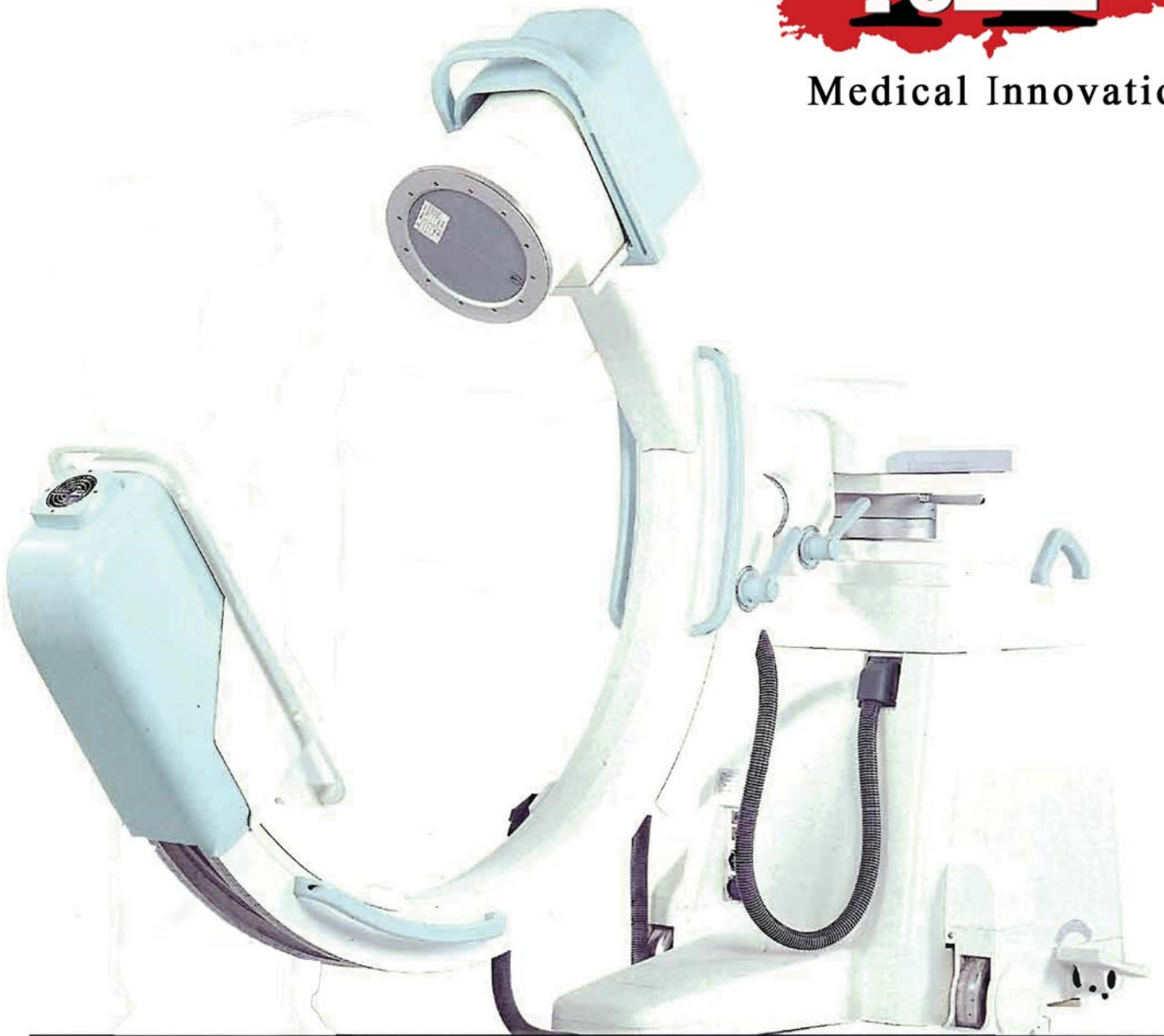




Medical Innovation



HQ-YDX2000A / B

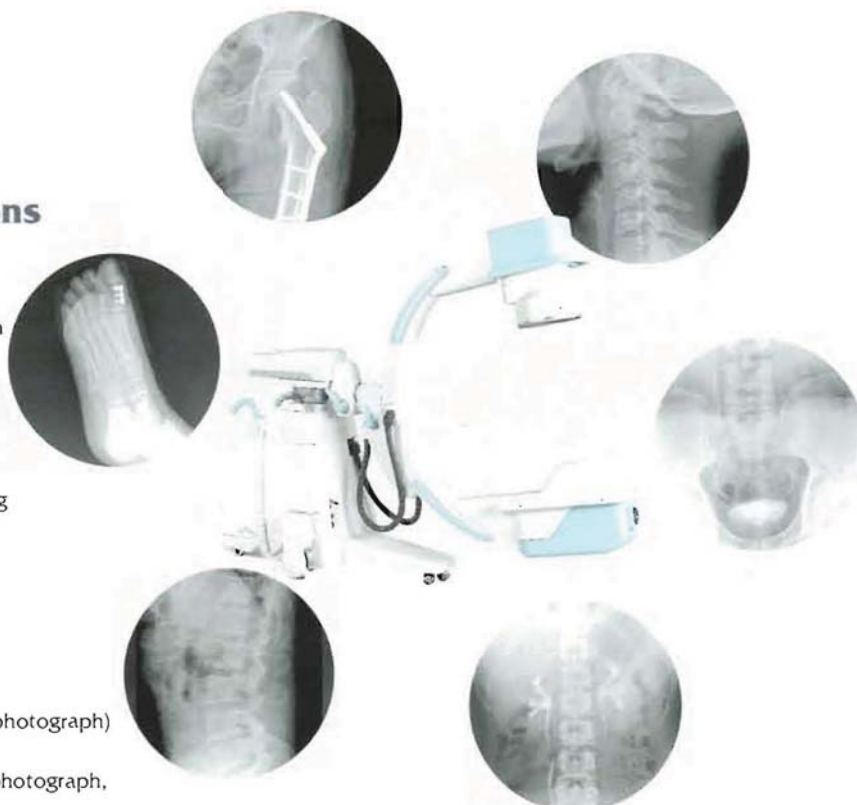
