

ROY COOPER • Governor

MANDY COHEN, MD, MPH • Secretary

MARK PAYNE • Director, Division of Health Service Regulation

December 19, 2018

Elizabeth Kirkman Atrium Health 2709 Water Ridge Parkway, Suite 200 Charlotte, NC 28217

Exempt from Review - Replacement Equipment

Record #:

2816

Facility Name:

Carolinas Healthcare System NorthEast

FID #:

943049

Business Name:

The Charlotte-Mecklenburg Hospital Authority

Business #:

1770

Project Description:

Replace and relocate interventional radiology equipment in room #11

County:

Cabarrus

Dear Ms. Kirkman:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of December 11, 2018, the above referenced proposal is exempt from certificate of need review in accordance with N.C. Gen. Stat. §131E-184(a)(7). Therefore, you may proceed to acquire without a certificate of need the Siemens Artis Q Bi-Plane interventional radiology equipment to replace the Siemens Axiom Artis dBC/dBA Detector System interventional radiology equipment. This determination is based on your representations that the existing unit will be sold or otherwise disposed of and will not be used again in the State without first obtaining a certificate of need if one is required.

Moreover, you need to contact the Agency's Construction, Radiation Protection, and Acute and Home Care Licensure and Certification Sections to determine if they have any requirements for development of the proposed project.

It should be noted that the Agency's position is based solely on the facts represented by you and that any change in facts as represented would require further consideration by this office and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Gloria C. Hale Team Leader Martha J. Frisone

Chief, Healthcare Planning and Certificate of Need Section

cc:

Construction Section, DHSR

Gloria C. Hale

Radiation Protection Section, DHSR

Acute and Home Care Licensure and Certification Section, DHSR Melinda Boyette, Administrative Assistant, Healthcare Planning, DHSR

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF HEALTH SERVICE REGULATION HEALTHCARE PLANNING AND CERTIFICATE OF NEED SECTION

LOCATION: 809 Ruggles Drive, Edgerton Building, Raleigh, NC 27603 MAILING ADDRESS: 2701 Mail Service Center, Raleigh, NC 27699-2701 www.ncdhhs.gov/dhsr/ • TEL: 919-855-3750 • FAX: 919-733-2757

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER





December 11, 2018

Ms. Martha Frisone, Chief Healthcare Planning and Certificate of Need Section Division of Health Service Regulation N.C. Department of Health & Human Services 809 Ruggles Drive Raleigh, NC 27603

RE: Notice of Exemption for Two Projects on the campus of The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Healthcare System NorthEast: 1) Replace and Relocate Interventional Radiology Equipment in Interventional Radiology Room #9 and 2) Replace and Relocate Interventional Radiology Equipment in Interventional Radiology Room #11

Dear Ms. Frisone:

The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Healthcare System NorthEast (CHS NE) is planning to replace and relocate two of its existing interventional radiology rooms with new, technologically comparable equipment. The existing equipment is currently located in Interventional Radiology Room #9 and Interventional Radiology Room #11 on the first floor of the Clinical Services Building on the main campus of CHS NE. The replacement equipment will be relocated to the new patient tower that is currently under development on the main campus of CHS NE pursuant to previously approved Project ID #F-8219-08.

Pursuant to N.C.G.S. 131E-176(22a) which defines replacement equipment and N.C.G.S. 131E-184(a)(7), which provides an exemption from certificate of need review for replacement equipment projects if prior notice is provided to the CON Section, the following letters serve as prior notification of our intent to proceed with the two projects discussed above. We would appreciate your written concurrence that these projects are exempt from CON review. If you have any questions or require further information regarding this project, please contact me at 704-446-8475.

Sincerely,

Elizabeth Kirkman, Assistant Vice-President

Elycobeth Culcular

Atrium Health Strategic Services Group



December 11, 2018

Ms. Martha Frisone, Chief Healthcare Planning and Certificate of Need Section Division of Health Service Regulation N.C. Department of Health & Human Services 809 Ruggles Drive Raleigh, NC 27603

RE: Replace and Relocate Interventional Radiology Equipment on the campus of The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Healthcare System NorthEast

Dear Ms. Frisone:

The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Healthcare System NorthEast (CHS NE) is planning to replace and relocate one of its existing interventional radiology rooms with new, technologically comparable equipment. CHS NE intends to purchase a Siemens Artis Q Bi-Plane System to replace a Siemens Axiom Artis dBC/dBA Detector System that was installed in 2007. The existing equipment is currently located in Interventional Radiology Room #11 on the first floor of the Clinical Services Building on the main campus of CHS NE. The replacement equipment will be relocated to the new patient tower that is currently under development on the main campus of CHS NE pursuant to previously approved Project ID #F-8219-08.

The Siemens Artis Q Bi-Plane System will be used for the same types of procedures as the existing equipment and will not be used to provide a new health service. A chart comparing the existing equipment and the replacement equipment is included in Attachment A along with supporting documentation. The existing equipment is currently in use and documentation provided in Attachment B indicates 4,666 procedures were performed in Interventional Radiology Room #11 from November 2017 through October 2018.

The total cost related to the replacement of the equipment is \$1,838,250 which includes equipment costs only (\$1,675,000 for the bi-plane equipment, \$35,000 for the sygno DynaCT SMART software and \$128,250 for sales tax). The cost of the development of the room that the equipment will be relocated to in the new patient tower is included in the capital cost approved under Project ID #F-8219-08. Attachment C provides the quote for the interventional radiology equipment. Please see Attachment D for a letter documenting the equipment will be taken out of service and removed from North Carolina. The total capital cost worksheet is provided in Attachment E.

The North Carolina Certificate of Need statutes provide a definition of replacement equipment in N.C.G.S. 131E-176(22a). The definition requires the replacement equipment be comparable to the

existing medical equipment and cost less than \$2,000,000 when installed. The statutes further provide in 131E-184(a)(7) an exemption from certificate of need review for replacement equipment projects if prior notice is provided to the CON Section.

Based on the above facts, the proposed project is exempt for CON review and this letter serves as prior notification of our intent to proceed with this project. We would appreciate your written concurrence that this project is exempt from CON review. If you have any questions or require further information regarding this project, please contact me at 704-446-8475.

Sincerely,

Elizabeth Kirkman, Assistant Vice-President Atrium Health Strategic Services Group

Attachments

Attachment A

EQUIPMENT COMPARISON - Interventional Radiology Room #11 (Bi-Plane)

20	Dwisting Parison	- r
	Existing Equipment	Keplacement Equipment
1 ype of Equipment (List each component)	Interventional Radiology	Interventional Radiology
Manufacturer of Equipment	Siemens	Siemens
Tesla Rating for MRIs	A/Z	N/A
Model Number	Axiom Artis dBC/dBA Detector	Artis O Bi-Plane
	System	
Serial Number	53209	Not Available Until Installed
Provider's Method of Identifying Equipment	Internal Asset # / Serial #	Internal Asset #/ Serial #
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	N/A	X/X
Mobile Tractor Serial Number/VIN #	N/A	A/X
Date of Acquisition of Each Component	2007	May 2019
Does Provider Hold Title to Equipment or Have a Capital Lease?	Title	Title
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.)	\$3,352,577	\$1.838.250
Total Cost of Equipment	\$1,836,806	\$1.710.000
Fair Market Value of Equipment	\$1,836,806	\$1,710,000
Net Purchase Price of Equipment	\$1,836,806	\$1.710.000
Locations Where Operated	CHS NE Clinical Services Building	CHS NE Modernization Tower
Number Days in Use/To Be Used in N.C. per Year	365 days/year	365 davs/vear
Percent of Change in Patient Charges (by procedure)	%0	%0
Percent of Change in Per Procedure Operating Expenses (by	%0	%0
procedure)		
Type of Procedures Currently Performed on Existing Equipment	Interventional radiology procedures	Interventional radiology procedures
Type of Procedures New Equipment is Capable of Performing	Interventional radiology procedures	Interventional radiology procedures
Type of Procedures New Equipment is Capable of Performing	Interventional radiology procedures Interventional radiology procedures	Interventional rad Interventional rad

Answers for life.



Artis Q

Visionary in performance. Visionary in precision.

The Artis Q product line for interventional imaging is a visionary break-through in X-ray generation and detection that takes **performance** and **precision** to the next level.

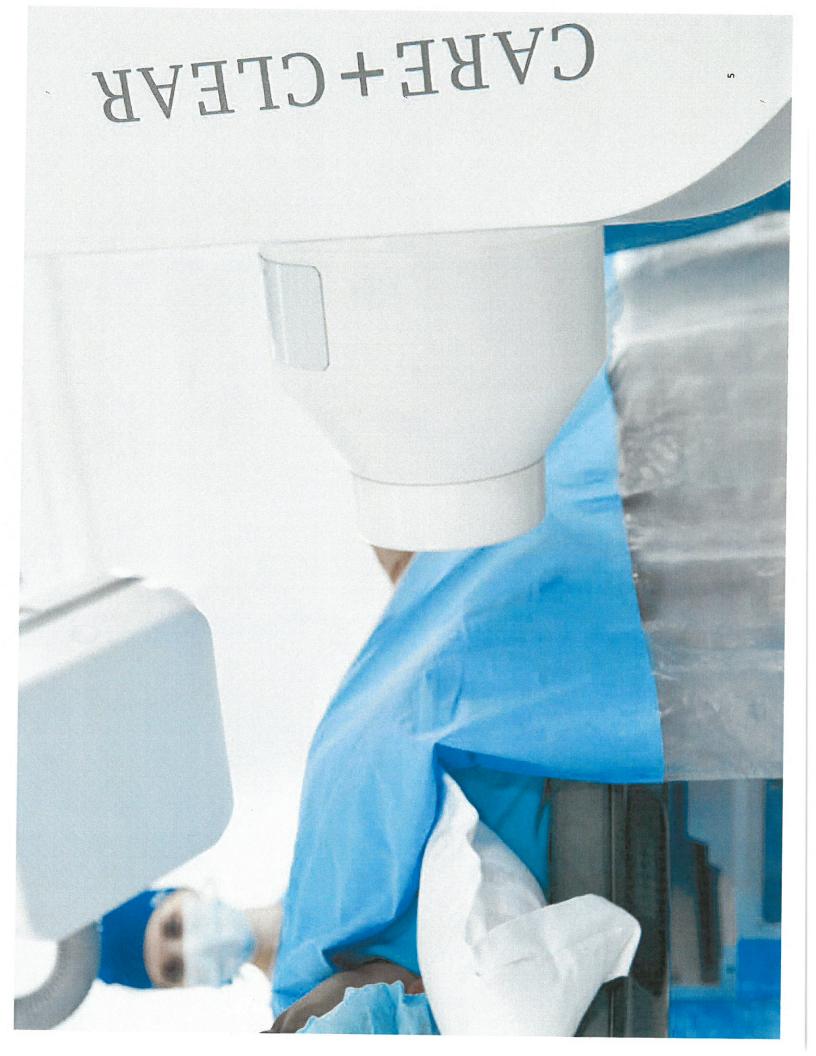
Artis Q offers unparalleled **performance** with the new powerful GIGALIX X-ray tube for high contrast resolution at any angle and any patient size while the high-dynamic range detector enables enhanced image quality in advanced 3D imaging.

In the fight against the most threatening diseases such as coronary artery disease, stroke, and tumors, Artis Q delivers innovative applications offering **precision** for enhanced guidance during interventional procedures in cardiology, radiology, and surgery.

Experience the future of interventional imaging.

PLOFMANCE isionary in ...

To see any device and anatomical structure in any patient and at any angulation is one of the main challenges in interventional imaging. For better performance and image quality, Artis Q provides enhanced visualization to see small devices. It offers high contrast resolution even at steep angulations. And it enables sharp images of moving objects such as coronary arteries while the optimized X-ray pulse helps to reduce radiation by up to 60%. The new large HDR detector offers high dynamic range for excellent soft-tissue resolution in 3D.



GIGALIX Focused power

the flat emitter enables CLEARpulse and short pulses. Compared to filament technology, the higher maximum current of square focal spots of the GIGALIX result enhances image quality in challenging situations such as with obese patients designed around a unique flat emitter clinical applications and help to better technology that generates powerful in higher spatial resolution for all visualize small devices and vessels. or in steep angulations. The small The GIGALIX X-ray tube has been

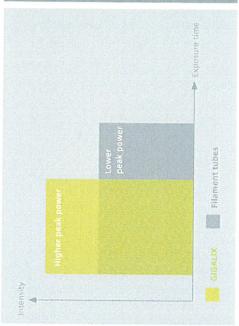
Together with the higher contrast resolution, this results in up to 70% better visibility of small devices.*

can be shortened. This allows visualizing moving objects such as coronary vessels With CLEARpulse, the pulse length more sharply.

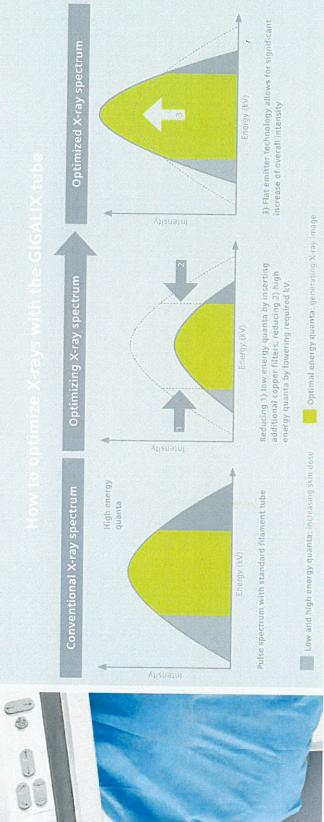
spectrum by lowering the required tube CLEARpulse also optimizes the X-ray voltage and allowing for additional filtration.

Together with small focal spots, this generates equal image quality with up to 60% less dose*. The GIGALIX X-ray tube in the Artis Q enhanced image quality at a significantly lower dose for both patients product line scores a double win: and staff.





CLEARpulse - sharp images and low dose



Up to 70% better visibility of small vessels*

for better images and optimized dose* Up to 43% shorter pulses



- High dynamic range for enhanced soft-tissue resolution in 3D imaging
 High dose efficiency enables better
 - ingly dose enricency enables better image quality at less radiation

 Water cooling to meet the demands of high hygienic standards and to provide

High dynamic range and dose efficiency New large HDR detector

In addition to X-ray generation, X-ray detection is crucial for high image quality. The new large detector comprises a 16-bit read-out generating more than 65,000 gray scale values leading to enhanced soft-tissue contrast in 3D imaging, especially at image borders (e.g. close to bones like the skull)

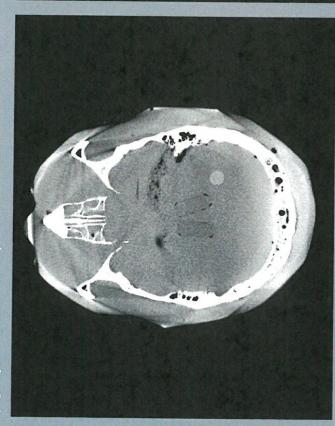
Increased scintillator thickness enables higher detective quantum efficiency. This provides imaging excellence even in challenging situations and helps to reduce radiation.

The water-cooled design meets high hygienic requirements, especially in hybrid operating rooms. In addition, it supports a stable image quality even in long-lasting procedures.

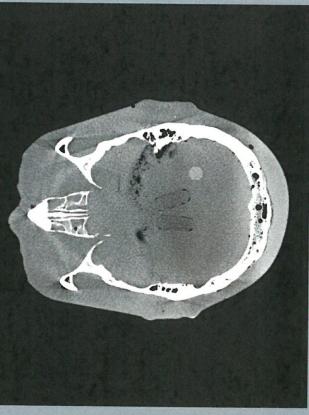
Increased soft-tissue resolution syngo DynaCT with large HDR detector –

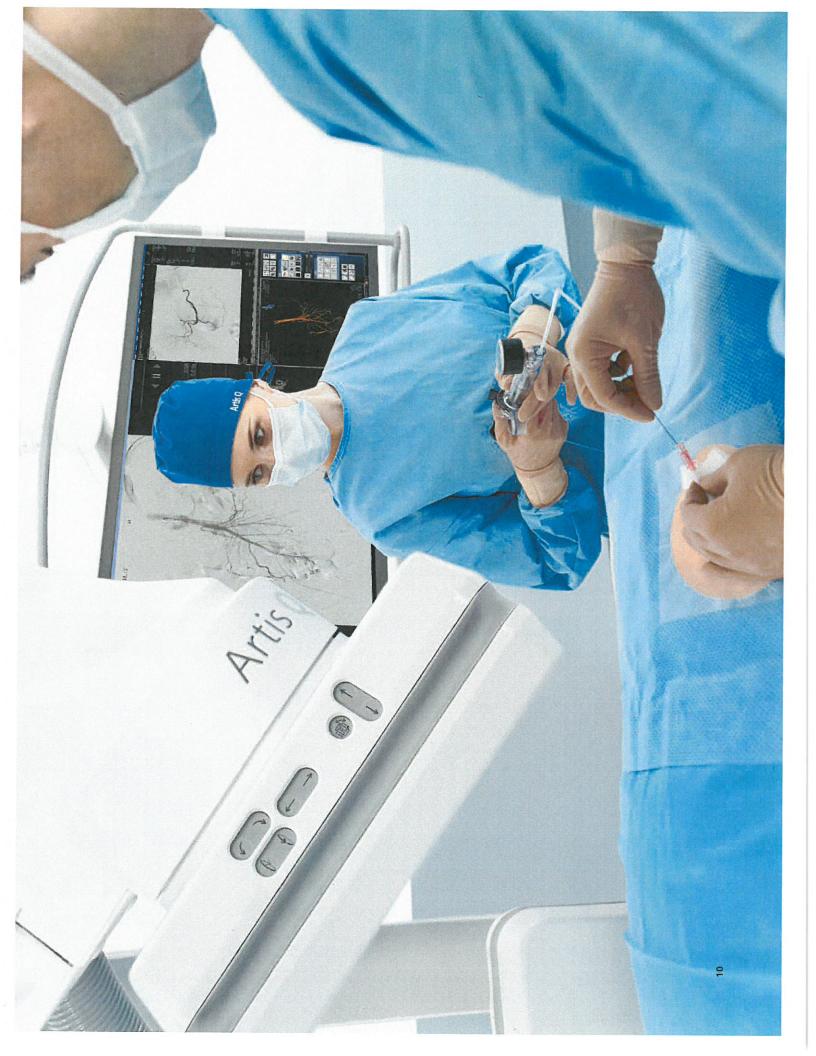
syngo DynaCT (14 bit read-out

yngo DynaCT with large HDR detector (16 bit read-out)



Enhanced soft-tissue resolution, especially close to the skull (phantom images using CATPHAN CTP 515 phantom)

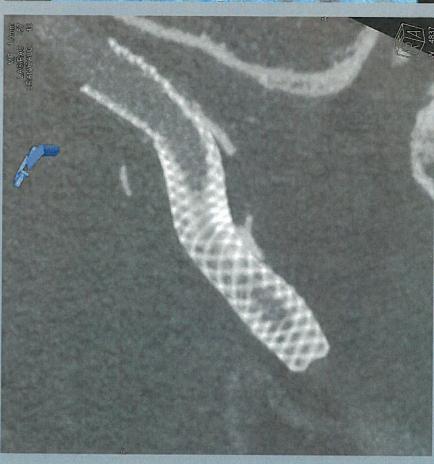


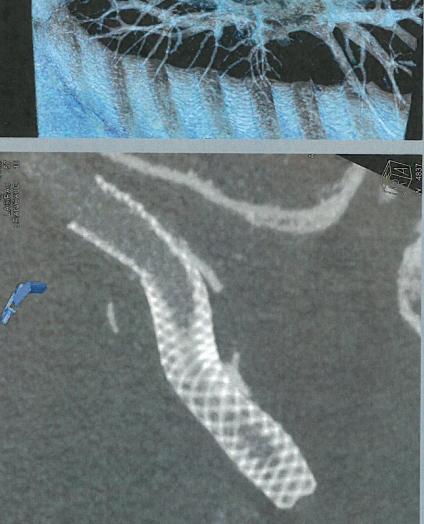


Visionary in ... Drecision

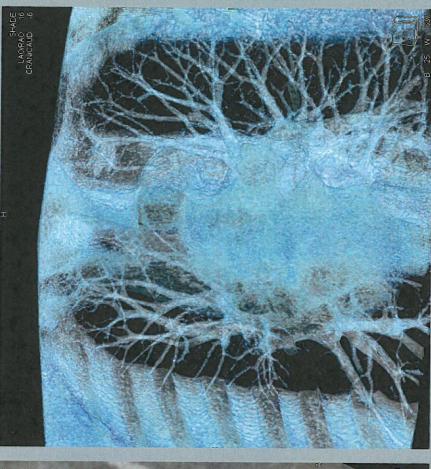
Precise guidance is needed to help improve clinical outcomes during interventions. Artis Q offers applications for cardiology, interventional radiology and image-guided surgery.

