

SHIP TO:  
WAREHOUSE B80805  
V.A. Medical Center  
50 IRVING STREET NW  
WASHINGTON, DC 20422

P.O.# 688-B80805

Qty	Item Description
1	<p data-bbox="397 772 643 800"><b>Luminos Agile Max</b></p> <p data-bbox="397 810 1294 978">Luminos Agile Max is a highly versatile table side controlled X-ray diagnostic system meeting all requirements with respect to ease of use, image quality, connectivity and low dose. The lifting table and the widest table/detector distance in the market are specially designed to accommodate the growing population of obese and bariatric patients. It features full tableside control of system movements and imaging parameters and allows you to stay with the patient throughout the examination such as interventional procedures (e.g. ERCP) or pediatric patients.</p> <p data-bbox="397 1014 1294 1062">The large 43 cm x 43 cm MAX dynamic flat detector ensures excellent coverage and provides high-resolution images for more accuracy and efficiency.</p> <p data-bbox="397 1098 1294 1167">The syngo FLC digital one-stop workflow from patient registration to image documentation offers fast and easy operation for consistent exam settings and a consistent image impression.*</p> <p data-bbox="397 1203 899 1230">Following items are included in the standard delivery:</p> <ul data-bbox="397 1236 967 1587" style="list-style-type: none"><li>- Optitop tube</li><li>- 65 kW generator</li><li>- Display for live image in the control room</li><li>- Keyboard/Mouse</li><li>- Table tilt + 90°/- 20°</li><li>- Caremax</li><li>- Storage capacity: 2.000 RAD images / 50.000 DFR images</li><li>- DICOM Send and Print</li><li>- Diamond View Plus</li><li>- Harmonization (DDO)</li><li>- CD / DVD recorder</li><li>- Carevision</li></ul> <p data-bbox="397 1623 1294 1671">* The description in the "DICOM Conformance Statement" downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).</p>
1	<b>MAX wi-D</b>
1	<p data-bbox="397 1734 812 1761"><b>MAX wi-D Clip-on Grid 5/85 F115</b></p> <p data-bbox="397 1768 594 1795">Grid (5/85), f 115 cm</p> <p data-bbox="397 1801 1011 1829">Highly selective anti-scatter grid for scattered radiation reduction:</p> <ul data-bbox="397 1835 743 1881" style="list-style-type: none"><li>- Pb 5/85 (grid ratio 5:1, 85 lines/cm)</li><li>- Grid focusing for SID 115 cm (45")</li></ul>

Qty	Item Description
1	<p><b>WLAN</b></p> <p>WLAN functionality to connect MAX wireless detectors to the system.</p>
1	<p><b>Charger f. MAX wi-D and MAX mini</b></p> <p>This charger can be used to charge the replacement batteries for the MAX mini and MAX wi-D detectors.</p> <p>Please note: The MAX mini battery can only be charged with this charger.</p>
1	<p><b>Transparent grid 13/92, Universal</b></p> <p>Highly selective anti-scatter grid for scattered radiation reduction.</p>
1	<p><b>80 kW Upgrade</b></p> <p>An upgrade of the high-frequency X-ray generator from 65 kW to 80 kW power, to improve performance and expand the spectrum of possible applications.</p>
1	<p><b>Ysio Max Option</b></p> <p>The Ysio Max option adds full radiographic versatility to the system especially enabling cross table examinations and high-throughput radiography workflow.</p> <p>Ysio Max is a universal digital radiographic workplace for skeletal radiography of the recumbent, standing or seated patient. It is seamlessly integrated into the control of the system. One or more portable flat detectors can be integrated, depending on the configuration, for a fully digital imaging chain.</p>
1	<p><b>DAP meter CAREmax 2nd plane</b></p> <p>CAREMAX Dose Area Product (DAP) meter tracks and displays the Dose Area Product (DAP) and/or standardized patient entrance dose.</p>
1	<p><b>Bucky wall stand</b></p> <p>Floor-mounted Bucky wall stand with height-adjustable and tiltable detector tray for a MAX wi-D flat detector for digital acquisitions.</p> <p>With IONTOMAT three-field chamber and Bucky frame. Vertical height adjustment and detector tilt possible from both sides.</p>
1	<p><b>CAREPROFILE - C</b></p> <p>Reduces dose for patients and staff by radiation free collimation. The collimator blades are placed using the last-image-hold for orientation.</p>
1	<p><b>Fluoroloop - C</b></p> <p>Storage and review of fluoroscopy sequences for documentation. The maximum storable fluoroscopy time depends on the selected pulse rate.</p>
1	<p><b>Display trolley 1 with 1 display</b></p> <p>Mobile trolley with one tiltable flat display in TFT technology (high luminance and extended viewing angle) for live image display in the examination room and radiation indicator.</p>
1	<p><b>DICOM WORKLIST &amp; MPPS</b></p> <p>Import of patient/examination data from an external RIS (Radiology Information System) /HIS (Hospital Information System) patient management system with DICOM MWL (Modality Worklist) as well as feedback on the examination status with DICOM MPPS (Modality Performed Procedure Step).</p>
1	<p><b>External DVI interface</b></p> <p>Standard video output (DVI-D format) at the FLUOROSPOT Compact, for connecting an external recorder to record image information on video recording media.</p>

