

# FLEXAVISION series

Remote Controlled R/F System





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# FLEXAVISION series

Numerous system configurations easily accommodate a wide variety of examinations

The specifications of the main system components, the FLEXAVISION R/F table, the high-voltage generator, and the X-ray tube, can be selected from a variety of different options. This flexibility in configuration makes the system suitable for a wide variety of examinations, ranging from gastrointestinal and other types of screening to urological and orthopedic examinations.

**Flexibility**

**Patient Care**

**Image Quality**

**Workflow**

**Reliability**



Elevating table



Standard table

**FLEXAVISION HB package**  
Hybrid (SFD & Digital) system

**FLEXAVISION SF package**  
Cassette SFD system

**FLEXAVISION FD package**  
Full digital system

# Flexibility

Thanks to a wide variety of R/F table types, high-voltage generators, X-ray tubes, I.I. sizes and digital processing units, FLEXAVISION allows you to create an optimal system that accommodates both your patient throughput requirement and all your examination types. Even though the system is compact, its rapid movement and wide patient coverage allow for precise

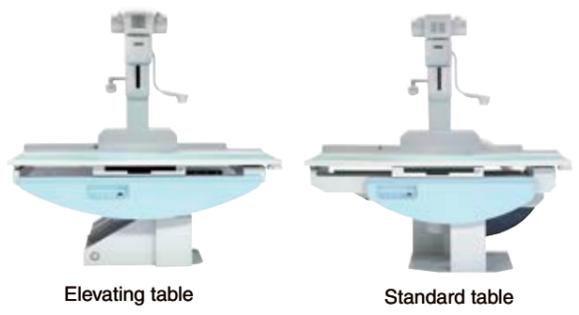
positioning in the area of interest. This ensures easy selection of the optimal system for both standard gastrointestinal, thoracic, and abdominal examinations, as well as specialized nonvascular IVR, urological and orthopedic examinations.



**X-ray high-voltage generator**  
50 kW  
80 kW

**I.I.**  
9 inch type  
12/9 inch type  
12/9/7.5 inch type\*  
12/9/7.5/6 inch type\*  
(\* HB, FD types)

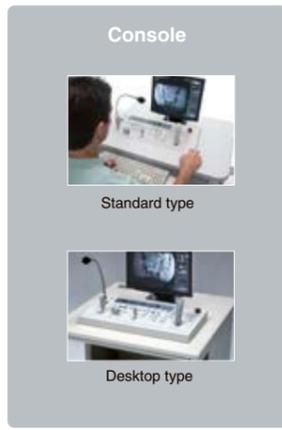
**X-ray tube unit**  
400 kHU, 300 kHU  
200 kHU



Elevating table

Standard table

**FLEXAVISION HB package : Hybrid (SFD & Digital) system**  
**FLEXAVISION SF package : Cassette (CR) SFD system**  
**FLEXAVISION FD package : Full digital system**



Console

Standard type

Desktop type



**Extensive Examination Coverage**  
Provides full-body coverage for gastrointestinal, nonvascular IVR and urological examinations.



**Oblique Projection Unit** **OPTION**  
Ensures suitability for general radiography, orthopedic and enema examinations.



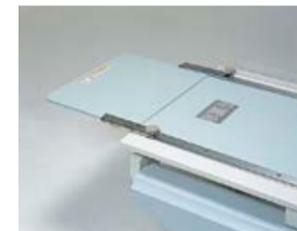
**Imaging Chain Extension**  
Imaging chain extension is 1.5 m (standard). In combination with cassette radiography, this option provides thoracic radiography and swallowing function tests on wheelchair patients.



**X-ray Tube 180° Swing Unit** **OPTION**  
180-degree rotation of the X-ray tube/collimator easily and effectively accommodates chest examinations using a bucky stand.



**Urological Option** **OPTION**  
Perform urological examinations in combination with cassette radiography.



**Auxiliary Tabletop** **OPTION**  
Provides superb patient support during ERCP, lower extremity venography, or orthopedic radiography of the lower extremities.

