

OPERA *Evolution*

With remote controlled table OPERA T



INFOTEC



REMOTE CONTROLLED SYSTEM FOR RADIOGRAPHY AND FLUOROSCOPY WITH DIGITAL DYNAMIC DETECTOR

SYSTEM DISTINCTIVENESS

- Comprehensive features and high accessibility
- Ergonomic and functional operator interface
- Wide range of configuration options
- Low doses in all applications
- High image quality

MAIN FEATURES

- Versions with patient table-top length 210 cm and 240 cm
- Elevating table-top
- Total access to the patient from any side
- Innovative system console with joystick for table control movement and touch screen display 23" with integrated function of the table and the generator
- Digital system with RF 43x43 cm dynamic detector
- Main options: Digital Angiography DSA, Stitching, Tomosynthesis and Dual energy
- Full DICOM functionality
- High frequency technology generator
- Can be completed with a second X-ray assembly ceiling suspension, wall-stand and a complementary Wi-Fi detector.



The innovative OPERA system is a high-technology and know-how solution focused on the OPERA T “Evolution” remote control table. OPERA is completed with the digital system OPERA D4000RF and the generator OPERA G.

The OPERA D4000RF digital system is the best solution to optimize examination times with significant cost savings, as well as to ensure excellent quality images with reduced doses.

The OPERA G generator is high frequency fully integrated command console.

The high level of components integration allows to control the entire system with a highly innovative and user-friendly control console.

OPERA D4000RF can be combined with one of the following dynamic detectors:

- Pixium RF4343
- Pixium RF4343FL (model 3 or model 4)
- PaxScan 4343DXV

Can also be connected to one or two additional Wi-Fi detectors.

INTENDED USE

This equipment is design for performing general radiography, fluoroscopy and angiography procedures.

APPLICATIONS AND TECHNIQUES

Gastroenterology

Musculoskeletal

Thorax and lungs

Urology and gynaecology

Paediatrics

Emergency and Traumatology

Linear Tomography

Digital Angiography (optional)

Stitching (optional)

Tomosynthesis (optional)

Dual Energy (optional)





TECHNICAL FEATURES

OPERA T (Evolution) REMOTE CONTROLLED TABLE

MAIN CONFIGURATIONS

Model	T90CS	T90CSX	T90CE	T90CEX
Height from floor (cm)	86		From 76 to 100, speed 3,2 cm/s (approx.)	
Patient table-top length (cm)	210	240	210	240
Optional patient table-top longitudinal travel (cm)	160 (±80)	160 (±80) 120 (+100/-20)	160 (±80)	160 (±80) 120 (+100/-20)
RF detector device	Single grid system with motorized parking Double grid system with motorized grid parking/ exchange. System for manual grid change/extraction			

EXAM TABLE

Tilting angle	-90°/+90°, speed variable up to 6°/s (approx.)
Simultaneous movements	Tilting Longitudinal stand travel Patient table-top movement Oblique projections

PATIENT TABLE-TOP

Profile	concave (carbone fiber only) or flat
Dimensions	T90CS and T90CE: 80 x 210 cm T90CSX and T90CEX: 80 x 240 cm
Radiotransparent area (patient table-top with transversal movement)	T90CS and T90CE: 57 x 194 cm T90CSX and T90CEX: 57 x 224 cm
Radiotransparent area (patient table-top with transversal and longitudinal movement)	T90CS and T90CE: 57 x 201 cm T90CSX and T90CEX: 57 x 231 cm
Composition, attenuation	Carbone fiber, < 0,5 mm Al eq @ 100 kV Plastic laminate, < 1 mm Al eq @ 100 kV
Maximum patient weight (with patient lying on the exam table)	266 kg without limitations 323 kg with limitation of use (static exams)
Transversal travel	35 cm (±17.5) variable speed up to 4 cm/s (approx.)

