	1	$ 117,937.50
1.6	NCVD030	FlexVision XL HD	1	$ 98,498.13
1.7	FCV0809	addl 27'' LCD Exam Room	1	$ 3,602.68
1.8	NCVD061	optional ref monoplane	1	$ 4,824.00
1.9	NCVD064	extension to FlexVision Pro	1	$ 36,556.50
1.10	FCV0812	live/ref slaving for ER	2	$ 11,171.38
1.11	FCV0588	Isolated Wall Connection Box	9	$ 21,195.90
1.12	FCV0824	video WCB on rear side 1st MCS	2	$ 11,101.34
1.13	NCVD072	SmartMask Monoplane	1	$ 10,825.56
1.14	NCVD078	FD Dual Fluoro monoplane	1	$ 17,772.65
1.15	NCVA258	CO2 VIEW TRACE	1	$ 2,893.53
1.16	NCVD099	Quantitative Coronary Analysis	1	$ 7,091.55
1.17	NCVA082	Intercom	1	$ 1,934.86
1.18	NCVD081	Touch Screen Module Pro	1	$ 25,385.12
1.19	NCVD085	control module (CR)	1	$ 4,465.05
1.20	NCVA783	Pivot for table base.	1	$ 4,377.50
1.21	NCVC542	Dynamic Coronary Roadmap	1	$ 26,282.00
1.22	**722371**	**Interfacing with partners via Philips**		
1.23	FCV0703	Wall Connection Box 1	1	$ 2,639.63
1.24	459801079651	Cabinet Rear Cover	4	$ 1,838.56
1.25	989600213943	Patient table adaptation plate	1	$ 3,344.75
1.26	459800938361	Clip rails for Monitor Ceiling Carriage (390cm, 153.5")	1	$ 1,518.99
1.27	459800706722	MONITOR CEILING CARRIAGE	1	$ 6,601.27
				$ 1,112,394.20
2	**100133**	**CV Third Party Products**		
2.1	989801220387	Lamp Y LED 1F MCS	1	$ 2,550.00
2.2	989801220389	One Monitor Cart	1	$ 1,500.25
2.3	989801220068	10 Meter DVI Cable Set	1	$ 349.78

PHILIPS

2.4	989801229910	RAD SHIELD W/ARM (CONTOURED) 61X76	2	$ 4,998.00
2.5	989801220273	Ceiling Track w/Column & Handle Ext	2	$ 7,497.00
				$ 16,895.03
3	**SP059D**	**Contract (Union) Labor**	1	$ 24,085.00
4	**SP059D**	**De-install/Re-install IntraSight System**	1	$ 11,000.00
5	**SP00410_RE**	**Trade In: Misc Competitor Product**		
6	**SP005**	**Cost to remove Siemens lab**	1	$ 8,600.00
7	**989930009701**	**Philips Laser System**	1	$ 230,000.00
				Total Price
Total Net Price				**$ 1,402,974.23**

(Optional Items)

Line	Article No.	Description	Qty	Net Price
1	**722224**	**Azurion 7 M20**		
	NCVD138	(Opt) table tilt option	*1*	*$ 18,499.32*
	NCVB882	(Opt) Cradle extension	*1*	*$ 15,128.64*

PHILIPS

2. Quote Details

Line	Description	Qty
1	**Azurion 7 M20** **Article No. 722224** **Details** The list of items below represent a tailored configuration of our Philips Azurion 7 M20 Image-Guided Therapy system.	
1.1	**480V - IGT Compact Low Load Fluoro - Modulys 75KVA** **Article No. 989806130836** **Details** Low Load Fluoro (LLF) UPS - 5 75kva Socomec Low Load Fluoro (LLF) UPS - 5: Enough battery to perform fluoro for five minutes (assumes batteries are in good condition) (1 cabinet plus remote display panel). Tested and approved 3-phase double conversion Low Load UPS enables the system to be used normally with low load fluoro and the exception of the exposure functionality. Run time 5 mins (typical 8 min) UPS has a compatibility statement with Philips Imaging Systems.	1
1.2	**Azurion 7 C20** **Article No. NNAT211** Azurion 7 C20 Advanced solution for vascular, non-vascular, embolization to interventional oncology procedures. Key benefits • Optimized utilization of your lab by procedure based workflow • Superb image quality to evaluate small details and vessels with clarity. • Intuitive user interaction delivering an easy to use, easy to learn system. Changing interventions With our Live Image Guidance we aim to remove barriers to safer, effective and reproducible treatments, delivering clinical value where it's needed most - at the point of patient treatment. Intelligent and intuitive integration of live imaging, patient information, and procedure-based applications optimize real time therapy guidance. The 7 series C20 ceiling system is designed to enhance all the different procedures your interventional lab faces, from vascular, non-vascular and embolization to interventional oncology procedures. This	1

future proof solution is designed around a single, standardized hardware and software platform that can be upgraded and expanded as new needs arise or requirements change. Its architecture is made to easily integrate with third party applications and devices. A new workflow approach aims to support interventional teams in carrying out procedures for their patients, consistently and efficiently with great ease of use.

The Philips Azurion 7C20 uses a range of Procedure Cards to help optimize and standardize system set-up for your cases, from routine to mixed procedures.