Qty	Item Description
1	<p><b>IPV6 NAT Router</b></p> <p>This router enables data transmission via IPv6 network.</p>
1	<p><b>VA Kit</b></p> <p>Second set of documentation for Veterans' Affairs Administration Hospitals in the U.S.</p>
1	<p><b>Initial onsite training 24 hrs</b></p> <p>Up to (24) 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.</p>
1	<p><b>Additional onsite training 16 hours</b></p> <p>Up to (16) 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 purchase date. If training is not completed within the applicable time period, Siemens obligation to provide the training will expire without refund.</p>
1	<p><b>Standard Rigging Fluoro</b></p>
1	<p><b>Eaton 5P 850G Tower UPS</b></p> <p>850VA / 600W  Input: IEC C14  Output: (6) IEC C13  Dimensions (H x W x D): 9.1" x 5.9" x 13.6"  Weight: 23.0 lbs.  Run Time @ Full Load: 4 min.  Run Time @ Half Load: 14 min.</p>
	<p>This product is not OSHPD certified.</p>
	<p>Includes two year limited warranty with depot exchange through Eaton.</p>
1	<p><b>Mobile detector holder for Max wi-D</b></p> <p>The versatile holder accommodates computed radiography (CR) cassettes and light portable DR Panels (including the max wi-D detector) with a total weight (including clip-on grid if required) of less than 4.3kg (9.5 lbs).</p> <p>The holder rolls on large locking castors and facilitates examinations in accident and emergency departments, in operating rooms and radiographic rooms. The heavy duty base gives a low center of gravity.</p> <p>Properties:</p> <ul style="list-style-type: none"> <li>• The holder is adjustable for height from floor level to 50 in (measured from its lower edge)</li> <li>• The holder is counterbalanced for easy rising or lowering and can overhang the x-ray or operating table by 24 in.</li> <li>• Supports detectors with a width of 9.6 to 21 in</li> <li>• Maximum detector thickness 1.2 in (including clip-on grid if required)</li> <li>• The holder can be turned &amp; tilted and orientated to suit any examination position</li> <li>• Effective locks keep the holder firmly in place</li> </ul>

**Qty**

**Item Description**

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**teamplay Welcome & Registration Package**

teamplay is a cloud-based network that brings together your imaging modality users, the systems' dose and utilization data, and the users' expertise to help you improve the delivery of care to your patients. Basic features are provided free of charge. Premium features (benchmarking, non-Siemens devices) are provided on a trial basis for three months at no charge, and may be used thereafter on a subscription fee basis.