Applications for advanced interventional imaging

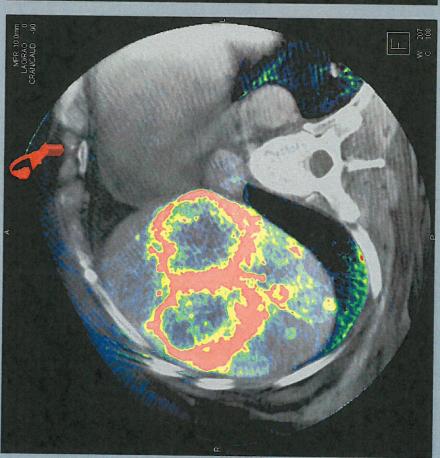




syngo DynaCT Micro -Boosting the level of detail



Freeze the motion for better treatment syngo Dyna3D HighSpeed* -



syngo DynaPBV Body -

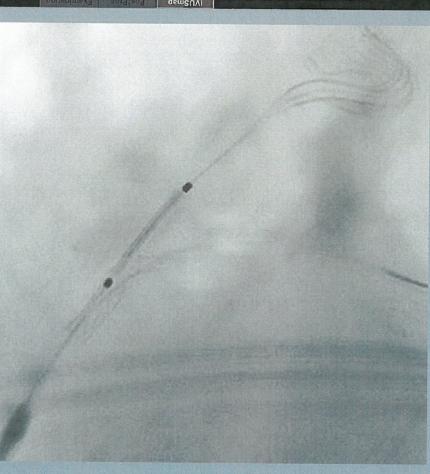
Evaluate perfusion for personalized therapy

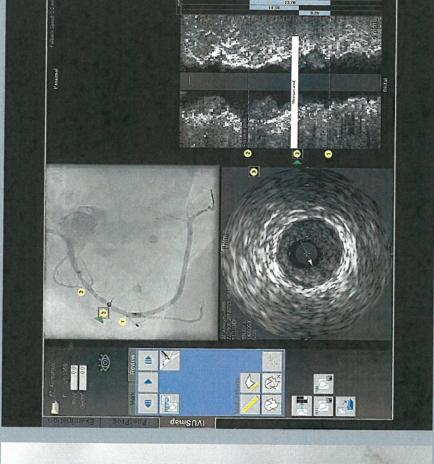


syngo DynaCT with new large HDR detector -

- Increasing soft-tissue resolution

Applications for advanced interventional imaging





CLEARStent Live -

Real-time stent enhancement software

- . Real-time verification of stent positioning while moving the de
 - otential to speed up procedures and to save contrast agent

IVUSmap -

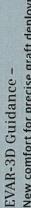
Integrated co-registration of IVUS images with angiography

- Combined information of angiography and IVUS imagii
 - Bookmarks guide stent positioning and deployment
- Automated workflow integrated into procedur





A new level of valve positioning convenience syngo Aortic ValveGuide -



New comfort for precise graft deployment

becomes reality... When Vision

Experience the future of interventional imaging and learn more about Artis Q system configurations and options.

Artis Q Floor-mounted system

positioning flexibility on a very small footprint. The Artis Q floor-mounted system offers high

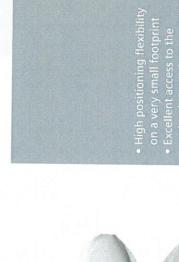
The C-arm features a floor rotation point ensures optimum access to the patient's end position to a left-side position. This head as well as extensive coverage from with motorized swivel - from the headhead to toe.

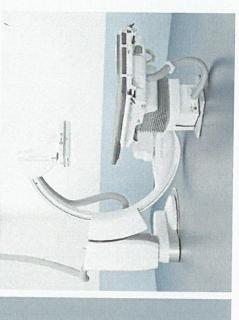
Flexible positioning of the C-arm relative access to the patient's left side for paceto the table is possible, e.g. allowing maker implantations.

the patient's head and sides for hybrid rotated table enables easy access to A special orthogonal position with procedures.

images for all C-arm and table positions. Artis StraightView maintains upright

The compact and slimline C-arm design has a small footprint requiring an examination room size of only 25 m².





Artis Q Ceiling-mounted system

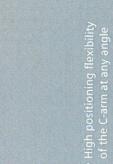
positioning flexibility for the C-arm at any angle. The Artis Q ceiling-mounted system offers high

The C-arm can be conveniently positioned enables optimum patient access. The loncoverage from head to toe as well as easy gitudinal ceiling travel offers maximum around the patient's left, right or head side, and any angle in between. This parking away from the table.

stand rotation, IsoTilt the projection angle For increased imaging accuracy, InFocus maintains the projection angle during

upright images for all positions of the during table tilting, and StraightView In addition, the system provides the uncompromised image quality of C-arm and table.

Not only the Artis tables, but also surgery tables from Maquet and Trumpf can be syngo DynaCT in the lateral position. integrated into the system.



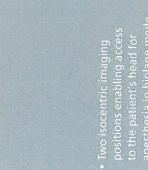




Artis () Biplane system

The Artis Q biplane system offers high positioning flexibility and excellent patient access for biplane imaging. The Artis Q biplane system combines high In single plane mode, the table and performance and positioning flexibility. It supports two isocentric imaging positions patient's head as well as extensive coverage from head to toe in biplane imaging enabled by the floor rotation point with side. This allows optimum access to the motorized swivel from head end to left

stand rotation allows access even to the position with rotated table enables easy access to the patient's head for complex patient's left side. A special orthogonal maintains the projection angle during upright images for all C-arm and table increased imaging accuracy, IsoTilt table tilting and Artis StraightView procedures under anesthesia. For positions.





21

Artis zeego

Artis zeego offers unparalleled positioning flexibility with a variable isocenter.

The unique multiple-axis design of Artis zeego enables unparalleled positioning flexibility and makes it the optimal system for hybrid operating rooms and all procedures where coverage and advanced 3D imaging are key.

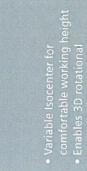
3D rotational imaging can be performed from five different system positions: at the patient's left, right, and head, and with the table rotated to the left or right. Artis zeego offers unique 3D imaging protocols such as syngo DynaCT 360 and syngo Dyna3D HighSpeed.

Thanks to its unique variable isocenter, the working height of the Artis zeego system can be adjusted to a comfortable level according to user height.

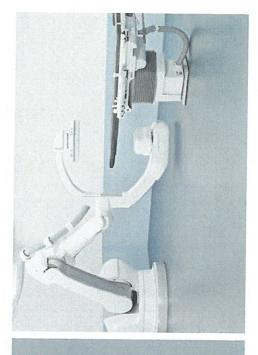
Flexible parking positions provide operators with ample work space around the table when imaging is not required.

Artis zeego meets the highest hygienic standards in the OR, allowing laminar air flow and maintaining sterility requirements.









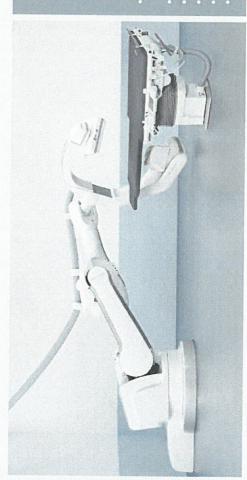
surgical tables on the market The broadest portfolio of

Siemens gives you the broadest choice of table systems for your hybrid and operating rooms. With the Artis OR table and integrated surgical tables from Maquet and Trumpf,

tis OR table

Designed for easy patient access, superb positioning and total body coverage, the integrated Artis OR table is a proven and reliable interventional table with tilt and cradle functionality. Featuring a radiolucent free-floating tabletop that allows for

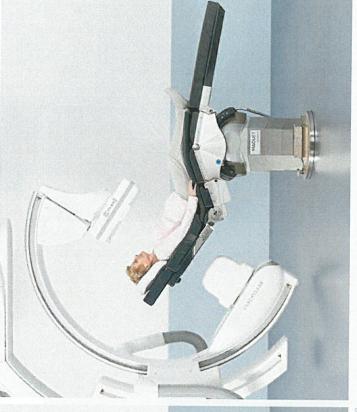
artifact-free 3D imaging, it is particularly well suited for procedures in cardiac and vascular surgery. This is the table of choice, particularly if the room is shared with interventionalists.



- Available with the entire
- uitable for 3D imagin
 - ree floating
- Tilt and cradle functionality ±15°
- Overnang 224 cm (102.36°) Maximum weight 200 kg (440 9 lh



Trumpf TruSystem 750



Maquet Magnus

Trumpf TruSystem7500 and Maquet Magnus

These surgery tables come with one-piece carbon or with segmented, radiolucent tabletops. These breakable tabletops are highly flexible and the segments are partially motorized. Shuttling allows convenient use of whichever tabletop best matches the requirements of a procedure. Therefore, the integrated surgery tables are optimally suited for multidisciplinary use or rooms with a high percentage of open surgical procedures. Most surgical disciplines require sophisticated

patient positioning, i.e. neurosurgery, urology, trauma surgery, orthopedic surgery, abdominal surgery, and thoracic surgery. These integrated surgery tables provide the flexibility necessary.

Artis Large Display

It's time to see the whole picture on one monitor.

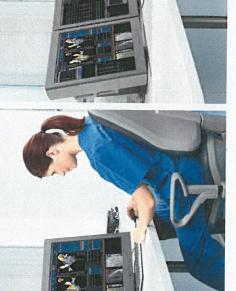
With the Artis Large Display, 9, 18, or 24 video signals can be connected to the screen. The screen layout can be changed from the tableside.

With its built-in backup concept, additional back-up monitors are no

longer necessary. Also, a special algorithm ensures sharp display of ECG signals in zoomed formats, which is especially important to precisely visualize intracardiac ECG signals.









- Control up to 9 systems from one workplace and clean up your control room
- Configure the Cockpit to your needs with one or two keyboards and monitors

Artis Cockpit

It's time to clean up the control room.

Stop running from one system to the next – let the Artis Cockpit consolidate all your information in one workplace. The 30-inch medical-grade monitor offers 4 megapixel resolution and high brightness for excellent image display. Up to 9 inputs can be simultaneously displayed and controlled, with a choice of four different layouts. The position of the system inputs on the screen

can be easily rearranged using the unique drag & drop functionality.

Artis Cockpit offers one single workplace that can be equipped with one or two keyboards and monitors. With so much more efficiency in the control room, you can focus on your procedure and your patient.

CARE & CLEAR

optimized post-processing and dose reduction. The CARE package helps reduce radiation for the operator and patient. The CLEAR package offers a comprehensive range of applications Artis Q includes the CARE and CLEAR packages to complement the imaging chain for to enhance image quality. CARE and CLEAR are standard with all Artis Q systems.

We think beyond technical hardware improvements. Introduced in 1994, our ever growing CARE portfolio (Combined Applications to Reduce Radiation Exposure) continues to reduce radiation dose for patients and clinical staff while maintaining high image quality for diagnostic confidence.

Dose saving

- CAREvision provides variable fluoroscopy frame rates, pulse frequencies can be adapted to clinical needs
- CAREfilter is a specially designed copper prefiltration system that automatically adjusts the filter to the patient's anatomy
- CAREprofile allows radiation-free collimator and semitransparent filter

- adjustment using the last image hold (LIH) position as reference
- CAREposition enables radiation-free object positioning, i.e. allows the table or C-arm position to pan without using fluoroscopy
- Low-Dose Acquisition, a dedicated acquisition protocol, helps to achieve dose reductions
- Low-Dose syngo DynaCT provides 3D images at the lowest possible dose levels

Jose monitoring

 CAREguard allows three threshold values to be defined for the accumulated skin dose and signals when a skin dose level is exceeded

- CAREwatch displays the dose area product and dose rate at the interventional reference point on the live display in the examination and control rooms
- CAREmonitor shows in real-time the accumulated peak skin dose according to the current projection in the form of a fill indicator on the live monitor

Jose reporting

- CAREreport is a DICOM-structured radiation report containing all patient demographic, procedure, and dose information
- CARE Analytics is a stand-alone tool for installation on any PC in the hospital network, allowing evaluation of DICOM dose structured reports

Enhanced dose reporting	CAREmonitor
Enhanced dose control Stand-alone PC CARE Analytics	CARE Analytics
2010 Sm doze alert on the touchscreen 首員	CAREguard
Acquisition Low Dose Acquisition	Low-Dose Acquisition
\$ 1000 at 1000	CAREreport
0.1 picyframe	Low Dose syngo DynaCT
2001	CAREposition
1998	CAREprofile
1994 {}}} {}}	CAREfilter
Pulsed Flucioscopy	CAREvision





CLEAR offers a comprehensive range of applications with real-time processing to enhance image quality – without increasing the dose.

- CLEARpulse shortens the pulse length and optimizes the X-ray spectrum, which leads to overall image quality improvements
- CLEARcontrol enhances the image creation process with a unique histogram analysis and optimizes image brightness and contrast
- CLEARview enhances overall image quality, especially when using low-dose imaging protocols with dose-adaptive noise reduction
- CLEARmotion helps detect small structures and efficiently compensates for motion artifacts
- CLEARchoice enables preferred image quality selection during application

Airnost zu years or Siemens innovations to reduce, monitor, and report dose in angiography

and are subject to change without prior notice. Somel wide. Availability and packaging may vary by country rights and service availability, we cannot guarantee able through the Siemens sales organization worldthat all products included in this brochure are avail-On account of certain regional limitations of sales All of the features and products described herein may not be available in the United States or other countries.

Global Business Unit

Angiography & Interventional Medical Solutions X-Ray Systems Siemens AG

DE-91301 Forchheim Siemensstr. 1 Germany

Phone: +49 9191 18-0

www.siemens.com/healthcare

Global Siemens Healthcare

Global Siemens Headquarters

Wittelsbacherplatz 2 80333 Muenchen

Germany

Siemens AG

Headquarters Siemens AG

Healthcare Sector Henkestrasse 127

91052 Erlangen Germany

Telephone: +49 9131 84-0

www.siemens.com/healthcare

as well as standard and optional features that do not The information in this document contains general technical descriptions of specifications and options always have to be present in individual cases.

Note: Any technical data contained in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced. Caution: Federal law restricts this device to

> herein without prior notice. Please contact your local Siemens sales representative for the most current Siemens reserves the right to modify the design, packaging, specifications and options described information.

www.siemens.com/medical-accessories

sale by or on the order of a physician.

For accessories, go to:

conservation), we recycle certain components. Using the same extensive quality assurance measures as for factorynew components, we guarantee the quality of In the interest of complying with legal requirements products (protection of natural resources and waste concerning the environmental compatibility of our these recycled components.

Order No. A91AX-01343-33C1-7600 | Printed in Germany | CC AX 1193 03133. | © 03.2013, Siemens AG

www.siemens.com/healthcare



CHS NE Interventional Radiology Room #11 (Bi Plane) Volumes

Month	Volume
Nov-17	377
Dec-17	350
Jan-18	340
Feb-18	373
Mar-18	372
Apr-18	356
May-18	379
Jun-18	425
Jul-18	396
Aug-18	413
Sep-18	397
Oct-18	488
Total	4,666

Attachment C



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Customer Number: 0000035965

Date: 11/5/2018

ATRIUM HEALTH 1000 BLYTHE BLVD CHARLOTTE, NC 28203-5812

Siemens Medical Solutions USA, Inc. is pleased to submit the following quotation for the products and services described herein at the stated prices and terms, subject to your acceptance of the terms and conditions on the face and back hereof, and on any attachment hereto.

Table of Contents	Page
Artis Q biplane (Quote Nr. 1-HGAZX2 Rev. 2)	3
OPTIONS for Artis Q biplane (Quote Nr. 1-HGAZX2 Rev. 2)	11
General Terms and Conditions	14
Warranty Information	22
Detailed Technical Specifications	24
Cut Sheets	following page 30

Contract Total: \$1,675,000

(total does not include any Optional or Alternate components which may be selected)

Proposal valid until 12/20/2018

Estimated Delivery Date: 02/2019

Estimated delivery date is subject to change based upon factory lead times, acceptance date of this quote, customer site readiness, and other factors. A Siemens representative will contact you regarding the final delivery date.

