

V.A. MEDICAL CENTER  
10 CALLE CASIA  
SAN JUAN, PR 00921-3201

PO# 672-FC3011

## Artis zee multi-purpose - latest version

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

Qty	Item Description
1	<b>Artis zee multi-purpose (Laser)</b> Multi-functional C-arm X-ray system with angio collimator and a high-resolution 30 x 40 flat detector (including laser crosshairs). The powerful 100 kW generator and MEGALIX Cat Plus X-ray tube (3-focus tube with new flat emitter technology) are the prerequisites for excellent image quality. The CLEAR functionality to optimize the image impression, the CARE package to reduce radiation exposure, and DICOM standards are all included. The system has been prepared for Siemens Remote Service.
1	<b>DSA acquisition module 1k strg.</b> Digital subtraction angiography, acquisition, display and storage in 1,024 <sup>2</sup> - matrix. Digital acquisition technology in 1,024 <sup>2</sup> /12 bit matrix, single image and serial acquisitions between 0.5 /fs and 7.5 f/s.
1	<b>PERISTEPPING / PERIVISION</b> Peripheral digital angiography with stepping and online subtraction display.
1	<b>dMP Stand, right suspension</b> Artis zee MP right, multi-functional C-arm stand with right mounting of the positioning table.
1	<b>Collision protection cpl</b> Collision monitoring of the monitor suspension system including the longitudinal carriage.
1	<b>Foot Switch Monopl. MP (Wireless)</b> For release of fluoroscopy, exposure and table brake as well as a configurable additional function. Wireless connection via radio communication.
1	<b>DCS 2 DVI 2xBWD-19 (Live+Ref.)</b> Display suspension system with two 19" b/w flat-screen displays with blue background color.
1	<b>ACE Cable Set in Equipm.Room</b> Image system interface to the displays in the control room if the image system is installed in the equipment room.
1	<b>C-Room DVI 1xBWD-19 (Live) -36m</b> One monochrome 19" flat-screen display with blue background color.

1	<p><b>Live+Ref Video Interface to OEM (1)</b></p> <p>Video interface output for the video signals of Artis zee Live and Ref for connecting OEM products, with additional display of these signals in the control room or other rooms. Monoplane (1) design for 2 video signals. All signals are provided with video isolation.</p>
1	<p><b>Acquistion 2k</b></p> <p>The 2k option enables acquisition and storage of single images and series with a resolution of up to 4.76 Mega pixel (2,480 pixel x 1,920 pixel) at up to 7.5 f/s.</p>
1	<p><b>Servo table control module</b></p> <p>For control of all table functions including motorized table movement in longitudinal direction, with the table tilted, with power-dependent control.</p>
1	<p><b>Vessel analysis</b></p> <p>Vessel analysis with determination of degree of stenosis, distance measurement and calibration.</p>
1	<p><b>Fluoro Loop (1)</b></p> <p>Storage and review of dynamic fluoroscopic sequences (Fluoro Loop). 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 (VC21 software required). Note: With VC14 software, the values are 17 s at 30 p/s, 34 s at 15 p/s.</p>
1	<p><b>Automap</b></p> <p>Automatic stand positioning depending on the selected reference image and automatic reference image selection depending on the stand positioning.</p>
1	<p><b>DICOM HIS / RIS</b></p> <p>Import of patient/examination data from an external RIS/HIS patient management system with DICOM MWL (Modality Worklist).</p>
1	<p><b>DICOM MPPS</b></p> <p>Feedback of examination status via DICOM MPPS (Modality Performed Procedure Step) to an external RIS/HIS patient management system. Data such as the dose-area product can be transferred to the RIS.</p>
1	<p><b>Lower body radiation protection rig</b></p> <p>To protect the lower body against scattered radiation in the operator's environment.</p>
1	<p><b>Upper Body Rad. Protection Artis-F</b></p> <p>To protect the upper body against scattered radiation within the operating range of the examiner, e.g. during interventional procedures.</p>
1	<p><b>Examination lamp, 115 V</b></p> <p>Ceiling-mounted, flexible OR lamp that is adjustable toward the operator, to be used for diagnosis and minor surgery. Mach 130F examination lamp with focusable dielectric light system. - Light intensity: 35,000 lux (3,255 fc) at a distance of 100 cm - Working distance: 70 to 140 cm - Color rendering index Ra (gen.): 96 - Color temperature: 4,300 Kelvin - Focusable light field size: 14 to 25 cm - Lamphead diameter: 22 cm - Halogen bulb: 22.8 V/50 W OR lamp power supply = 115 V. For use only with upper body radiation protection 144 07 034 or 144 07 035. Only for direct connection with 115 V power supply. Max. arm length: 185 cm. Weight: 14 kg *2 Available in the USA with local part number in the US price book</p>
1	<p><b>syngo Keyboard, English - US</b></p> <p>Keyboard with special syngo keys.</p>
1	<p><b>Emergency power image system</b></p> <p>Emergency power supply imaging system monoplane.</p>
1	<p><b>Cable Set UPS - Imag. System (long)</b></p>
1	<p><b>Armholder (pair)</b></p> <p>Two arm holders for comfortable lateral arm positioning along the patient's body.</p>