PATIENT FOOT REST

Distance from upper side to the floor	T90CS and T90CSX: 20,5 cm (up to 9,7 with patient table-top longitudinal travel) T90CE and T90CEX: 22,8 cm (up to 8,2 with patient table-top longitudinal travel)
Maximum patient weight	266 kg

STAND FOR X-RAY TUBE ASSEMBLY

Source-detector distance	From 115 to 180 cm, speed 5 cm/s (approx.)			
Minimum distance focus/floor at + 90°	T90CS and T90 CSX: 44.1 cm to 202.1 cm T90CE and T90 CEX: 44.1 cm to 232.1 cm			
Oblique projection	± 40°			
Tube rotation	270° with mechanical stops at 0°, +/-18°, +/-72°, +/-90° e -180°			
Stand and detector group longitudinal translation	Table configuration		T90CS	T90CSX
			T90CE	T90CEX
	Grid parking	panel movement trasversal longitudinal	cm	cm
	motorized	● ●	108	138
	motorized	● ●	124	154
manual	● ●	117,5	147,5	
manual	● ●	131	161	
Longitudinal travel speed	From the console: variable up to 20 cm/s (approx.) From table console: 12 cm/s (approx.)			

OPTIONAL COMPRESSION DEVICE		
Two different type	Single cone with automatic parking Three interchangeable cones with insertion and manual removal	
Compression strength	Up to 200 N	
Travel	55 cm	
Compressor operation	±40°	
Safety	Double safety (mechanic and electric)	
Possibility to select a maximum compression value between 10 and 20 kg, with variation of +/- 1 kg, different from the one set during installation (usually 15 kg). Display to selected value on the control console display.		
TOMOGRAPHY		
Tomography type	Linear with two directions scanning	
Tomographic area	Extended all over image receptor displacement	
Angles/times	Angle (°)	Times (s)
	5	0,4 – 0,8
	8	0,4 – 0,8
	20	0,6 – 1,2
	30	1,2 – 2,5
40	1,2 – 2,5	
Layer height selection	0 - 330 mm with +/- 1 mm adjustment	
TOMOSYNTHESISI OPTIONAL		
Angles	20°/30°/40°	
Exposition time	Max 8 s	
Layer height selection	0 - 330 mm	
RECTANGULAR FIELD COLLIMATOR		
Control command type	Manual	
	Remote-controlled	
	Automatic	
Field light pointer	>250 lx (to 100 cm, field 35x35 cm)	
Additional filters-optional (motorized filter insertion)	Al/Cu version	Cu version
	1 mm Al + 0,1 mm Cu	0.1 mm Cu
	1 mm Al + 0,2 mm Cu	0.2 mm Cu
	2 mm Al	0.3 mm Cu
Live collimator camera patient display (with filter collimator)	Completely integrated	
Laser	optional	
Rotation flange collimator ±90	optional	
RF DETECTOR DEVICE		
Patient table-top detector distance	78 mm with concave table (+17 mm flat edge table-top)	
Grid	Single grid system:	
	- 215 lines/inch R=12:1 F=140 cm	
	Double grid system:	
	- 215 lines/inch R=12:1 F=120 cm	
	- 215 lines/inch R=12:1 F=180 cm	
In relation to the focal distance, the appropriate grid is automatically placed in the field		
Grid parking type	Single grid system	Motorized
	Double grid system	Motorized with both grids
	Manual grid system	Manual extraction
Minimum distance	43 cm (with motorized parking grid)	
Table edge – detector center	39,5 cm (parking for manual grid)	



DIGITAL SYSTEM OPERA D4000 RF (PDT-PDV VERSION)

DIGITAL PROCESSOR

Composition	Processor unit for digital image processing Main Controller for general system management
CPU	Intel i9
Memory capacity	16 GB (expandable up to 32 GB)
GHz	3,6
Operating system	Microsoft Windows 10 – 64 bit
Image archive (SSD)	250 GB expandable up to 2 TB
UPS optional	2200 VA