The parties hereby expressly agree that the Premier Healthcare Alliance, L.P. Group Purchasing Agreement— Imaging Products and Services effective October 1, 2015 (Contract Number(s) PP-IM272) and Siemens Terms and Conditions of Sale attached hereto shall govern the purchase of Products pursuant to this Quotation

This offer is only valid if firm, non-contingent orders for the following quotes are simultaneously placed with Siemens:

1-HGDCDG

1-HGAZX2

This proposal includes the trade-in of equipment referenced in Trade Sheet Project # 2018-3254

Accepted and Agreed to by:

Siemens	Medical Solutions USA, Inc.	ATRIUM HEALTH	
By (sign):		By (sign):	
Name:	Edwin Winicki	Name:	189 197 1 1 1 1 1 1 1
Title:	Account Executive	Title:	
120 at 100 at 10		-	

Created: 11/5/2018 10:32:00 AM

PRO 1-OUDNWF

Siemens Medical Solutions USA, Inc. Confidential

Page 1 of 30



40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995		SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978
Date:	Date:	
By signing below, signor certifies that no mod Any such modifications or additions will be vo	ifications or additions ha id.	ve been made to the Quotation.
By (sign):		



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Quote Nr:

1-HGAZX2 Rev. 2

Terms of Payment:

00% Down, 80% Delivery, 20% Installation

Free On Board: Destination

Purchasing Agreement:

PREMIER PURCHASING PARTNERS LP

PREMIER PURCHASING PARTNERS LP terms and

conditions apply to Quote Nr 1-HGAZX2

Artis Q biplane

All items listed below are included for this system: (See Detailed Technical Specifications at end of Proposal.)

Qty Part No. Item Description

1 14434122

Artis Q biplane Neurorad.

Artis Q biplane for interventional neuroradiology

The Artis Q product line is setting new standards in interventional imaging.

The Artis Q biplane for interventional neuroradiology now features PURE(r).

PURE adds smooth interaction to Siemens' smart technologies. It is designed to boost productivity and enhance outcomes for certain clinical applications while increasing image quality and reducing dose.

The GIGALIX X-ray tube concentrates high pulse power on small, square-shaped focal spots (flat emitter technology for all focal spots). This provides unprecedented image quality for confidence in challenging situations.

Imaging two projections simultaneously saves time and contrast. With the floor or ceiling-mounted stand full patient coverage is achievable.

The patient table is fitted with a freely movable patient positioning tabletop.

The as40HDR and as20 flat detectors are optimized for radiology and allow for steep angulations.

Digital acquisition technology and digital subtraction angiography with up to 7.5 f/s in 1k/12 bit matrix are available.

The complete CARE+CLEAR package offers optimal image quality at the lowest reasonable dose.

Live and reference images are displayed on four 19" flat screens in the exam room. In the control room live images are displayed on two additional screens.

1 14434150

FD as40HDR (B) ANGIO/SUR ins as20

Enlarging your field of view

When ordering this flat detector, the following components of the basic configuration

- as20 flat detector
- Cardiac collimator

in plane B has been replaced by

- as40HDR flat detector

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

14446029

syngo NeedleGuidance

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

2nd 8 pedal wireless footswitch Additional 8-pedal wireless footswitch Additional 8-pedal wireless footswitch for release of fluoroscopy, exposure and table brake, selection and remask in roadmap, as well as a configurable additional function. Head-end table tilting Motorized tilt and stepping of the patient table in longitudinal direction for electrophysiological or peri examinations, for example, as well as for stabilizing a patient. Includes a power-assisted tabletop control moditions, for example, as well as for stabilizing a patient. Includes a power-assisted tabletop control moditions additional accessories. Notes: Table tilting reduces the maximum patient weight to 200 kg. As before however, it is possible to install up to 40 additional accessories. Note: It is mandatory to provide UPS back up with this table option in order to comply with IEC 60601-2-4 201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned provision for your installation site will satisfy the requirement Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and saving positioning of the patient (with biplane systems only plane A). Fluoro Loop Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e s at 30 p/s, 68 at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3	Qty	Part No.	Item Description - Angio collimator
Automatic stand positioning depending on the selected reference image and automatic reference image se depending on the stand positioning. 2nd 8 pedal wireless footswitch Additional 8-pedal wireless footswitch for release of fluoroscopy, exposure and table brake, selection and remask in roadmap, as well as a configurable additional function. Head-end table tilting Motorized tilt and stepping of the patient table in longitudinal direction for electrophysiological or periexaminations, for example, as well as for stabilizing a patient, includes a power-assisted tabletop control modition. Notes: Table tilting reduces the maximum patient weight to 200 kg. As before however, it is possible to install up to 40 additional accessories. Note: It is mandatory to provide UPS back up with this table option in order to comply with IEC 60601-2-4 201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned provision for your installation site will satisfy the requirement Laser crosshairs Laser crosshairs Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and saving positioning of the patient (with biplane systems only plane A). Fluoro Loop Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e at 30 pfs, 68 at 15 pfs. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vescal analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D and applications for interventional neuroraciology. The package includes the following functionalit	1	14432949	
Additional 8-pedal wireless footswitch for release of fluoroscopy, exposure and table brake, selection and remask in roadmap, as well as a configurable additional function. Head-end table tilting Motorized tilt and stepping of the patient table in longitudinal direction for electrophysiological or peri examinations, for example, as well as for stabilizing a patient. Includes a power-assisted tabletop control moditions, for example, as well as for stabilizing a patient. Includes a power-assisted tabletop control moditions additional accessories. Note: It is mandatory to provide UPS back up with this table option in order to comply with IEC 60601-2-4 201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned provision for your installation site will satisfy the requirement. Laser crosshairs Laser crosshairs Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and saving positioning of the patient (with biplane systems only plane A). Fluoro Loop Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e at 30 pls, 68 s at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vescel analysis with determination of degree of stenosis, distance measurement and calibration. Syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D ar applications for interventional neuroradiology. The package includes the olivolomy functionalities 3D high-cool and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D volon live images (fluoroscopy or roadmap). In-room control for ta	1	14432948	Automatic stand positioning depending on the selected reference image and automatic reference image selection
Motorized tilt and stepping of the patient table in longitudinal direction for electrophysiological or peri examinations, for example, as well as for stabilizing a patient. Includes a power-assisted tabletop control mode. Notes: Table tilting reduces the maximum patient weight to 200 kg. As before however, it is possible to install up to 40 additional accessories. Note: It is mandatory to provide UPS back up with this table option in order to comply with IEC 60601-2-4 201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned provision for your installation site will satisfy the requirement Laser crosshairs Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and saving positioning of the patient (with biplane systems only plane A). Fluoro Loop Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e s at 30 p/s, 68 s at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D are applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vide images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Enductionally for remote operation of the XWP. 3D functional milinging providing physiologic blood volume inform (syngo DynaPBV) Neuro), dedicated workflow suppor	1	14434154	Additional 8-pedal wireless footswitch for release of fluoroscopy, exposure and table brake, selection and reset of
Table tilting reduces the maximum patient weight to 200 kg. As before however, it is possible to install up to 40 additional accessories. Note: It is mandatory to provide UPS back up with this table option in order to comply with IEC 60601-2-4 201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned provision for your installation site will satisfy the requirement Laser crosshairs Laser crosshairs Laser crosshairs Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and saving positioning of the patient (with biplane systems only plane A). Fluoro Loop Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e s at 30 p/s, 68 s at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vescel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap). In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D ste measurements. Extended visualization and post-processing functionalities for DSA and native scenes.	1	14432897	Head-end table tilting Motorized tilt and stepping of the patient table in longitudinal direction for electrophysiological or peripheral examinations, for example, as well as for stabilizing a patient. Includes a power-assisted tabletop control module.
Note: It is mandatory to provide UPS back up with this table option in order to comply with IEC 60601-2-4 201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned provision for your installation site will satisfy the requirement 1 14432894			Notes:
201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned provision for your installation site will satisfy the requirement 1 14432894			Table tilting reduces the maximum patient weight to 200 kg. As before however, it is possible to install up to 40 kg of additional accessories.
Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and saving positioning of the patient (with biplane systems only plane A). Fluoro Loop Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e s at 30 p/s, 68 s at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D ste measurements. Extended visualization and post-processing functionalities or DSA and native scenes of			Note: It is mandatory to provide UPS back up with this table option in order to comply with IEC 60601-2-43 CL. 201.15.101. Reason: In the event of power failure a neutral table position suitable for CPR must be reachable within 15 seconds. Please include a suitable UPS from Siemens as required or make sure any existing / planned UPS provision for your installation site will satisfy the requirement
Fluoro Loop Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, es at 30 p/s, 68 s at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D and applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D volon live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stemessurements. Extended visualization and post-processing functionalities for DSA and native scenes (in the pative scene	1	14432894	Laser crosshairs
Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an add acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e s at 30 p/s, 68 s at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stemessurements. Extended visualization and post-processing functionalities for DSA and native scenes (in the context of the			Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and dose-saving positioning of the patient (with biplane systems only plane A).
acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e s at 30 p/s, 68 s at 15 p/s. DYNAVISION DSA/DR Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stempes of the support and measurements. Extended visualization and post-processing functionalities for DSA and native scenes of the stended visualization and post-processing functionalities for DSA and native scenes.	1	14434160	Fluoro Loop
Native or subtracted digital rotational angiography with angle triggering. Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stemessurements. Extended visualization and post-processing functionalities for DSA and native scenes (see the control for table-side operation of advanced applications, Extended visualization and post-processing functionalities for DSA and native scenes (see the control for table-side operation of advanced applications, Extended visualization and post-processing functionalities for DSA and native scenes (see the control for table-side operation of advanced applications, Extended visualization and post-processing functionalities for DSA and native scenes (see the control for table-side operation of the XWP.)			Storage and display of dynamic fluoroscopic sequences (Fluoro Loop), for both planes. This saves an additional acquisition and reduces dose. The maximum storable fluoroscopic time depends on the selected pulse rate, e.g. 34 s at 30 p/s, 68 s at 15 p/s.
Vascular analysis Vessel analysis with determination of degree of stenosis, distance measurement and calibration. Syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stemessurements. Extended visualization and post-processing functionalities for DSA and native scenes (in the control of the co	1	14434151	
Vessel analysis with determination of degree of stenosis, distance measurement and calibration. 1 14432834 Syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stemessurements. Extended visualization and post-processing functionalities for DSA and native scenes (in the control of the control	1	14422042	
Syngo interv. Neuro Engine Pro as40 A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stemes under the processing functionalities for DSA and native scenes (stemes and stemes).		14432343	
A workstation for reconstruction, post-processing and handling of 3D information including specific 2D an applications for interventional neuroradiology. The package includes the following functionalities: 3D high-co and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D vol on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Exfunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume inform (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stemessurements. Extended visualization and post-processing functionalities for DSA and native scenes (1	14432834	
comparison of images or scenes (Scene Compare). On PURE systems only, the package also includes: 3D W for expert step-by-step guidance in 3D acquisition, Parallel patient processing capabilities. Full fusion function			A workstation for reconstruction, post-processing and handling of 3D information including specific 2D and 3D applications for interventional neuroradiology. The package includes the following functionalities: 3D high-contrast and CT-like soft-tissue imaging (syngo DynaCT), 3D roadmap for dynamic overlay of planning data and 3D volumes on live images (fluoroscopy or roadmap), In-room control for table-side operation of advanced applications, Expert-ifunctionality for remote operation of the XWP. 3D functional imaging providing physiologic blood volume information (syngo DynaPBV Neuro), dedicated workflow support and measurements for aneurysm analysis and 3D stenosis measurements. Extended visualization and post-processing functionalities for DSA and native scenes (Angio Viewer) incl. 2D functional imaging for visualization of blood flow characteristics (syngo iFlow) and side-by-side comparison of images or scenes (Scene Compare). On PURE systems only, the package also includes: 3D Wizard for expert step-by-step guidance in 3D acquisition, Parallel patient processing capabilities, Full fusion functionality (2D/3D and 3D/3D) for integration of pre-interventional 3D datasets also from other modalities. Marking of points or

The application enables the planning of one or multiple needle paths based on intraoperative syngo DynaCT images, or a preoperative 3D volume of a CT, PET/CT or MR system, in combination with Fusion functionality. Optimal progression views for easy control during needle insertion are calculated and suggested by the system and the planned needle path is overlaid on the live 2D image for easy guidance. Interventions such as vertebroplasties,

Created: 11/5/2018 10:32:00 AM Siemens Medical Solutions USA, Inc. Confidential Page 4 of 30 **PRO 1-OUDNWF**

A software module for planning and control of needle procedures.



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Qty Part No.

Item Description

kyphoplasties, pedicle screwing, biopsies, drainages and ablations can be performed on the angiography system with greater confidence.

1 14432961

syngo Embolization Guidance

syngo Embolization Guidance is an application for planning and performing embolizations.

By manually marking a proximal start- and one or multiple distal target vessel point(s) in a syngo DynaCT, CTA or MRA dataset, the algorithm determins the course of the vessel (tree) that connects the start with the target point(s). Functionality for tumor segmentation with automatic tumor volume computation is available in addition.

Segmented structures can be overlaid with live 2D imaging for guidance during the procedure.

For Application Software VD2, when applied to a syngo DynaCT

(=200° acquisition) or CT dataset with intra-arterial injection, the easy one-click syngo Embolization Guidance application automatically detects and highlights tumor-feeding vessels for targeted embolization of the liver supporting complete tumor embolization, which is important for an effective and safe treatment.

Disclaimer for Application Software VD2:

The products/features here mentioned are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed. Please contact your local Siemens organization for further details.

2 14432953

Lower body radiation protection

This radiation shield protects the user from scattered radiation when standing at the table side. It can be attached to the accessory rails either on the right or on the left side of the patient positioning table.

It provides the user an additional accessory rail.

It includes a basic unit

(71.5 cm x 75 cm / 28.2" x 29.5" (I x w); 7.7 kg / 16.98 lb),

one lower body radiation protection pivot swivel element

(77 cm x 48 cm / 30.3" x 18.9" (I x w); 3.8 kg / 8.4 lb)

and three clip-on units

(57 cm / 22.4" x 33 cm / 12.99" (I x h), 2.2 kg / 4.85 lb;

27 cm / 10.6" x 33cm / 12.99", 0.9 kg / 1.98 lb and

27 cm / 10.6" x 25cm / 9.8", 1 kg / 2.2 lb)

with a lead of 0.5 mm / 0.02" Pb.

The maximum weight of the accessory rails is 40 kg (88.2 lb).

Intended only for use with Artis / ARTIS tables.

2 14434157

Moveable upper body rad, protection

This radiation shield protects the user from scattered radiation.

For room heights up to 290 cm / 114.2".

It includes a ceiling rail (4 m / 157.5"), a ceiling mounted and movable stand (80 cm or 57 cm / 31.5" or 22,4"), a support arm (94 cm \times 91 cm / 37" \times 35.8") and an acrylic glass.

The shield is made of acrylic glass with lead equivalent of 0.5 mm

(w x h: 61 cm x 76 cm / 24" x 29.9"), which can pivot and rotate around a fixed point with a range of 360 degrees.

The operation range is limited when used with Artis floor/biplane MN.

Max. weight: 18 kg / 39.68 lb.

1 14440512

LED Exam Light

Ceiling-mounted, flexible positionable examination light with focusable light system. It is fully integrated into the ceiling-installed radiation protection mounting unit.

- Luminance: 60,000 Lux for 100 cm / 39.4" distance
- Working distance: 70 to 140 cm / 27.6" to 55.1"
- Color rendering index Ra at 4500 Kelvin: 95
- Color temperature: 4,300 Kelvin
- Focusable light field: 14 to 25 cm / 5.5" to 9.8"
- Diameter of light head: 33 cm / 13"
- Number of LEDs: 19

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Qty	Part No.	Item Description
		- Total input power: 20 VA
1	14440411	Intercom - Comfort Intercom system for communication between examination room and control room. It includes - a microphone with a control box for the control room - a microphone with an adaptive acoustic filter for background noise suppression for the examination room - a footswitch for conversation selection for the examination room
1	14443011	Large Display diagn. Protection The high quality laminated glass protective screen protects the panel of the monitor against mechanical damage and fluid ingress on the front. It is suited for clinical image evaluation. Features: The laminated glass enforces high mechanical strenght and resistivity against mechanical impact, the special coating reduces reflections for a continuous image quality, excellent spectral transmisison of at least 98%, can be added to existing Artis Large Display installations. Weight: approx. 12kg (55") up to 16kg (60") Note: Observe the maximum permissible load of the display suspension, a combination with other options mounted
1	14434231	to the display suspension might be restricted. Sec. operation in the control room Interface for connecting the additional system control from the control room.
		Rail profile for hanging control modules (e.g. the table module) in the control room. Safety button for switching off all system functions from the control room.
1	14440510	Secondary Hand Switch Ctrl (C Room) Additional hand switch for radiation release and additional control functions.
1	14432950	DICOM RIS-Modality Worklist Import of patient/examination data from an external RIS/HIS patient management system with DICOM MWL (Modality Worklist).
1	14434232	Injector conn. in the control room Interface for controlling the contrast medium injector in the control room.
		Injectors can be offered by Siemens Healthcare Accessory Solutions
1	14443056	AX ELEVATE #O outdated/EOS (FD bi) AT Elevate program for AXIOM Artis biplane systems with flat detector that will be replaced by a new Artis Q or Artis Q.zen system or Artis zee system.
1	14417114	AXA-CS special solution This option is used to order via SCM a special solution previously requested from the Customized Solutions Team. The price is presented by the Customized Solutions Team in a separate offer.
1	14434173	Large Display large work area Preparation for the large color flat screen display on an extended arm for increased reach and working range. An additional cantilever beam extends the radial coverage of the display by approximately 60 cm. This extended suspension is installed on a ceiling-mounted carriage. The display holder is height-adjustable, longitudinally mobile and can swivel and rotate.

In case of a ceiling-mounted or biplane configuration the carriage operates in the same rails as the C-arm carriage,



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Qty Part No.

Item Description

which

have been extended by 1.2 m for easy operation.

This item also includes cables for the examination room.

Note: The type of large display can be chosen with a separate position.

1 14434176

Large Display video controller 18

Large Display Video Controller 18 is the middle of three different video controller sizes. A maximum of 18 video signals can be connected and displayed simultaneously on the Large Display.

The Large Display video controller 18 receives various internal and external video signals for presentation to scale on the Large Display.

Up to 18 external and internal video sources can be connected (max. 14 DVI-D and 4 analog (VGA) channels).

1 14443012

LD High Contrast panel size 55"

Large color flat screen display (including cables) for the examination room, with a panel diagonal of 55". This large display version provides an excelling clinical image quality due to it's new IPS panel technology.

1 14455598

Artis Freestyle Access cable kit

Preparation for mounting, connection and display of the wireless "ACUSON Freestyle Elite with Artis Access" ultrasound system on the Large Display of the Artis system.

Artis Freestyle Access optimizes the workflow when using ultrasound guidance in the interventional suite.

It provides a zero-cables, zero footprint, fully connected solution for ultrasound guidance in the interventional suite.