1	<b>VA kit Artis zee systems</b> Second set of documentation for deliveries to the Veterans' Affairs Administration Hospitals in the U.S.
1	<b>Customer documentation, English</b>
1	<b>Pre-install kit MP / cart</b> Including installation plate.
1	<b>Initial onsite training 32 hrs</b> 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.
1	<b>Follow-up training 12 hrs</b> 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	<b>Additional onsite training 32 hours</b> 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.
1	<b>Offset Initial Training 32 hrs</b>
1	<b>Mark 7 Arterion, Pedestal System</b> 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. 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 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.
1	<b>Blue anti-fatigue floor mat for hospital</b>
1	<b>Standard Rigging zee SP</b>
1	<b>ADDITIONAL RIGGING Room Removal and Disposal \$18,500</b>

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**Additional Rigging/Out of Scope After Hours Delivery \$5,500**

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— **One complimentary biomedical tuition is included with the purchase of this system. This training must be completed before the end of the warranty period**

# Detailed Technical Specifications

## Artis zee multi-purpose - latest version

Part No. / Product	Description
<b>14427220</b> <b>Artis zee multi-purpose (Laser)</b>	<p><b>System Configuration</b></p> <p>Artis zee MP is a multi-functional, digital C-arm X-ray system for fluoroscopy and diagnostic and interventional angiography. The C-arm and patient table are a tiltable and height-adjustable unit. The C-arm can be moved relative to the patient in cranio-caudal and orbital direction. Isocentric object positioning is achieved through independent height adjustment of the tabletop, which can additionally be adjusted in longitudinal and transverse direction. Programmed system positions allow fast examination procedures.</p> <p>This system is equipped with a thin mattress: 4 cm thick special-foam mattress, made of open-pore polyurethane material (including cover).</p> <p>High flexibility and fast positioning:</p> <ul style="list-style-type: none"> <li>- Up to 5 programmed work positions and additional 50 user-defined work positions.</li> <li>- Overtable and undertable image receptor positioning.</li> <li>- One single joystick for patient angle oriented operation of C-arm and image receptor movements.</li> <li>- Integrated, computer-aided collision monitoring ICP (Intelligent Collision Protection).</li> <li>- Tilting range of the gantry <math>\pm 90^\circ</math>: enables 3D acquisitions, when available, on standing patients.</li> <li>- Two work and one park position.</li> <li>- Double oblique projections of <math>60^\circ</math> LAO to <math>90^\circ</math> RAO and <math>\pm 45^\circ</math> cran/caud.</li> <li>- Variable source-to-detector distance between 90 cm and 120 cm.</li> <li>- Longitudinal travel of the C-arm system 165 cm.</li> <li>- Height adjustment of the C-arm system (isocenter-floor distance) from 107 cm to 150 cm.</li> <li>- Motorized patient tabletop in carbon fiber sandwich design: Height adjustment from 70 cm to 120 cm. Longitudinal travel 120 cm (within <math>\pm 20^\circ</math>). Transverse travel from +5 cm to -40 cm (within <math>\pm 20^\circ</math>).</li> </ul> <p><b>Operation</b></p> <p>An ideal workflow requires full user operation capabilities for the system including imaging system and generator under sterile conditions in the examination room. The user should be able to operate the system by himself without needing to leave the examination room as necessary. The intuitive <i>syngo</i> operating elements allow for managing the whole process from preparation of the patient to image post processing in a safe, reliable, and time efficient way.</p> <p>In the examination room:</p> <p>Complete system operation through modular control elements either on a control trolley or directly at the patient table for controlling the C-arm movements, patient table and multileaf collimator. Touchscreen with multi-functional joystick for operation of the imaging system, including post-processing and quantification as well as selection of the organ programs. It is based on <i>syngo</i> operation. The touchscreen is specifically configurable to individual clinical requirements.</p> <p>Data regarding system and table geometry, dose data with CAREwatch, as well as system messages, are shown in the live display</p> <p>In the control room:</p> <p>Standard Siemens <i>syngo</i> control via keyboard and mouse for all imaging system functions such as image post-processing, archiving, configuration of organ programs, and patient administration.</p> <p><b>Display of system data</b></p> <p>Data regarding system and table geometry, dose data with CAREwatch, as well as system messages, are shown at the display in the examination room.</p> <p><b>Tube assembly MEGALIX Cat Plus 125/20/40/80-12xGW</b></p>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>14427220</b>  <b>Artis zee multi-purpose (Laser)</b></p>	<p>3-focus high-performance X-ray tube with flat emitter technology, metal center tube in lubricated spiral groove bearing technology for permanent, noise-free rotation.</p> <ul style="list-style-type: none"> <li>- Maximum tube voltage 125 kV</li> <li>- Focus: 0.3/0.6 x 0.6*/1.0 (17/38/80 kW)</li> <li>- Anode angle 12°</li> <li>- Maximum anode heat storage capacity: 3,375,000 HU</li> <li>- Maximum tube current for fluoroscopy: 250 mA</li> </ul> <p>* with improved image quality</p> <p><b>X-ray generator</b>  Microprocessor-controlled high-frequency X-ray generator with automatic dose rate control for exposure and fluoroscopy.