Mobile C Arm X-ray Imaging System

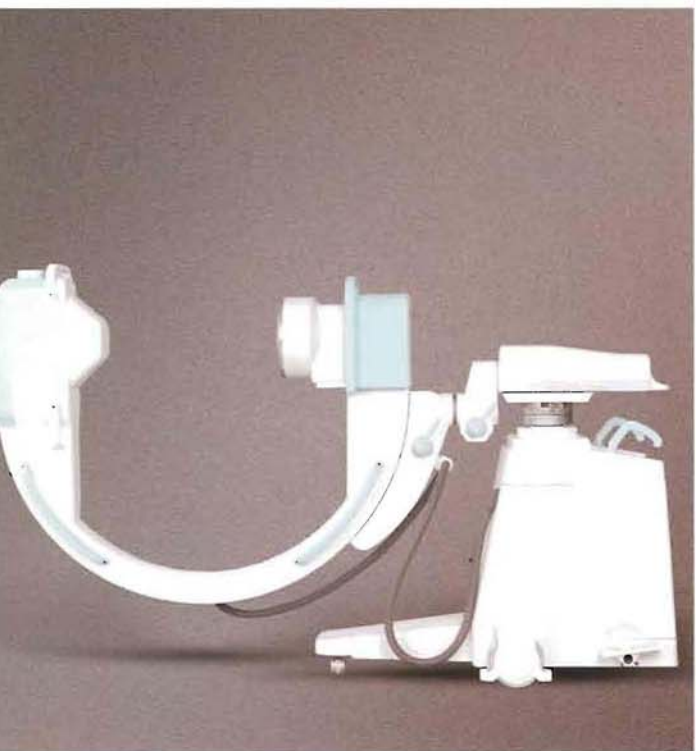
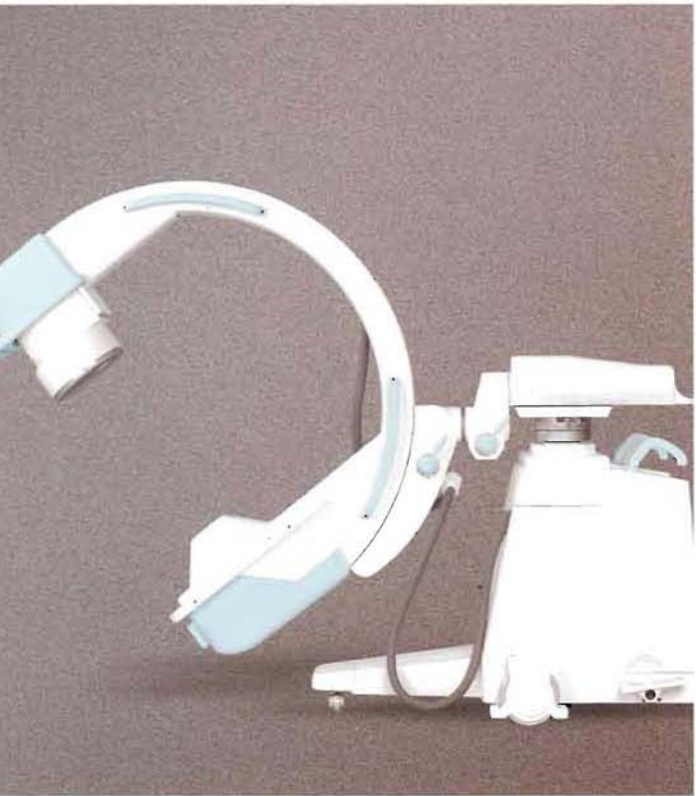
■ Brief Introduction