AXA_INITIAL_3 2

Initial onsite training 32 hrs

Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

AXA_FOLLOW 1 UP_32

Follow-up training 32 hrs

Up to (32) hours of follow-up on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

AXA_FOLLOW UP_12

Follow-up training 12 hrs

Up to (12) hours of follow-up on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

AXA_FOLLOW UP_12

1

Follow-up training 12 hrs

Up to (12) hours of follow-up on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

1 AXA ECLASS

e.class-Virtual Instructor Led Training

AXA_ECLASS Tuition for up to (4) imaging professionals to participate in a Siemens instructor led virtual class. The virtual setting allows the participant to benefit from classroom training without the need to travel to a Siemens training center. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

AXA_PURE_E SSCL

AX Artis PURE Essential Class

Tuition for (1) imaging professional to attend Siemens class at Siemens Training Center. The Artis PURE Essentials Course is a 3.5-day classroom course beginning on Tuesday at 8:30 a.m. and ending on Friday at 12:00 p.m. It is designed to provide the participant with an in-depth knowledge of the essential functions of the Artis system as well

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF

Siemens Medical Solutions USA, Inc. Confidential

Page 7 of 30



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Qty Part No.

Item Description

as the skills needed to perform these functions. Through the use of demonstrations, lectures, and hands-on lab experience using an Artis system, participants will learn Artis system principles and workflows of patient examinations. Additionally, participants have the opportunity to meet other users and share their experiences and solutions to various challenges of the IR, cath lab, and the Hybrid OR environment. This class includes lunch, economy airfare, and lodging for (1) imaging professional. All arrangements must be arranged through Siemens designated travel agency. This educational offering must be completed by the later of (12) months from purchase or install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

AXA_PURE_3D ADVCL

AX PURE 3D Advanced Class

Tuition for (1) imaging professional to attend Siemens class at Siemens Training Center. The Advanced PURE Applications classroom course is a 4 day classroom course beginning on Tuesday at 8:30 a.m. and ending on Friday at 4:30 p.m. This course will provide the participants with the in-depth knowledge of the essential functions of the PURE advanced 3D applications software as well as the skills needed to perform these functions. Through the use of demonstrations, lectures, and hands-on lab time on a PURE system, participants will learn the advanced post-processing techniques and advanced 3D applications for PURE software. This class includes lunch, economy airfare, and lodging for (1) imaging professional. All arrangements must be arranged through Siemens designated travel agency. This educational offering must be completed by the later of (12) months from purchase or install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

2 AXA_ADD_32

Additional onsite training 32 hours

Up to (32) hours of on-site clinical education training, scheduled consecutively (Monday - Friday) during standard business hours for a maximum of (4) imaging professionals. Training will cover agenda items on the ASRT approved checklist if applicable. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.

EPW935515UP S

Eaton Powerware 9355 15 kVA UPS

Includes UPS, battery, maintenance bypass panel, and one year on-site parts and labor coverage (24x7) by Eaton Powerware. This UPS is recommended when protection and uninterruptible power is required for the Artis' C-arm and table. Emergency fluoroscopy is not available with this UPS. If emergency fluoroscopy is required, the 9390 -160 kVA UPS is recommended for the full system. One UPS per lab.

Additional seismic brackets are required to make this system OSHPD approved

AXA_O_BIPLA NE

- AXA ELVOBPZ G DEINS
- AXA ELVOBPZ G_DEOFF GEL104013660
- 2 1278

Elevate O Biplane

Elevate O Deinstallation Biplane-Zeego

Elevate O Deinstall Biplane-Zeego Offset

Black anti-fatigue mat 36x60

Black NewLife EcoPro anti-fatigue mat (36 inches x 60 inches), 3/4 inch polyurethane foam, fluid and dirt resistant with anti-micorbial properties, matte textured surface.

The ultimate employee benefit for workers who stand, are ergonomically designed to provide the perfect balance of premium comfort and optimal support. Proprietary Cellulon(r)Polyurethane Technology stands up to the tough demands of commercial environments while providing lasting comfort that won't bottom out over time. This ecofriendly line of anti-fatigue mats is certified by the National Floor Safety Institute for its high traction bottom surface.

AXA_RIG_QBP STD 1 AT_USD_FREE

STYLE

Standard Rigging Q Q.Zen BP

ACUSON Freestyle ultrasound system

ACUSON Freestyle ultrasound system

Includes 3 Year Standard Warranty

11002300 ACUSON Freestyle Mainframe "The ACUSON Freestyle(tm) ultrasound system* is the world's first ultrasound system that operates with wireless transducers, a breakthrough in ultrasound imaging. The system features superior image quality and a new standard in ease of use in an ergonomic and portable design. Standard features include:



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Qty Part No.

Item Description

- B-mode
- Color flow mapping
- Spatial compounding
- Speckle reduction
- Auto image optimization
- Supports wireless transducers
- One (1) transducer cable adapter
- Two (2) batteries for wireless transducers
- DICOM Storage, Storage Commitment, Modality Worklist and Echo
- DICOM networking: Ethernet (wired) and 802.11b/g (wireless)
- Factory default and user customizable exam types
- High resolution flat panel display
- A/C and battery operation
- Two (2) charger bays for wireless transducer batteries"

1 CS10944

monitor cart with live/Ref display

The customized solution enables the configuration of the system with a monitor cart with two 19" displays for Liveand Reference Image as 2nd display device. Parts of the CS kit: The CS kit includes a permanently connected mobile display trolley with two 19" flat displays as well as all required tests, the documentation and the release for this modification. Notes: • This CS is not valid with an ecoline system. • A second DCS is not possible with this CS

AXA_ADDL_RI
GGING
AXD_DEINSTA
LL_EQ

Additional Rigging AXA \$10,765

Deinstallation of Equipment - AXD \$4065

System Total:

\$1,675,000



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS	REP	RESE	NTA	TIVE
Edwin Win	icki -	(336)	688-	0978

OPTIONS on Quote Nr:

1-HGAZX2 Rev. 2



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

OPTIONS for Artis Q biplane

All items listed below are OPTIONS and will be included on this system ONLY if initialed: (See Detailed Technical Specifications at end of Proposal.)

Qty	Part No.	Item Description	Extended Price	Initial to Accept
1	14446025	syngo DynaCT SMART	+ \$35,000	X
		Streak Metal Artifact Reduction Technique for syngo DynaCT images.		
		Metal implants, like coils and stent markers, create artifacts in the reconstructed images that might make it difficult to detect bleedings or restenosis around the ends of the stent, for instance, syngo DynaCT SMART is a dedicated reconstruction algorithm to reduce metal artefacts. This type of integrated image reconstruction protocol results in 3D volumes with reduced metal artefacts.		
1	14446026	syngo Dyna4D	. 645 500	V
1	14440020	syngo Dyna4D syngo Dyna4D enables the visualization of flow patterns in 3D.	+ \$45,500	<u>X</u>
		With only one C arm scan it provides a view similar to virtually an unlimited number of DSA runs at no additional dose and contrast media.		
		syngo Dyna4D helps to expand clinical capabilities in the angio suite by optimizing patient selection and supporting individualized treatment strategies.		
1	14440505	syngo DynaPBV Body	+ \$4,207	Χ
		syngo Dyna PBV (Parenchymal Blood Volume) Body is an application for displaying the blood volume distribution in the abdomen.	ν ψη,201	
		Only in connection with syngo Dyna PBV Neuro.		
1	14434135	DVD Recorder+Display (A)	+ \$13,392	Y
		External DVD video recorder for recording fluoroscopy and acquisition. The footswitch at the Artis will trigger the recording automatically.	. ψ10,332	Λ
		This set includes:		
		- one DVD recorder		
		- one 19 " TFT display.		
1	14434136	DVD Recorder+Display (B)	+ \$13,392	Χ
		External DVD video recorder for recording fluoroscopy and acquisition. The footswitch at the Artis will trigger the recording automatically.	1 \$13,392	^
		This set includes		
		This set includes: - one DVD recorder		
		- one 19 " TFT display.		
1	BART700PEDL	Mark 7 Arterion, Pedestal System	. 607 007	V
	BARTAGO EBE	The Arterion Mark 7 Pedestal system The Arterion Mark 7 Pedestal contrast medium injector can be positioned anywhere at the patient positioning table on a mobile unit, for direct operation of all functions in the examination room.	+ \$27,067	
		The injector system includes:		
		A mobile pedestal stand with electronics unit, a contrast medium heater and a connection cable to the manual release.		
		A support arm with injector head and a control lever for moving the injector head.		
		A user control console with large touch screen and corresponding additional monitoring display on the injector head.		
		Functions		

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF

SIEMENS ... Healthineers :

Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Extended

Price

Initial to

Accept

Qty Part No.

Item Description

Pressure limitation: for 150 ml syringes 689 to 8273 kPa, corresponds to 100 to 1200 psi. .

Flow rates for 150 ml syringes:
0.1 to 45 ml/s in increments of 0.1 ml/s
0.1 to 59.9 ml/min in increments of 0.1 ml/min rise/fall: 0 to 9.9 s in increments of 0.1 seconds

Release delay for injection or radiation: 0 to 99.9 s in increments of 0.1 s.

Adjustable volume for 150 ml syringes: 1 ml to the max. syringe capacity in increments of 1 ml.

Fill rate

Variable syringe filling speed 1-20ml/s.

Injection protocols:
Up to 40 injection protocols possible.

Parameters currently displayed on the touch screen display and on the head display:
Injection speed
Injection volume
Remaining volume
Injection duration
Applied pressure

Contrast medium heating: Nominal 35°C (95°F)+-5°C (9°F)

Injection data memory
Up to 50 injection data items stored

Included in the scope of delivery Injector standard configuration 150 ml SIEMENS interface cable Operator Manual Service manual (English).

Power supply 200 V to 250 V; 50/60 Hz.

BINSART700P

Arterion Pedestal Install

4	¢1	545	X	
+	DI	.545		

FINANCING: The equipment listed above may be financed through Siemens. Ask us about our full range of financial products that can be tailored to meet your business and cash flow requirements. For further information, please contact your local Sales Representative.

ACCESSORIES: Don't forget to ask us about our line of OEM imaging accessories to complete your purchase. All accessories can be purchased or financed as part of this order. To purchase accessories directly or to receive our accessories catalog, please call us directly at 1-888-222-9944 or contact your local Sales Representative.

Created: 11/5/2018 10:32:00 AM

PRO 1-OUDNWF

Siemens Medical Solutions USA, Inc. Confidential

Page 12 of 30



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

COMPLIANCE: Compliance with legal and internal regulations is an integral part of all business processes at Siemens. Possible infringements can be reported to our Helpdesk "Tell us" function at www.siemens.com/tell-us.

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF

Siemens Medical Solutions USA, Inc. Confidential

Page 13 of 30



SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995

1. GENERAL

1.1 Contract Terms and Acceptance. These terms and conditions constitute an integral part of any contract between Seller and Purchaser identified on the first page hereof and shall govern the sale of the products identified in such contract ("Products"). Purchaser acknowledges that this is a commercial and not a consumer transaction. Purchaser shall be deemed to have assented to, and to have waived any objection to, this Agreement upon the earliest to occur of any of the following: Purchaser's completion or execution of this Agreement; Purchaser's acceptance of all or any part of the Products; Purchaser's issuance of a purchase order for any Products identified on Seller's quotation or proposal; or delivery of the Products to the common carrier for shipment pursuant hereto.

1.2 Refurbished/Used Products. For Products identified on this Agreement as used or refurbished Products, these Products have been previously owned and used. When delivered to Purchaser, such Products will perform in accordance with the manufacturer's specifications. Since pre-owned Products may be offered simultaneously to several customers, the availability of such Products to Purchaser cannot be guaranteed. If the Products are no longer available, Seller will use its best efforts to identify other suitable products in its inventory. If substitute products are not acceptable to Purchaser, then Seller will cancel the order and refund to Purchaser any deposits previously paid. The warranty period for any used or refurbished Products will be separately stated on the quotation.

1.3 Third Party Products. If this Agreement includes the sale of third party products not manufactured by Seller, then Purchaser agrees and acknowledges that (a) Purchaser has made the selection of these products on its own, (b) the products are being acquired by Seller solely at the request of and for the benefit and convenience of Purchaser, (c) no representation, warranty or guarantee has been made by Seller with respect to the products, (d) the obligation of Purchaser to pay Seller for the products is absolute and unconditional, (e) use of the products may be subject to Purchaser's agreement to comply with any software licensing terms imposed by the manufacturer; and (f) unless otherwise indicated by Seller in writing, Seller is not responsible for any required installation, validation, product recall, warranty service, maintenance, complaint handling, or any other applicable FDA regulatory requirements, and the Purchaser will look solely to the manufacturer regarding these services and will assert no claim against Seller with respect to these products.

2. PRICES

2.1 Quotations. Unless otherwise agreed to in writing or set forth in the quotation, all prices quoted by Seller and amounts payable by Purchaser are in U.S. dollars, and include Seller's standard packaging. The prices quoted to Seller assume that the Seller is located in, and will use the Products in, the U.S. If not, such quotation will be void. Unless otherwise stated, the quotation shall only be valid for forty-five (45) days from the date of the quotation.

2.2 Delay in Acceptance of Delivery. Should the agreed delivery date be postponed by Purchaser, Seller shall have the right to deliver the Products to storage at Purchaser's risk and expense, and payments due upon delivery shall become due when Seller is ready to deliver.

3. TAXES

3.1 Any sales, use or manufacturer's tax which may be imposed upon the sale or use of Products, or any property tax levied after readiness to ship, or any excise tax, license or similar fee (excluding the Medical Device Excise Tax as set forth in Section 4191 of the Internal Revenue Code of 1986, as amended) required under this transaction, shall be in addition to the quoted prices and shall be paid by Purchaser. Notwithstanding the foregoing, Seller agrees to honor any valid exemption certificate provided by Purchaser.

4. TERMS OF PAYMENT; DEFAULT

4.1 Payments; Due Date. Unless otherwise set forth in the quotation, Purchaser shall pay Seller as follows: an initial deposit of 10% of the purchase price for each Product is due upon submission of the purchase order, an additional 80% of the purchase price is due upon delivery of each Product, and the final 10% of the purchase price is due upon completion of installation or when the Products are available for first patient use, whichever occurs first. Unless otherwise agreed, all payments other than the initial deposit are due net thirty (30) days from the date of invoice. Seller shall have no obligation to complete installation until the payment due upon delivery is received. Partial

shipments shall be billed as made, and payments for such shipments will be made in accordance with the foregoing payment terms.

4.2 Late Payment. A service charge of 1½% per month, not to exceed the maximum rate allowed by law, shall be made on any portion of Purchaser's outstanding balance which is not paid when due. Payment of such service charge shall not excuse or cure Purchaser's breach or default for late payment.
4.3 Payment of Lesser Amount. If Purchaser pays, or Seller otherwise receives, a lesser amount than the full amount provided for under this Agreement, such payment shall not constitute or be construed other than as on account of the earliest amount due Seller. No endorsement or statement on any check or payment or elsewhere shall constitute or be construed as an accord or satisfaction.

4.4 Where Payment Due Upon Installation or Completion. Should any terms of payment provide for either full or partial payment upon completion of installation or thereafter, and completion of installation is delayed for any reason for which Seller is not responsible beyond the installation date set forth in the Notice to Manufacture Letter issued by Seller, as applicable, then the balance of payments shall be due on the day following such installation date.

4.5 Default; Termination. Each of the following shall constitute an event of default under this Agreement: (i) a failure by Purchaser to make any payment when due; (ii) a failure by Purchaser to perform any other obligation under this Agreement within thirty (30) days of receipt of written notice from Seller; or (iii) the commencement of any insolvency, bankruptcy or similar proceedings by or against Purchaser.

Upon the occurrence of any event of default, at Seller's election: (a) the entire amount of any indebtedness and obligation due Seller under this Agreement and interest thereon shall become immediately due and payable; (b) Seller may suspend the performance of any of Seller's obligations hereunder, including, but not limited to, obligations relating to delivery, installation and warranty services; (c) Purchaser shall put Seller in possession of the Products upon demand; (d) Seller may sell or otherwise dispose of all or any part of the Products and apply the proceeds thereof against any indebtedness or obligation of Purchaser under this Agreement; (e) if this Agreement or any indebtedness or obligation of Purchaser under this Agreement is referred to an attorney for collection or realization, Purchaser shall pay to Seller all costs of collection and realization (including, without limitation, a reasonable sum for attorneys' fees); and Purchaser shall pay any deficiency remaining after collection of or realization by Seller on the Products. In addition, Seller may terminate this Agreement upon written notice to Purchaser in the event that Purchaser is not approved for credit or upon the occurrence of any material adverse change in the financial condition or business operations of Purchaser. 4.6 Financing. Notwithstanding any arrangement that Purchaser may make

4.6 Financing. Notwithstanding any arrangement that Purchaser may make for the financing of the purchase price of the Products, the parties agree that any such financing arrangement shall have no effect on the Purchaser's payment obligations under this Agreement, including but not limited to Sections 4.1 and 4.2 above.

5. EXPORT TERMS

5.1 Unless other arrangements have been made, payment on export orders shall be made by irrevocable confirmed letter of credit, payable in U.S. dollars against Seller's invoice and standard shipping documents. Such letter of credit shall be in an amount equal to the full purchase price of the Products and shall be established in a U.S. bank acceptable to Seller. Purchaser shall have sole responsibility to procure all necessary permits and licenses for shipment and compliance with any governmental regulations concerning control of final destination of Products.

5.2 Purchaser agrees that Products shall not at any time directly or indirectly be used, exported, sold, transferred, assigned or otherwise disposed of in a manner which will result in non-compliance with applicable export Control and US Sanction laws and regulations. If Purchaser purchases a Product at the domestic price and exports such Product, or transfers such Product to a third party for export, outside of the U.S., Purchaser shall pay to Seller the difference between the domestic price and the international retail price of such Product. Purchaser shall deliver to Seller, upon Seller's request, written assurance regarding compliance with this Section in form and content acceptable to Seller.

6. DELIVERY, RISK OF LOSS

6.1 Delivery Date. Delivery and installation dates will be established by mutual agreement of the parties as set forth in the Notice to Manufacture Letter issued

Siemens Medical Solutions USA, Inc. General Terms and Conditions



40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995

by the Seller, as applicable. Seller shall make reasonable efforts to meet such delivery date(s)

6.2 Risk of Loss; Title Transfer. Unless otherwise agreed to in writing, the following shall apply:

(a) For Products that do not require installation by Seller, and for options and add-on products purchased subsequent to delivery and installation of Products purchased under this Agreement, delivery shall be complete upon transfer of possession to common carrier, F.O.B. Shipping Point, whereupon title to and all risk of loss, damage to or destruction of the Products shall pass to Purchaser.