</p> <ul style="list-style-type: none"> <li>- Maximum 100 kW at 100 kV (DIN 6822), nominal power 80 kW (100 kV, 800 mA, 0.1 s) with MEGALIX Cat Plus, depending on the X-ray tube used.</li> <li>- SID tracking (automatic tube current adaptation to source-detector distance).</li> <li>- CAREmatic automatic X-ray control system for fully automatic calculation and optimization of exposure data based on fluoroscopic data.</li> <li>- Patient transparency monitoring.</li> <li>- Tube load monitoring with indication in the data display.</li> <li>- Generator operation fully integrated in the system operation.</li> </ul> <p><b>Flat detector 30 x 40</b>  The digital high-resolution dynamic flat detector with integrated removable grid is especially designed to fulfill the requirements of angiographic and interventional applications.</p> <p>154 µm pixel arrays provide highest spatial resolution (3.25 LP/mm) and excellent contrast. Fluoroscopy as well as image acquisition are always done in 14-bit gray scale resolution, allowing excellent detail visibility. Acquisition frame rates of up to 30 f/s are possible.</p> <p>Usable input formats:</p> <ul style="list-style-type: none"> <li>- Overview mode 30 cm x 38 cm.</li> <li>- Zoom 1: 30 cm x 30 cm; diagonal 42 cm.</li> <li>- Zoom 2: 22 cm x 22 cm; diagonal 32 cm.</li> <li>- Zoom 3: 16 cm x 16 cm; diagonal 22 cm.</li> <li>- Zoom 4: 11 cm x 11 cm; diagonal 16 cm.</li> <li>- Zoom 5: 8 cm x 8 cm; diagonal 11 cm.</li> </ul> <p>The very compact design with integrated collision protection provides maximum C-arm angulation range for excellent patient access.</p> <p>The flat detector is mounted on a motorized rotating turntable at the C-arm. It can be rotated by 90°, so that it can be adjusted to landscape format or portrait format.  Motorized adjustment of the detector-patient distance.</p> <p>Digital data transfer from the detector to the imaging system is via a high-speed Gigalink fiber-optic cable.</p> <p><b>Removable grid:</b>  The grid can easily be removed, saving the user time in examinations not requiring a grid. For example in pediatrics, where dose reduction is especially important.</p> <p><b>Laser crosshairs:</b>  Laser crosshairs integrated in the cover of the flat detector and tableside operation for easier, quicker and dose-saving positioning of the patient, e.g. during punctures.</p> <p><b>Multileaf collimator</b>  Angio collimator with rectangular collimator, wedge-shaped filter diaphragms for DSA and cardiological applications and finger-shaped follow-up filter.</p>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>14427220</b>  <b>Artis zee multi-purpose (Laser)</b></p>	<ul style="list-style-type: none"> <li>- Independent rotation and shifting of filter diaphragms.</li> <li>- Five-step adaptive Cu prefiltration (CAREfilter) to reduce skin dose: Automatically controlled selection depending on object absorption.</li> </ul> <p><b>imaging system</b>  High-resolution digital imaging system with CLEAR technology, DICOM network connection and syngo user interface.</p> <p>In order to provide highest level system availability, the imaging system consists of two independent computer systems that manage central tasks such as real-time image processing during fluoroscopy or acquisition as well as post-processing and networking functionality separately from one another. This ensures the system performance will always meet the highest possible demands.</p> <p><b>Image storage capacity</b>  25,000 images in 1k/12-bit image matrix (extendable).</p> <p><b>Operating modes</b></p> <ul style="list-style-type: none"> <li>- Digital radiography (DR) in 1k/12-bit matrix and digital real-time filtration, single image and serial acquisition at frame rates of 0.5 f/s to 7.5 f/s with time-controlled and manually variable frame rate.</li> <li>- Digital pulsed fluoroscopy with pulse frequencies of 7.5 f/s, 10 f/s, 15 f/s, and 30 f/s in 1k/12-bit matrix.</li> <li>- Overlay fade: On-line overlay of active fluoroscopy and reference image.</li> </ul> <p><b>CARE package</b>  Siemens follows the ALARA principle: "As Low as Reasonably Achievable"; the CARE package (Combined Applications to Reduce Exposure) was developed based on this research and development principle to protect the examiner and the patient.</p> <p>Dose saving</p> <ul style="list-style-type: none"> <li>- CAREvision: Pulsed fluoroscopy with additional, reduced pulse rates of 7.5 p/s to 0.5 p/s. Adaptation of pulse rate to the current application requirements for significant reduction of radiation exposure, especially during interventional procedures.</li> <li>- CAREprofile: Radiation-free positioning of the primary and semi-transparent diaphragms by means of graphic display in the LIH (Last Image Hold). Collimator shutters and semi-transparent filters can be adjusted as a graphical overlay on the last-image-hold without any need for fluoroscopy.</li> <li>- CAREposition: Radiation-free object repositioning by means of graphic display of the X-ray center beam and image edges in the LIH image. With CAREposition it is possible to reposition the object under visual control without radiation. In case of table movements the current position of the central beam and the image edges are superimposed on the LIH image as orientation points.</li> <li>- CAREfilter is intelligent control software that helps minimize X-ray dose without negative impact on image quality. During fluoroscopy and acquisition special copper prefilters are inserted into the X-ray beam depending on current X-ray transparency calculated by CAREMATIC. The five-step adaptive Cu prefiltration is used to reduce the equivalent dose of the skin and improve radiation quality through dose saving of low-energy X-ray radiation: Filter steps: 0.1; 0.2; 0.3; 0.6; 0.9 mm Cu. Selection is automatic depending on absorption. This is necessary to ensure that the optimal prefilter value is always active. This automation makes work easier for the user because the given optimal filter setting need not be adjusted manually.