To register: <http://teamplay.siemens.com/#/institutionRegistration/1>

**One complimentary biomedical tuition is included with the purchase of this system.**

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**Offset onsite Training 16 hrs )**

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**Offset onsite Training 24 hrs**

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## OPTIONS

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## OPTIONS

Qty	Item Description
1	<b>Trendelenburg 50°</b> Table tilt controllable in 2 steps from +90 degrees to max. 50 degrees Trendelenburg position.
1	<b>Compression device</b> The remote-controlled compression device is used for local compression of body parts (especially the abdomen) during examination. It can be moved in and out motorized.
1	<b>Manual Control Bucky Wall Unit</b> Wired remote control for system functions.
1	<b>Careposition C</b> Reduces dose for patients and staff by radiation-free object positioning. The region of interest is placed using the last-image-hold and displaying the X-ray center beam as well as the image edges graphically.
1	<b>Advanced security package</b> Software extension for workplaces adding advanced security features. It includes advanced user management (active directory integration, Individual password management, user authorization), audit trail management (detailed tracking of user and system actions, centralized automated logging) and DICOM encryption.
1	<b>Compression Belt</b> Belt compression device used for patient compression during thoracic or abdominal examinations as well as for safe positioning of restless or frail patients. Compression is achieved by means of an easy to clean, radiolucent plastic belt with a ratcheting tension lever.  Advantages of compression: - Quick and safe securing of patient to the tabletop. - Reduction of patient thickness, i.e. improvement of image quality through reduction of scattered radiation.
1	<b>Leg Support (left and right)</b> Leg supports are required for gynecological and urological examinations. They can be adjusted in height and for leg positioning; the holders are shaped to conform to the anatomy of the knee joint. Attachment at the head end of the table in connection with the attachment frame for the footrest. The leg support is attached with a clamping device and clamping bolts.  Weight: 4.4 kg (9.7 lbs)
1	<b>Patient positioning mattress</b> Radiolucent table pad with a heavy-duty, soft, light-colored plastic cover that is easy to clean. The soft cushion allows comfortable patient positioning and repositioning. To prevent the pad from sliding during head-up positions, the straps of the patient table pad can be attached to the grip protection rail at the head end.

**Qty**

**Item Description**

The soft cushion allows comfortable patient positioning and repositioning.

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**Handgrip rail waved**

Detachable handgrip rail (waved) that can be attached to the lateral tabletop accessory rails for safe patient positioning.

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**Portable DR Panel Protector(14x17)**

The unique design of the DR Panel Protector provides an easy way to take weight-bearing x-rays of feet (AP view). The unit is simply placed over the DR panel which is first positioned on the floor. Patients step onto the DR Panel Protector with as much weight as needed to get the desired image. The face plate is made of polycarbonate designed to support patients weighing up to 500 pounds. The face plate is x-ray lucent, allowing the x-rays to pass through the DR Panel Protector with no significant absorption or scattering. The non-slip rubber floor grips keep the DR Panel Protector from slipping on a hard floor. The Panel Protector frame is notched to accommodate the cable connection from the digital DR panel to the host system. One year warranty through Clear Image Devices

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**TIMS 2000 SP Package with Mobile Cart Si**

Includes: TIMS 2000 SP desktop system, Mobile Cart, 24" touch screen monitor, one license of TIMS DICOM Review Software (TDRS), wireless microphone, keyboard, mouse, and associated cables.

Description: Provides for the high resolution video and synced audio recording, review, analysis, and archiving to PACS of modified barium swallow studies for speech pathology. The system is positioned on a mobile cart in the procedure area, allowing for more flexibility and in-study review and analysis of video and audio. Also includes one license of TIMS DICOM Review Software (TDRS) for the remote review and analysis of studies in the speech pathology office area. This allows for more efficient use of the fluoroscopy room because studies are sent immediately to the TDRS system at the completion of the study. With this workflow, the fluoroscopy room is immediately available for the next patient, allowing more studies per day. Speech pathologists can then edit, review, label, analyze, and archive to PACS studies from the comfort of their own office. Onsite installation and training is included when purchased with a new Siemens' system. When purchased to upgrade an existing system, the customer is responsible for room preparation and cable installation per Foresight Imaging's planning guide. Additional costs may be required for a Siemens service engineer.