**A comprehensive range of options meet a wide variety of needs.**

\* Oblique projection unit (orthopedic, gastrointestinal) \* Lateral cassette holder (general radiography)

\* Compression band \* Rolling step (screening) \* Endoscope support (endoscopy)

\* Foot switch (interventional radiology, orthopedics, etc.) \* Local console (interventional radiology, orthopedics, etc.) \* DICOM software (FD, HB types)

# Patient Care

Patient care is the keyword when evaluating the design of the FLEXAVISION system. Enjoy an extensive range of functions designed to assist staff and patients alike. This includes table elevation to ease the strain of patient changeover, bedside switches for unit positioning while providing bedside care, digital radiography (HB, FD types) and spot filming (HB, SF types) to reduce patient restraint times during examinations. X-ray dose during examinations are a major concern for both operators and patients. As a result, FLEXAVISION standard features include low-dose pulsed fluoroscopy (HB, FD types) and a beam hardening filter to reduce total X-ray dose.



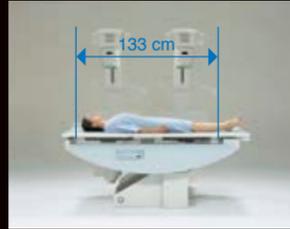
## Bedside Switches

Tabletop and imaging chain operation switches are provided on the tabletop to allow examinations and positioning while caring for the patient.



## Table Elevation

This function reduces strain during patient changeover and allows the technologist to easily and safely transfer patients on and off the table. The elevating tabletop also allows the technologist to select their most comfortable examination height.



## Full-Body Stroke

Generous 133 cm (17"×14" cassette) examination range accommodates all examination types and minimizes need for patient movement.



## Cassette Spot Filming

One-touch-loading cassette ensures well-timed radiography. (HB, SF types)



## Cassette Radiography

Spot filming function uses cassettes to extend the viewing field.



## Digital Image Display

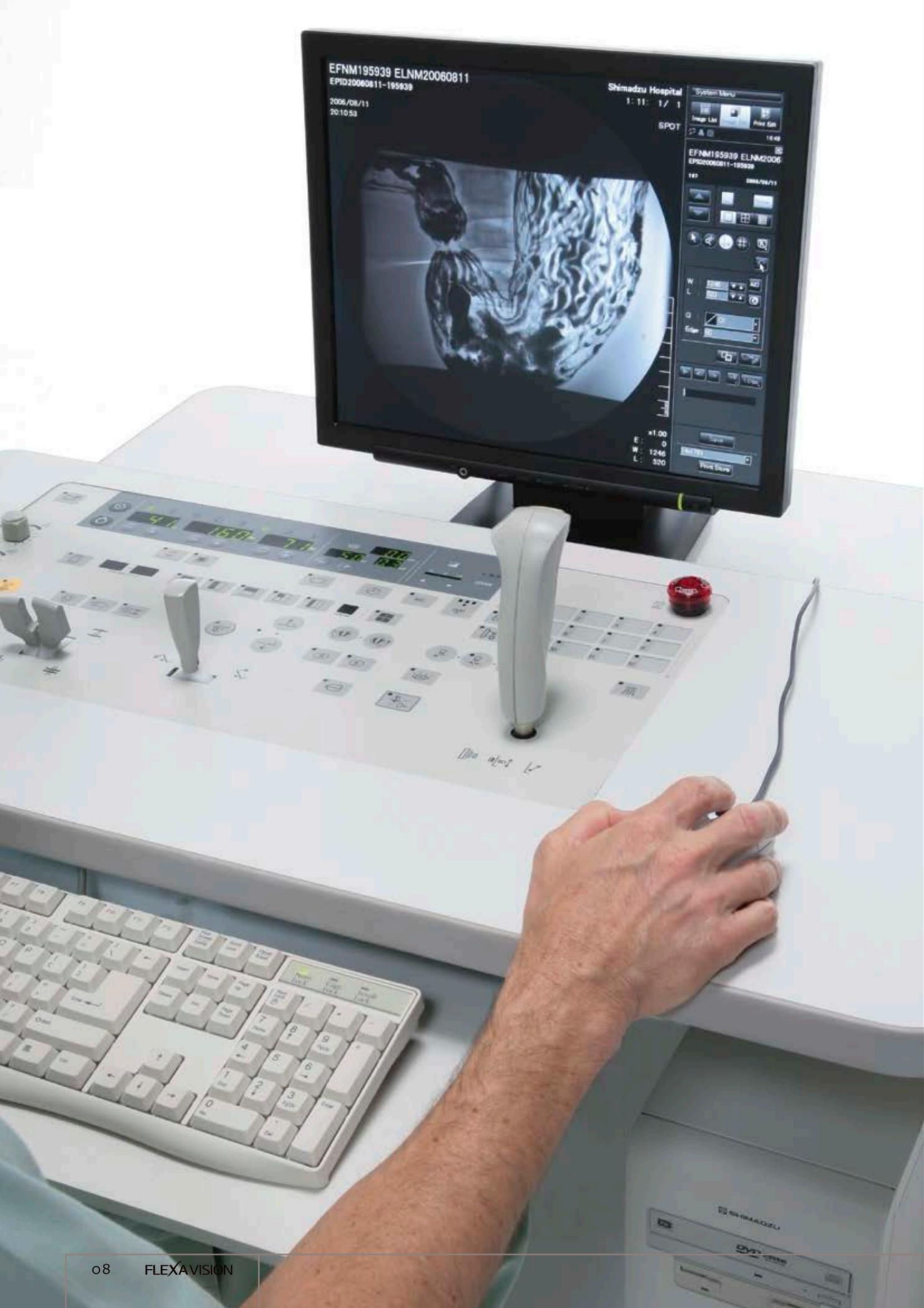
Acquired images appear instantly on the monitor, helping to reduce patient restraint time. (HB, FD types)