(b) For Products that require installation by Seller, delivery shall be complete upon delivery of the Products to Purchaser's designated site, F.O.B. Destination; whereupon title to and all risk of loss, damage to or destruction of such Products shall pass to Purchaser upon completion of delivery

(c) All freight charges and other transportation, packing and insurance costs, license fees, custom duties and other similar charges shall be the sole responsibility of Purchaser unless included in the purchase price or otherwise agreed to in writing by Seller. In the event of any loss or damage to any of the Products during shipment, Seller and Purchaser shall cooperate in making any insurance claim

7. SECURITY INTEREST/FILING

7.1 Purchaser grants to Seller a security interest in the Products until payment in full by Purchaser. Purchaser shall sign any financing statements or other documents necessary to perfect Seller's security interests in the Products. Purchaser further represents and covenants that (a) it will keep the Products in good order and repair until the purchase price has been paid in full, (b) it will promptly pay all taxes and assessments upon the Products or the use thereof, (c) it will not attempt to transfer any interest in the Products until the purchase price has been paid in full, and (d) it is solvent and financially capable of paying the full purchase price for the Products.

8. CHANGES, CANCELLATION, AND RETURN

8.1 Orders accepted by Seller are not subject to change except upon Seller's written agreement.

8.2 Orders accepted by Seller are non-cancellable by Purchaser except upon Seller's written consent and payment by Purchaser of a cancellation charge equal to 10% of the price of the affected Products, plus any shipping, insurance, inspection and refurbishment charges; the cost of providing any training, education, site evaluation or other services completed by Seller; and any return, cancellation or restocking fees with respect to any Third Party Products ordered by Seller on behalf of Purchaser. Seller may retain any payments received from Purchaser up to the amount of the cancellation charge. In no event can an order be cancelled by Purchaser or Products be returned to Seller after shipment.

8.3 Seller reserves the right to change the manufacture and/or design of its Products if, in the judgment of Seller, such change does not alter the general function of the Products.

9. FORCE MAJEURE

9.1 Seller shall not be liable for any loss or damage for delay in delivery, inability to install or any other failure to perform due to causes beyond its reasonable control including, but not limited to, acts of God or the public, war, civil commotion, blockades, embargoes, calamities, floods, fires, earthquakes, explosions, storms, strikes, lockouts, labor disputes, or unavailability of labor, raw materials, power or supplies. Should such a delay occur, Seller may reasonably extend delivery or production schedules or, at its option, cancel the order in whole or part without liability other than to return any unearned deposit or prepayment.

10. WARRANTY

10.1 Seller warrants that the Products manufactured by Seller and sold hereunder shall be free from defects in material or workmanship under normal use and service for the warranty period. The final assembled Products shall be new although they may include certain used, reworked or refurbished parts and components (e.g., circuit boards) that comply with performance and reliability specifications and controls. Seller's obligation under this warranty is limited, at Seller's option, to the repair or replacement of the Product or any part thereof. Unless otherwise set forth in the Product Warranty attached hereto and incorporated herein by reference ("Product Warranty"), the warranty period shall commence upon the earlier of the date that the Products have been installed in accordance with Section 12.5 hereof (which date shall be confirmed in writing by Seller) or first patient use, and shall continue for twelve (12) consecutive months. Seller makes no warranty for any Products made by persons other than Seller or its affiliates, and Purchaser's sole warranty therefor, if any, is the original manufacturer's warranty, which Seller agrees to pass on to Purchaser, as applicable. The warranty provided by Seller under this

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Section 10 extends only to the original Purchaser, unless the Purchaser obtains the Seller's prior written consent with respect to any sale or other transfer of the Products during the term of the warranty.

10.2 No warranty extended by Seller shall apply to any Products which have been damaged by fire, accident, misuse, abuse, negligence, improper application or alteration or by a force majeure occurrence as described in Section 9 hereof or by the Purchaser's failure to operate the Products in accordance with the manufacturer's instructions or to maintain the recommended operating environment and line conditions; which are defective due to unauthorized attempts to repair, relocate, maintain, service, add to or modify the Products by the Purchaser or any third party or due to the attachment and/or use of non-Seller supplied parts, equipment or software without Seller's prior written approval; which failed due to causes from within non-Seller supplied equipment, parts or software including, but not limited to, problems with the Purchaser's network; or which have been damaged from the use of operating supplies or consumable parts not approved by Seller. In addition, there is no warranty coverage for any transducer or probe failure due to events such as cracking from high impact drops, cable rupture from rolling equipment over the cable, delamination from cleaning with inappropriate solutions, or TEE bite marks. Seller may effectuate any repairs at Purchaser's facility, and Purchaser shall furnish Seller safe and sufficient access for such repair. Repair or replacement may be with parts or products that are new, used or refurbished. Repairs or replacements shall not interrupt, extend or prolong the term of the warranty. Purchaser shall, upon Seller's request, return the non-complying Product or part to Seller with all transportation charges prepaid, but shall not return any Product or part to Seller without Seller's prior written authorization. Purchaser shall pay Seller its normal charges for service and parts for any inspection, repair or replacement that falls outside of Seller's Seller's warranty does not apply to consumable materials, disposables, supplies, accessories and collateral equipment, except as specifically stated in writing or as otherwise set forth in the Product Warranty. 10.3 This warranty is made on condition that immediate written notice of any noncompliance be given to Seller and Seller's inspection reveals that

Purchaser's claim is covered under the terms of the warranty (i.e., that the noncompliance is due to traceable defects in original materials and/or

10.4 Purchaser shall provide Seller with both on-site and remote access to the Products. The remote access shall be provided through the Purchaser's network as is reasonably necessary for Seller to provide warranty services under this Agreement. Remote access will be established through a broadband internet-based connection to either a Purchaser owned or Seller provided secure end-point. The method of connection will be a Peer-to-Peer VPN IPsec tunnel (non-client based) with specific inbound and outbound port requirements

10.5 Warranty service will be provided without charge during Seller's regular working hours (8:30-5:00), Monday through Friday, except Seller's recognized holidays. If Purchaser requires that service be performed outside these hours, such service can be made available at an additional charge, at Seller's then current rates. The obligations of Seller described in this Section are Seller's only obligations and Purchaser's sole and exclusive remedy for a breach of product warranty.

10.6 SELLER MAKES NO WARRANTY OTHER THAN THE ONE SET FORTH HEREIN AND IN THE PRODUCT WARRANTY. SUCH WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES, AND SUCH CONSTITUTES THE SOLE AND EXCLUSIVE WARRANTY MADE WITH RESPECT TO THE PRODUCTS, SERVICE OR OTHER ITEM FURNISHED UNDER THIS AGREEMENT.

10.7 In the event of any inconsistencies between the terms of this Section 10 and the terms of the Product Warranty, the terms of the Product Warranty shall prevail

11. LIMITATION OF LIABILITY

11.1 In no event shall Seller's liability hereunder exceed the actual loss or damage sustained by Purchaser, up to the purchase price of the Products. The foregoing limitation of liability shall not apply to claims for bodily injury or damages to real property or tangible personal property to the extent arising from Seller's negligence or a product defect.

11.2 SELLER SHALL NOT BE LIABLE FOR ANY LOSS OF USE, REVENUE OR ANTICIPATED PROFITS: COST OF SUBSTITUTE PRODUCTS OR SERVICES; LOSS OF STORED, TRANSMITTED OR RECORDED DATA; OR FOR ANY INDIRECT, INCIDENTAL, UNFORESEEN, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES WHETHER BASED ON CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER THEORY OR FORM OF ACTION, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY THEREOF, ARISING OUT OF OR IN CONNECTION WITH THIS

Created: 11/5/2018 10:32:00 AM



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

AGREEMENT OR THE SALE OR USE OF THE PRODUCTS. THE FOREGOING IS A SEPARATE, ESSENTIAL TERM OF THIS AGREEMENT AND SHALL BE EFFECTIVE UPON THE FAILURE OF ANY REMEDY, EXCLUSIVE OR NOT.

12. INSTALLATION - ADDITIONAL CHARGES

12.1 General. Unless otherwise expressly stipulated in writing, the Products shall be installed by and at the expense of Seller except that Seller shall not provide rigging or site preparation services unless otherwise agreed to in writing by Seller for an additional charge. Seller will not install accessory items such as cabinets, illuminators, darkroom equipment or processors for X-Ray and CT equipment, unless otherwise agreed to in writing by Seller.

12.2 Installation by Seller. If Seller specifies it will install the Products, the following applies: subject to fulfillment of the obligations set forth in Section 12.3 below, Seller shall install the Products and connect them to the requisite safety switches and power lines to be installed by Purchaser. Except as otherwise specified below, if such installation and connection are performed by Seller's technical personnel, prices shown include the cost thereof, provided that the installation and connection can be performed within the Continental United States or Puerto Rico and during normal business hours. Any overtime charges or other special expenses shall be additional charges to the prices

shown.

12.3 Purchaser's Obligations. Purchaser shall, at its expense, provide all proper and necessary labor and materials for plumbing service, carpentry work, conduit wiring, and other preparations required for such installation and connection. All such labor and materials shall be completed and available at the time of delivery of the Products by Seller. Additionally, Purchaser shall provide free access to the installation site and, if necessary, safe and secure space for storage of Products and equipment prior to installation by Seller. Purchaser shall be responsible, at its sole cost and expense, for obtaining all permits, licenses and approvals required by any federal, state or local authorities in connection with the installation and operation of the Products, including but not limited to any certificate of need and zoning variances. Purchaser shall provide a suitable environment for the Products and shall ensure that its premises are free of hazardous conditions and any concealed or dangerous conditions and that all site requirements are met. Seller shall delay its work until Purchaser has completed the removal of any hazardous materials or has taken any other precautions and completed any other work required by applicable regulations. Purchaser shall reimburse Seller for any increased costs and expenses incurred by Seller that are the result of or are caused by any such delay. In the event that Seller is requested to supervise the installation of the Products, it remains the Purchaser's responsibility to comply with local regulations. Seller is not an architect and all drawings furnished by Seller are not construction drawings. If local labor conditions, including a requirement to use union labor, require the use of non-Seller employees to participate in the installation of the Product or otherwise causes delays or any additional expenses, then any such additional costs shall be at Purchaser's

12.4 Regulatory Reporting. In the event that any regulatory activity is performed by anyone other than Seller's authorized personnel, then Purchaser shall be responsible for fulfilling any and all reporting requirements.

12.5 Completion of Installation. Installation shall be complete upon the conclusion of final calibration and checkout under Seller's standard procedures to verify that the Products meet applicable written performance specifications. Notwithstanding the foregoing, first use of the Products by Purchaser, its agents or employees for any purpose after delivery shall constitute completion of installation

13. PATENT, COPYRIGHT AND OTHER INFRINGEMENT CLAIMS

13.1 Infringement by Seller. Seller warrants that the Products manufactured by Seller and sold hereunder do not infringe any U.S. patent or copyright. If Purchaser receives a claim that any such Products, or parts thereof, infringe upon the rights of others under any U.S. patent or copyright, Purchaser shall notify Seller immediately in writing. Provided that Purchaser gives Seller information, assistance and exclusive authority to evaluate, defend and settle such claims, Seller shall at its own expense and option: indemnify and defend Purchaser against such claims; settle such claims; procure for Purchaser the right to use the Products; or remove or modify them to avoid infringement. If none of these alternatives is available on terms reasonable to Seller, then Purchaser shall return the Products to Seller and Seller shall refund to Purchaser the purchase price paid by Purchaser less reasonable depreciation for Purchaser's use of the Products. The foregoing states Seller's entire obligation and liability, and Purchaser's sole remedy, for claims of infringement. 13.2 Infringement by Purchaser. If some or all of the Products sold hereunder are made by Seller pursuant to drawings or specifications furnished by Purchaser, or if Purchaser modifies or combines, operates or uses the

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Products other than as specified by Seller or with any product, data, software, apparatus or program not provided or approved by Seller, then the indemnity obligation of Seller under Section 13.1 shall be null and void.

14. DESIGNS AND TRADE SECRETS; LICENSE; CONFIDENTIALITY

14.1 Any drawings, data, designs, software programs or other technical information supplied by Seller to Purchaser in connection with the sale of the Products shall remain Seller's property and shall at all times be held in confidence by Purchaser.

14.2 For all Products which utilize software for their operation, such "Applications Software" shall be licensed to Purchaser under the terms of

Seller's Software License Schedule attached hereto.

14.3 Seller and Purchaser shall maintain the confidentiality of any information provided or disclosed to the other party relating to the business, customers and/or patients of the disclosing party, as well as this Agreement and its terms (including the pricing and other financial terms under which the Purchaser will be purchasing the Products). Each party shall use reasonable care to protect the confidentiality of the information disclosed, but no less than the degree of care it would use to protect its own confidential information, and shall only disclose the other party's confidential information to its employees and agents having a need to know this information. The obligations of confidentiality set forth herein shall not apply to any information in the public domain at the time of disclosure or that is required to be disclosed by court order or by law.

15. ASSIGNMENT

15.1 Neither party may assign any rights or obligations under this Agreement without the prior written consent of the other, which shall not be unreasonably withheld. Any attempt to do so shall be void, except that Seller may assign this Agreement without consent to any subsidiary or affiliated company, and may delegate to authorized subcontractors or service suppliers any work to be performed under this Agreement so long as Seller remains liable for the performance of its obligations under this Agreement. This Agreement shall inure to and be binding upon the parties and their respective successors, permitted assigns and legal representatives.

16. COSTS AND FEES

16.1 In the event that any dispute or difference is brought arising from or relating to this Agreement or the breach, termination or validity thereof, the prevailing party shall be entitled to recover from the other party all reasonable attorneys' fees incurred, together with such other expenses, costs and disbursements as may be allowed by law.

17. MODIFICATION

17.1 This Agreement may not be changed, modified or amended except in writing signed by duly authorized representatives of the parties.

18. GOVERNING LAW; WAIVER OF JURY TRIAL

18.1 This Agreement shall be governed by the laws of the state where the Product(s) will be installed, without regard to that state's choice of law principles.

18.2 EACH OF THE PARTIES EXPRESSLY WAIVES ALL RIGHTS TO A JURY TRIAL IN CONNECTION WITH ANY DISPUTE UNDER THIS AGREEMENT.

19. COST REPORTING

19.1 Purchaser agrees that it must fully and accurately report prices paid under this Agreement, net of all discounts, as required by applicable law and contract, including without limitation 42 CFR §1001.952(h),in all applicable Medicare, Medicaid and state agency cost reports. Purchaser shall retain a copy of this Agreement and all other communications regarding this Agreement, together with the invoices for purchase and permit agents of the U.S. Department of Health and Human Services or any state agency access to such records upon request.

20. INTEGRATION

20.1 These terms and conditions, including any attachments or other documents incorporated by reference herein, constitute the entire, complete and exclusive statement of agreement with respect to the subject matter hereof, and supersede any and all prior agreements, understandings and communications between the parties with respect to the Products. Purchaser's additional or different terms and conditions stated in a purchase order, bid documents or any other document issued by Purchaser are specifically rejected and shall not apply to the transactions contemplated under this Agreement.



40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995

21. SEVERABILITY; HEADINGS

21.1 No provision of this Agreement which may be deemed unenforceable will in any way invalidate any other portion or provision of this Agreement. Section headings are for convenience only and have no substantive effect.

22. WAIVER

22.1 No failure and no delay in exercising, on the part of any party, any right under this Agreement will operate as a waiver thereof, nor will any single or partial exercise of any right preclude the further exercise of any other right.

23. NOTICES

23.1 Any notice or other communication under this Agreement shall be deemed properly given if in writing and delivered in person or mailed, properly addressed and stamped with the required postage, to the intended recipient at its address specified on the face hereof.

24. RIGHTS CUMULATIVE

24.1 The rights and remedies afforded to Seller under this Agreement are in addition to, and do not in any way limit, any other rights or remedies afforded to Seller by any other agreement, by law or otherwise.

25. END USER CERTIFICATION

25.1 Purchaser represents, warrants and covenants that it is acquiring the Products for its own end use and not for reselling, leasing or transferring to a third party (except for lease-back financings).

26. ACCESS TO BOOKS AND RECORDS

26.1 To the extent required by Section 1861(v)(1)(I) of the Social Security Act and the regulations promulgated thereunder, until the expiration of four (4) years after the furnishing of any Product or service pursuant to this Agreement, Seller shall make available, upon written request by the Secretary of Health

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

and Human Services (the "Secretary"), or upon request by the Comptroller General (the "Comptroller"), or any of their duly authorized representatives, copies of this Agreement and any books, documents, records or other data of Seller that are necessary to certify the nature and extent of any costs incurred by Purchaser for such Products and services. If Seller carries out any of its duties under this Agreement through a subcontract with a related organization involving a value or cost of ten thousand dollars (\$10,000) or more over a twelve (12) month period, Seller will cause such subcontract to contain a clause to the effect that, until the expiration of four (4) years after the furnishing of any Product or service pursuant to said contract, the related organization will make available upon the written request of the Secretary or the Comptroller, or any of their duly authorized representatives, copies of records of said related organization that are necessary to certify the nature and extent of cost incurred by Purchaser for such Product or service.

27. DISPOSITION OF PRODUCTS

27.1 Purchaser expressly agrees that should Purchaser sell, transfer or otherwise dispose of the Products, Purchaser shall notify Seller in writing and give Seller the opportunity to purchase such Products. With Purchaser's notice, Purchaser shall provide Seller with a copy of the third party's binding offer to purchase the Products and Seller shall have seven (7) days to notify the Purchaser of an offer to purchase the Products.

05/15 Rev

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Software License Schedule to the Siemens Medical Solutions USA, Inc. General Terms and Conditions

1. DEFINITIONS: The following definitions apply to this Schedule:

"Agreement" shall mean the attached (i) Quotation for Products and/or Services including the Terms and Conditions of Sale and applicable schedules; and/or (ii) Software License Agreement describing the software licensed herein and the specific system for which the license is issued.

"Licensor" shall mean Siemens Medical Solutions USA, Inc.

"Licensee" shall mean the end-user to whom Licensor provides Software or Documentation for its internal use under the Agreement.

'Software" shall mean the software described in the attached Agreement, including the following as contained therein: (i) software programs consisting of a series of statements or instructions to be used directly or indirectly in a programmable controller or computer to bring about a certain result and (ii) databases consisting of systemized collections of data to be used or referenced directly or indirectly by a programmed controller or computer. Notwithstanding the foregoing, "Software" does not include "firmware" as such term is conventionally understood. Diagnostic/Maintenance Software also is not included within the scope of the Software licensed under this Schedule, and is available only as a special option under a separate Diagnostic Materials License Agreement and may be subject to a separate

"Documentation" shall mean the documents and other supporting materials which are intended to support the use of an associated product, including (but not limited to) instructions, descriptions, flow charts, logic diagrams and listings of the Software, in text or graphic form, on machine readable or

Designated Unit" shall mean a single control unit or computer identified on the first page of the Agreement, on which Software licensed hereunder may be used by Licensee.