Warranty: Support & Maintenance for one year. Includes technical support via telephone, email, and online on regular business days from 8:00am to 8:00pm EST, downloadable software updates, and in the event of a hardware failure, a replacement system is sent within two business days.

# Detailed Technical Specifications

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## Description

### System configuration

#### Patient positioning

Patient positioning table easily accessible from all sides, tiltable from +90° to max. 20° Trendelenburg position.

- Table height adjustable from 65 cm to 112 cm (min. fluoro height 82 cm)
- Patient positioning tabletop 210 cm x 80 cm with examination range over the entire radiolucent part (193 cm x 53 cm). Motorized longitudinal travel  $\pm$  80 cm and transverse travel  $\pm$  17.5 cm.
- Foot rest attachable at head or foot end, up to a load of 230 kg.
- Comprehensive collision protection within the travel range of the image receptor.

Patient weight:

- Up to 150 kg - No restriction.
- 150 kg -182 kg (400 lbs) Patient longitudinal travel  $\pm$  40 cm with slow movement, table tilt unrestricted.
- Between 181 kg and 230 kg if tabletop is in center position. Table tilt from + 90° to - 15°.
- Between 231 kg and 275 kg if tabletop is in center position.

Interventions up to a patient weight of 250 kg (plus 50 kg still possible for CPR).

#### Flat detector image receptor

- Distance focus - tabletop 60 cm.
- SID from 89 cm to 125 cm.
- Primary collimator with rectangular format.
- Highly selective anti-scatter grid Pb 15/80, grid ratio 15:1, 80 lines/cm. Grid focusing for SID 100 cm.

Transparent grids improve the image quality by reducing scattered radiation on the film.

#### Flat detector:

The digital high-resolution MAX dynamic flat detector with integrated removable grid is especially designed to fulfill the requirements of general and interventional applications.

- Semi-conductor material: Amorphous silicon (a-Si) with CsI-(scintillator)
- Size 43 cm x 43 cm
- Pixel size: 148  $\mu$ m (6.76 pixel per mm)
- Physical size of matrix: 2880 x 2880 (8.3 million pixels)
- Size of active matrix: 2840 x 2874 (8.2 million pixels)
- Detail resolution: 3.4 LP/mm
- Acquisition depth: 16 bits

148  $\mu$ m pixel arrays provide highest spatial resolution 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 8 f/s are possible.

Usable input formats:

- Overview: 43 cm x 43 cm; diagonal 60 cm.
- Zoom 1: 30 cm x 30 cm; diagonal 42 cm.

## Description

- Zoom 2: 22 cm x 22 cm; diagonal 32 cm.
- Zoom 3: 15.5 cm x 15.5 cm; diagonal 21 cm.

### Operation

Ergonomic tableside user interface on the system, comfortable for both left- and right-handed users. Integrated system operation and total tableside examination control.

- OPTI Grip for fast and easy movement of the flat detector image receptor and single-handed system operation.
- Touch user interface for interactive control of all system functions.

### Footswitch FL/R:

The footswitch combination with two separate switch pedals provides ergonomic work support. During fluoroscopy-guided patient examinations, the user's hands remain free for the examination.

Fluoroscopy is switched on and off by foot. During fluoroscopy, targeted radiographic acquisitions can be released by foot, as well.

### Accessories included in basic version

- Hand grip, front, axial adjustment.
- Hand grip rail, back, axial adjustment.
- Grip protection rail, head end, removable.
- Shoulder supports (1 pair), three-dimensional adjustment.
- Foot board, axial adjustment by 44 cm, can be used at head end or foot end.
- Protective film for fluids
- Radiation protection, complete
- Counterweight for radiation protection

### OPTITOP 150/40/80HC-100 undertable X-ray tube assembly

X-ray tube OPTITOP 150/40/80 HC-100:

- Single-track, dual-focus rotating anode tube with compound anode (rhenium-tungsten, molybdenum, graphite)
- High heat storage capacity and high thermal load capacity for small focal spots. Integrated overpressure safety device in the tube protective housing.
- 150 kV nominal voltage acc. to IEC 60613.
- Nominal radiographic anode input power acc. to IEC 60613 (focal spot nominal values acc. to IEC 60336):  
47 kW: small focus 0.6  
85 kW: large focus 1.0
- Anode speed  $\geq$  8,500 rpm, anode angle 12°.
- Heat storage capacity of the anode 580 kJ (783 kHU) acc. to IEC 60613.
- Nominal radiographic anode input power acc. to IEC 60613 (focal spot nominal values acc. to IEC 60336)

### Generator Polydoros

High-frequency X-ray generator with multipulse voltage waveform for diagnostic acquisition techniques. The multipulse voltage waveform enables high data accuracy, precise reproducibility and short exposure times.

- Rating:  
65 kW at 100 kV acc. to IEC 60601-2-7.  
max. 800 mA at 79 kV
- Tube voltage 40 kV to 150 kV.
- Fluoroscopy, 450 W from 40 kV/0.2 mA to 110 kV/23 mA, pulsed fluoroscopy
- Shortest exposure time 1 ms (with IONTOMAT automatic exposure control). Free selection of the exposure data in 3- and 2-point technique.
- 1-point technique with continuously falling load (with IONTOMAT).
- Plani-IONTOMAT for tomography (option).
- CAREMATIC system for 0-point technique.

## Description

- Time and mAs post indication (with IONTOMAT operation).
- Fluoro mean value indication.
- Organ programs can be edited by the user.
- Tube load computer with opto-acoustic warning indicator.

Power connection:

3 phase current: 400 V (-15, +10%); 50/60 Hz.

Option: 440/480 V.

### Multileaf collimator

Undertable multileaf collimator with rectangular collimation for automatic format collimation. Motor-driven Cu prefilters.

### CAREMAX

Electronic unit with KermaX-Plus, a measurement chamber integrated into the collimator housing for acquisition and fluoro systems to record the dose area product and/or standardized patient entry dose.

### 19" Flat display

- TFT flat-screen display for live image display in the control room.
- Flicker-free and distortion-free image display.
- Screen size: 19"(48 cm).
- Resolution: 1280 x 1024 pixels.
- Maximum brightness:  $\leq 800$  cd/m<sup>2</sup>.

### Imaging system

High-resolution digital imaging system with innovative image display, DICOM network connection and syngo-like user interface. It was optimized for general fluoro and multi-functional workplaces.

With the FLUOROSPOT Compact both single acquisitions and series from 0.5 to 8 images per second in 1440<sup>2</sup> matrix can be made and reviewed dynamically.

The digital acquisition process produces continuously high-quality images for all fluoroscopy-guided contrast medium examinations, skeletal acquisitions and interventional procedures.

### Operating modes:

- Digital radiography (DR) with up to 2, 880<sup>2</sup>/12-bit matrix.
- CAREVISION: Pulsed fluoroscopy with selectable pulse frequencies 3 f/s, 7.5 f/s, 10 f/s, or 15 f/s in 1024<sup>2</sup>/12-bit matrix.
- High-speed fluoro at 30 f/s in Zoom 2 (22 cm x 22 cm) and Zoom 0 (43 cm x 43 cm)  
Pulsed fluoroscopy is especially suitable for time-intensive examinations to reduce the radiation dose for physician, staff, and patient.
- Display and storage of the last fluoroscopic image after switching off radiation (Last Image Hold).
- Single image and serial mode up to 1,440<sup>2</sup>/12-bit or 1,024<sup>2</sup>/12-bit matrix (depending on zoom).
- Serial mode (max. 8 f/s) with variable frame rate in three steps (max. 1,440<sup>2</sup>/12-bit matrix).
- DDO (Dynamic Density Optimization) for on-line harmonization of native series and single images.
- Live auto-windowing during fluoroscopy
- Live auto-shutter during fluoroscopy

### Image processing:

- Real-time edge enhancement, positive/negative image display, windowing, contrast/brightness, electronic display (shutter), image shift (roaming), vertical and horizontal image inversion, and magnifying glass and zoom functions.
- DiamondView Plus: multi-scaling procedure for image post-processing with high detail contrast and reduced noise. Filter size and strength are weighted differently and are used for adaptation to the overall image content. DiamondView Plus enhances the signal exploitation of the dynamic range and improves the organ-

## Description

specific detail contrast (soft tissue and bone). Can be preset in the organ program, and can subsequently be selected or deselected.