DETECTORS	Pixium F4343FL (model 4)	Pixium F4343FL (model 3)	Pixium RF4343	PaxScan 4343DXV
Technology/scintillator	Amorphous silicon with Caesium Iodide			
Acquisition matrix	2880 x 2880 pixel	2880 x 2880 pixel	2880 x 2880 pixel	3072 x 3072 pixel
Dynamic range – linear response	16 bit			
Pixel pitch	148 µm	148 µm	148 µm	139 µm
Acquisition active area	Nominal: 43 x 43 cm Zoom 1: 30 x 30 cm Zoom 2: 20 x 20 cm Zoom 3: 15 x 15 cm			
Spatial resolution	3.4 lp/mm	3.4 lp/mm	3.4 lp/mm	3.6 lp/mm
DQE@ 0 lp/mm	73% @ 2 µG RQA5	65% @ 2 µG RQA5	65% @ 2 µG RQA5	82% @ 2.4 µG RQA5
MTF@1 lp/mm	66%	63%	66%	54%

Pixium DETECTOR RF4343FL (model 4): ACQUISITION MODE

Continuous digital fluoroscopy	Size	Matrix	Frequency
	43 x 43 cm	1440x1440x16 bits	20 fps
		960x960x16 bits	25 fps
	30 x 30 cm	1024x1024x16 bits	29 fps
		682x682x16 bits	55 fps
20 x 20 cm	672x672x16 bits	30 fps	
	15 x 15 cm	1024x1024x16 bits	20 fps
Possibility to save images directly and Last Image hold			
Pulsed digital fluoroscopy	Size	Matrix	Frequency max (1)
	43 x 43 cm	1440x1440x16 bits	18 fps
		960x960x16 bits	25 fps
	30 x 30 cm	1024x1024x16 bits	20 fps
		682x682x16 bits	35 fps
20 x 20 cm	672x672x16 bits	30 fps	
	15 x 15 cm	672x672x16 bits	35 fps
	15 x 15 cm	1024x1024x16 bits	15 fps
(1) Adjustable from 1 fps			
Possibility to activate the automatic image saving			
Digital radiography	Size	Matrix	Frequency max
	43 x 43 cm	2880x2880x16 bits	4 fps
		1440x1440x16 bits	14 fps
Automatic image saving			

PIXIUM DETECTOR RF4343FL (Model 3): ACQUISITION MODE

Continuous digital fluoroscopy	Size	Matrix	Frequency
	43 x 43 cm	960x960x16 bit	16 fps
	30 x 30 cm	1024x1024x16 bit	12 fps
	20 x 20 cm	672x672x16 bit	20 fps
	15 x 15 cm	1024x1024x16 bit	6 fps
Possibility to save images directly and Last image hold			
Pulsed digital fluoroscopy	Size	Matrix	Frequency max (1)
	43 x 43 cm	960x960x16 bit	12 fps
	30 x 30 cm	1024x1024x16 bit	12 fps
	20 x 20 cm	672x672x16 bit	12 fps
	15 x 15 cm	1024x1024x16 bit	6 fps
(1) Adjustable from 1 fps			
Possibility to activate the automatic image saving			
Digital radiography	Size	Matrix	Frequency max
	43 x 43 cm	2880x2880x16 bit	2 fps
	43 x 43 cm	1440x1440x16 bit	6 fps
Automatic image saving			

PIXIUM DETECTOR RF4343: ACQUISITION MODE

Continuous digital fluoroscopy	Size	Matrix	Frequency
	43 x 43 cm	960x960x16 bit	18 fps
	30 x 30 cm	1024x1024x16 bit	15 fps
	20 x 20 cm	672x672x16 bit	30 fps
	15 x 15 cm	1024x1024x16 bit	15 fps
Possibility to save images directly and Last image hold			
Pulsed digital fluoroscopy	Size	Matrix	Frequency max (1)
	43 x 43 cm	960x960x16 bit	15 fps
	30 x 30 cm	1024x1024x16 bit	15 fps
	20 x 20 cm	672x672x16 bit	15 fps
	15 x 15 cm	1024x1024x16 bit	15 fps
(1) Adjustable from 1 fps			
Possibility to activate the automatic image saving			
Digital radiography	Size	Matrix	Frequency max
	43 x 43 cm	2880x2880x16 bit	3 fps
	43 x 43 cm	1440x1440x16 bit	8 fps
Automatic image saving			