## Rubber Cushioned, Flexible Collimator

The periphery of the collimator is fitted with a rubber cushion to provide additional safety for the patient and operator.





# Image Quality

FLEXAVISION provides outstanding image quality. The high-performance, 1-megapixel CCD camera (HB, FD types) allows 1024 x 1024 matrix and 12-bit (4096 gradation) imaging. This ensures image quality of high definition and high-density resolution. Shimadzu's digital processing is applied to suppress halation and provide clear images with superb contrast for realtime image review. Multi-cassette spot film device (HB, SF types) provides similar digital image capture, enabling efficient image review during urological and abdominal examinations that require a wide viewing field.

## High-Definition Digital

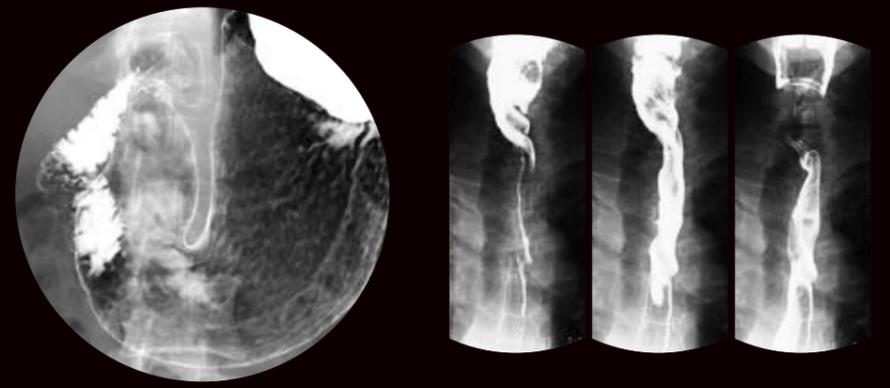
1024 x 1024 matrix  
12-bit (4096 gradations)

## Digital Serial Radiography

Serial radiography at 3 fps is effective for esophageal examinations. (7.5 fps serial : option)

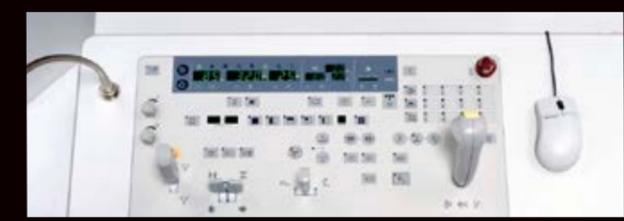
## Digital subtraction OPTION

High-speed, high-definition digital subtraction is available at 7.5 fps on a 1024x1024 matrix.