- Storing of single images as reference images also during fluoroscopy.
- Quantification: angle/length measurement, automatic and/or manual calibration.
- Text functions: User-defined image annotation, free annotation or using text components, comment line for the image, R/L display, image report and image quality graphics.
- Image gallery for harmonization (visualization support for image post-processing)

### Image display:

Image review and display in 100 Hz progressive display (1,024<sup>2</sup> matrix) through high-resolution, flicker-free flat-screen displays.

- Screen layout with 4, 9, 16, 25, or 36 images of an examination.
- Display of R/L marks.

### Image storage capacity:

50,000 images for permanent storage in 1k/12-bit matrix and 2,000 images for permanent storage in 2840 x 2880 matrix.

### **DVD / CD burner (DICOM)**

DVD drive for automatic digital image storage on CD/DVD for offline data exchange in DICOM, TIFF, and AVI format.

### **Connectivity**

- DICOM Send: Digital, unidirectional image transfer of single images or complete folders to a network in DICOM format.
- DICOM Print: Provision of DICOM Print service for connection to a laser camera or a network printer (postscript-capable).
- DICOM Storage Commitment (StC): The network/archive sends a receipt acknowledgment for images/folders to the image system in DICOM format.
- DICOM Dose structured report: Enables transfer of dose report to archiving or viewing station.

### **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 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.

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.

### **syngo Remote Assist**

*syngo* Remote Assist is a standalone service option.

With *syngo* Remote Assist, Siemens uses a secure broadband VPN connection (VPN = virtual private network) to establish a connection to your Siemens imaging console in order to offer you direct, real-time support and training. This seamless and simultaneous virtual interaction will contribute to improvements in image quality and optimization of system use.

### **Smart Remote Service**

System Management software package to support Smart Remote Service (SRS) with the following functions:

- Basic package Smart Remote Service for Diagnostics and Repair, Quality Assurance and Software Maintenance.
- System remote configuration, e.g. adding of a DICOM node.

## Description

- Early warning system to secure system operation.
- The functions are made available in accordance with the maintenance contract package.

Prerequisite for the early warning system is a permanent connection to the system via LAN and router. It is the project manager's task to make this available on-site.

### Power connection for the entire X-ray system

Basic version: 3/N/PE ~400 V ( $\pm 10\%$ ) for 50/60 Hz line frequency.

Option: 3/N/PE ~440/480 V ( $\pm 10\%$ ) at 50/60 Hz via line adaptation transformer.

### Technical details:

- CsI scintillator, amorphous silicon (a-Si).
- Detector acquisition matrix approx. 2872 x 2354
- Pixel size 148  $\mu\text{m}$
- Acquisition depth (gray scales) 16 bit
- Acquisition formats up to 34,9 cm x 42,5 cm (13,7" x 17")
- Thickness 19mm
- Data transfer via W-LAN
- Operation time:
  - min. 3.5 hours during regular utilization
  - min. 6 hours in standby mode
- Detector weight 3 kg
- Max. load 150 kg (patient lying down) and 100 kg (patient standing)

### Technical details:

- Grid ratio 5:1, 85 lines/cm
- Grid focusing for source-image-distance (SID) of 115 cm (45")
- Dimensions (W x H x D): 472.1 mm x 410.1 mm x 28.4 mm (18.58"x 16.14"x 1.1")
- Weight: 1.1 kg (2.4 lbs)

Space for 3 batteries, with LED indicator for charge status. The charger connects to a wall socket using a power cord.

