

HIGH PERFORMANCE MOBILE SURGICAL C-ARM

KMC-950

1K x 1k CCD Digital Camera System

H.F. GENERATOR & ROTATING ANODE TUBE WITH DIGITAL WORKSTATION

DESCRIPTION:

KMC-950 Mobile Surgical C-arm systems are integrated with a triple field 9" image intensifier tube, 1k X 1k CCD digital camera and a rotating anode X-ray tube for R/F applications. The C-arm x-ray generator is designed with state-of-the-art microprocessor controls. A touch sensitive LCD control panel makes system operation and visualization on the large LCD displays easy.

The compact size, large diameter wheels, steering handle and lighter weight, correctly distributed, allow for ease of maneuverability, quick positioning and the necessary flexibility to perform a wide range of R/F procedures meeting the needs of medical healthcare facilities globally. The **KMC-950** C-arm is utilized in both in and out-patient care clinics and hospitals for surgical, orthopedic, urology, angiography, trauma and pain management procedures.

The High Frequency generator's constant x-ray energy combined with digital imaging acquisition provides improved image quality. Reductions in radiation dosage of patients and operators can also be realized with pulsed fluoroscopic modes of operation. The boost/pulsed fluoro-mode capable of producing 125 kVp at 20 mA allows for rapid, high contrast image acquisitions for oversized or over-weighted patients during all fluoroscopic procedures.

"DIS" (Digital Image System) software utilized by the Image Workstation manages the **KMC-950's** images in a well organized DICOM database. The "DIS" software is designed for digital fluoro image acquisition and also has various image tools for image enhancement. The "DIS" software is the standard option for patient and image management.



KMC-950 Mobile C-arm System

FEATURES:

- ◆ High Frequency Generator :
 - 125 kV/ 100 mA for Rad.
 - 125 kV/ 20 mA for Boost FL.
- ◆ Microprocessor Control & APR Panel
- ◆ LCD Touch Control Screen & Window
- ◆ High Power Inverter : 12.5 kW
- ◆ High Resolution II Tube : 9" II (Triple Mode)
- ◆ X-ray Tube : Rotating Anode Tube
- ◆ Focal size : 0.3 – 0.6 mm micro filament
- ◆ High Resolution & Contrast Image quality
- ◆ Pulsed fluoro for dose reduction
- ◆ Boost fluoro (20 mA) for high contrast image
- ◆ Auto Brightness Control (ABC) for fluoro image
- ◆ IRIS Circular Collimator
- ◆ 1k x 1k CCD digital camera
- ◆ AVI Video Record & Replay
- ◆ Dual 19 inch LCD Flat monitor
- ◆ Digital Image System (DIS) & Software
- ◆ DICOM send and CD burn
- ◆ Power requirement : 110/220 VCA, 50/60 HZ

NEW INNOVATION & ADVANCED TECHNOLOGY

KMC-950

MOBILE SURGICAL C-ARM SYSTEM

DIGITAL IMAGE MANAGEMENT SOFTWARE & DIGITAL IMAGE PROCESSOR

SYSTEM SPECIFICATION:

X-RAY GENERATOR:

Type:	High Frequency Inverter
Controller:	Microprocessor & PROM
OP Console:	LCD Touch Panel Screen and Membrane Switches
Mode:	Radiographic mode (Rad) Fluoroscopic mode (FL)
Display Panel:	LCD Display with Touch Screen
Power rating:	12.5 kW Inverter
KV range:	40-125 kVp, 1.0 kV increment
Rad. mA range:	20-150 mA (programmable)
Rad. mAs range:	0.4 to 500 mAs
Fluoro mA:	Normal FL: 0.3 – 5.0 mA Snap FL: 8.0 mA (pulsed) Multi-pulse: 0.3-5.0 mA Boost FL: 20 mA
Exp.Timer:	Rad. Mode: 3.0 ms to 8.0 sec FL. Mode: 0 to 5.0 minutes
Auto. KV:	Automatic Brightness Control (ABC) on Fluoro. mode of operation

X-RAY TUBE:

Type:	Rotating Anode (Rad-99, Varian)
Focal Size:	0.3 mm to 0.6 mm / micro focal
Anode Target:	10 ° Target Angle / TM
Heat Capacity:	300,000 HU
KV Capacity:	125 kVp
Filtration:	0.5 mm Al. @ 100 kV

Motorized Collimator:

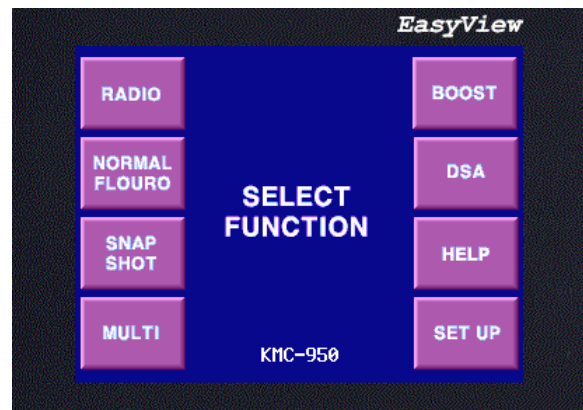
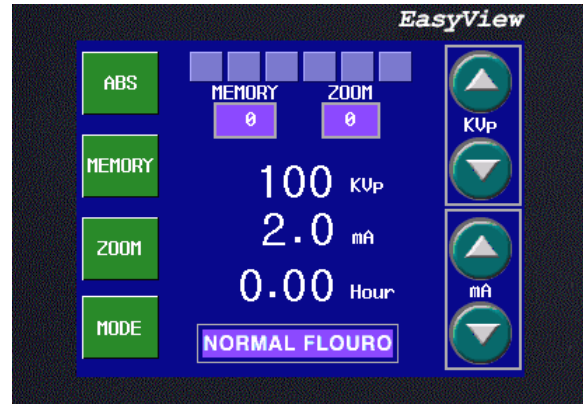
Type:	IRIS (Circular) motor driven
Shutter:	One (1) pair lead blade
Filter:	2.5 mm AL. @ 100 kVp

CASSETTE HOLDER:

Mount type:	Mounting bracket on II Tube.
Size:	24cm x24cm or 24cm x 30cm
Grid:	80 lines, 8:1 ratio, 28 "-32 " focus

1k x 1k Digital CCD DIGITAL CAMERA:

Sensor:	CCD Progressive scan
CCD format:	2/3" x 2/3"
No. of Pixels:	1004(H) x 1003 (V)
A/D Converter:	12 Bit



LCD TOUCH PANEL SCREEN WINDOW

Video Output:	Camera link / 12 bit parallel
Frame Rate:	30 fps
Noise Reduction:	Up to 16 level selections
LIH:	Last Image Hold function
Image rotation:	Continuous Electronic rotation

LCD / DICOM Monitor

LCD Panel:	a-SI TFT Active Matrix
Resolution:	1280 x 1024 (SXGA)
Screen Size:	19" diagonal
Luminance:	450 cd/m ²
Video Input:	D-Sub (15 pin) & DVI
Display Control:	On/Off, BL Level, DICOM mode, DICOM clear / blue

ADVANCED IMAGE MANAGEMENT & NETWORKING

KMC-950

DIGITAL WORKSTATION & MOBILE C-ARM

BEST SOFTWARE FOR IMAGE AND PATIENT FILE MANAGEMENT

DIGITAL IMAGING SYSTEM (DIS)

DIS is the advanced image management system which is designed to meet the demands of today's complex & diversified medical imaging acquisition and procedures required for C-arm mobile applications.

"Search & View" functions make it possible to quickly find a study and view the images from the internal DICOM database. To send information to other DICOM Servers or PACS Systems, DIS can automatically create a DICOM file and send it.



FEATURES:

- **Database management**
 - Very convenient for image storage and search.
 - Easy management of patient database.
 - Compare live images and saved images from the database side by side during a patient examination.
- **Image Storage & Memory**
 - Hard Drive Capacity : 80GB Memory
 - Store more than 10,000 frames of images.
- **Variety of diagnostic image control tools**
 - Zoom, Contrast, Reverse, Rotation
 - Noise filtering, Edge Enhancement,
 - Image processing : Real time & Post processing
- **PACS Connectivity with DICOM**

SPECIFICATIONS:

- **Computer PC System**
 - Window XP, Intel 2 Dual CPU
 - 3 GHZ, 1.98 GB of RAM
 - 80 GB hard driver
 - Frame Grabber B/D & Dual display adapter
 - Desktop case, Key board & mouse
 - DIS software
 - DVD/ CD-ROM drive

- **Data Acquisition**
 - Image Size: 1024 x 1024
 - Pixel depth: 12 bits
 - Automatic image capture
 - Dual monitor display & operation
- **Image Processing**
 - Window Level (contrast adjustment)
 - Real time & Post-Processing
 - Pan & Zoom Control
 - Image flip (Horizontal & Vertical)
 - Image rotation (360 °)
 - Noise reduction & recursive filter
 - Edge Enhancement (sharpness)
- **Image Management**
 - Create a patient file & database
 - DICOM send & CD Burn
 - Networking to PACS
 - Local Printer Connection
- **Overlay Image Data & Display**
 - Patient ,Study & Image Information
 - Multiple display : up to 4 x4 matrix format
 - Video Image record & Play
 - Cine Loop (Optional)
- **Image Storage**
 - More 8,000 images on 80 GB/ HD
 - JPEG compression
 - Convertible to a general format : BMP, JPEG, TIFF ... etc