</li> <li>- CAREwatch: Display of the measured dose-area product and the calculated patient entry dose (CAREwatch) at the flat-screen display.  Electronics unit with DIAMENTOR measurement chamber integrated in the collimator housing, for acquisition of the dose-area product and the calculated patient entry dose (CAREwatch).</li> </ul> <p>Configurable screens on the data display and imaging system monitor:  During fluoroscopy: patient entry dose rate.  During fluoroscopy interval: accumulated patient entry dose or dose-area product or percentage of the dose limit (total dose from fluoroscopy and acquisition).</p> <p>The critical equivalent dose of the skin (skin entry dose) to avoid X-ray-related skin injury is at about 2 Gy. CAREwatch consistently calculates and displays the actual accumulated skin entry dose (in percent). This helps the user detect a potential patient hazard quickly and with certainty.</p> <ul style="list-style-type: none"> <li>- Low dose acquisition: enables dose savings of up to 60 % during the examination. The low dose acquisition protocol can be released directly with the footswitch.</li> </ul>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>14427220</b>  <b>Artis zee multi-purpose (Laser)</b></p>	<p>Dose monitoring</p> <ul style="list-style-type: none"> <li>- CAREguard: enables three skin entry dose thresholds to be established. If the accumulated skin entry dose exceeds the configured threshold, a warning appears on the live display and tableside on the touchscreen control. This provides ideal skin entry dose monitoring during the examination.</li> <li>- CAREmonitor supports the physician by enabling dose-efficient examinations, thereby significantly reducing the risk of skin burns. It includes special monitoring of the skin entry dose, taking into account the geometric conditions of the system (device angulation, table position). This ensures that the skin entry dose applied to a specific region of the patient's body will not exceed a specified threshold, thereby better protecting the patient from the harmful effects of X-radiation.</li> </ul> <p>Dose reporting</p> <ul style="list-style-type: none"> <li>- CAREreport: part of the DICOM Structured Report; displays the dose information in DICOM format after every examination. This creates an integrated DICOM data set consisting of images and dose information, which can be sent together to a DICOM archive. The display of dose information in DICOM format permits the flexible analysis and further processing via a DICOM-capable analysis software/database.</li> </ul> <p><b>CLEAR package</b>  The CLEAR package enables optimized image quality through real-time processing of the image data without increasing the radiation dose.</p> <ul style="list-style-type: none"> <li>- CLEARcontrol: The new histogram analysis provides a more homogeneous image impression by harmonizing over- and underexposed areas of the image. This is done fully automatically, thus eliminating any further manual user corrections through windowing.</li> <li>- CLEARview: Dose-dependent filtering of the image data efficiently suppresses image noise, enabling clear, sharp images, even for low-dose acquisitions.</li> <li>- CLEARvessel: Every pixel is analyzed in real time, and vessel edges are shown in high contrast without adding noise to the image.</li> <li>- CLEARmotion: Fine moving structures, such as small vessels and guidewires, are detected in the image and motion artifacts are suppressed efficiently. The visibility of small moving vessels and guidewires is improved significantly during fluoroscopy.</li> </ul> <p><b>Image processing</b></p> <ul style="list-style-type: none"> <li>- Positive/negative image display, windowing, contrast/brightness, electronic display (shutter), image shift (roaming), vertical and horizontal image inversion, magnifying glass, and zoom functions.</li> <li>- Storing of single images as reference images also during fluoroscopy.</li> <li>- Distance and angle measurement.</li> <li>- Text functions: user-definable image annotation, free annotation or by means of text components, comments line for the image, R/L display.</li> <li>- Fast and direct access to all series, single images, and photo file via MULTIMAP both in the examination and in the control room.</li> <li>- Possibility to name a scene in the image text before radiation is released.</li> <li>- Prepared for scanning technology</li> <li>- Object scan with constant moving speed of the C-arm and automatic exposure release. Long image display on the workstation.</li> </ul> <p><b>DVD / CD burner (DICOM)</b>  DVD drive for automatic digital image storage in the background on DVD-/CD-ROM for off-line data exchange in DICOM format.</p> <p><b>Networking</b>  Network interface (100 BaseT) with the following integrated DICOM services:</p> <ul style="list-style-type: none"> <li>- DICOM Send: Sending of images into the DICOM network.  The DICOM Send function enables fully automatic transfer of generated image data to a DICOM archive or a DICOM workstation. The user can perform his examinations without interruption, while the system is fully automatically transferring the images to the archive scene by scene. This is a background process, and thus does not interfere with the ongoing fluoroscopy or acquisition.</li> <li>- DICOM Storage Commitment (StC): Feedback from the image archive.  The DICOM StC function automatically gives feedback on whether the generated image data were successfully transferred. This provides the necessary certainty to the user before deleting the acquired</li> </ul>