With a medical television system embedded, HQ-YDX2000 series Mobile X-ray Imaging System is designed by Samed company matching the request of customers. This imaging system is controlled by computer and integrates imported high frequency X-ray generating device, imaging reinforcement and CCD vidicon. This imaging system features easy use, stable working performance and accurate control. With 40 KHz kV reverse frequency this system enhances X-ray efficiency and lowers soft ray's amount, so that imaging quality gets improved and damages to the doctor and patient due to X-ray radiation are kept as a minimum. With imaging reinforcement and CCD vidicon inside, this system ensures clear television image using less material. Thanks to the flexible mechanical moving system, the patient can be penetrated and photoed without moving his/her body. This equipment applies to hospital surgery, sickroom, radiation room for X-ray patients or photograph checking.

■ Clinic Applications


- Orthopaedics
- Bone arthrosis shaping operation
- Bone arthrosis nailing
- Bone arthrosis penetration photograph
- Urgent symptom reposition/fixing for bone wound
- Gynecoiatry uterus photograph
- Normal surgery photograph
- Urinary surgery (Kidney bladder photograph)
- Radiation room (Kidney viscera photograph, stomach & intestines penetration)
- Heart pacemaker installation
- Extracting impurity





■ HQ-YDX2000A/B Features

- Special IBS function. This product has changed previous method that IBS controls kV or mA. By sampling the image information in different area and getting the IBS signal through computing, and by comparing kV-mA control curve at best image's condition, it realizes multi-parameter real time control on image quality and ensures image quality's auto-optimization.
- With special video transmission technology, this device can operate even on the conditions of bad net power supply.
- More space is for operation due to machine's large arc. With DSA configuration, outer blood vessel photograph and intervention treatment can be operated. Slide range of arc orbit can reach 135°. After upgrading sphere pipe's power consumption, it can be used as medium C.
- Machine head's temperature display (protection temperature is $60 \pm 3^{\circ}\text{C}$) helps you to know sphere pipe working status.
- Arc orbit sliding and rotating around horizontal axis for full process equation design , provides easy operation and enhances the mechanical safety during operation.
- Extremely low leak radiation amount improves the protection for doctors and patients.
- With applicable function of digital computing film, this device helps doctor quickly get clear image. So that doctor can deal with every part operation without too much exposure to X-ray radiation.
- Multi-parameter conditions for memory avoids frequent adjusting operating parameters.

2000A model (small frame) is shown in the figures 



HQ-YDX2000A / B

Control Parts Function

- Photo
- Auto clairvoyance
- Manual clairvoyance
- Single pulse clairvoyance
- Enhanced clairvoyance
- 3 views conversion
- Over-heated alarm
- Over radiation alarm

Image processing

- 4-level recursion noise absorption
- Positive & negative film reversal
- End image freezing function
- Image up side down reversal
- Multiple images storage
- Mirrored image

Television System Specifications

- Reinforcer characteristic
- Vidicon
- Monitor
- Central resolution $\geq 48\text{Lp/cm}$
- CCD 752(H)x 582(V) (CCIR)
- Horizontal central resolution $\geq 800\text{TVL}$
- Contrast $25:1$
- DQE 65%
- 3 Views(9" / 6" / 4.5")
- 3 60° rotating
- Image brightness definition \geq class 8
- Television video band width $\geq 20\text{M Hz}$

Mechanical Specifications

- Focus screen length:
 - 2000A: 900mm
 - 2000B: 900mm/1000mm
- C arm arc depth:
 - 2000A: 620mm
 - 2000B: 890mm
- C arm vertical elevation distance:
 - 2000A: $\geq 400\text{mm}$
 - 2000B: $\geq 420\text{mm}$
- C arm orbit sliding range:
 - 2000A: $+90^\circ \sim -25^\circ$
 - 2000B: $+90^\circ \sim -45^\circ$
- C arm front-rear moving distance: $\geq 200\text{mm}$
- C arm vertical rotating range: $\geq \pm 12.5^\circ$
- C arm horizontal rotating range: $\geq \pm 180^\circ$
- X-ray total filtration: 2.7mmAL
- Distance from focus to skin: $\geq 200\text{mm}$