DUAL MONITOR DISPLAY & WORKSTATION

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MOBILE SURGICAL C-ARM SYSTEM

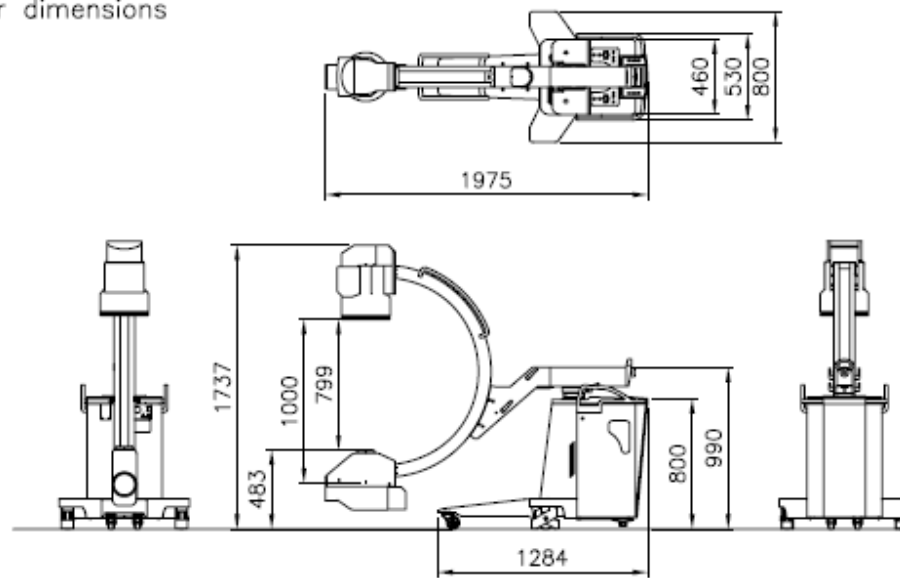
COMPACT SIZE, LIGHT WEIGHT AND EASY MANEUVERABILITY

MECHANICAL SPECIFICATION

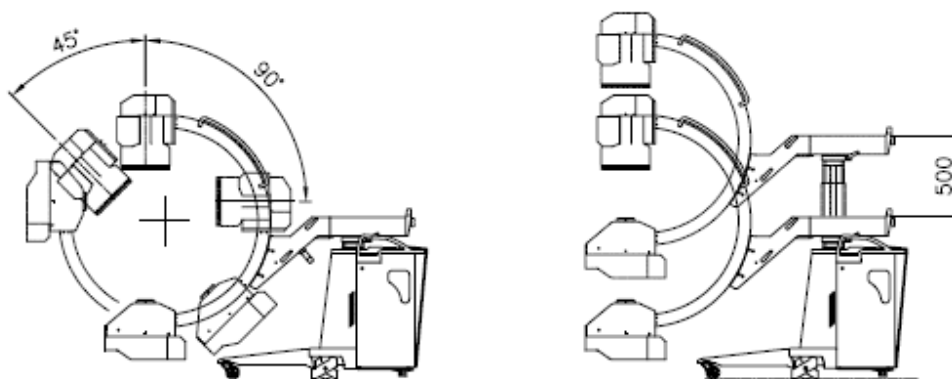
UNIT: mm

WEIGHT: 270 KG (600 LBS)

Outer dimensions



Range of movement



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MOBILE SURGICAL C-ARM SYSTEM

COMPACT SIZE, LIGHT WEIGHT AND EASY MANEUVERABILITY

C-ARM MOVEMENT & DIMENSION

- Free space in arc: 32.6" (799 mm)
- Total SID: 40" (1000 mm)
- Depth of arc: 27.0" (686 mm)
- Orbital rotation: 135 °
- Horizontal travel: 7.9" (200 mm)
- Vertical travel: 20.4 " (500 mm)
- Panning motion: ± 12.5 °
- Pivot rotation: ± 180 °
- Motion lock: Friction locks for all motion.
- Steering handle: Two Rear wheels
- Pedal Brake: Dual foot brake on side

FULL CDRH COMPLIANCE:

KMC-950 C-arm mobile system conforms to all applicable requirements of the Center for Devices and Radiological Health Department and Human Services, 21 CFR, Chapter 1, Subchapter J, at time of manufacture.

POWER REQUIREMENT:

Max. Power: 3.3 KVA @ 110 VAC (limited output)
12.0 KVA @ 220 VAC (full power out)
Line Voltage: 110 / 220 VAC, 50/60 Hz
Line Current: 20-25 amps @ 110 VAC
63 amps @ 220 VAC (full power out)



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