Procedure Cards can increase the consistency of exams by offering presets (e.g. most-frequently used, default protocols and user-specified settings) on procedure-, physician- or departmental level. In addition, hospital checklists and/or protocols can be uploaded into the Procedure Cards to help safeguard the consistency of interventional procedures and help to minimize preparation errors.

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

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

Specifications

The Philips Azurion series contain a number of features to support a flexible and patient centric procedural workflow.

The Philips Azurion series (within the limits of the used Operating Room table) are intended for use to perform:

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

The Philips Azurion 7 C20 system comprises five functional building blocks:

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

Each functional building block is explained in further detail including accessories.

Geometry

A. 7 C20 stand

The Philips Azurion 7 C20 stand is a stable assembly of a C-arm and a ceiling suspended L-arm. The X-ray tube and the flat detector are integrated into the C-arm. This provides a compact assembly completely free from the floor, with maximal positioning flexibility and unrestricted access to the patient. The robust design ensures excellent reproducibility of projections, needed in for example subtracted imaging procedures and advanced 3D imaging. The L-arm can be rotated and moved in longitudinal direction allowing a three-sided patient approach and total body coverage.

- L-arm rotation around the patient table: +90, 0, -90 degrees.
- L-arm longitudinal movement: 300 cm

This movement features auto-stops at the parking position, cardio/neuro position and lower peripheral position.

B. Patient Support

The patient support provides very light manual float movement, even for heavy patients, thanks to the mono-bearing technology. The long flat carbon fiber tabletop provides ample space to place e.g. catheters and endovascular tools. On customer request, the standard table top can be replaced by a table top for neuro procedures. This table top has a smaller width at the head end for better imaging results in neuro procedures.

- Table top length of 319 cm including OR rails (316 cm excluding OR rails), width 50 cm (neuro table top is 45cm at head end)
- Metal-free cantilever 125 cm
- Floating table-top movement of 120 cm longitudinal and 36 cm lateral float range
- Motorized height adjustment range is 74 -102 cm for a table without swivel nor cradle/tilt.
- Maximum cantilever of 223 cm, for full patient coverage
- Table tilt +17 /-17 degrees (optional)
- Table cradle +15 / -15 degrees (optional)
- Pivot range 270 degrees (-90 to +180 or +90 to -180 degrees), table can be locked at any position and has stops at 0, +/-13, +/- 90 and +/- 180 (optional)
- Table swivel, 78.2 cm longitudinal displacement, motorized (optional).
- Maximum load: 250 kg (up to 250 kg patient weight plus 25kg accessories) plus 500 N for CPR in any longitudinal position of the table top

The UIM modules are not accessories; make consistent with "AD7 accessories Cardiac"

The Philips Azurion system can be fitted with a comprehensive set of accessories to help you perform your procedures as conveniently as possible. Included are:

- 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

X-ray Generation

A. Generator

The 7 C20 system comprises an integrated, micro-processor controlled Certeray generator based on high frequency converter technique. The user interface control of this X-ray Generator is incorporated in the touch screen module, review module, and the on-screen displays. The Certeray generator comprises:

- X-ray generator 100 kW
- Voltage range is 40 - 125 kV
- Maximum current 1000 mA at 100 kV
- Maximum continuous power for fluoroscopy: 1.5 kW
- Program selection:
- Pulsed X-ray up to 3.75, 7.5, 15, 30 (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 1 ms
- ECG triggered acquisition: allows acquiring one exposure for each QRS peak with selectable delay time (optional)
- Automatic kV and mA control for excellent image quality prior to run to save dose
- X-ray tube load incorporated in the Certeray generator
- Pulsed X-ray for (subtracted) acquisition up to 12 frames/s for vascular applications

B. X-ray tube

The 7 C20 system has the Maximus ROTALIX Ceramic grid switch tube assembly MRC200+ GS 0407 integrated.

The MRC 200+ GS 04 07 tube assembly and cooling unit CU 3101 for cardiovascular systems comprises:

- 0.4/0.7 mm nominal focal spot values maximal 30 and 65 kW short time load
- Grid switching at pulsed fluoroscopy and low load exposure (to eliminate soft radiation and improve image quality)
- Continuous loadability: 3500 W (at 21 degrees C room temperature) / 4000 W (= Max assembly continuous heat dissipation)
- Application of SpectraBeam dose management
- Tube housing is oil cooled with thermal safety switch
- Maximum anode cooling rate of 1750 kHU/min
- Anode heat storage capacity of 6.4 [MHUeff]

C. System intrinsic

- Fully digital imaging chain in maximizing the utilization and technology of the x-ray generator, x-ray tube, flat detector and image processing.
- Customizable EPX protocols to each application according to user preferences for different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, and adaptive harmonization)
- Built-in SpectraBeam filtering of low energy radiation to improve image quality and dose efficiency with MRC200+ X-ray tubes.
- Pre-filters of 0.2, 0.5 and 1.0 mm CU equivalent
- Automatic cardiac wedge positioning
- X-ray depth collimator with single semi-transparent wedge filter with manual and automatic positioning.
- Xper Beam Shaping, which means that both shutters and wedges can be positioned on the Last image Hold without the need for X-ray radiation.
- Xper Fluoro Storage, a grab function allows storage and archiving of both a fluoro image or the last 20 seconds of fluoroscopy run. These images or runs can be archived and reviewed as a regular run.