PaxScan 4343DXV DETECTOR ACQUISITION MODE

Continuous digital fluoroscopy	Size	Matrix	Frequency
	43 x 43 cm	1024x1024x16 bit	18 fps
	30 x 30 cm	1024x1024x16 bit	18 fps
	20 x 20 cm	684x684x16 bit	30 fps
	15 x 15 cm	1024x1024x16 bit	18 fps
Possibility to save images directly and Last image hold			
Pulsed digital fluoroscopy	Size	Matrix	Frequency max (1)
	43 x 43 cm	1024x1024x16 bit	15 fps
	30 x 30 cm	1024x1024x16 bit	15 fps
	20 x 20 cm	684x684x16 bit	25 fps
	15 x 15 cm	1024x1024x16 bit	15 fps
(1) Adjustable from 1 fps			
Possibility to activate the automatic image saving			
Digital radiography	Size	Matrix	Frequency max
	43 x 43 cm	3072x3072x16 bit	3 fps
	43 x 43 cm	1536x1536x16 bit	12 fps
Automatic image saving			



FEATURES

Anatomical program	Library up to 99 parts of the body, each one with 99 projections performed with seven different patient types and for a total of 68.607 ways of using the system. The exposure parameters (kV, mA automatic exposure meter dominant) and the Irradiated area can be changed by the operator during the examination.	
Automatic exposure	Automatic exposure meter completed with measure chamber at three fields (AEC – Automatic Exposure Control). Each field can be independently selected by the operator or by the anatomical programming. Ability to link a predefined dose to each single anatomical program in function of the patient size. Generator automatic kV and mA set values. Exposures times fixed by the automatic exposure meter for constantly maintaining operator pre-set dose based on the exam type selection. Exposure index (EI) and deviation index (DI) display. Device for automatic exposure control (kV and mA) in continuous and pulsed fluoroscopy with automatic radiographic parameter variation according to the anatomical part under examination. (ABS – Automatic Brightness Control).	
Dose area product (DAP)	Measure device	Ionisation chamber located at the exit of the collimator
	Data collected in Radiography	DAP (mGycm ² or μGym ²) and AK (mGy)
	Data collected in Fluoroscopy	DAP rate (mGycm ² /s o μGym ² /s) e AK rate (mGy/min)
	Data display	DAP: On control monitor and on the image AK: On the dedicated area on the monitor
	X ray tubes controllable	2
	Cumulated patient's dose transmitted to the RIS via DICOM MPPS, complete exam dose report's transmitted to the PACS via DICOM DOSE SR	
Exams documentations management	Each acquired image has indicated: <ul style="list-style-type: none"> - Patient name - Label number N° - Born date - Date and time of the exam execution - Institute name - Radiographic parameters - Dose (mGy cm²) - Display images parameters and reference scale Archives querying and sorting by exam date or by patient name. Possibility to define the default output (Printers, writer/burner CD/DVD, work station or system PACS). Monitor reporting of the exam submission to PACS or printer. Management of multiple connected printers and optimization of the film use with different modes of playback of the captured images (Film Editor).	
Real time processing functions ATH: Anatomic Tissue Harmonization FGA: Fluoro Gradient Adaptive Filter	Automatic image processing and display optimization through software algorithms specifically designed for each type of examination. Functions available in continuous and pulsed fluoroscopy: <ul style="list-style-type: none"> - Pre-equalization (FGA) - Noise reduction (FGA) - Patient motion detection (FGA) - Edges enhancement (FGA) - Digital image inversion H/V Radiography acquisition with real time images processing display.	