Part No. / Product	Description
<p><b>(Continued)</b>  <b>14427220</b>  <b>Artis zee multi-purpose (Laser)</b></p>	<p>images locally in the imaging system.</p> <ul style="list-style-type: none"> <li>- DICOM-Query/Retrieve: Retrieval of archived images from a digital archive or from a workstation. The user can query image data from a previous examination or from a CT or MR system from the archive and display the data as a reference image in the examination room. There is no need for a separate workstation.</li> <li>- DICOM Print: Printing of images by means of a virtual filmsheet on a DICOM laser camera. Selecting "Auto-Print" automatically forwards the images stored in the virtual filmsheet to the laser camera. This optimizes the workflow, eliminating the need for user interaction. In addition, a specific layout can be configured on the virtual filmsheet, which the user can review and edit on the monitor at any time. As a result, printing is only required after the layout has been optimized on the monitor, saving time and costs.</li> <li>- DICOM Structured Report: All the quantification results obtained on the system as well as all dose information on the individual radiation releases can be saved in DICOM SR (Enhanced SR) format and transferred to a DICOM network.</li> </ul> <p><b>Note concerning DICOM interface(s):</b>  For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used.</p> <p>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>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.</p> <p>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.</p> <p><b>Accessories included in the scope of delivery</b></p> <ul style="list-style-type: none"> <li>- Footswitch for acquisition and fluoroscopy</li> <li>- Foot rest</li> <li>- 1 pair of hand grips</li> <li>- Attachment part for tableside control and patient table mattress</li> <li>- Trolley for securing the control elements.</li> </ul> <p><b>Siemens Remote Service</b>  Prepared for Siemens Remote Service SRS™ (during warranty, then with service contract):</p> <ul style="list-style-type: none"> <li>- Hardware and software remote diagnosis.</li> <li>- System remote configuration, e.g. adding of a DICOM node.</li> <li>- Early warning system ensuring system operation.</li> </ul> <p><b>syngo Evolve for Artis zee</b>  syngo Evolve is a service feature that is offered as a separate sales option for all systems of the Artis zee family. It is a key component of our upgrade strategy and allows the customer to take advantage of technological advancements.</p> <p><b>Customer Care. Life - the customer care solution by Siemens Healthcare</b>  From the moment you purchase your Siemens system you will benefit from many services that are offered by "Customer Care. Life", e.g.:</p> <ul style="list-style-type: none"> <li>- initial application training,</li> <li>- interactive e-learning for various applications,</li> <li>- free customer magazines,</li> <li>- arrangements for clinical training via a global network,</li> <li>- and free trial licenses</li> </ul> <p>You will find detailed information on our e-learning program and further details on general "Customer Care. Life" services on the internet.</p> <p>* The "Customer Care. Life" offerings are not necessarily available to the full extent for all systems.</p>