This item includes the following components:

- 1x battery charger
- 1x power supply
- 1x battery

### Technical details:

- Grid ratio 13:1, 92 lines/cm
- Grid focusing for source-image distance (SID) of 140 cm (55")
- Working range (SID) 115 cm to 180 cm (45" to 71")

### Performance data:

- 80 kW at 100 kV according to IEC 60601  
max. 1000 mA

## System Configuration

## Description

The Ysio Max digital workplace is especially suited for a high patient throughput. As a universal workplace, the system is primarily used in X-ray departments of hospitals, in radiological and partly radiological offices with high patient throughput and standardized acquisition technology.

Basic system components:

- A ceiling-mounted tube assembly support with X-ray tube assembly and motorized multileaf collimator.

### **Tube assembly support**

with X-ray tube assembly and motorized collimator.

All projection-relevant tube assembly positions can be manually adjusted with handles symmetrically mounted to the tube assembly collimator unit.

The ceiling-mounted tube assembly support can be adjusted in 3 axes for longitudinal, transverse, and height adjustment (x, y, and z-axes).

- Horizontal travel range in longitudinal direction 346 cm.
- Horizontal travel range in transverse direction 220 cm or 355 cm (depending on room planning).
- Vertical lift 180 cm.

In 2 further axes ( $\alpha$ - and  $\beta$ -axes) the tube assembly collimator unit can be manually adjusted for oblique acquisitions of the recumbent patient, or for horizontal, oblique, or lateral acquisitions on the portable detector, or for free bedside acquisitions.

- Rotation around the vertical axis of the ceiling-mounted support from  $+154^\circ$  to  $-182^\circ$ . Lock-in positions every  $90^\circ$ .
- Rotation around the horizontal axis of the tube assembly support arm  $\pm 140^\circ$ . Lock-in positions at  $0^\circ$  and  $\pm 90^\circ$ .

X-ray tube assembly OPTITOP 150/40/80 HC-100:

- Single track dual -focus rotating anode tube with compound anode (rhenium-tungsten, molybdenum, graphite)
- high heat storage capacity and high thermal load capacity for small focal spots. Integrated overpressure safety device in the tube protective housing
- Nominal voltage 150 kV acc. to IEC 60613
- Nominal radiographic anode input power acc. to IEC 60613 (focal spot nominal values acc. to IEC 60336):  
47 kW: small focus 0.6  
85 kW: large focus 1.0
- Anode speed  $\geq 8,500$  r/min, anode angle  $12^\circ$ .
- Heat storage capacity of the anode 580 kJ (783 kHU) acc. to IEC 60613.
- Nominal radiographic anode input power acc. to IEC 60613 (focal spot nominal values acc. to IEC 60336):

### **Multileaf collimator:**

With full field and laser line light localizer. Rectangular collimation, manual and motorized, via organ programs.

- Multileaf collimator rotatable by  $\pm 45^\circ$  around the center beam axis, e.g. for correct positioning of objects.
- A tape measure is integrated to check the focus-to-object distance.
- To improve radiation quality through dose reduction of the soft radiation parts, Cu filters (0.1 Cu; 0.2 Cu and 0.3 Cu) are inserted into the primary beam projection, depending on the organ program selected. They can also be selected manually.

Option:

A measuring chamber for the dose area product can be integrated into the multileaf collimator.

### **Controls and displays**

The control elements at the tube assembly and the multileaf collimator are ergonomically arranged for single-handed operation.

Controls and displays at the tube assembly support (MAXTouch):

Multifunctional control display with color touchscreen for adaptation of acquisition parameters directly in the

## Description

examination room.

Displays include:

- The collimation size of the acquisition field (in cm x cm).
- The selected SID.
- The selected Cu additional filters.
- Rotation from the 0-position.
- Tube assembly and detector centering.
- Operating states such as "ACSS/Manual", "Ready", "Selected", etc.

The display follows the tube assembly orientation.