	<p>Software (ATH) that allows the improvement of the captured images with contrast increase, brightness and noise reduction. Expansion of the dynamic range.</p> <p>Parameters can be set in the anatomical programs and can be customized during installation according to the specific needs of the operator.</p>
Reject analysis	<p>Function that allow to mark the displayed image as wrong and then rejected. You can also specify the refusal reason by selecting it from a list.</p>
Post-processing functions	<p>Post processing functions do not alter the source data which are immediately restorable</p> <p>To process the image, the system display in the control area an icon series that represent the first of various levels, configurable from the settings and containing multiple functions.</p> <p>Text: mark overlay to write in the image left, right and free insertion on the image of left/right and free annotation or pre-defined.</p> <p>Image horizontal, vertical and rotation: H&V image reverse and 90°image clockwise rotation.</p> <p>Magnifying lens: image magnifying up to 1 pixel monitor = 1 pixel detector.</p> <p>Electronic shutters and zoom selection: selection of an area of interest on the image also asymmetrical with the possibility of centring the selected part.</p> <p>LUT management (Look-Up Table): management and adjusting the images in terms of brightness and contrast through the variation of the parameters L (Level) and W (Window) with automatic correction and gray scale inversion.</p> <p>Measurements: measurements of relative distances and angles with graphic overlay on the images, grid overlay</p> <p>Overview: simultaneously display of a series of images arranged at your choice from 2x2 to 5x5.</p> <p>Cineloop: visualization of acquired images series in radiography and fluoroscopy with the possibility of scrolling at different speed.</p> <p>Advanced controls: ATH harmonization function, Spatial filters and gamma curves features.</p> <p>ATH Harmonization: harmonization replacement of the ATH applied during the processing phase in real time with another predefined one</p> <p>Spatial filters: SHARP filters (Edge enhancement) and SMOOTH (faded edges) kernel size and weight modification</p> <p>Gamma curves: alternatively gray level display to the default one.</p> <p>Virtual grid (Software grid) optional : software algorithm that simulates the grid in case of examination without grid</p>
Functions to assist patient centering	<p>Integrated collimator camera for patient visualization in the monitor touch-screen display that facilitates the identification of the anatomical area;</p> <p>Virtual collimators for adjusting the beam size on the stored image (Last Image Hold - LIH);</p> <p>Virtual Scan for patient centering with the aid of the stored image</p>



Special procedure	TOMOGRAPHY Acquisition with automatic kV, mA, ms and tomography angle
Optional special procedure	IMAGE RECONSTRUCTION (STITCHING) Automatic re-composition in a single large image from a series of acquisition made during the scanning movement of the patient. The image is reconstructed with source pixel and displayed on a monitor, processed, printed or sent to the network with normal system functions. Application in studies of the rachis and lower limbs with the patient in an erect or decubitus supine position. Reconstruction of images of length selectable between 60 -90 120 cm ORTHOPEDICS MEASURES Graphic measuring functions, enabled on all images but particularly significant for images of the spine and lower limbs obtained through the stitching function. <ul style="list-style-type: none">- Altitude difference: measurement of the altitude difference between two points in the image.- Cobb angle: measures the curvature of the vertebrae using the Cobb method.- Double angle of Cobb: calculation of two angles of curvature in case of scoliosis with "S" spine.- Lines of perpendicularity: measurements of point distance in relation to some remarkable points in the lower limbs.- Lower limb measurements: measurements of lengths and angles in relation to some remarkable points in the lower limbs. TOMOSYNTHESIS A series of bidimensional acquisition projections at a low dose obtained in a single exposure to reconstruct an arbitrary number of plane representative of the different volume layers of interest. ANGIOGRAPHY (DSA) Real-time images capture in subtractive mode and road mapping with maximum opacity. Selectable reference images on a dedicated monitor. DUAL ENERGY Execution of two exposures in rapid succession with different kV. It allows to separate soft and hard tissues into two distinct images. In particular, it is used in chest X-rays to highlight lung cancer nodules.
Connectivity DICOM	Possibility of sending single or entire scanned images over the network. It is allowed to send to printer or CD/USB and export in RAW, JPEG and Mp4 format DICOM services optional: <ul style="list-style-type: none">- DICOM Store (Send)- DICOM Print class- DICOM Worklist- DICOM MPPS- DICOM storage commitment SCU- DICOM query/retrieve- DICOM DOSE SR- DICOM Media interchange (CD/DVD)



OPERA G GENERATORS (O- GXXXIQ-XN)