# Workflow

Controls for FLEXAVISION R/F table operation and the high-voltage generator are concentrated in a single operation console to ensure a smooth and accurate workflow for all types of examinations. Systems incorporating a digital image processor (HB, FD types) use the highly flexible Windows® operating system to provide realtime image viewing via simple mouse or keyboard operation. Optional DICOM-network compatibility simplifies printing and image transfer to a server, ensuring an overall high-quality workflow.



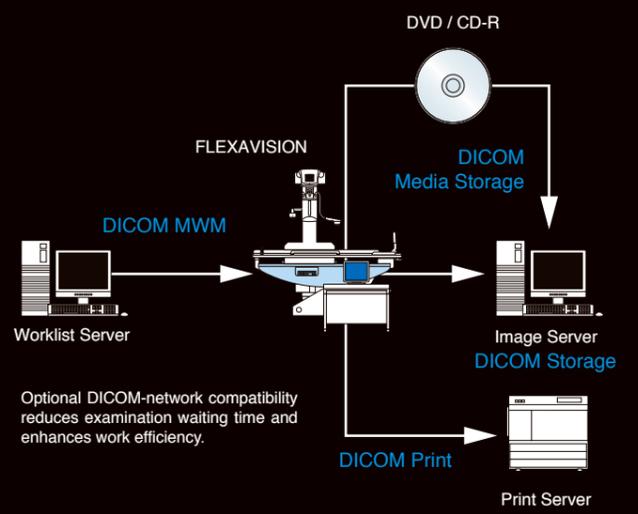
R/F table operations and high-voltage generator controls are concentrated in an easy-to-use layout.



Use the tabletop-type console to operate the R/F table and high-voltage generator from a standard work desk.



Simple Windows®-based mouse and keyboard operation simplifies system operation and image review (HB, FD types)

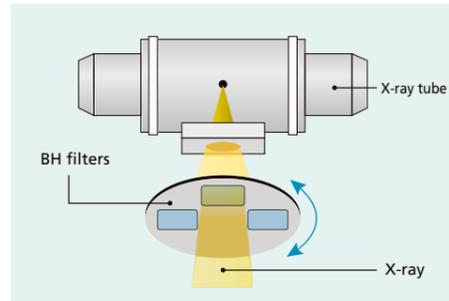


Optional DICOM-network compatibility reduces examination waiting time and enhances work efficiency.

FLEXAVISION can output images in JPEG or BMP file format.

# Dose Management

FLEXAVISION not only provides high-definition images with the optimal image quality for each examination. It also effectively reduces the total exposure dose in pediatric, gynecological and other examinations where low dose exposures are required.



Pulsed fluoroscopy function

3.75 fps

7.5 fps

15 fps

## Lower Dose with a Removable Grid

The FLEXAVISION grid can be inserted or removed to suit the radiography application. The grid can easily be removed for pediatric, obstetrics and gynecological examinations when the radiation dose to the patient must be kept to a minimum.

## Automatic BH Filters Switch to Suit the Examination

Three beam hardening (BH) filters are provided as standard to efficiently remove unnecessary soft X-rays that do not contribute to image quality. The optimal BH filter is automatically selected to suit the examination, so image quality is increased while exposure dose to the patient is reduced.

## Reduced X-ray Exposure

Standard equipment pulsed fluoroscopy (HB, FD types) and beam hardening filter reduce exposure to unnecessary X-rays.