Part No. / Product	Description
<b>04482316</b> <b>DSA acquisition</b> <b>module 1k strg.</b>	<p>Digital subtraction angiography with frame rates of 0.5 to 7.5 f/s, including pixel shift, remask, roadmap, peak opacification for iodine contrast (MaxOpac) and CO<sub>2</sub> contrast (MinOpac); adding of the anatomical background (landmark) from 0 to 100%.</p> <p>Acquisition, display and storage in 1,024<sup>2</sup> matrix.</p> <p>Digital acquisition technology in 1,024<sup>2</sup>/12 bit matrix and with digital real-time filtration, single image and serial acquisitions between 0.5 f/s and 7.5 f/s with time-controlled and manually variable image frequency.</p>
<b>14404984</b> <b>PERISTEPPING /</b> <b>PERIVISION</b>	<p>Excellent image quality from the abdomen to the feet is due to the fact that adjustable parameters such as acquisition framerate, measuring fields, position of collimator blades and semitransparent filters are stored specifically for each table position. That way the different X-ray transparencies for abdomen, legs and feet can be compensated and a consistent, contrasty image quality is provided.</p> <p>Just one single injection of contrast media protects the health of the patient and gives the physician an instant, subtracted image display of the peripheral blood vessels.</p> <p><b>PERISTEPPING:</b>  Peripheral digital stepping angiography with only a single contrast medium injection under visual control of the bolus flow.  C-arm stepping with ceiling mounted systems, table stepping with floor mounted and biplane systems.</p> <ul style="list-style-type: none"> <li>- Position-dependent variable frame rates.</li> <li>- Fully automatic exposure control.</li> <li>- Automatic storage of the collimator settings for each step.</li> </ul> <p><b>PERIVISION:</b>  Peripheral digital stepping angiography with online subtraction display in an examination procedure with only one single contrast medium injection under visual control of the bolus flow.</p> <ul style="list-style-type: none"> <li>- Only one single automatically acquired mask image for each individual position.</li> <li>- Position-dependent variable frame rates.</li> <li>- Fully automatic exposure control.</li> <li>- Automatic storage of the collimator setting for each step.</li> </ul>
<b>14407152</b> <b>DCS 2 DVI 2xBWD-19</b> <b>(Live+Ref.)</b>	<p>Ceiling-mounted, swiveling, rotating, height-adjustable display suspension system with longitudinal travel with two 19" high-contrast b/w displays for live and reference image display.</p> <p>Displays in monochrome TFT technology with high luminance and extended viewing angle.</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) monitor.</li> <li>- Resolution: 1,280 x 1,024 (pixel).</li> <li>- Maximum brightness (typ.): 1.000 cd/m<sup>2</sup>.</li> <li>- Flicker-free and distortion-free image display.</li> <li>- Ambient light sensor for optimum adaptation to the room brightness.</li> </ul>
<b>14407166</b> <b>C-Room DVI 1xBWD-19 (Live) -36m</b>	<p>19" high-contrast b/w display for live image display, as well as syngo operation in the control room. Table design with black frame.</p> <p>Display in monochrome TFT technology with high luminance and extended viewing angle.</p> <ul style="list-style-type: none"> <li>- 19" (48 cm) monitor.</li> <li>- Resolution: 1,280 x 1,024 (pixel).</li> <li>- Maximum brightness (typ.): 1.000 cd/m<sup>2</sup>.</li> <li>- Flicker-free and distortion-free image display.</li> <li>- Ambient light sensor for optimum adaptation to the room brightness.</li> </ul>
<b>04435850</b> <b>Vessel analysis</b>	<p>Measuring program integrated in the imaging system for objective, precise and reproducible evaluation of vessels.</p> <ul style="list-style-type: none"> <li>- Automated contour detection.</li> <li>- Determination of degree of stenosis.</li> <li>- Automatic and manual reference diameter determination.</li> </ul>