GENERAL PERFORMANCES

Frequency	Output up to 450 kHz		
Connectable Tubes	1 tube (O-GXXXXIQ-1N); 2 tubes (O-GXXXXIQ-2N)		
MODELS	G500IQ	G650IQ	G800IQ
Power(kW)	50	65	80
Output parameters	80 kV	630 mA	800 mA
	100 kV	500 mA	630 mA
	150 kV	320 mA	400 mA
Maximum exposure rate	30 FPS		
Starter speed	Low speed/ Dual speed		
Input phase/voltage (Auto select in each range)	Triphase 400 VAC – 480 VAC		
Line voltage rate	±10%		
RADIOGRAPHY	G500IQ	G650IQ	G800IQ
kV Range/Steps	40-150 kV in 1 kV steps		
High voltage ripple	< 4% peak-peak for ≥ 10 kHz		
Values mA	10-630 mA * R'10	10 – 800 mA * R'10	10 – 1000 mA * R'10
ms time range	1 to 6300		
mAs Range (no AEC)	0,1 – 1000 mAs in 0,1 mAs steps		
CONTINUOUS FLUOROSCOPY			
kV Range/Steps	40-125 kV in 1 kV steps		
High voltage ripple	<1kV a 100 KV e 5mA		
mA range/steps	0,5 –10 mA/ in 0,1 mA steps		
PULSED FLUOROSCOPY			
kV Range/steps	40-125 kV in 1 kV steps		
mA Range/steps	5-99 mA in 1 mA steps		
ERRORS MESSAGES			
In case of generator malfunction, in the dedicated area it is displayed the error message with related code			
*Rénard series			

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X-RAY TUBES (possibility of using use different X-ray tubes)

	RTM101	RTC600	RTC1000
Anode speed (rpm)		Low speed/High speed	
Anode material	RTM	RT-TZM-C	RT-TZM-C
Anode diameter (mm)	102	102	110
Anode angle (°)	12,5	13	13
Nominal X-ray tube voltage (kV)	150	150	150
Focal spot (mm)	0,6/1,2	0,6/1,2	0,6/1,0
Nominal anode input power, High speed (kW)	40/100	43/100	40/80
Nominal anode input power, Low speed (kW)	26/63	24/63	26/45
Maximum heat content (kJ)	300 (400 kHU)	450 (600 kHU)	840 (1120 kHU)
Maximum heat dissipation (W)	1500	1500	2000
Housing specifications	C100	C100	C100
Maximum housing heat content (kJ)	1500 (2000 kHU)		
Maximum housing heat dissipation (W)	250 (20000 HU/min) without fan 600 (48000 HU/min) with fan		

DOSE: REDUCTION, MONITORING AND MANAGEMENT**MEANS FOR REDUCING THE DOSE TO THE PATIENT AND TO THE OPERATOR**

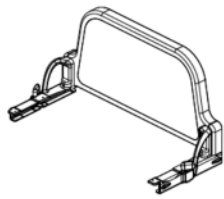
Exam table	Lower absorption carbon fiber patient table-top
Anti-scatter grid	Grid with carbon fiber cover. Possibility to park the grid outside the field.
Virtual grid (Software grid)	Software algorithm that simulates the behaviour of a real grid by reducing the patient scattering radiation and improving the visibility of low-contrast parts.
Digital system-generator integration	High generator integration to optimize the anatomical techniques, automatic collimation, filtration and image processing.
AEC and ABS	Exposure meter controlled by the digital system to allow greater accuracy in the exposure (AEC – Automatic Exposure Control) Device for automatic exposure control (kV and mA) in continuous and pulsed fluoroscopy (ABS – Automatic Brightness Control).
Paediatric anatomical programme	Available in four different age size: <ul style="list-style-type: none"> - New-born: 0 - 28 days - Infants: 29 days – under 2 years - Children: 2 under 12 years - Adolescents: 12 - 21 years
Electronic shutters	Command to activate automatic recognition of the collimator shutters in the acquired image (LIH) without X-ray emission
Virtual Scan	Enables patient centring using the stored image without X-rays emission.
Live camera for patient display (optional)	Live camera completely integrated in the collimator for the identification of the anatomical part of interest without X-rays emission.
Generator	High frequency generator with optimal output wave
Collimator	Manual and automatic collimator with square field and hardening beam filters. Filters insertion that can be checked by the operator or programmable within the anatomical program. LED for irradiated field simulation