The following functions can be set manually at the multileaf collimator:

- Full field light localizer with timer for optical display of the collimated acquisition format and an optionally coverable laser line light localizer.
- The collimation of the acquisition format set last can be retrieved via a memory button.
- The rectangular collimation of the radiation field is pre-defined through the organ program and can be set manually by means of two dials.
- The motorized insertion of the Cu additional filters is controlled via the organ program, but can also be selected freely.

CAREMAX plus Dose Area Product (DAP) meter is connected to the collimator via CAREMAX adapter cable. The Dose Area Product (DAP) is being displayed on the FLC image system and recorded in the exam protocol.

The Bucky wall stand is a floor-mounted, stand-alone or wall-mountable grid acquisition system with a height-adjustable and tiltable detector tray with tray support and the ability to insert a MAX wi-D flat detector as the digital image acquisition system.

It is especially suited for acquisitions of skeletal radiography of the standing and seated patient:

- Orthopedic diagnostics.
- Thorax and general diagnostics.
- Trauma and ER diagnostics.

With this Bucky wall stand more profound diagnostic requirements for acquisitions of thorax (lungs), abdomen, pelvis, spine, skull and extremities are met.

The basic configuration consists of a radiography system with a vertically positioned and tiltable detector Bucky for horizontal, oblique or lateral patient acquisitions.

The additional tilting range of the detector Bucky extends the diagnostically relevant acquisition projections.

- Tilting range between 0° and +90°, and up to -20° continuously around the horizontal axis; lock-in position at 0°. Operation possible from both sides.

Fixed, replaceable transparent grid to reduce scatter radiation; Pb 13/92.

Optionally for SID 115 cm and/or 180 cm, or universal grid with a field from 115 to 180 cm (see tender further down).

- The detector Bucky with single-handed operation includes an IONTOMAT three-field chamber for automatic exposure control (incl. three-field templates) and a tray that can hold the MAX wi-D detector in the portrait or landscape position. In landscape, the detector is set up for lung acquisitions at the upper edge.
- The MAX wi-D detector is supplied with power in the tray and the detector's battery is charged.
- The MAX wi-D detector is detected in the tray. CR cassettes can also be used directly in the tray.
- Vertical height adjustment of the counter-balanced, easily movable detector Bucky from detector center approx. 31 cm to 172 cm above floor. Operation possible from both sides.
- Front plate – detector distance ≤ 42 mm.

## Description

### Accessories

In the scope of delivery:

- Lateral patient handles for optimum patient positioning, e.g. during p.a. thorax exposures.
- Patient overhead handle, swiveling around the horizontal axis, for optimal patient positioning for lateral acquisitions.

Technical details:

- 19" (48 cm) monitor
- Resolution: 1280 x 1024 pixels
- Maximum brightness (typical):  $\leq 800$  cd/m<sup>2</sup>
- Flicker-free and distortion-free image display

### DICOM MWL (Modality Worklist):

Import of patient/examination data from an external RIS/HIS patient management system.

### DICOM MPPS (Modality Performed Procedure Step):

Sending of dose data, patient data, and examination data to an external RIS/HIS patient management system.

### Note concerning DICOM interface(s)

The description in the "DICOM Conformance Statement" downloadable from the Internet is exclusively binding for the functionality of the DICOM interface(s).

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.

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.

The IPv4 communication of the imaging system is converted to IPv6.  
GRE and LISP are the supported transmission methods.

Provides:

- On/off tube tracking
- On/off light localizer
- Tube parking
- Tube centering
- Autopositioning of tube

Full function only available in combination with the Aim/ Aim FAST option

Note: Standard for Aim FAST / Option for Aim

Technical details:

- Weight: 3,15 kg
- Dimensions: 16 cm x 36 cm x 12 cm (L x B x H)
- Belt width: 23 cm
- Belt length (completely unrolled): 144 cm

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**Description**

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Technical specifications:

- Length: 198 cm
- Width: 66 cm (of which 53.5 cm is padded)
- Thickness: 2.5 cm
- Weight: 2.7 kg

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Standard item for fluoroscopy systems, included in basic unit and supplied with system. Only available as an option for RAD systems. Also optionally available as a spare part.

Length: 74 cm

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