D. User selections

- Removable anti-scatter grid to lower x-ray dose for pediatrics (grid ratio 12:1).
- ECG triggered acquisition, offering the possibility to acquire images at the same phase of the heart cycle. This applies to the low dose fluoro and exposure program for EP applications. This allows patient dose reduction by lowering the pulse rate to 1 pulse per heart and let the physician still focus on relevant items (optional).
- Three programmable fluoroscopy modes can be selected from the control module. Each mode has a different composition of dose rate, pulse speed, filter setting, and image processing (noise reduction, adaptive contour enhancement, and adaptive harmonization).

Roadmap Pro can be selected from the control module.

In the first Roadmap phase a vessel map is created by live fluoroscopy or by selecting an exposure image (SmartMask) with a vessel map which, in the second Roadmap phase, is superimposed with subtracted live fluoroscopy.

Roadmap Pro features Smart Settings in special clinical modes that are optimized to visualize special materials such as coils and glue.

- Acquisition runs can be done without losing the vessel map of Roadmap Pro.
- Live processing of the vessel map, the device map and the landmark map can be done on the touch screen module.
- Field of View (FoV) can be altered during the second phase.
- Xres for vascular procedures is standard part of Roadmap Pro.

E. User dose awareness

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

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

- Graph displays the accumulated Air Kerma dose for the particular body zone of the actual projection
- When the accumulated Air Kerma dose of the particular body zone reaches the critical skin dose level of 2 Gy, it will be indicated on the display and made visible to the x-ray operator.

Radiation Dose Structured Report

Collection of dose relevant parameters and settings and export to a DICOM database (e.g. PACS) (dose information is sent in MPPS message not as Radiation Dose Structure report), according IEC60601-2-43, 2nd Edition. The reported data can be used for, for example:

- Quality improvement: evaluating trends in X-ray dose performance per facility, system and operator. RDSR enables analysis of average dose levels & variance for routinely performed exams and procedures. Also, typical system usage can be extracted from the data, helping to identify root causes behind deviations and measures to improve.
- Analysis of individual patient cases: using dose levels and system usage per procedure
- Alerting for high dose cases, timely identifying patients at risk or deterministic effects, for proper follow-up.

Secondary Capture Dose Report

The Secondary Capture Dose Report function allows the user to save & transfer, manually or automatically, a patient Dose Report to PACS in DICOM secondary capture format.

The dose report will be stored in the related patient image folder.

Image Detection

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

The image chain with the 20 inch flat panel image detector comprises the following:

- A 30 cm by 40 cm (20 in.) diagonal 8 mode Dynamic Flat Detector subsystem for fluoroscopy and cine-fluorography.
- 8 modes 30*38/30*30/26*26/22*22/19*19/16*16/13.5*13.5/11*11 cm, Dynamic Flat Detector
- 48, 42, 37, 31, 27, 22, 19, 15 cm (19, 17, 14.4, 13, 10.5, 8, 7, 6 inch) diagonal formats
- The outer detector physical housing is 36 x 47.2 cm
- The digital output of the Flat detector is 2480*1920 pixels at 16 bit depth.
- The pixel pitch is 154 micron by 154 micron
- The DQE (0) is >77% providing high conversion of X-ray into a digital image, while maintaining a high MTF.

Philips Azurion offers a storage capacity of (optionally extendable) of 50,000 images at matrix size of 1024 x 1024, in 8 or 10 bit depth. With a matrix size of 2048 x 2048 this is 12,500 images. Maximum number of examinations is 999, with no limit to the maximum number of images per examination.

Xres is a multi-resolution spatial temporal noise reduction and edge enhancement filter for interventional applications. Xres exploits the full benefits of dynamic digital flat detector imaging to enhance sharpness and contrast and has been designed to reduce noise in fluoroscopy and exposure runs. The settings for Xres Cardio can be customized to improve image quality.

Xres is a Philips unique image processing algorithm developed at Philips Research for medical applications. Xres is used with Philips MR and US scanners next to Philips Azurion systems.

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 on the left side of the live/ref monitor. The following system information is displayed:

- X-ray indicator
- X-ray tube temperature condition
- Gantry position in rotation and angulation
- Source Image Distance
- Table height
- Table top tilt and cradle angle, if applicable
- Detector field size display
- General System messages
- Selected Frame speed
- Fluoroscopy mode
- Integrated fluoroscopy time
- Skin Dose: dose rate during X-ray, cumulated dose when no X-ray
- Dose Area Product: dose rate during X-ray, cumulated dose when no X-ray
- Graphical bars for Body Zone specific dose-rate and accumulated skin dose levels, related to the 2 Gy level (for cardiac applications)
- Stopwatch

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 viewing)
- X-Ray settings (Collimation, Projections, Table, Series and Processing)
- Quantitative Analysis (optional) User can only start QA from the touch screen module. No controls

Viewpad

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

- Run and image selection

- File and run cycle
- File overview
- Store to Reference image file
- Copy image to photo file
- Digital (fixed) zoom and panning
- Recall reference images, which means switching control of Viewpad function from life to reference monitor
- Laser pointer, intended to point at regions of interest on the image monitors
- LED indication of laser pointer on/off and battery low
- Subtraction on/off
- Remasking
- Landmarking
- Access flat detector rotation

