Technical Description

Compact Examination System
For Radiography

EVA - HF 525

X-Ray Console HF-525

EVA Series are controlled by Digital key panel console that displays KV, mA and mAs with APR meuu programmed. System-self-diagnosis and self –diagnostic circuitry standard on each unit. Equpped with closed loop for X-ray tube current as well as kVp, minimizing potential errors and need for re-adjustments.

X-Ray Generator HF-525

Microprocessor controlled high frequency generator for all examinations in the area of the X- ray diagnostics, prepared for special applications. The automatic exposure control (AEC) is integrated. This generator features by a very compact design and can be integrated in the base of the examination table as a space saving compact solution.

The foil coated control desk enables easy operation and hygienic possibilities for cleaning as well as easy operation for the user. In the anatomical program operating mode can be stored programs individually.

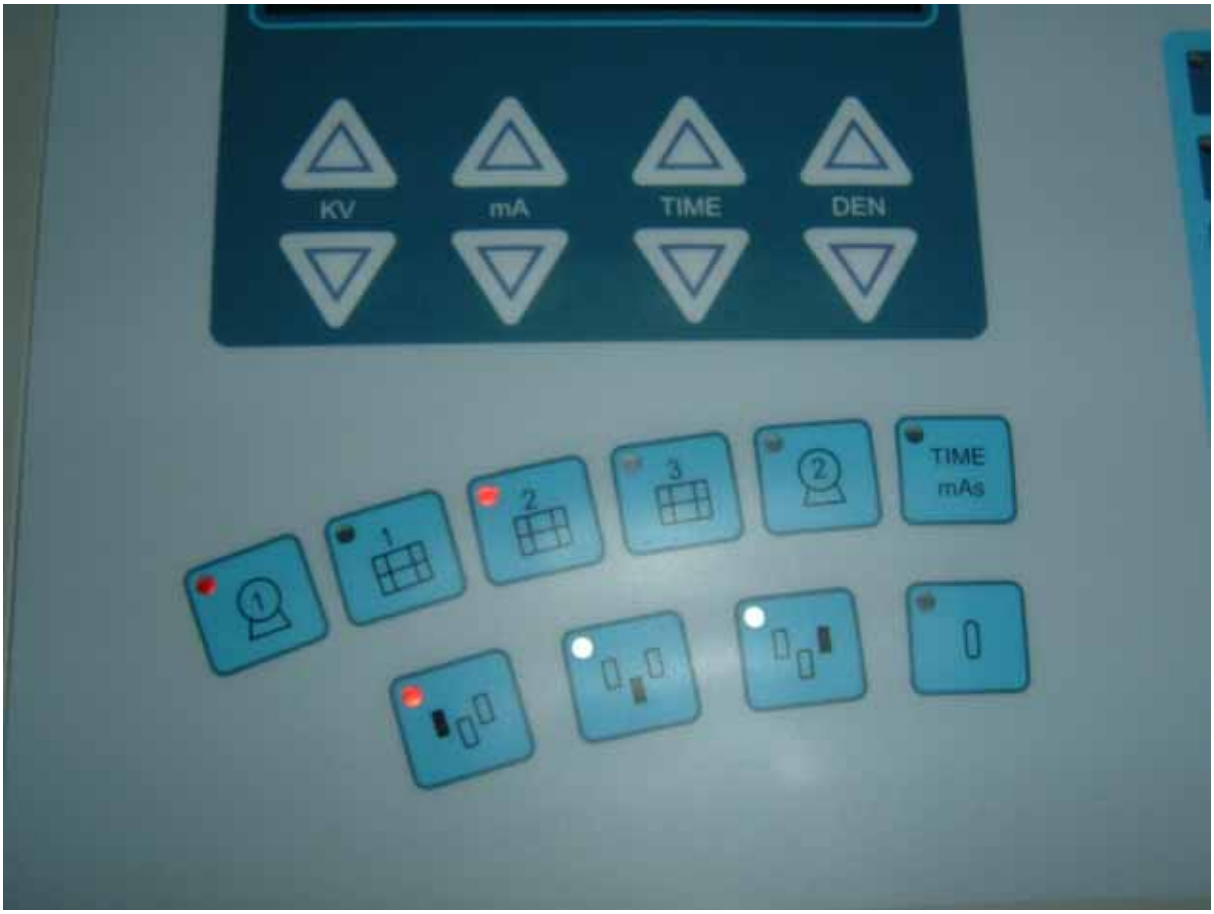
An internal self-diagnosis centre monitors the X-ray unit and indicates errors on the screen. So the generator is optimal protected against malfunctions.