2. SCOPE: The following terms and conditions shall apply to all Software and Documentation provided by Licensor to Licensee under the Agreement (whether included with other products listed in the Agreement or listed separately in the Agreement), together with any updates or revisions thereto which Licensor may provide to Licensee, and all copies thereof, except any Software and/or Documentation licensed directly by Licensor's supplier under a separate end-user license agreement accompanying the Software or the Documentation, in which case Licensee agrees to be bound by that license agreement as a condition to using the Software and/or Documentation. Except as expressly provided herein, and provided that in no event shall the warranties or other obligations of Licensor with respect to such Software or Documentation exceed those set forth in this Schedule, this Schedule shall be subject to the liability limitations and exclusions and other terms and conditions set forth in the Agreement. ANY USE OF THE SOFTWARE, INCLUDING BUT NOT LIMITED TO USE ON THE DESIGNATED UNIT, WILL CONSTITUTE LICENSEE'S AGREEMENT TO THIS SOFTWARE LICENSE SCHEDULE (OR RATIFICATION OF ANY PREVIOUS CONSENT).

3. SOFTWARE AND DOCUMENTATION LICENSE: Subject to the payment of any applicable annual license fee(s), whether stated separately or included in the purchase price of another product, and to Licensee's acceptance of all of the obligations set forth herein and to the fulfillment of those obligations, Licensor or, if applicable, its licensor or supplier, hereby grants to Licensee a paid-up, nonexclusive and nontransferable (except as expressly provided in this Schedule) limited license to use the Software provided by Licensor under the Agreement solely for Licensee's own use on the Designated Unit and to use the Documentation in support of Licensee's authorized use of the Software, for the purpose of operating the Designated Unit in accordance with the instructions set forth in the user's manual supplied with the Designated Unit and for no other purpose whatsoever. A separate license is required for each Designated Unit on which the Software is to be used. Licensee may obtain from Licensor one copy of the Software licensed hereunder for backup and archival purposes only as is necessary to support Licensee's own authorized use of the Software, provided that Licensee includes on or in all copies (in any form) all copyright, trade secret or other proprietary notices contained on or in the Software as provided by Licensor. Additional copies of the Documentation may be licensed from Licensor at its then applicable charges. Licensee may make the Software and Documentation (including any copies) available only to its employees and other persons on Licensee's premises to whom such disclosure is necessary to enable Licensee to use the Software or Documentation within the scope of the license provided in this Schedule. If the Software is supplied to any unit or agency of the United States Government other than

the Department of Defense, the Software and Documentation are classified as "restricted computer software" and the Government's rights in the Software and Documentation shall be as provided in paragraph (c) (2) of the Commercial Computer Software-Restricted Rights clause in FAR 52.227-19 and any successor laws, rules or regulations thereto. If the Software is supplied to the United States Department of Defense, the Software is classified as "commercial computer software" and the Government is furnished the Software and Documentation with "restricted rights" as defined in paragraph (c) (1) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013 and any successor laws, rules or

regulations thereto

4. PROPRIETARY PROTECTION AND CONFIDENTIALITY: Ownership of and title to the Software and Documentation and all copies, in any form, licensed under this Schedule are and will remain in Licensor or its suppliers at all times. Licensee shall not (i) remove any copyright, trade secret or other proprietary right notices contained on or in the Software or Documentation as provided by Licensor, (ii) reproduce or modify any Software or Documentation or copy thereof, (iii) reverse assemble, reverse engineer or decompile any Software, or copy thereof, in whole or in part (except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation), (iv) sell, transfer or otherwise make available to others the Software or Documentation, or any copy thereof, except as expressly permitted by this Schedule, or (v) apply any techniques to derive any trade secrets embodied in the Software or Documentation. Licensee shall take all appropriate actions to ensure that: (i) the Software does not leave the Designated Unit's equipment location as set forth above, (ii) the Software is not copied by Licensee or any third parties, and (iii) the Software is not used in any equipment other than the Designated Unit. Licensee shall secure and protect the Software and Documentation and copies thereof from disclosure and shall take such actions with its employees and other persons who are permitted access to the Software or Documentation or copies as may be necessary to satisfy Licensee's obligations hereunder. Prior to disposing of any computer medium, computer memory or data storage apparatus, Licensee shall ensure that all copies of Software and Documentation have been erased therefrom or otherwise destroyed. In the event that Licensee becomes aware that any Software or Documentation or copies are being used in a manner not permitted by the license, Licensee shall immediately notify Licensor in writing of such fact and if the person or persons so using the Software or Documentation are employed or otherwise subject to Licensee's direction and control, Licensee shall use reasonable efforts to terminate such impermissible use. Licensee will fully cooperate with Licensor so as to enable Licensor to enforce its proprietary and property rights in the Software. Licensee agrees that, subject to Licensee's reasonable security procedures, Licensor shall have immediate access to the Software at all times and that Licensor may take immediate possession thereof upon termination or expiration of the associated license or this Schedule. Licensee's obligations under this paragraph shall survive any termination of a license, the Schedule or the Agreement.

5. UPDATES AND REVISIONS: During the warranty period or under a separate service contract or software update subscription, revised or updated versions of the Software licensed under this Schedule may be made available, at Licensor's option, to Licensee to use or to test while Licensee continues use of a previous version. Licensee has the right to decide whether to install any such revised or updated versions or to continue use of the previous version after giving due regard to the United States Food and Drug Administration rules and regulations. However, Licensee shall pay Licensor for any services necessitated by any modifications of the Software by Licensee or by Licensee's failure to utilize the current non-investigational version of the Software provided by Licensor. Software updates that provide new features or capabilities or that require hardware changes will be offered to Licensee at purchase prices established by Licensor. Licensor retains the sole right to determine whether an update represents an enhancement of a previously purchased capability or a new capability for which the Licensee will be charged. In addition, some updates may require Applications Training performed by Licensor's personnel that will be offered at Licensor's prevailing rates. Licensor retains the sole right to determine whether an update requires such training.

6. DELIVERY, RISK OF LOSS AND TITLE: Notwithstanding the provisions of Section 6 of the attached Terms and Conditions of Sale, if any, the Software and Documentation licensed hereunder shall be delivered on or

Created: 11/5/2018 10:32:00 AM



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995

about the delivery date stated in the Agreement unless a separate delivery date is agreed upon. If Software or Documentation licensed hereunder is lost or damaged during shipment from Licensor, Licensor will replace it at no charge to Licensee. If any Software or Documentation supplied by Licensor and licensed hereunder is lost or damaged while in the possession of Licensee, Licensor will replace it at Licensor's then current applicable charges, if any, for materials, processing and distribution. Notwithstanding the provisions of Section 6 of the attached Terms and Conditions of Sale, if any, the Software and Documentation, in any form, and all copies made by Licensee, including partial copies, and all computer media provided by Licensor are and remain the property of Licensor or its supplier. Licensee has no right, title or interest in the Software, the Documentation, or any computer media provided by Licensor, or copies, except as stated herein, and ownership of any such Software, Documentation and computer media shall at all times remain with Licensor or its suppliers.

7. LICENSE TRANSFER: The Software and Documentation, and the license hereunder, may not be assigned, transferred or sublicensed except as hereinafter provided. Upon the sale or lease of the Designated Unit to a third party, Licensee may transfer to such third party, with Licensor's written consent and in accordance with Licensor's then current policies and charges, the license to use the Software and Documentation hereunder, together with the Software, the Documentation, the computer media provided by Licensor, and all copies provided that: (i) Licensee notifies Licensor in writing of the name and address of such third party; (ii) such third party agrees in a written instrument delivered to Licensor to the terms of this Schedule; and (iii) Licensee does not retain any copies of the Software or Documentation in any form.

8. WARRANTIES: Licensor warrants that for the warranty period provided by Licensor under the attached Terms and Conditions of Sale, if any, the Software shall conform in all material respects to Licensor's published specifications as contained in the applicable supporting Documentation. This paragraph replaces Paragraphs 10.1 and 10.4 of any such Terms and Conditions of Sale with respect to the Software and Documentation. Such Documentation may be updated by Licensor from time to time and such updates may constitute a change in specification. Licensee acknowledges that the Software is of such complexity that it may have inherent or latent defects. As Licensee's sole remedy under the warranty, Licensor will provide services, during the warranty period, to correct documented Software errors which Licensor's analysis indicates are caused by a defect in the unmodified version of the Software as provided by Licensor. Licensor does not warrant that the Software will meet Licensee's requirements, or will operate in combinations which may be selected for use by Licensee, or that the operation of the Software will be uninterrupted or error free. Licensee is responsible for determining the appropriate use of and establishing the limitations of the Software and its associated Documentation as well as the results obtained by use thereof.

LICENSOR MAKÉS NO WARRANTY WITH RESPECT TO THE SOFTWARE AND DOCUMENTATION OTHER THAN THOSE SET FORTH IN THIS SECTION. THE WARRANTY HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED, AND CONSTITUTES THE ONLY WARRANTY MADE WITH RESPECT TO THE SOFTWARE AND DOCUMENTATION.

9. LICENSE TERM AND TERMINATION: The license for the Software and Documentation is effective on the shipment date of the Software and Documentation (F.O.B. shipping point or F.A.S., as the case may be) and continues until Licensee's possession of the Software and all copies ceases (except in connection with a transfer of the license as permitted by this Schedule) or until otherwise terminated as provided herein. Licensee may terminate the license for the Software and Documentation at any time after discontinuance of use of the Software and Documentation and all copies, upon written notice to Licensor. If Licensee (i) fails to comply with its obligations herein and does not cure such failure within ten (10) days after receipt of notice from Licensor, or (ii) attempts to assign the Agreement or this Schedule or any rights or obligations hereunder without Licensor's prior written consent, then Licensor may terminate the license hereunder and require the immediate discontinuance of all use of the Software and Documentation and all copies thereof in any form, including modified versions and updated works. Within five (5) days after the termination of the license, Licensee shall, at Licensor's option either: (i) return to Licensor the Software and Documentation, and all copies, in any form, including updated versions, along with any computer media provided by Licensor, or (ii) destroy the affected Software and Documentation, and all copies, in any form, including updated versions, and certify such return or destruction in writing to Licensor.

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

10. MISCELLANEOUS: Since the unauthorized use of the Software and/or Documentation may leave Licensor without an adequate remedy at law, Licensee agrees that injunctive or other equitable relief will be appropriate to restrain such use, threatened or actual. Licensee further agrees that to the extent applicable, (i) any of Licensor's suppliers of Software and/or Documentation is a direct and intended beneficiary of this Schedule and may enforce it directly against Licensee with respect to the Software and/or Documentation provided by such supplier, and that (ii) NO SUPPLIER OF LICENSOR SHALL BE LIABLE FOR ANY GENERAL, SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES ARISING OUT OF ANY SUBLICENSE OF THE SOFTWARE AND/OR DOCUMENTATION. THIS LIMITATION ON LIABILITY SHALL APPLY EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE.

11. ADDITIONAL PROVISIONS RELATING TO THIRD-PARTY SOFTWARE: If the Software includes software licensed by Licensor from third parties, the following additional provisions shall apply:

(a) If Software is provided by Licensor on separate media and labeled "Recovery Media," Licensee may use the Recovery Media solely to restore or reinstall the Software and/or Documentation originally installed on the Designated Unit.

(b) Licensee is licensed to use the Software to provide only the limited functionality (specific tasks or processes) for which the Designated Unit has been designed and marketed by Licensor. This license specifically prohibits any other use of the software programs or functions, or inclusion of additional software programs or functions that do not directly support the limited functionality, on the Designated Unit. If Licensee uses the Designated Unit to access or utilize the services or functionality of Microsoft Windows Server products (such as Microsoft Windows NT Server 4.0 (all editions) or Microsoft Windows 2000 Server (all editions)), or uses the Designated Unit to permit workstation or computing devices to access or utilize the services or functionality of Microsoft Windows Server products, Licensee may be required to obtain a Client Access License for the Designated Unit and/or each such workstation or computing device. Licensee should refer to the end user license agreement for its Microsoft Windows Server product for additional information.

(c) The Software may contain support for programs written in Java. Java technology is not fault tolerant and is not designed, manufactured, or intended for use or resale as online control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of Java technology could lead directly to death, personal injury, or severe physical or environmental damage. Sun Microsystems, Inc. has contractually obligated Licensor's supplier to make this disclaimer.

(d) The Software may permit Licensor, its supplier(s), or their respective affiliates to provide or make available to Licensee Software updates, supplements, add-on components, or Internet-based services components of the Software after the date Licensee obtains its initial copy of the Software ("Supplemental Components").

 If Licensor provides or makes available to Licensee Supplemental components and no other end-user software licensing agreement terms are provided along with the Supplemental Components, then the terms of this Software License Schedule shall apply.

- If a supplier of Licensor or affiliates of such a supplier make available Supplemental Components, and no other end-user software licensing agreement terms are provided, then the terms of this Schedule shall apply, except that the supplier or affiliate entity providing the Supplemental Component(s) shall be the licensor of the Supplemental Component(s). Licensor, its supplier(s), and their respective affiliates reserve the right to discontinue any Internet-based services provided to Licensee or made available to Licensee through the use of the Software.

(e) The Software and Documentation supplied by Licensor's suppliers are provided by such suppliers "AS IS" and with all faults. SUCH SUPPLIERS DO NOT BEAR ANY OF THE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY, OR EFFORT (INCLUDING LACK OF NEGLIGENCE) WITH RESPECT TO SUCH SOFTWARE AND DOCUMENTATION. ALSO, THERE IS NO WARRANTY BY SUCH SUPPLIERS AGAINST INTERFERENCE WITH LICENSEE'S ENJOYMENT OF THE SOFTWARE OR AGAINST INFRINGEMENT. IF LICENSEE HAS RECEIVED ANY WARRANTIES REGARDING THE DESIGNATED UNIT OR THE SOFTWARE, THOSE WARRANTIES DO NOT ORIGINATE FROM, AND ARE NOT BINDING ON, LICENSOR'S SUPPLIERS.

(f) Licensee acknowledges that portions of the Software are of U.S. origin. Licensee agrees to comply with all applicable international and national laws that apply to the Software, including the U.S. Export Administration Regulations, as well as applicable end-user, end-use and destination



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

restrictions issued by U.S. and other governments. For additional information on exporting software supplied by Microsoft, see

http://www.microsoft.com/exporting/.

Revised 03/15/05



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355 Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

TRADE-IN EQUIPMENT REQUIREMENTS

THE FOLLOWING APPLIES ONLY TO THE EXTENT THAT THE QUOTATION INCLUDES AN EQUIPMENT TRADE IN OR IF A TRADE-IN IS LATER ADDED TO THS QUOTATION VIA A CHANGE ORDER. THESE REQUIREMENTS ARE IN ADDITION TO ANY OTHER REFERENCED TERMS AND CONDITIONS OF THE QUOTATION AND SHALL REMAIN IN EFFECT REGARDLESS OF ANY CONTRARY LANGUAGE IN THE QUOTATION.

This Quotation includes the trade-in equipment described herein and referenced by either the Project Number identified in the Quotation hereof (non-Ultrasound) or the Trade In Part Number (Ultrasound) as further described in the associated Trade Sheet which is incorporated herein by reference. Purchaser certifies that the description of the trade-in equipment as set forth on the Trade Sheet is a true and accurate representation of the equipment, and that the equipment is in good working condition unless otherwise noted on the Trade Sheet.

The trade-in equipment must be made available for removal no later than turnover of the new equipment. Purchaser must vacate the room of all items not listed on the Trade Sheet, or otherwise clearly identify all items listed on the Trade Sheet, prior to the start of the de-installation. If this is not done, Seller will have no liability for items which are subsequently removed or scrapped. If the de-installation or return of the trade-in equipment is delayed by Purchaser for reasons other than a force majeure event, or if upon inspection by Seller it is determined that the equipment does not meet the manufacturer's operating specifications, or if any items listed as included on the Trade Sheet are not made available at the time of de-installation, then trade-in value will be re-evaluated and any loss in value or additional costs incurred by Seller shall be deducted from the established trade-in value and the pricing set forth on this Quotation will be adjusted by change order. In the event that access to the non-ultrasound trade-in equipment is denied past 14 days from turnover, or access to ultrasound trade-in equipment is denied past 30 days from turnover, then Purchaser shall pay to Seller a rental fee in the amount 3.5% of the total trade-in value plus any additional value provided by an Elevate/Promotional program included in this quotation (no less than \$1000) for each month, or part thereof, that access is denied. In addition, if the purchase and installation of the new equipment covered by this Quotation is not completed, then Seller shall invoice Purchaser for all costs and expenses incurred by Seller in connection with the de-installation and removal of the trade-in equipment, including but not limited to labor, materials, rigging out, and transportation, which costs shall be paid by Purchaser within thirty (30) days of the invoice date.

Purchaser further acknowledges and agrees that (i) the trade-in equipment will be free and clear of all liens and encumbrances including, but not limited to, unpaid leases and loans, and that upon request, it will execute a bill of sale or other documents reasonably satisfactory to Siemens to transfer title and ownership of the equipment to Seller, (ii) it is Purchaser's sole responsibility to delete all protected health information and any other confidential information from the equipment prior to de-installation, without damaging or cannibalizing the equipment or otherwise affecting the operation of the equipment in accordance with its specifications, (iii) the equipment, including all updates, upgrades, modifications, enhancements, revisions, software, S/W disks and manuals, shall be returned to Siemens in good operating condition, reasonable wear and tear excepted, and (iv) to the extent not prohibited by applicable law, Purchaser shall indemnify and hold Seller harmless from and against any and all claims, demands, causes of action, damages, liability, costs and expenses (including reasonable attorney's fees) resulting or arising from Purchaser's failure to comply with item (i) above.

FOR MR SYSTEMS: cryogen levels must be least 65% upon time of de-installation. FOR MOBILE SYSTEMS: system must be road worthy and a state issued title transferring ownership to Seller (or Designee) must be received prior to the removal of the mobile system. FOR MODALITY TRADE SYSTEMS (non-ultrasound): The trade-in equipment must be available for inspection within two weeks of the scheduled de-installation date. In addition, Purchaser must provide a clear path for the removal of the trade-in equipment and on the date of de-installation after final inspection and test by the Seller (or Designee) has occurred, the Purchaser must supply licensed tradespeople to disconnect the power and plumbing (including draining and removing and disposing of any hazardous materials including, but not limited to glycol from the chiller and oil from the transformer, as examples.) Any additional costs due to the need to use a larger rig (other than a standard 80 ton rig), as well as any construction activities, street closings, permits, etc., required to de-install/remove the equipment are out-of-scope costs and will be the responsibility of Purchaser. FOR ULTRASOUND SYSTEMS — Purchaser may provide transducers with the ultrasound unit being traded in, but will not receive additional credit for such transducers.