User Interface in Control Room

The control room comprises a review module, data color monitor and review monitor. The data and review functions are controlled by a single keyboard and mouse. The review module offers the basic functions for review. The most prominent functions can be controlled by the push of a button. The review module comprises the following functionality:

- Power on/off
- File and run cycle
- File, Run, and Image stepping
- Run and file overview
- Reset fluoroscopy timer
- Enable/disable X-ray
- Geo disable

Acquisition monitor. A standard keyboard and mouse control the user interface. The acquisition monitor is intended to follow live case in the ER. System information is displayed on the bottom of the monitor:

- Stopwatch and Time
- System guidance information
- Dose Area Product (DAP) and Skin Dose, as dose rate during X-ray and cumulative dose at no X-ray
- Frame speed settings, fluoroscopy mode, and accumulated Fluoroscopy time
- Exposure and fluoroscopy settings as Voltage (kV), Current (mA) and time (ms)
- Geometry information as rotation, angulation, and SID
- The acquisition monitor is designed for standard workflow based on scheduling, preparation, acquisition, review, report, and archive.

Scheduling

In the scheduling page it is possible to add new patients (either querying from RIS/CIS or by creating patient locally). The patients can be listed and selected per date, physician, and intervention type. Previous DICOM patient studies can be uploaded with the DICOM Query Retrieve function in the Philips Azurion system. Patient management protocols are flexible and allow for multiple studies to be selected under one patient identification number. This means that new studies can be appended to an earlier patient file. Furthermore, each study can contain multiple examinations to allow for split administrative purposes. Each examination contains multiple files, like acquisition file, reference file, and QA results file.

Procedure Cards

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

Acquisition

The acquisition page contains information on the currently selected patient.

Reviewing

The review page allows for reviewing of patients:

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

Archiving

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

With Philips Azurion the control room comprises of an acquisition monitor and a review monitor. The review monitor is a 24 inch color TFT-LCD medical grade monitor.

The Graphical User Interface on the Review monitor has the following features and possibilities:

- Step through file, run, or images
- File, and run overview
- Contrast, brightness, and edge enhancement settings
- Flagging of runs or images for transfer
- Applying text annotation in images
- DICOM printing if available
- Executing Quantitative Analysis Packages if available
- Subtraction functionality

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.

Viewing

A. Viewing in Examination room

Philips Azurion systems come with one 27 inch high brightness color medical grade LCD monitor for clinical image display in the Examination room. This LCD monitor is intended for viewing in the examination room and is designed for medical applications. The monitors is used for combined viewing of live images and reference display. Selection and storing of live to reference monitor is controlled by the infra-red remote-control viewpad or via touch screen module.

The On-Screen Display provides status information on stand rotation-angulation, table height, display of system messages, X-ray tube load status, selected fluoroscopy mode, selected detector Field of View, and both the rate and accumulation of the dose area product and Air Kerma dose.

The main characteristics are:

- 27 inch high brightness color TFT-LCD display
- Native format 1920x1080 Full HD
- 10 bit gray-scale resolution with gray-scale correction
- Wide viewing angle (approx. 178 degrees)
- High brightness (max 650 Cd/m2, default 400 Cd/m2)
- Long term luminance stability through backlight stabilization circuit
- Automatic brightness control with backlight sensor
- Control functions on side
- User programmable and standard reference setting
- On-Screen Display
- Internal selectable lookup table for gray-scale transfer function, including DICOM
- Internal power supply (100-240 VAC)
- Integrated LCD protection screen

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

B. Viewing in Control room

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

- 24 inch color TFT-LCD display
- Native format 1920x1080 Full HD
- High brightness (max 400 Cd/m2, default 350 Cd/m2)

- Wide viewing angle (approx. 178 degrees)
- Long term luminance stability through backlight stabilization circuit
- Automatic brightness control with backlight sensor
- Control functions on side
- User programmable and standard reference setting
- On-Screen Display
- Internal selectable lookup table for gray-scale transfer function, including DICOM
- Internal power supply (100-240 VAC)
- Integrated USB hub

A Philips Azurion system includes the DICOM Image Interface which enables the export of clinical images to a DICOM destination like a CD-Medical station or a PACS server. The export formats are based on DICOM 3.0 protocols. The system exports clinical studies in Cardiac DICOM XA Multi-Frame or DICOM Secondary Capture formats.

The DICOM Image Interface transfers through its fast Ethernet link, making images available on-line within seconds. The archive process can be configured by X-ray settings. The images are sent out either in the background, or manually upon completion of the examination. The export format is configurable in 512x512 or 1024x1024 matrix in 8 or 12 bit depth. The examination can be sent to multiple destinations for archiving and reviewing purposes. The DICOM Image Interface provides DICOM Storage and DICOM Storage Commitment Services. The DICOM Query/Retrieve function allows older DICOM XA MF and DICOM SC studies to be uploaded in the system. Furthermore, additional information can be appended to a study while keeping the patient identification the same.

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.