Part No. / Product	Description
<b>(Continued)</b> <b>04435850</b> <b>Vessel analysis</b>	<ul style="list-style-type: none"> <li>- Automatic and manual calibration methods.</li> <li>- Distance and angle measurement.</li> </ul> <p>The vascular analysis allows precise quantification under sterile conditions, direct at table side with the touchscreen control. This speeds up the intervention and makes the procedure safer for the patient. The reports can be easily stored in the patient folder for documentation and to show the correct analysis of dilatations etc. Especially to be used for vessel sizes between 3mm and 42mm.</p>
<b>04435801</b> <b>Automap</b>	<p>Optimized procedure workflow, especially during interventions is the result of the automap-function. A selected reference image displaying the needed medical information (e.g. before dilatation) is used as the basis for moving the system to the correlated position automatically. The intervention can be continued immediately without manually repositioning the patient. Vice versa, an already stored reference image for a dedicated system position is automatically displayed when automap is selected, making it easy to switch from one angulation to another with instantly available image information.</p>
<b>04435926</b> <b>DICOM HIS / RIS</b>	<p><b>DICOM MWL (Modality Worklist):</b>  Import of patient/examination data from an external RIS/HIS patient management system.</p> <p><b>Note concerning DICOM interface(s)</b>  For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used.</p> <p>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>Functionalities across system borders 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.</p> <p>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.</p>
<b>04491960</b> <b>DICOM MPPS</b>	<p><b>DICOM MPPS (Modality Performed Procedure Step)</b>  Sending of dose data, patient data, and examination data to an external RIS/HIS patient management system.  Sent in MPPS:</p> <ul style="list-style-type: none"> <li>- <b>Total dose-area product</b></li> <li>- <b>Number of exposures</b></li> <li>- <b>kV per image (DICOM Exposure Dose Sequence)</b></li> <li>- <b>ms per image</b></li> <li>- <b>mA per image</b></li> </ul> <p><b>Note concerning DICOM interface(s)</b>  For diagnostic purposes, only hardcopy cameras/laser printers explicitly approved for this system may be used.</p> <p>The description in the DICOM Conformance Statement downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p> <p>Functionalities across system borders 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.</p> <p>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.</p>
<b>04435744</b> <b>Lower body radiation protection rig</b>	<p>For lower body radiation protection against scattered radiation, a fixed radiation protection (0.5 mm Pb equ.) can be attached to the supplied accessory rail.</p> <p>Even with Trendelenburg positions of up to <math>\pm 15</math> degrees, there is secure protection without restriction of acquisition projections or of system control and intervention. The insertable upper element with a height of 24 cm is slightly</p>