Siemens Medical Solutions USA, Inc. 40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

AT Warranty Information

Product (New Systems and "ECO" Refurbished Systems Only)	Period of Warranty ¹	Coverage	
X-Ray System (not including consumables)	12 months	Full Warranty (parts & labor)	Includes Flat Panel Detectors
		Principal Coverage Period 8am-5pm Monday through Friday ³	

All AT Flat Panel Detectors (Includes HDR, Q.zen, Pixium, PaxScan, Canon, and LMAM Detectors)	First 12 months	100% Wear or Failure parts and labor	
	Months 13 through 36	Prorated credit given to customer against replacement cost	credit percentage = (36 - months in use)/36*100
Image Intensifier Tubes (Sirecon, Optilux)	First 12 months		
	Months 13 through 24	Prorated credit given to customer against replacement cost, parts only	credit percentage = (24 - months in use) / 24 * 100
Megalix Cat Plus Tube	First 12 months	80,000 SLU ² or 12 months, whichever occurs first	
	Months 13 through 24	Prorated credit given to customer against replacement cost, parts only	credit percentage = (24 - months in use) / 24 * 100
Gigalix Tube	First 12 months	100,000 SLU ² or 12 months, whichever occurs first	
	Months 13 through 24	Prorated credit given to customer against replacement cost, parts only	credit percentage = (24 - months in use) / 24 * 100
Single Tank Tubes Polyphos P125-135, Sirephos SR)	12 months		
Single Tank X-Ray Tubes Powerphos)	Prorated to a maximum of 80,000 SLU ² or 12 months, whichever occurs first	Prorated credit given to customer against replacement cost	credit percentage = (80,000 - SLU used) / 80,000 * 100

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF

Siemens Medical Solutions USA, Inc. Confidential



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Consumables	Not covered	100	
Post-Warranty (after expiration of system	warranty) – Replacement	parts only!	
Items above	As described above, but parts only	As described above, but parts only	As described above, but parts only
Spare Parts	6 months	Parts only	

Note: Optional extended warranty coverage can be obtained by purchase of a service agreement.

¹ Period of warranty commences from the date of first use or completion of installation, whichever occurs first. In the event the completion of installation is delayed for reasons beyond Siemens' control, the stated warranty period shall commence 60 days after delivery of equipment.

² SLU: Siemens Load Unit (1 exposure or 2 seconds cine DCM (Digital Cine Mode) or 15 seconds Digital Pulsed Fluoroscopy (DPF)

³ Standard deliverable independent of subsequent service contract commitment



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

Healthineers : SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Detailed Technical Specifications

Artis Q biplane

Part No. / Product	Description
14432834	Contents:
syngo interv. Neuro Engine Pro as40	The syngo X Workplace is a dedicated workstation for image postprocessing and live image guidance. Its functionality can be extended with additional software functions to suit specific user or clinical needs in angiography, surgery, and cardiology. The use of the licensed software is limited exclusively to the specific syngo X Workplace included with this configuration.
	syngo X Workplace PC
	The high-performance workstation is equipped with an Open GL accelerator board to support 3D applications. To exchange medical images on DICOM-compatible CD-Rs and DVDs, the system is equipped with a CD/DVD burner.
	syngo X Workplace can be connected to an existing network via 1000/100/10 Mbit Ethernet.
	Examination room: 19" color flat display or Artis Large Display connection kit
	With this configuration, if an Artis Large Display is ordered - the configuration includes a connection kit for the Arti Large Display. If an Artis Large Display was not ordered - a display is delivered additionally for the examination room
	Control room: two 19" color flat displays or Artis Cockpit connection kit
	In this configuration, there are also two displays for the control room or two connection kits for an Artis Cockpit.
	The Siemens 19" LCD color display features very high contrast even under very bright ambient light conditions. The Gamma curve was precisely adapted to the CIE/DICOM recommendation and is thus especially suited for gray scale display.
	LCD color display
	- 19" (48 cm) screen size
	- Resolution: 1280 x 1024 (pixels)
	 Excellent brightness for the entire service life: 137 cd/m² at a contrast ratio of 300:1.
	- Flicker-free and distortion-free image display
	- Anti-glare screen
	The controlled background lighting provides stable lighting throughout the entire product life cycle.
	syngo X Workplace Basic User Software The syngo X Workplace software features an intuitive and thus easy to learn user interface developed from
	prototypes tested in close cooperation with users.
	Standard functions such as filming or image review, and optional clinical application software, are performed in individual processes on dedicated task cards. A number of functions and input parameters, as well as the language used, can be selected according to individual requirements.
	Package includes the following software licenses Basic software with CD and dongle for the following functions:
	- Patient Browser
1 10	- Filming
	- Viewer
	- System services
	Patient Browser:

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Part No. / Product Description (Continued) Patient management. 14432834 DICOM communication with Send, Receive, Query/Retrieve, Print. syngo interv. Neuro Reading and importing image data from CDs/DVDs. Engine Pro as40 Module for writing DICOM CDs/DVDs for data exchange. Writing is in background mode. Filming: A virtual filmsheet shows a 1:1 display of the film sheets to be printed. This permits an effective preview of the filming job and the windowing of images, as well as providing a large number of evaluation functions. The Viewer supports interactive 2D review, evaluation, and documentation functions. Multiple studies from the same patient can be displayed side-by-side for comparison. Image display: 1.0242 screen matrix, configurable with up to 64 image segments. CINE display: Automatic or interactive dynamic presentation technique for the visualization of time and volume series. Synchronized viewing of multiple series. Measurement and annotation: Text annotation; distance, angle, circle, ROI and pixel lens, depending on information available from the acquisition system. Microsoft Office Word, Excel, PowerPoint plus Outlook are supported (not provided!). Any user-selectable file, such as cardiac or angiographic acquisitions, DSA or 3D AVI video sequences, can be burned to CD, or exported to USB stick, to prepare quality presentations and demos of pathologies. Network module: For connection to a local Ethernet (Gigabit or 100 Mbit) for communication with networked archives, printers, diagnostic and therapy workstations, and teleradiology routers. Scope of functions Network stations can be configured. Unlimited selection of stations. 3D image generation 3D rotational angiography In 3D rotational angiography, a sequence of 2D projection images is acquired by a C-arm performing a fast rotation around the isocenter in which the patient is positioned. Image data are transferred automatically to a syngo X Workplace for time-optimized 3D image data reconstruction. All parameters required for the 3D reconstruction are included in the organ program. This enables optimized image quality and easy handling, as well as the fastest possible 3D reconstruction. Rotation speed is up to 88°/s (Artis zeego with syngo Dyna3D HighSpeed), 60°/s (Artis ceiling), and 45°/s (Artis floor and Artis biplane). Dual-Volume visualization, allowing a clear and easy differentiation of e.g. devices and contrastenhanced vessels Angle triggering allows a reduction in dose through a reduced acquisition frame rate while at the same time achieving better image quality. In addition, it allows for accurate subtracted rotational scans. 3D reconstruction and visualization of a volume are performed in real time in volume rendering technique, MPR, and MIP. 3D Rotational angiography is used in particular as support in interventional radiology and neuroradiology in the angiography laboratory. Based on dedicated acceleration hardware the primary reconstruction results are available in full diagnostic quality in the examination room within 19 seconds for high contrast images and less than 42 secondsfor soft tissue DynaCT images. Subsequent secondary reconstructions are available even faster. Note: For biplane systems rotation angiography is available in plane A only. syngo DynaCT syngo DynaCT is especially suited to support radiologists and neuro-radiologists during interventional procedures



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Part No. / Product

Description

(Continued) 14432834 syngo interv. Neuro Engine Pro as40

in the angiography suite with both endovascular and non-endovascular procedures. *syngo* DynaCT provides enhanced decision making during oncology procedures such as chemoembolization and RF-ablations. In neuroradiology, *syngo* DynaCT allows the visualization of bleeds, the ventricular system of the brain and microstent placement.

With syngo DynaCT it is possible to visualize a soft tissue difference of 10 HU (Hounsfield Units) of an object 5 mm in size, or 5 HU for an object 10 mm in size, in a Thick-MPR display (measured with a CATPHAN 16 CT phantom with the CTP 515 module). Homogeneous image quality is achieved across the entire image. As a result, critical regions such as the base of the skull can be displayed with a lot fewer artifacts.

DynaCT also offers:

- a new reconstruction algorithm optimized for cone beam geometry
- a 20sDR-H 109 kV DynaCT acquisition reducing beam hardening artifacts and therefore improving e.g. detection of bleedings in DynaCTs
- DynaCT protocols optimized for intravenous injection of contrast material, including a dedicated, integrated bolus-watching phase
- faster 3D acquisition in 4x4 Binning mode

-

In conjunction with Artis zeego, *syngo* Dyna3D HighSpeed – being the fastest 3D protocol on the market – enables acquisitions to be generated in less than 3 seconds. As a result, moving organs such as the lungs can be displayed with a lot fewer artifacts. In addition, ~30% of contrast material can be saved which is important esp. in procedures requiring injection of a high volume of iodine (e.g. for enhancement of the aorta).

syngo DynaPBV Neuro

. syngo DynaPBV Neuro provides 3D physiologic information regarding blood volume distribution in the cerebral tissue. The visualization of color-coded blood volume maps is based on a special dual-sweep *syngo* DynaCT acquisition program, followed by an elaborated computation of the blood volume steady-state information. Blood volume maps of the complete brain can be obtained and specific regions of interest can be drawn, quantitavly analyzed and compared.

In addition syngo DynaPBV Neuro allows for reconstructing a native DynaCT volume (e.g. for bleeding detection) and a DynaCT-Angio volume (contrast-enhanced DynaCT volume).

This unique application offers special advantages during neuroradiological interventions (e.g., stroke/malformation) because it allows under- and oversupplied parenchymal areas to be clearly visualized intraproceduraly in the angio room.

3D Image Manipulation

The 3D XWP comes with applications that facilitate interactive volume rendering, accelerated by a high-end 3D graphics card. It offers support for large data records of up to 1,600 images (512 x 512 matrix).

In angiography, surgery, and cardiology, the three-dimensional information is used for diagnosis, planning of therapy and documentation.

Diagnosis and treatment can be performed in one session. This offers a significant advantage thanks to the fully-integrated workflow, for example the

- Transfer of the projection angle (that has been adjusted by the user in the XWP 3D volume) to the C-arm stand.
- Realtime synchronization between reconstructed volume and C arm position (Volume following the C arm position)
- Indication whether the angulation can be achieved at the C-arm without collision with the patient or table.
- Interventional volume measurement.

Features:

- Reconstruction protocols for visualization of vessels, bones, clips and coils.
- The result of the reconstruction can be native or subtracted.
- Modification of reconstruction area to allow zoom via reconstruction.
- Visualization with shading and light source for an improved three-dimensional impression.

Created: 11/5/2018 10:32:00 AM PRO 1-OUDNWF



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Part No. / Product Description (Continued) Interventional volume measurement. 14432834 Link between C arm geometry and reconstructed volume: driving the C arm to exact projection position syngo interv. Neuro according to the view of the reconstructed volume and/or setting the volume to follow realtime C arm Engine Pro as40 positions. Image data: Viewing of volume data from AX, CT, MR, and PET modalities. Loading of two volume data sets simultaneously. Multiple Layouts: single (1on1), double (2 on1) and quadruple (4on1) for MPR display. Two displays are supported for simultaneous display of two volumes side-by-side. Image display modes: VRT, Color VRT, MIP, MinIP, and MPR rendering. Thin slice renderings for VRT, MIP, and MinIP. Variable light source. Shading effects. Volume editing: Cut planes Editing of clip planes and control volumes. ROI punching. Presets: Series-specific bookmarks, to store and retrieve volume visualization parameters. Global presets for series-unspecific application of volume visualization parameters. Output: Radial ranges, including macro range definitions. 2D and 3D measurements, measurement grid, distance measurement and annotations. AVI format export with selectable compression format and compression ratio. TIFF, PNG, BMP, JPEG image export. Send to film sheet. Sending of parallel ranges results to PACS. 3D accessories Includes the accessories required for 3D setup and calibration : Plexiglas calibration phantoms Line phantom for image quality control Form filter 3D data link Dual volume visualization Enables the differentiation between two high-contrast 3D objects that have virtually the same contrast density by choosing different visualization presets for the two simultaneously loaded volumes. This enables clear differentiation between e.g. contrast-filled vessels, bones, stents, clips or coils. Furthermore, it allows the display of one low-contrast and one high-contrast volume in one view, often realized as embedded MPR where the high-contrast volume is visualized in VRT and the soft-tissue information is shown as MPR slice. This can be used e.g. for visualization of the anatomical structure such as of tumors in relation to the feeding vessels. 3D roadmap The operator can overlay any 3D volume or planning data, or excerpts of it, onto the live fluoro image. Via a Fade in - Fade out with the joystick the degree of visibility of the overlaid information can be determined at any time This



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Part No. / Product

Description

(Continued) 14432834 syngo interv. Neuro Engine Pro as40 tool offers the physician real-time three dimensional guidance for more confidence. It avoids repeated injection of contrast material during fluoroscopy by overlaying a 3D vessel tree instead. The 3D roadmap is automatically updated in real-time according to any table, C-arm, zoom and SID changes. Even changes due to patient movement can be manually updated.

The 3D volume can be overlaid on regular fluoro as well as on subtracted fluoro (Roadmap) or acquisition series. The overlay appears on the display of the syngo Workplace so the 3D Roadmap information is available in parallel with the regular 2D images of the live display of the acquisition system.

For PURE systems only: fusion functionality also included:

A fused CT, MR or PET image can be overlaid with live fluoroscopy in combination with 3D roadmap functionality providing information during interventional procedures that are available neither in 2D X-ray nor in 3D rotational angiography.

The package includes 2D/3D Fusion as well as 3D/3D Fusion:

2D/3D Fusion - allows to spatially align any pre-acquired 3D volume of the patient with two 2D X-ray projections. This eases the workflow during the procedures and reduces the X-ray dose because no additional 3D acquisition is required.

3D/3D Fusion – allows to spatially align two 3D volumes from the same or different modality in such way that the anatomical structures overlay each other. Any *syngo* DynaCT or *syngo* Dyna3D image can be fused with datasets from e.g., CT, MR or PET.

For PURE systems only: toolbox functionality also included:

Toolbox is a generic application to interactively mark structures of interest in a 3D volume, e.g. a syngo DynaCT image, using points and lines. Analogously to syngo 3D Roadmap, these markings are projected onto the live 2D X-ray illustrating the position of the 3D anatomical structure within the live X-ray. Included functionalities:

- Automatic extraction and overlay of anatomical outlines of the 3D volume on live 2D image.
- Overlay of any lines and dots drawn on the VRT or MPRs on live 2D image.

This functionality provides an easy link between information that may only be visible in the 3D volume (VRT or MPRs) and the fluoroscopy or roadmap images.

Workflow support for 3D stenosis measurement

The application 3D stenosis measurement allows analyzing a vessel segment using 3D views, e.g. MPR, VRT. Based on a 3D volume the user marks the vessel of interest with two mouse clicks. The vessel is automatically segmented and the centerline of the vessel is calculated. The vessel can be displayed with a curved MPR along this centerline and key stenosis parameters are calculated such as smallest and biggest area of all cross sections along the vessel's course in the analyzed range. Additionally, the users can "scroll" interactively along the vessel while detailed stenosis parameters are calculated for each MPR such as minimum diameter, maximum diameter and area of the vessel's stenosis cross-section as well as minimum luminal diameter and minimum luminal area.

Workflow support for neuro aneurysm analysis

With three simple mouse clicks, a cerebral aneurysm and its parent vessel is segmented in the *syngo* DynaCT image. Based on this segmentation, a complex analysis of the aneurysm is performed by the workstation and the aneurysm dome height and width, the ostium neck, angle and length as well as the ostium area and cutting plane are measured automatically. The application also determines the centerline of the parent vessel and displays the vessel as a curved MPR along this centerline.

2D Image Manipulation

syngo Angio Viewer

The *syngo* Angio Viewer enables dynamic review of DSA scenes (in subtracted or native display) and their post-processing at the *syngo* Workplace, with functions such as:

- Remasking.
- Pixelshift.
- Anatomic background.
- Opacification etc.
- Review of DYNAVISION and PERIVISION scenes



40 Liberty Boulevard, Malvern, PA 19355

Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Part No. / Product Description (Continued) syngo iFlow 14432834 syngo iFlow allows the visualization and analysis of blood flow and 2D perfusion in the examined organs. This information is based on the time-to-peak calculations from a routine DSA acquisition and can be applied as simple syngo interv. Neuro click-of-the button postprocessing to any DSA scene (=> no dedicated acquisition needed). The calculations can Engine Pro as40 be shown as a color-map of the whole organ. It is also possible to calculate blood flow and perfusion characteristics for regions defined by the user, and display them as ROI (region of interest) curves. These graphics support the analysis of blood flow dynamics in the defined region. syngo Scene Compare Dual monitor support for dynamic side-by-side comparison of two scenes or for the evaluation of bi-planar scans in synchronized mode. It can also be used to compare scans to single images. This functionality can be used to compare pre- and post-interventional 2D scenes or iFlow images for evaluation of changes in blood flow characteristics as a result of the therapy. Common functions Inroom control functionality Allows for remote control of the syngo X-Workplace from the examination room via touchscreen and joystick mounted table-side or on a trolley. For this, a set of functions is offered inroom for e.g. 3D image assessment and manipulation, 3D navigation, multimodality image integration, or for actively following the steps of a pre-defined workflow. syngo Expert-i syngo Expert-i enables the physician to interact with the syngo X- Workplace from virtually anywhere. When clinical questions arise at the syngo X-Workplace, a second user with a Windows PC can quickly and efficiently access the syngo X-Workplace via the network. He or she can assume full control of every application on the syngo X-Workplace and can see all screen content that is displayed for the local user on the main monitor. This allows the parties involved to discuss clinical questions via phone and quickly reach solutions on a joint basis. DICOM Industrial standard for the transmission of information between DICOM-compatible units from different manufacturers. The scope of functions is described in detail in the DICOM Conformance Statement and in the standard version includes the Transmission/ Reception, Query/ Retrieve and Basic Print functions. Note concerning DICOM interface(s) For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used. The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s). Functionalities across interfaces with/between partner systems require explicit validation, since the interpretation of the interface by the partner/target system is not part of the product's responsibility. A modification of the interface that might be required is not included in the offer; e.g. for the rare case that available configurations are not sufficient. With regard to expenses for interface configurations that might be required, the agreements on maintenance/service of the product apply. EPW935515UPS This UPS is recommended when protection and uninterruptible power is required for the C-arm and table. Emergency fluoroscopy is not available with this UPS. If emergency fluoroscopy is required, the 9390 - 160 kVA **Eaton Powerware** UPS is recommended for the full system. One UPS per lab. 9355 15 kVA UPS Operation: Since this UPS is working completely uninterrupted, a power failure is observed when no radiation is available and the display shows "No X-ray please wait". The Emergency power lamp (red) will light on the power display during a power failure. All stand movements are possible and the image system functions are protected against data loss. Guaranteed back up time: 10