Environmental

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

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 to on a 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

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

1.3 **IXR Dynamic Coronary Roadmap OnSite Education** 1
Article No. NNAE597

Philips Imaging Systems Clinical Education Specialist will provide eight (8) hours of education for up to four (4) students, as selected by customer, including technologists from weekend/night shifts as necessary. CEU credits are not available for this portion of training. 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#296309-20170315
This training requires the purchase of Dynamic Coronary Roadmap.

1.4 **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).

1.5 **ClarityIQ.** 1
Article No. NCVD069

Significantly lower 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

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 AlluraClarity.

AlluraClarity 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 AlluraClarity. 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

1.6 **FlexVision XL HD** 1
Article No. NCVD030

FlexVision XL HD is an integrated viewing solution designed to give you full control over your viewing environment which brings High Definition viewing.

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.

1.7 **addl 27'' LCD Exam Room** 1
Article No. FCV0809

Additional 27 inch high brightness color medical grade LCD monitor.

Key benefits
• Enhance visibility for a variety of procedures

Get a wider view of the situation
Mix and match the widescreen monitors to make efficient use of your lab space. Each monitor can display input from different sources so you can see just what you need for different phases and types of procedures. The high definition color widescreen monitors enhance the visibility of fine details and vital signs.

Specifications
This LCD monitor is intended for viewing in the Examination Room and is designed for medical applications.

The main characteristics are:
- 27 inch high brightness color TFT-LCD display
- Native format 1920x1080 Full HD
- Two DVI inputs to display one or two channels (dual view)
- 10 bit gray-scale resolution with gray-scale correction
- Wide viewing angle (approx. 178 degrees)
- High brightness (max 650 Cd/m2, default 400 Cd/m2)
- Long term luminance stability through backlight stabilization circuit
- Automatic brightness control with backlight sensor
- Control functions on side
- User programmable and standard reference setting
- On Screen Display
- Internal selectable lookup table for gray-scale transfer function, including DICOM
- Internal power supply (100-240 VAC)
- Integrated LCD projection screen

1.8 **optional ref monoplane** 1
Article No. NCVD061

Additional Ref2 and Ref3 viewport

Key benefits
• Easily display any data or clinical information needed to work efficiently

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

1.9 **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

1.10 **live/ref slaving for ER** 2
Article No. FCV0812

Key Benefits

- Easily display any data or clinical information needed to work efficiently
- Simplify workflow with flexible viewing control

- The live/ref slaving enables the option to slave the Live and Ref video source from the X-ray system

Details

Live/ref slaving for Exam Room.

Having patient data and clinical information easily available on screen can enhance decision making and efficiency during interventions

The total amount of live/ref slaving that can be selected is max 5, minus the number of FCV0807 Live/ref slaving for CR.
If the customer chooses for FlexSpot, then the total amount of live/ref slaving that can be selected is max 3, minus the number of FCV0807 Live/ref slaving for CR

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

1.11 **Isolated Wall Connection Box** 9
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.

1.12 **video WCB on rear side 1st MCS** 2
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.

1.13 **SmartMask Monoplane** 1
Article No. NCVD072

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

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

Specifications
The reference image can be faded in/out with variable intensity, controlled from tableside. SmartMask uses the reference image displayed on the reference monitor. Any previously acquired image can be used as reference. SmartMask facilitates pre- and post- intervention comparisons to assess treatment results.

1.14 **FD Dual Fluoro monoplane** 1
Article No. NCVD078

An additional fluoro channel in parallel to the standard fluoro channel

Key benefits
• View the subtracted fluoroscopy next to the default non subtracted fluoroscopy

• View a digitally zoomed fluoroscopy image next to the default fluoroscopy image

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

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

1.15 **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.

1.16 **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.

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1.17 **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.

1.18 **Touch Screen Module Pro** 1

Article No. NCVD081

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

Key benefits

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

Enhance image navigation on the touch screen module

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

Specifications

- enhance image navigation on the TSM
- intuitive control of shutters and wedges by simply dragging the lines shown on top of the image
- provides intuitive zooming an panning functionality (also during fluoroscopy)
- turns the touchscreen into the pointing device in order to improve communication in ER/CR: when activated the pointer is shown on corresponding monitor

!!! Note: Touchpad and Keyboard control from the TSM is NOT part of this option but 'FlexVision Pro' option.

!!! Note: Images shown on the TSM are not meant for diagnostic purposes (image is downscaled, compressed and latency during live/replay maybe higher than on the live monitor)

1.19 **control module (CR)** 1

Article No. NCVD085

Extension of the control facility for geometry movements in the Philips monoplane X-ray systems.

Key benefits

• Easy system control from a different location
• Intuitive operation thanks to streamlined design

Full control where you need it

To help your interventional suite work as efficiently as possible, no matter what layout or case mix it has, you can choose extra control modules to easily control the system from a different location. Each control module works according to the Philips workflow concept, allowing intuitive operation of the system thanks to the streamlined design.

Specifications
A second combined imaging and geometry module offers an additional assisting operation of the stand, table and imaging functionality in parallel with the standard module at table side. The modules are connected in a master-slave configuration. Any activation of the master module will de-activate the slave module at once. The 2nd module is connected in the Control Room.