HO-YDX2000A / B



Machine Overview

Machine is easy for cleaning and maintenance with plastic cover and nice appearance. 135° arc sliding range is convenient for photo and positioning, and convenient for clairvoyance and photographing every part of the people's body



Image Reinforcer

3 - view image reinforcer from Toshiba (9 " / 6 " / 4.5 ") guarantees fine quality of image



CCD imaging system with 360° rotation realizes photographing image at any position

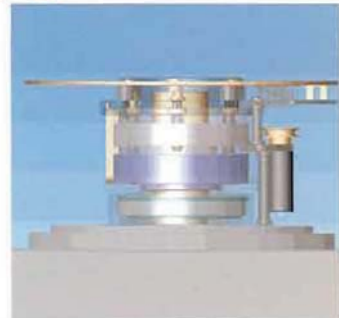


X-ray Generating Device

IMD high frequency combination sphere pipe from Italy. Contributes high quality radiation



VFD high definition large screen provides more information for graphics with user - friendly interface.



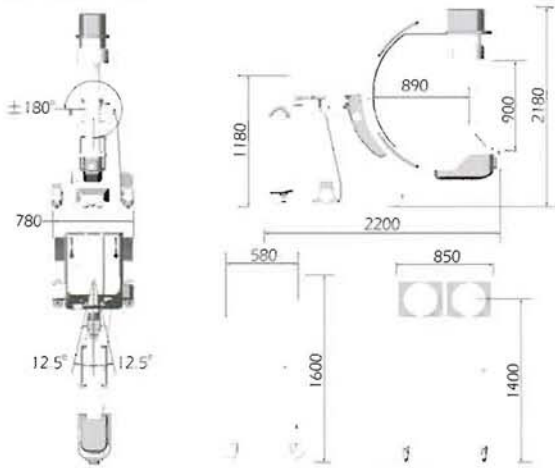
X-ray Generating Device Specification

Model	E-40 HF XDT-A110 Fixed positive	E-40R HF XD55AL Rotate positive	
Power	3.5kW	5kW	
Frequency	40kHz	40kHz	
High-frequency ripple	<1%		
Total filtration	>2.7mmAL		
Photograph	kV / mA	40~110kV , 60~30mA	40~120kV, 80~40 mA
	mAs	5~160mAs	5~160mAs
	Focus point	1.5mm×1.5mm	0.6mm×0.6mm
Clairvoyance	kV / mA	40~110kV , 0.5~5mA	40~120kV, 0.5~5 mA
	Focus point	0.6mm×0.6mm	0.3mm×0.3mm
Reinforced clairvoyance	40~110kV, 10mA	40~120kV, 10mA	
Positive heat volume	30kj (40kHU)	150kj (200kHU)	
Combination machine head heat volume	500kj (667kHU)	600kj (800kHU)	
Bind limiter	Electric-powered rotate multi-leaf aperture + parallel Z-leaf switch on-off		

Television System

Image Reinforcer	Single body model E5764HD-p4 9 " /6 " /4.5 " 3-view+ccd	Combination model E5764 ERD1-P49 " /6 " /4.5 " 3-view combination
Vidicon	Low inertia, High definition CCD + rotate	Vidicom rotate
Image Processing	576×576×8bit image collection	CCIR:752 (H)×582 (V)
	1250 lines 75Hz output	625 interleaved scan output
	4-step recursion noise absorption	4-step recursion noise absorption
	Last image freezing (image fixing)	Last image freezing (image fixing)
	7 images storage	8 images storage
	Negative-positive reversal (black-white image reversal)	Negative-positive reversal (black-white image reversal)
	CCD image 360o rotate	CCD image 360o rotate
Monitor	14 inches or 17 inches 1250 lines, 75Hz No flicker	14 inches or 17 inches 1250 lines, 75Hz No flicker

Dimension



Machine model Main parts configuration	2000B			2000A	
	High professional Model	professional Model	Normal Model	Popular Model	Basic Model
Integrative reinforcer	✓				
Single reinforcer+ccd		✓	✓	✓	✓
3.5kW sphere pipe		✓	✓	✓	✓
5kW sphere pipe	✓				
17 " high scan monitor	✓	✓			
17 " monitor			✓		
14 " high scan monitor				✓	
14 " monitor					✓
VFD light LCD	✓	✓		✓	
LED display			✓		✓

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