Technical Data

Power output at 100 kV / 0,1 s	40 kW
Converter	40 kHz
Exposure techniques (alternatively with Automatic Exposure Control)	* kV-mAs * kV-mA-ms * anatomical program mode

(Generator, installed in the table)

Radiography	
kV range	40 ... 125 kV in 1 kV steps
mA range	25 ... 500 mA
mAs range	0,2 ... 600 mAs in 42 steps
minimal exposure time	2 ms (with and without AEC)



Periphery	
X-ray tube connections	1
Max. workstations	3
Programmable film screen systems (AEC)	1
Type of AEC measuring chambers	ionisation chambers

X-Ray Tube TOSHIBA E 7252 X or E7239X

State 2004-03. Subjects to change.

The E 7252X is a double-focus rotating anode X-ray tube which is designed for general radiographic procedures, according to the generators power data.

Technical Data		E7252X	E7239X
Maximal voltage		150 kV	125kV
Nominal power	small focus	16 kW	21kW
	large focus	44 kW	45kW
Focal spot dimensions			
	small focus	0,6 x 0,6 mm	1.0x1.0mm
	large focus	1,2 x 1,2 mm	2.0x2.0mm
Anode material		Tungsten, Rhenium,	Tunstein, Rhenium.
Target angel		12°	16°
Rotating anode speed		2.700 rpm (50 Hz)	2,700rpm(50Hz)
Anode heat storage capacity		300 kHU = 212 kJ	140kHU=100kJ
Tube assembly heat storage capacity		1.250 kHU = 900 kJ	-
Max. heat dissipation of the tube assembly		15 kHU/min = 177 W	-
Inherent filtration of tube and housing		0,7 mm Al	-

Examination table with Bucky wall stand

Examination Place EVA

State 2004-04. Subjects to change.

The radiographic examination unit EVA featured by an optimised construction which permits to realise a multitude of examinations on a minimised room. The table is prepared to integrate a special X-ray generator into the base. The complete system can be installed quickly and simple without additional special construction works.

The examination table is composed of a Bucky table with floating patient table top and an integrated column which supports the tube assembly, collimator and the control board. The column doesn't need any additional fixing elements.

The arm which supports the tube and the control board permits the rotation of the radiogen system on the axe of the arm itself and enable to realise special positions with different angles of incidence as well as the operating of a Bucky wall stand. The vertical movement of the radiogen system is balanced by counterweights. The transversal displacement of the tube as well as the rotation of the column is standard All movements of the column and the table top are stopped by electromagnetic brakes.

The top panel of the Bucky table is in radio transparent laminated plastic with longitudinal profiles in extruded aluminium and lateral guides of insertion and anchorage of the accessories of common use. The movements of the table top are stopped by electromagnetic brakes which are active in the absence of power. They keep it in a defined position as well the installation is off.

The Bucky diaphragms of the table as well as the wall stand can be equipped with AEC ionisation measurement chambers.

Technical Data

Bucky table

Table top material	grey-white colour laminated plastic
Absorption	approx. 0,9 mm Al-GW
Dimensions	200 x 74 cm
Longitudinal travel	60 cm (± 30 cm)
Transversal travel	16 cm (± 8 cm)
Table top upper edge to film distance	7,5 cm
Table top distance to the floor	70 cm
Bucky carriage longitudinal travel	38 cm
Grid	12:1, 36 L/cm, foc 110 cm

Acoustical signalling of the table's central position.

The cassette tray is supported in a telescopic roller guide

Tube stand

Longitudinal displacement travel	185 cm
Column rotation around the vertical axis	± 90°
Min. focus distance to the floor (90°-Position)	73 cm
Vertical travel	113 cm
Max. FFD	120 cm
Tube rotation around the horizontal axis	± 90°
Transversal displacement travel of the tube	14 cm (± 7 cm)

Collimator with dose area product measurement chamber

Collimator

Type of command	manual
Localisation light	24 V / 150 W Halogen with electronic timer
Inherent filtration	1,5 mm Al-GW

Equipped with a rotating collar

Bucky wall stand

Vertical displacement travel	120 cm
Min. distance film centre line to the floor	40 cm
Distance table top to film	5,5 cm
Grid	12:1, 36 L/cm, foc 100 cm

Vertical movement controlleded by electromagnetic brakes.

Electrical requirements

Mains connection	3x 400 V, 50 Hz + 6% / -10%
Option:	Single phase supply with battery
Fuse	3x 35 A delayed
Line impedance	max. 0,3 Ω
Nominal power input	23 kVA
Short time pulse	max. 68 kVA
Stand-by	120 W

Weights and dimensions

Bucky table with tube stand	kg
Generator	built-in into the Examination table kg
Control desk	230 x 410 x 80 mm 5 kg

Required space

You need an area of about 2,5 x 4 m.

Certification

CE Certificate L-0243314-02
EN ISO 9002:1994 / EN 46002:1996