1.20 **Pivot for table base.** 1
Article No. NCVA783

- Flexible positioning for upper extremity angiography
- Easy patient transfer

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

1.21 **Dynamic Coronary Roadmap** 1
Article No. NCVC542

Introduction

When advancing guidewires and devices through the vasculature during percutaneous coronary interventions, it’s important to understand the relationship between the device and the anatomy. Navigation is based on the physician's knowledge of the patient's anatomy, shown on angiograms and live fluoroscopic images. As the physician works, small shots of contrast agent are applied to check the device position, on the live fluoro image with the anatomical reference provided by the previously acquired angiogram.

Details

Note: when ordering Dynamic Coronary Roadmap and/or StentBoost Live for a non-FlexVision system a single dedicated color monitor must be added to the MCS.

Dynamic Coronary Roadmap is a Medical Device as defined in Regulation (EU) 2017/745 (EU-MDR)

Includes

Dynamic Coronary Roadmap combines the live fluoro and angiogram image into a single adaptive roadmap image, which provides immediate feedback on the position of the device and its relationship to the anatomy to guide navigation. Dynamic Coronary Roadmap features include: - Automatic creation and storage of a dynamic roadmap from each acquired coronary angiogram. Only one roadmap per projection is stored; - Automatic overlay of the dynamic roadmap on live fluoroscopy; - Automatic guidance to reach projections for which a roadmap is available; - The Dynamic Coronary Roadmap

functionality is fully integrated in the interventional X-ray system; - Image snapshots or movies can be archived to any DICOM compatible PACS. These include DICOM XA and DICOM SC.

1.22 **Interfacing with partners via Philips**
Article No. 722371

1.23 **Wall Connection Box 1** 1
Article No. FCV0703

A wall connection box to connect external video and Ethernet.
* Makes live and reference image video signals available to a 3rd party.
* Allow display of 3rd party video signals on the Allura monitor (Rel 7.6.x - R8.1.x)
* Provide access to hospital network
Cables are included.

.

1.24 **Cabinet Rear Cover** 4
Article No. 459801079651

Cabinet Rear Cover

1.25 **Patient table adaptation plate** 1
Article No. 989600213943

Introduction

The patient table adaptation plate is designed to simplify the installation process of the Azurion patient table. As the adaptation plate can be installed on top of the room floor, it is not necessary to carry out extensive floor construction works, which is usually required in case the floorplate is embedded into the floor.

Details

This option increases the minimum table height, specified in the default configuration, by 3cm (1.2 inch).

Includes

The patient table adaptation plate is backwards compatible. This means that a new Philips Azurion patient table can be mounted on top of an existing floorplate of predecessor tables, which were used in the previous Philips Allura platform (AD5 patient table).

1.26 **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.

1.27 **MONITOR CEILING CARRIAGE** 1
Article No. 459800706722

Monitor ceiling carriage

(Opt) **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

(Opt) **Cradle extension** 1
Article No. NCVB882

• Moves the tabletop in a cradle motion from side to side to support surgical and puncture procedures
• Improves access to patients
• Allows precise imaging of contrast medium or blood

Precise imaging during surgery and puncture procedures
To obtain high quality imaging results and help in avoiding re-takes during surgical or puncture procedures, it can be useful to swing the tabletop from side to side in a cradle movement. This

extension moves the tabletop in a cradle motion to improve access to patients. It also allows precise imaging of contrast medium or blood.

Line	Description	Qty
2	**CV Third Party Products** **Article No. 100133** **Details** Configured offering	
2.1	**Lamp Y LED 1F MCS** **Article No. 989801220387** LE901710-MCS Lamp YLED-1F with Portegra2 extension/spring arm 750/910 mm for Philips MCS Technical Data and Specifications Model YLED-1F Central light intensity (at 1 m distance) 70,000 lx Colour temperature 4100 ± 200 K Colour rendering index at 4100 Kelvin (CRI) Ra 95 Focusable light field size 140 250 mm Electronic brightness control 50% 100% Sterilisable handle Yes Temperature increase in head area 0.5 K Power consumption (total) 24 VA Mains voltage and frequency 100 240 VAC at 50 60 Hz Number of LED modules 17 Lifetime of LEDs 50,000 h Working area 70 140 cm Height adjustment (on Portegra2 spring arm) 117 cm Lamp dimensions 28 x 36 cm Housing colour RAL 9002 Hazardous substances (EU Directive 2011/65/65) RoHs compliant Housing Protected against splashed water IP44 Fire protection class V0 Medical Products Directive 93/42/EEC Yes Use according to DIN VDE 0100-710 Yes Approvals CE / NRTL	1
2.2	**One Monitor Cart** **Article No. 989801220389**	1

MD711 One Monitor Cart

2.3	**10 Meter DVI Cable Set** **Article No. 989801220068** 10 meter DVI cable set with zipper hose cover.	1
2.4	**RAD SHIELD W/ARM (CONTOURED) 61X76** **Article No. 989801229910** Contoured Rad Shield with Arm rest. 61X76	2
2.5	**Ceiling Track w/Column & Handle Ext** **Article No. 989801220273** Mavig 2.5m Ceiling Track with Ceiling trolley, 360 degree column, and brake handle extension.	2

Line	Description	Qty
3	**Contract (Union) Labor** **Article No. SP059D**	1

Line	Description	Qty
4	**De-install/Re-install IntraSight System** **Article No. SP059D**	1