40 Liberty Boulevard, Malvern, PA 19355

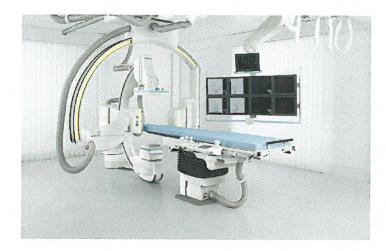
Fax: (336) 856-9995

SIEMENS REPRESENTATIVE Edwin Winicki - (336) 688-0978

Part No. / Product	Description				
(Continued) EPW935515UPS	 Restoring of hospital's main power supply is indicated when the generator boots again (also green Hospital power lamp lights). Full exposures are available after apx. 75 seconds. 				
Eaton Powerware 9355 15 kVA UPS	Includes UPS, battery, maintenance bypass panel, and one year on-site parts and labor coverage (24x7) by Eaton Powerware.				
	Additional seismic brackets are required to make this system OSHPD approved.				
AT_USD_FREESTYL E	ACUSON Freestyle ultrasound system				
ACUSON Freestyle	Includes 3 Year Standard Warranty				
ultrasound system	4400000				
	11002300ACUSON Freestyle Mainframe "The ACUSON Freestyle™ ultrasound system* is the world's first ultrasound system that operates with wireless transducers, a breakthrough in ultrasound imaging. The system features superior image quality and a new standard in ease of use in an ergonomic and portable design. Standard features include:				
	- B-mode				
	- Color flow mapping				
	- Spatial compounding - Speckle reduction				
	- Auto image optimization				
	- Supports wireless transducers				
	- One (1) transducer cable adapter				
	- Two (2) batteries for wireless transducers				
	- DICOM Storage, Storage Commitment, Modality Worklist and Echo				
	- DICOM networking: Ethernet (wired) and 802.11b/g (wireless)				
3 40 3000	- Factory default and user customizable exam types				
	- High resolution flat panel display				
1 1 1 1	- A/C and battery operation				
	- Two (2) charger bays for wireless transducer batteries"				
	11003513Artis Access, Freestyle Elite Zero cables, zero footprint, fully connected.				
	11003106Lang Kit ENG, Freestyle 4.0 Operating instructions in English for the ACUSON Freestyle™ Series ultrasound systems, release 4.0.				
	11002331Freestyle Cordset North America ultrasound system in the North America. Custom power cordset for use with the ACUSON Freestyle™				
	11002397Artis Access Ext Antenna, VD11 The adjustable External Antenna works together with the internal antennas of an ACUSON Freestyle™ Elite ultrasound system when an additional line-of-sight is required to optimize signal strength in the procedural workspace.				
	11002302L13-5 Transducer, Freestyle Linear wireless transducer 13-5 MHz. Includes one transducer battery.				
	11002301L8-3 Transducer, Freestyle Linear wireless transducer 8-3 MHz. Includes one transducer battery.				
	USD_INITIAL_4 Initial onsite training 4 hrs -FMV \$1750 Up to (4) hours of on-site clinical education training, scheduled consecutively (Monday – Friday) during standard business hours for a maximum of (4) imaging professionals. Uptime Clinical Education phone support is provided during the warranty period for specified posted hours. This educational offering must be completed (12) months from install end date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.				

SIEMENS

ARTIS Q/Q.ZEN/ZEE BIPLANE TYPICAL ROOM PLAN



The intended use for this Cut Sheet is to communicate the spatial requirements as well as the basic architectural, electrical, structural, and mechanical requirements for this piece of imaging equipment. The information provided in this document is for reference only, during the pre-planning stage, and therefore does not contain any site specific detailed requirements. This information is subject to change without notice. Federal, state and/or local requirements may impact the final placement of the components. It is the customer's responsibility to ensure that the final layout and placement of the equipment complies with all applicable requirements.

BIEMENS MEDICAL SOLUTIONS USA, INC

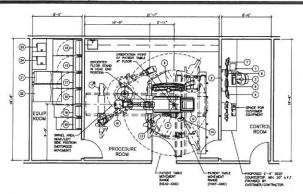
GUTSHEET FOR TYPICAL # 08001

REV. 02 01/17/1

PAGE D M

ARTIS Q/Q.ZEN/ZEE BIPLANE

TYPICAL ROOM PLAN



TYPICAL PLAN

SCALE: 1/8" = 1'-0"

REMOTE SYSTEM DIAGNOSTICS

SIEMENS REMOTE SERVICES (SRS) REQUIRES A CONNECTION BETWEEN THE SRS REMOTE SERVER AND SIEMENS SYSTEMS VIA REMOTE LOCAL AREA NETWORK ACCESS, TO ENSURE THE UPTIME OF YOUR SYSTEM.

THE SERVEC REQUIRES ONE OF THE EDUCATIVE CONNECTION METHODS: IN PRETENDING WHICH AMERICAN THE CUSTOMER HAS AVAILABLE A VIEW LAWABLE FREWALL OR OTHER YEVE APPLIANCE ANALOG MODELLY ENFORCEMENT CONNECTION TO CUSTOMER'S LAW, AND A POPER CHITCLE. NOTIC. "SUPPLIED IT SEMENTS."

TRANSPORTING REQUIREMENTS

LARGEST CRATE WITH PACKING: 120"L x 49.2"W x 84.7"H, 2,458 LBS. LARGEST INDMODUAL PIECE WITH CARRIAGE (MIN. DOOR OPENING) 114.2% x 42.5% x 77.2%, 1,984 LBS. MIN. CORRIDOR WIDTH: 82.7*

TRANSPORT/STORAGE FLAT PANEL DETECTOR IN SYSTEMS WITH FLAT PANEL DETECTORS, THE DETECTOR IS REMOVED FROM THE STAND FOR TRANSPORT TO THE CUSTOMER. THE LUMTED TRANSPORT AND STORAGE CONDITIONS APPLY FOR THE DETECTOR.

FLAT PANEL DETECTOR:

TEMPERATURE RANGE: 14° F TO 131° F
RELATIVE HUNIDITY: 20% TO 95% NON CONDENSING
AIR PRESSURE: 700 NPa TO 1080 NPa

CEILING HEIGHT REQUIREMENT

9 FT. - 6 3/8 IN.

RESOURCE LIST (SMS USE ONLY)

DESIGNATION	PG NUMBER	DATE	
ARTIS Q / Q.ZEN BIPLANE ANGIO	AXAQ-070.891.02.01.02	04.13	
EXTENDED DCS	AXA4-700.891.04.04.02	09.11	
DCS LARGE DISPLAY	AXA4-700.891.03.04.02	09.11	

ARTIS Q/Q.ZEN/ZEE BIPLANE SPECIFICATIONS

	EQ	UIP	MENT	LEGE	ND			
NO	DESCRIPTION	SMS	WEIGHT	HT BTU/HR DIMENSIONS (INCHES)		CHES)	REMARKS	
		SYM	(LBS)	TO AIR	w	D	н	
0	ACE (ARCHIVE CONTROL EXTENSION)	Θ	13	N/A	12 1/4	11 3/4	4	ON COUNTER
2	CONTROL ROCM DISTRIBUTOR	69	54	342	41 1/2	8 1/4	16 1/8	WALL MOUNTED
③	KEYBOARD	Θ	2.2	342	17 1/2	6 1/8	2 1/8	ON COUNTER
•	19" MONOCHROME LIVE DISPLAY (FLOOR PLANE)	Θ	15	258	16 1/2	8 1/4	13 1/2	ON COUNTER
(3)	19" MONOCHROME LIVE DISPLAY (CEILING PLANE)	Θ	15	256	16 1/2	8 1/4	13 1/2	ON COUNTER
0	19" MONOCHROME REFERENCE DISPLAY (FLOOR PLANE) (OPTION)	Θ	15	256	16 1/2	8 1/4	13 1/2	ON COUNTER
0	19" MONOCHROME REFERENCE DISPLAY (CEILING PLANE) (OPTION)	Θ	15	256	16 1/2	8 1/4	13 1/2	ON COUNTER
®	TABLE CONTROL MODULES	Θ	16		20	B 3/4	3 1/2	ON TABLE OR TROLLEY
0	DCS LARGE DISPLAY (OPTION)	6 3	542	1,706	167	45 3/8	50 3/4	CEILING SUSPENDED
10	ARTIS Q / Q.ZEN / ZEE BIPLANE ANGIO FLOOR STAND W/ MOUNTING PLATE	69	1,456	683				C-ARM FLOOR MOUNTED
0	ARTIS G / Q.ZEN / ZEE BIPLANE ANGIO CEILING STAND W/ LONGITUDINAL RAILS	6	1,248	683				C-ARM CEILING MOUNTED
13	PATIENT TABLE (O.R.)	(1)	1,169	583				FLOOR MOUNTED
(1)	UPPER BODY RADIATION SHIELD 4 M TRACK (OPTION)	Θ	196					TRACK MOUNTED
(MAVIG LED LAMP (OPTION)	Θ	48					
13	POLYDOROS A100 (POWER UNIT 1)	69	723	4,094	31 1/2	17 1/8	87	FLOOR MOUNTED
16)	POLYDOROS A100 (POWER UNIT 2)	60	723	4,094	31 1/2	17 1/8	87	FLOOR MOUNTED
0	CABLE CABINET	63	265		31 1/2	17 1/8	87	FLOOR MOUNTED
10	SYSTEM CONTROL CABINET	5 0	655	5,459	31 1/2	17 1/8	87	FLOOR MOUNTED
0	SYSTEM CONTROL CABINET 2	6	364	4,094	23 1/2	17 1/8	87	FLOOR MOUNTED
®	SYSTEM CONTROL CABINET (O.R. TABLE ONLY)	8	276	683	23 1/2	17 1/8	87	FLOOR MOUNTED
20	LARGE DISPLAY CONTAINER FOR DCS LD (OPTION)	63	253	1,535	23	37 1/2	28 3/8	MTD. ON CASTERS
2	AXIS IMAGE SYSTEM	(6)	441	6,483	33 1/2	37 1/8	28	MTD. ON CASTERS
3	KLUVER COOLING UNIT (PLANE A)	(P)	93	13,649	18 3/4	15 1/2	18 3/4	FLOOR OR SHELF MOUNT
3	KLUVER COOLING UNIT (PLANE B)	60)	93	13,549	18 3/4	15 1/2	18 3/4	FLOOR OR SHELF MOUNT

BEMENS MEDICAL SOLUTIONS USA, INC

CHECKET COS TOTOS A MOST

REV. 02 01/17/

PAGE 2 of

ARTIS Q/Q.ZEN/ZEE BIPLANE SPECIFICATIONS

WIRING SYSTEM:	480Y/277V, 3 PHASE, 5-WIRE, 60 HZ	
MINIMUM POWER SUPPLY:	225 KVA DISTRIBUTION XFMR, LESS THAN OR EQUAL TO 3% IMPEDANCE	
X-RAY GENERATOR MOMENTARY RATING: (RADIOGRAPHIC EXPOSURE)	162 KVA	
X-RAY GENERATOR LONG-TIME RATING: (FLUDROSCOPY)	8 KVA	
LINE IMPEDANCE	≤ 120 (mΩ)	
MINIMUM CIRCUIT BREAKER SIZE: (BASED ON N.E.C. 517-73)	100 AMPS	
POWER QUALITY	PARAMETERS	
MAXIMUM LINE VOLTAGE VARIATION	±10% OF SYSTEM VOLTAGE	
PHASE IMBALANCE:	2%	
FREQUENCY VARIATION:	± 1 HZ	
SYSTEM GROUNDING IMPEDANCE:	0.25 OHMS MAX.	

 NCOMING POWER SUPPLIES FOR SIEMENS EQUIPMENT SHOULD BE DEDICATED (BACK TO SOURCE), ISOLATED AND INSULATED FROM AN OTHER EQUIPMENT SUCH AS ELEVATORS, GENERATORS, HVAC SYSTEMS, ETC.

2. SIEMENS HEALTHCARE REQUIRES THAT THE INCOMING POWER MEETS THE POWER QUALITY REQUIREMENTS.

DOWED	DECLUDE	MENITO
POWER	REOUIRE	MENTS

POLYDOROS—W / POLYDOROS A100 GENERATOR \$1 (PU1):
480 VOLTS, 3-PHASE, 152 KVA, 100 AMPS, 50 Hz
POLYDOROS—W / POLYDOROS—A100 GENERATOR \$2 (PU2):
480 VOLTS, 3 PHASE, 162 KVA, 100 AMPS, 60 Hz
STSTEM CONTROL CABINET (SC1):
480 VOLTS, 3-PHASE, 14 KVA, 50 AMPS, 60 Hz.

MAGNETIC	FIELD PRECAUTIONS	
MAY HAVE AN ADVERSE	GNETIC FIELDS IN THE VICINITY OF EQUIPMENT E EFFECT. IT IS THE CUSTOMER'S RESPONSIBILITY FOLLOWING VALUES ARE NOT EXCEEDED.	
MAXIMUM ALLOWABLE MAGNETIC FIELD	DEVICES	
1.0mT (10 GAUSS)	COMPUTERS, MAGNETIC DISK DRIVES, OSCILLOSCOPES, PROCESSORS	
0.5mT (5 GAUSS)	X-RAY TUBES, B/W MONITORS, MAGNETIC DATA CARRIERS, DATA STORAGE DRIVES	
0.2mT (2 GAUSS)	SIEMENS CT SCANNERS	
0.15mT(1.5 GAUSS)	COLOR MONITORS, SIEMENS LINEAR ACCELERATORS	
0.05mT(0.5 GAUSS)	X-RAY IMAGE INTENSIFIERS, GAMMA CAMERAS, PET/CYCLOTRON, OTHER LINEAR ACCELERATORS	
MAGNETIC FIELDS SHO	ULD BE MEASURED PRIOR TO DELIVERY	

FOR MORE INFORMATION

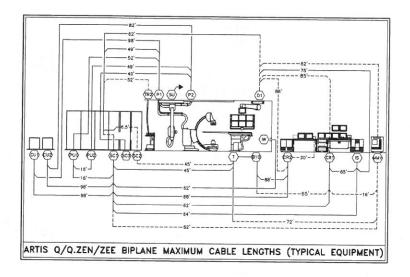
FOR MORE DETAILED PLANNING REQUIREMENTS FOR THIS SYSTEM, SEE THE TYPICAL FINAL DRAWING SET NUMBER: TYPICAL # 08001

ARTIS Q/Q.ZEN/ZEE BIPLANE SPECIFICATIONS

	ENVIRONMENTAL	CONDITIONS
EXAMINATION AND CONTROL ROOM	TEMPERATURE RANGE:	59'F-86'F (RECOMMENDED TEMPERATURE 70'F) FOR SYSTEM WITH FLAT PANEL DETECTOR
	RELATIVE HUMIDITY:	20% - 75% NON-CONDENSING
AXIS IMAGE SYSTEM	TEMPERATURE RANGE: RELATIVE HUMIDITY: MAX. TEMP. GRADIENT: AIR FLOW VOLUME: MAX. NOISE GENERATION:	500 054
POLYDOROS A100 GENERATORS (PU1/PU2)	TEMPERATURE RANGE: RELATIVE HUMIDITY: MAX. TEMP. GRADIENT: AIR FLOW VOLUME: MAX. NOISE GENERATION:	20%-75% NON CONDENSING 9' F/HR
SYSTEM CONTROL CABINETS (SC1/SC3)	TEMPERATURE RANGE:	50'F-95'F (RECOMMENDED TEMPERATURE 70'F) FOR SYSTEM WITH IMAGE INTENSIFIER 59'F-86'F (RECOMMENDED TEMPERATURE 70'F) FOR SYSTEM WITH FLAT PANEL DETECTOR
	RELATIVE HUMIDITY: MAX. TEMP. GRADIENT: AIR FLOW VOLUME: MAX. NOISE GENERATION:	589 CFM
KLUVER/LYTRON COOLING UNITS	RELATIVE HUMIDITY: AIR FLOW VOLUME:	41'F-86'F (RECOMMENDED TEMPERATURE 70'F) FROST FREE 647 CFM 55 dB(A) AT 50 HZ, 59 dB(A) AT 60 HZ
STAND WITH FLAT PANEL DETECTOR	MAXIMUM TEMPERATURE G ATMOSPHERIC PRESSURE; SHOCKS: VIBRATIONS;	

ARTIS Q/Q.ZEN/ZEE BIPLANE

SPECIFICATIONS





SIEMENS Healthineers

December 1, 2018

Atrium Health Attn: Mr. Chris Hollar Manager, Capital Acquisitions 4828 Airport Center Parkway, Building E Charlotte, NC 28208

Dear Chris Hollar,

The purpose of this letter is to confirm that Siemens Medical Solutions USA, Inc. (Siemens Healthineers) will be responsible for removing your existing Siemens Artis dBA with Serial Number 53209 ("existing equipment") as part of your purchase of the Siemens Artis Q Biplane with quote number 1-HGAZX2. The cost for the de-installation and removal is included in the price quotation for the replacement equipment, which totals \$1,675,000.

The system will be removed from Service by a broker designated by Siemens for either resale purposes or parts. The system will not be placed into Service by Siemens in North Carolina without proper state approvals.

Sincerely,

Edwin Winicki

Key Account Executive

Siemens Healthineers, USA

Attachment E

PROPOSED TOTAL CAPITAL COST OF PROJECT

Proj	ect name:	CHS NE Interventional Radiology Room #11	(Bi-Plane) Equipment Replacement			
Provider/Company:		Atrium Health				
(1)	Purchase price of land					
(2)	Closing costs					
(3)	Site Preparation					
(4)	Construction/Renovation	Contract	\$0			
(5)	Landscaping		40			
(6)	Architect/Engineering F	ees	\$0			
(7)	Medical Equipment		\$1,838,250			
(8)	Non Medical Equipment		41,000,200			
(9)	Furniture					
(10)	Consultant Fees (CON F	ees and Legal Fees)				
(11)	Financing Costs					
(12)	Interest During Construc	ion				
(13)	Other (Sales Tax Value)					
(14)	Total Capital Cost		\$1,838,250			

I certify that, to the best of my knowledge, the above construction related costs of the proposed project named above are complete and correct.

(Signature of Licensed Architect or Engineer)

DATE

Sales taxes have been included in these equipment costs. However, because Atrium Health is entitled to a sales tax refund under N.C. Gen. Stat. § 105-164.14(b) and 105-467, the sales tax that Atrium Health initially incurs for this medical equipment purchase will be refunded to Atrium Health, and thus will reduce the capital costs that Atrium Health actually incurs for the equipment by \$128,250.