

## MAK-1000 VET

### Digital Radiographic System (DDR)

- floor-mounted support tube stand
- Continuously adjustable (manually) SID.
- Direct Conversion, Amorphous Selenium-based Flat Panel Detector
- X-Ray Generator (40 Kw, 150 Kvp, 500 mA) With Digital Interface.
- X-Ray Tube (0.6 mm, 1.5 mm).
- Manual Collimator.
- HT Voltage Cables (9 M).
- 4-way float top Radiographic Table.



### Mechanical Movements:

- Electromagnetic brakes for all movements.
- Tube column height 75".
- Tube stand longitudinal travel 40".
- Tube rotation +/- 90 degree .
- Variable SID distance constantly adjusted up to 29" .

### Three Phase High Frequency Generator 40Kw/150 Kv Anatomical Program Microprocessor Controlled:

The high frequency X-ray generator technologies controlled by microprocessor improve the image quality and reduce the dose. The very low ripple and accuracy radiographic parameter Kvp, mA and exposure time reduce the soft X-ray radiation and improve the homogeneity of the X-ray beam.

The high frequency X-ray generator controlled by the microprocessor improves the reliability of the whole system and reduces the maintenance cost with auto diagnostic and error code features that constantly monitor the system.

### X-ray generator features :

- High Frequency 25 KHz, 1 Tube Operation.

- Three phase 188 / 250 VAC.
- Output power:
  - 500 mA and 150 Kvp.
- X-ray tube H.U. available indication and continual monitoring for X-ray tube protection.
- Control of X-ray Tube Number of Exposures.
- Kvp Radiographic range, from 40 to 150 Kvp.
- MA Radiographic range from 25 to 500 mA.
- Exposure time range, from 0.002 to 6 second.
- Anatomical program APR, Automatic selection of the radiographic parameters programmed (Kvp., mAs, working station, AEC, focal spot, according with patient size and anatomical area selected).
- Two Points, Kvp and mAs, selection.
- Three points, Kvp. mA and exposure time selection.
- Foot-switch for preparation and exposure control.
- Light and sound indication for X-ray exposure.
  
- Brake control of the anode rotation.
- Time delay of the brake is a function of the sequence of selected exposure.

### X-Ray Tube:

- Maximum Tension , 150 Kvp .
- Focus sizes :
  - Small focus 0.6 mm.
  - Large focus 1.2 mm.
- Anode target angle, 12 °.
- Maximum power low speed :
  - Small focus 15 Kw (50Hz), 16 Kw (60Hz).
  - Large focus 44 Kw (50Hz), 49 Kw(60Hz).
- Anode rotation 3,000 / 9,700 r.p.m.
- Anode heat capacity 300,000 HU.
- Maximum Current
  - Small focus 400 mA
  - Large focus 1000 mA
- Filtration equivalent 0.7 mm Al.
- Maximum power high speed :
  - Small focus 25Kw(150Hz),27Kw(180Hz).
  - Large focus 68Kw(150Hz),75Kw(180Hz).
- Anode heat dissipation capacity 40 KHU/min

### Manual Collimator:

- Manual collimator with 6 pair of leaves.
- Accessory rails (cones, filters, etc.) .
- Field light lamp of 160 LUX.
- Light indicator for alignment with bucky.
- Retractable measuring tape .

### 4-Way float top Radiographic Table:

- Table Top Longitudinal travel 27".
- Table Top Transverse Travel +/- 4 ".
- Tube stand to table Edge Fully Extended 43.5".
- Table Top 60"x28".
- Table base 19"x39.5".

### Amorphous Selenium-based Flat Panel Detector

Imaging Area	422 mm x 406 mm
Number of Pixels	6.7M ( 2640 x 2540 )
Pixel Size	160 x 160 microns
Nyquist Frequency	3.1 lp/mm
Sensor	Direct Conversion , Amorphous Selenium-based
MTF @ RQA5	70% @ 1 lp/mm, 33% @ 2 lp/mm , 8% @ 3 lp/mm
Exposure Factor	Equivalent to 200 Speed Screen- film
Dynamic Range	14 bit ADC , 12 bit exported
Image readout time	< 2 seconds
Final Image ( after processing )	~ 10 seconds
Cycle Time ( Successive images )	< 20 seconds

### Work Station:

- Intel Core 2 due work station with 19 inch Screen.
- Microsoft Windows XP Professional SP2.
- CD/DVD Archiving.
- Power Input: 100/240 V AC, 50/60 Hz.

### Processing Software:

- Expands image processing for optimized viewing.
- Enhances variable density and form shading.