Line	Description	Qty
5	Trade In: **Misc Competitor Product** **Article No. SP00410_RE** Serial number: 135182	

Line	Description	Qty
6	**Cost to remove Siemens lab** **Article No. SP005**	1

Line	Description	Qty
7	**Philips Laser System** **Article No. 989930009701** **Philips Laser System** The Philips Laser System has a broad range of clinical applications including peripheral atherectomy, coronary atherectomy and lead extraction, allowing the physician to treat a variety of disease states. Using low temperature pulsed bursts of 308 nm UV light, physicians can modify a wide range of lesion morphologies safely and effectively. Features such as 30 seconds start-up time, guided workflow touch screen and 360-degree maneuverability simplifies set up.	1

Initial placement of a laser system includes:Philips Laser System,operator’s manual, power cord, keys (2), footswitch, reference catheter, danger signs (2), safety glasses (10).

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3. Local Sales Terms and Conditions

Line	Product Code	Contract Name	Contract No.	Billing Plan
1	722224 Azurion 7 M20	HEALTHTRUST PURCHASING GROUP HPG81970	HPG81970	0/80/20
2	100133 CV Third Party Products	HEALTHTRUST PURCHASING GROUP HPG81970	HPG81970	0/80/20
3	SP059D Contract (Union) Labor	NONE	NONE	0/80/20
4	SP059D De-install/Re-install IntraSight System	NONE	NONE	0/80/20
5	SP00410_RE Trade In: Misc Competitor Product	NONE	NONE	0/80/20
6	SP005 Cost to remove Siemens lab	NONE	NONE	0/80/20
7	989930009701 Philips Laser System	NONE	NONE	0/80/20

Payment Terms US: Net 45 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:

Cancellation: Order(s) are cancellable with written notice to Philips. Cancellation is subject to a 10% penalty unless one of the following is true: 1. Non-installable products, consumables, off-the-self software, and infringing products, not shipped; or, 2. Services not commenced; or 3. Force Majeure; or, 4. Philips receives notice 5 days prior to the start of SOW or project; 5. Products failing to comply with the HealthTrust Agreement or applicable law or regulation or subject to a recall; or, 6. Philips' breach of Warranty exclusions in section 14.9 of HealthTrust Agreement.

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4. Signature Page

Invoice to:
Mercy Hospital South
10010 Kennerly Rd
Saint Louis, MO 63128-2106

	Total Price
Total Net Price	$ 1,402,974.23

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, a division of Philips North America LLC ("Philips") and is intended for use only by the customer whose name appears on this quotation. Except as otherwise required by state or federal law after strict compliance with any applicable notification and procedural requirements therein, it may not be disclosed to third parties without the prior written consent of Philips.

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 _____
   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. For Recurring Maintenance Service & Support Agreements with New Equipment Purchases: Our facility does issue formal purchase orders; however, due to our business/system limitation, we cannot issue a formal purchase order for the service agreement until 90 days prior to standard warranty expiration. Our facility agrees to submit the service agreement purchase order at such time. Initialed: _____

CUSTOMER SIGNATURE
by its authorized representative

Signature: _____
Print Name: _____
Title: _____
_____
_____
Date: _____

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5. Philips Standard Terms and Conditions

GENERAL TERMS AND CONDITIONS OF SALE AND SOFTWARE LICENSE ("Conditions of Sale") Rev 23

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 reasonably in advance of the date the Order is invoiced, otherwise, Philips will invoice Customer for those taxes and Customer shall pay those taxes in accordance with the terms of the invoice.

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.

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.

2.4.1 If the Customer cancels the order prior to the order being sent to the factor for manufacturing, then the Customer shall pay the costs incurred by Philips up to the date of cancellation or 15% of the net selling price of the product(s), whichever is less.

2.4.2 If the Customer cancels the order after the order is sent to the factory for manufacturing, then Customer shall pay the full net selling price of the product(s) ordered.

2.4.3 If Customer has not taken delivery date for each product contained in Philips quotation and Customer's purchase order, or in-lieu of purchase order, within 30 months from Philips' receipt of Customer's purchase order, or in-lieu of purchase order, then the product shall be deemed cancelled and Customer shall be subject to the cancellation fee in section 2.4.1.

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; Philips imposes a surcharge on credit cards of 2%, which is not greater than our cost of acceptance. 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

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 the 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 to 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 for 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. Customer shall pay the 80% installment payment upon delivery to Customer site or 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 manufacturing 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 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, and 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 a 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 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.

9.9.7 THE WARRANTIES SET FORTH IN THESE TERMS AND 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 PARTICULAR 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, INDEMNITY, 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 patients or 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.

18.14 Entire Agreement. These Terms and Conditions of Sale, the terms and conditions set forth in the quotation and the applicable Philips' product-specific warranty constitute the entire understanding and agreement by and between the parties with respect to the transactions contemplated by the quotation and supersede any previous understandings or agreements between the parties, whether written or oral, regarding the transactions contemplated by the quotation. The pricing in the quotation is based upon the terms and conditions in the quotation. No additional terms, conditions, consents, waivers, alterations, or modifications shall be binding unless in writing and signed by the parties. Customer's additional or different terms and conditions, whether stated in a purchase order or other document issued by Customer, are specifically rejected and shall not apply to the transactions contemplated by the quotation.