DOSE CONTROL AND MANAGEMENT

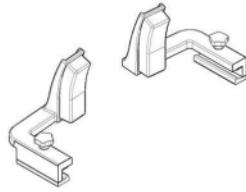
Exposure index (EI) Deviation index (DI)	Verification involves measuring the levels of the acquired image within a set area in order to quantify the deviation between the detected exposure dose and the exam dose set. The result is shown by the Exposure Index (EI) and the Deviation Index (DI).
Dose – area measurement device (DAP)	Value measured by ionization chamber located at the collimator output. On touch screen monitor there is an indicator to monitor the measurement of the dose-area product: Radiography DAP (mGycm^2 or μGym^2), fluoroscopy DAP rate (mGycm^2/s or $\mu\text{Gym}^2/\text{s}$). In case there is a second X-ray assembly a second chamber is used
Dose measurement device Air Kerma (AK))	On the control command console there is an indicator to monitor the patient dose: Air Kerma rate expressed in mGy/min and Air Kerma cumulative of reference expressed in mGy .
Data display	DAP: the values are displayed on touch screen monitor in the generator control/command dedicated area and on the image. AK: the values are displayed on monitor touch screen and in the generator control/command dedicated area
RIS-PACS transmission	The cumulated patient's dose values areas transmitted to the RIS using DICOM MPPS. The complete exam dose report is transmitted to the PACS via DICOM DOSE SR



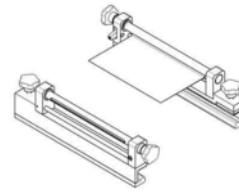
ACCESSORIES



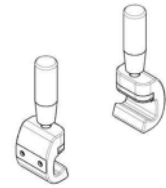
Patient foot-rest adjustable



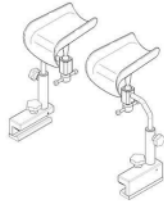
Shoulder rest



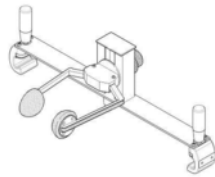
Compression belt



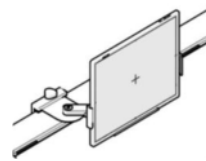
Hand grips



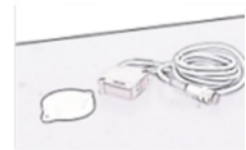
Lower limbs support



Head contention device



Lateral cassette support



Low ceiling photocell



On board console with joystick



Ankle support



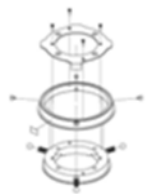
Barium glass support



Radiography/fluoroscopy remote foot switch



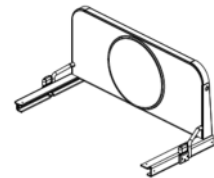
Intercom



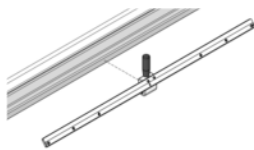
Rotation flange collimator ± 90



Cushion for patient table-top



Rotating foot-rest



Stitching bar



Arm support



Secondary wireless console

COMPLEMENTARY UNITS

CEILING SUSPENSION

Longitudinal travel	326 cm
Transversal travel	210 cm
Vertical travel	150 cm
X-ray tube rotation	+200°/ -135° rotation on vertical axis +120°/-210° rotation on horizontal axis
Collimator	Manual

WALL STAND

Bucky travel	vertical	Vertical and orientable
Bucky movement	/	from -20° to +90°
Bucky rotation movement	/	Manual +90°
Bucky vertical travel	157,4 cm	140,4 cm
Grids	Per CR/film: 90 lines/inches R=12:1 F=180 cm For Wi-Fi detector: 200/230 lines/inches R=12:1 F=130 cm and F=180 cm	

ADDITIONAL Wi-Fi Pixium DETECTORS

	2430EZ	3543EZ-C
Technology	Amorphous silicon	Amorphous silicon
Scintillator	Caesium Iodide	Caesium Iodide
Pixel area	24 x 30 cm	35 x 43 cm
Pixel dimensions	148 µm	148 µm
Data conversion	16 bits	16 bits
DQE@ 0 lp/mm	70%	70%
Weight (without battery)	1.4 kg	2.6 kg
Battery weight		227 g
Protection rating		IP67