Part No. / Product	Description
<b>(Continued)</b> <b>04435744</b> <b>Lower body radiation protection rig</b>	inclined by 30 degrees towards the patient.
<b>14401912</b> <b>Upper Body Rad. Protection Artis-F</b>	<p>Radiation protection attached via a ceiling-mounted, mobile stand for protection against scattered radiation; inc. 4 m ceiling rail.</p> <ul style="list-style-type: none"> <li>- Swivable and rotatable around the fixing point, range of rotation 360°.</li> <li>- Counter-balanced, height-adjustable support arm.</li> <li>- Acrylic glass with Pb equivalent of 0.5 eq (w x h: 61 cm x 76 cm).</li> </ul>
<b>14427095</b> <b>syngo Keyboard, English - US</b>	Keyboard for easy operation of syngo (browser, viewer, filming). There are special keys for windowing, scrolling, printing, marking and network communication.
<b>14407210</b> <b>Emergency power image system</b>	<p>Bridging of the imaging system power supply (50/60 Hz) until line voltage is back. In case of power failures of more than 90 seconds the imaging system will be shut down automatically. Nominal power: 2.2 kW</p> <p>According to the new IEC standard, this emergency power supply is required for interventional radiology, interventional cardiology, and surgical angiography if no emergency power supply is available on site.</p>
<b>04443243</b> <b>Armholder (pair)</b>	For Artis tabletops, the two arm holders help to laterally position the arms comfortably along the patient's body. They are slid laterally underneath the mattress, level with arms, and fixed by the patient's body weight. The patient's arms can be immobilized with commercially available fixing straps. Two pairs of arm holders of different length and height (matching the mattress height) are supplied, that are suitable both for thick and thin mattresses.
<b>M2ART700PEDL</b> <b>Mark 7 Arterion, Pedestal System</b>	<p>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.</p> <p>The injector system includes:</p> <ul style="list-style-type: none"> <li>- A mobile pedestal stand with electronics unit, a contrast medium heater and a connection cable to the manual release.</li> <li>- A support arm with injector head and a control lever for moving the injector head.</li> <li>- A user control console with large touch screen and corresponding additional monitoring display on the injector head.</li> </ul> <p><b>Functions</b></p> <p>Pressure limitation:</p> <ul style="list-style-type: none"> <li>- for 150 ml syringes 689 to 8273 kPa, corresponds to 100 to 1200 psi. .</li> </ul> <p>Flow rates for 150 ml syringes:</p> <ul style="list-style-type: none"> <li>- 0.1 to 45 ml/s in increments of 0.1 ml/s</li> <li>- 0.1 to 59.9 ml/min in increments of 0.1 ml/min</li> <li>- rise/fall: 0 to 9.9 s in increments of 0.1 seconds</li> </ul> <p>Release delay for injection or radiation:</p> <ul style="list-style-type: none"> <li>- 0 to 99.9 s in increments of 0.1 s.</li> </ul> <p>Adjustable volume for 150 ml syringes:</p> <ul style="list-style-type: none"> <li>- 1 ml to the max. syringe capacity in increments of 1 ml.</li> </ul> <p>Fill rate:</p> <ul style="list-style-type: none"> <li>- Variable syringe filling speed 1-20ml/s.</li> </ul>

Part No. / Product	Description
<p><b>(Continued)</b>  <b>M2ART700PEDL</b>  <b>Mark 7 Arterion,</b>  <b>Pedestal System</b></p>	<p>Injection protocols:</p> <ul style="list-style-type: none"> <li>- Up to 40 injection protocols possible.</li> </ul> <p>Parameters currently displayed on the touch screen display and on the head display:</p> <ul style="list-style-type: none"> <li>- Injection speed</li> <li>- Injection volume</li> <li>- Remaining volume</li> <li>- Injection duration</li> <li>- Applied pressure</li> </ul> <p>Contrast medium heating:</p> <ul style="list-style-type: none"> <li>- Nominal 35°C (95°F)±5°C (9°F)</li> </ul> <p>Injection data memory</p> <ul style="list-style-type: none"> <li>- Up to 50 injection data items stored</li> </ul> <p><b>Included in the scope of delivery</b></p> <ul style="list-style-type: none"> <li>- Injector standard configuration 150 ml</li> <li>- SIEMENS interface cable</li> <li>- Operator Manual</li> <li>- Service manual (English).</li> </ul> <p><b>Power supply</b>  200 V to 250 V; 50/60 Hz.</p>
<p><b>NT60010635</b>  <b>Blue anti-fatigue</b>  <b>floor mat for hospital</b></p>	<p><b>NT60010835 Interstate Mat Corporation Anti-fatigue Mat</b></p> <p>Industrial-grade anti-fatigue floor mat that provides comfort and durability. As a high-quality product designed to fight fatigue, it provides support for tired, aching feet, legs and back. Beveled edges for safety. Size 3'x5'.</p>