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 expressly set forth in these Conditions of Sale, the terms set forth in the Product specific schedule shall govern in such instance.

PHILIPS

Schedule 1
Imaging Systems Portfolio (IS) Rev 23

Product Category	Products
Image Guided Therapy (IGT)	Interventional X-Ray (iXR)
	Mobile C-Arms (Surg)
	Philips Image Guided Therapy Corporation (IGTD)fka Volcano (Capital only)
Imaging Clinical Applications (ICAP)	IntelliSpace Portal (ISP)
Diagnostic Imaging	Digital X-Ray (DXR)
	Computed Tomography (CT)
	Magnetic Resonance (MR)
	OEM Imaging Components (Coils)
	Positron Emission Tomography (PET/CT)
	Advanced Molecular Imaging (SPECT & SPECT/CT)
	Radiation Oncology (PROS)

1. Payment Terms.

Unless otherwise specified in the quotation, Philips will invoice Customer and Customer will pay such invoice based on the date of the invoice for each of the products and integration services as follows:

1.1 For Imaging Systems Portfolio:

1.1.1 0% of the purchase price shall be due with Customer's submission of its purchase order.

1.1.2 80% of the purchase price shall be due on delivery of the major components of the Product to Customer designated location or Philips warehouse. Product installation will not begin until Customer has paid this portion of the purchase price.

Subject to Section 6.2 of the Conditions of Sale, 20% of the purchase price shall be due net thirty (30) days from the invoice date based on Product(s) availability for first patient use. Available for first patient use means the product has been installed and substantially meets Philips' systems verification functionality set forth in the installation manual.

2. For IGT Fixed Systems.

2.1 Project management support to enable delivery and installation is provided at no additional cost. Consulting and other turnkey room preparation services are not included.

2.2 Delivery and Installation are included in the purchase of the system.

3. Additional Customer Installation Obligations for Magnetic Resonance (MR).

3.1 Customer shall provide any and all site preparation and shall be in compliance with all radio frequency (RF) or magnetic shielding and acoustical suppression and building codes relevant to the Product and its installation and use.

3.2 If applicable, Customer's contractor or Customer's architect is required to provide detailed information on theproposed Helium Exhaust Pipe for their MRI system prior to installation to ensure safety specifications are being met.

Required Details include:

3.2.1 Architectural drawing or sketch with complete dimensions including lengths, bending radii, bending angles, and pipe diameters for entire Helium Exhaust Pipe run from RF enclosure to discharge location.

3.2.2 Completed Helium Exhaust Pipe Verification Checklist (Provided by Local Philips Project Manager)

3.2.3 Picture showing the area where the Helium Exhaust Pipe will discharge.

3.3 If applicable, Magnets will not be released for delivery unless and until Helium Exhaust Pipe details are provided for verification and have been confirmed to meet all life safety specifications.

3.4 Costs of equipment preservation, to ensure a high-quality system, will be passed to the Customer if the installation site is not ready due to delays not caused by Philips. Additionally, climate control costs during and after equipment installation are also the responsibility of the Customer. Preservation of equipment is required to prevent exposing equipment to the negative effects of a non-climate-controlled construction environment, where there is dust or high humidity. Climate control could include costs associated with ensuring a climate- controlled environment. Activities and expenses required for preservation may include time, materials, and transportation to package and seal, and transport the equipment to a controlled environment to prevent dustfrom entering the equipment. For MR, as may be applicable, this includes the consumption of Helium for life support.

4 Further use of System Data.

4.1 Mandatory Data. Customer acknowledges and agrees that by executing this Agreement and using the Licensed Software, it has agreed that product inventory and crash signature data generated by the LicensedSoftware shall be delivered into the custody of Philips, or of systems maintained on Philips' behalf, without notice to Customer. Such data is referred to herein as "Mandatory Data" and such data is described in the Licensed Software's documentation

for each Licensed Software release; the data comprising Mandatory Data is subject to change with each release of upgrades, updates, patches and modifications to the Licensed Software.

4.2 Customer agrees that any Mandatory Data will be the property of Philips. Part of the Mandatory Data might constitute (non-sensitive) Personal Data, which is anonymized data or aggregate log files, device parameters and other signals collected from the equipment used by Customer and associated with Customer. Customeragrees that Philips may use and disclose Mandatory Data for Philips' own business purposes (including, butnot limited to, for data analytics activities to determine trends of usage of Philips' or its affiliates' devices andservices, to facilitate and advise on continued and sustained use of Philips' or its affiliates' products and services, for product and service development and improvement (including the development of new offerings), substantiation of marketing claims and for benchmarking purposes). In connection with any disclosure of Mandatory Data, Philips will not associate such data with the Personal Data of Customer's patients, consumers, or employees.

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6. 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 in the time zone where the Customer is located, 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.

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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 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.

12.2 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, INDEMNITY, 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.

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

12.4 FOR US CUSTOMERS, THE FOLLOWING ARE NOT SUBJECT TO THE LIMITATIONS OF LIABILITY UNDER SECTION 12.1:

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

12.4.2 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.

12.4.3 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.

12.4.4 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.

13. Force Majeure.

13.1 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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