LUMEN 2530W

ADDITIONAL Wi-Fi Varex DETECTORS

	(2530W standard)	(2530W Premium)
Technology	Amorphous silicon	Amorphous silicon
Scintillator	Caesium Iodide	Caesium Iodide
Pixel area	25 x 30 cm	25 x 30 cm
Pixel dimensions	131 µm	131 µm
Data conversion	16 bit	16 bit
DQE@ 0 lp/mm	64%	74%
MTF@ 1 lp/mm	65%	61%
Weight (without battery)	1,56 kg	1,56 kg
Battery weight		340 g
Protection rating		IP68

LUMEN 4336W

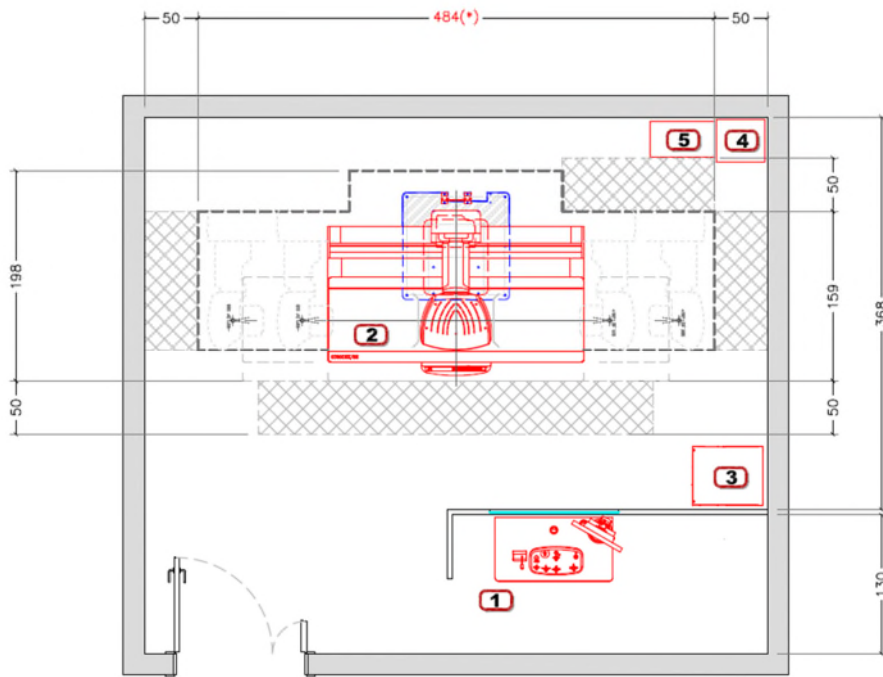
ADDITIONAL Wi-Fi Varex DETECTORS

	(4336W-G5 C Standard)	(4336W-G5 C Premium)
Technology	Amorphous silicon	Amorphous silicon
Scintillator	Caesium Iodide	Caesium Iodide
Pixel area	35 x 43 cm	35 x 43 cm
Pixel dimensions	139 µm	139 µm
Data conversion	16 bit	16 bit
DQE@ 0 lp/mm	64%	74%
MTF@ 1 lp/mm	65%	61%
Weight (without battery)	2,8 kg	2,8 kg
Battery weight		340g
Protection rating		IP68



DETETTORE Wireless VAREX		4343W	
Scintillator	CsI Premium		CsI Standard
Technology		Amorphous silicon	
Nominal size		43 x 43 cm	
Pixel matrix - Total		3072x3072	
Pixel pitch		139 μ m	
Spatial resolution		3,6 lp/mm	
A/D conversion		16 bit	
Weight	3,3 kg		3,3 kg
DQE @ 0 lp/mm	76%		65%
MTF @ 1 lp/mm	57%		61%
Uniformly loaded across entire surface		300 kg	
Charge capability		1600 images over 8 hours	
Weight (without battery)	3,3 kg		3,3 kg
Battery weight		340g	
Protection rating		IP68	

TYPICAL LAYOUT (O-T90 CSX/8E)



- 1 Control console
- 2 Exam table (version T90CEX/8E)
- 3 Digital system cabinet
- 4 Generator cabinet
- 5 Table cabinet
- (*) Maximum longitudinal overall dimensions



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