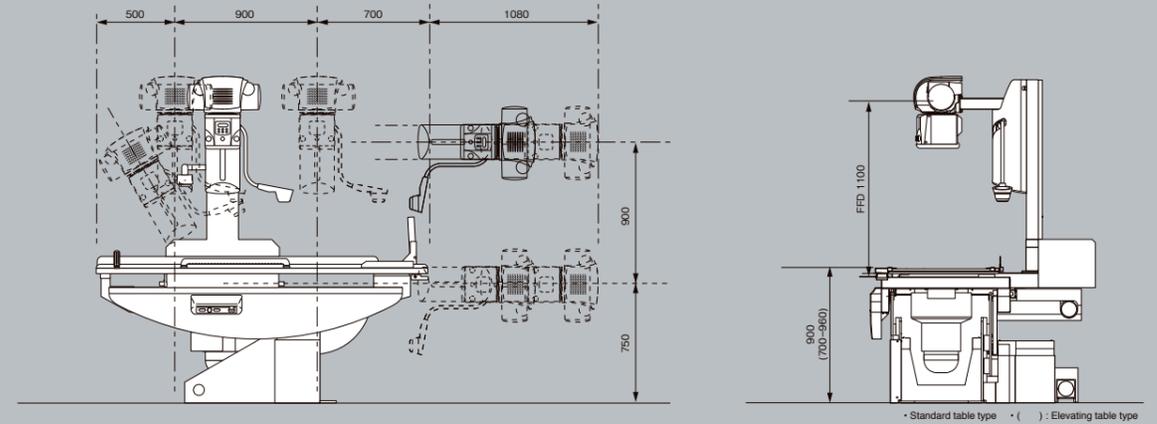
## DAP value display

The dose display console shows you DAP value in real time, calculated by X-ray conditions etc., based on the IEC-international standards ( IEC60601 3rd Ed.).

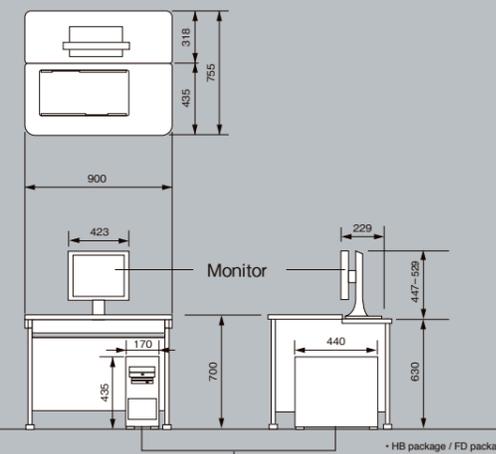


## DIMENSIONS

Unit : mm

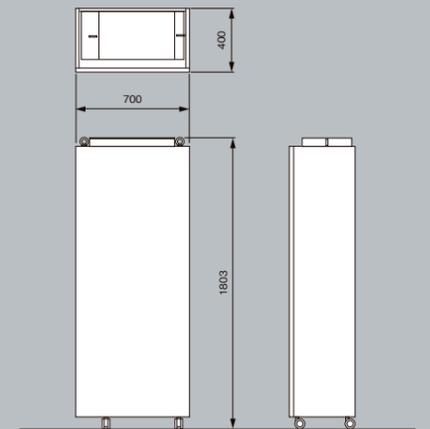


## Remote console



## Digital unit

## X-ray high voltage generator (80 kW, 50 kW type)



## Specification

	SF package	HB package	FD package
Generator (selectable)	50 kW, 80 kW		
X-ray tube (selectable)	200 kHU, 300 kHU, or 400 kHU		
Image Intensifier (selectable)	9 inch, 12 inch (2 fields)	9 inch, 12 inch (2 fields), 12 inch (3 fields), 12 inch (4 fields)	
Table tilt	+90 to -30 degrees		
Table elevation	70 cm to 96 cm (factory installed option)		
Patient coverage	133 cm (imaging unit travel 90 cm + 43 cm CR/Film) (option: table top extension for flexible positioning)		
FFD extension	1.5 m (standard.)		
Oblique projection	+/- 30 degrees (factory installed option)		
TV camera	400,000 pixel CCD camera	1 million pixel CCD camera	
SFD / Cassette tray	Multi-size Spot Film Device		Cassette Tray
Digital processor	N.A.	1024 matrix, 12 bit, 3 fps (7.5 fps, optional)	
Pulsed fluoroscopy	N.A.	Max 15 fps	
DICOM compatibility	N.A.	DICOM Print (standard.), DICOM Storage (option.), DICOM MWM (option.)	
Media storage	N.A.	CD-R/DVD-R	

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Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2008 Quality Management Systems and ISO13485:2003 Medical Devices Quality Management Systems.

### Remarks:

- Every value in this catalogue is a standard value, and it may vary a little from the actual at each site.
- The appearances and specifications are subject to change for reasons of improvement without notice.
- Certain configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.
- Before operating this system, you should first thoroughly review the Instruction Manual.