

Remote Controlled R/F System

# FLEXAVISION

HB package eXceed edition Hybrid (SFD & Digital) System

FD package eXceed edition Full Digital System



Remote Controlled R/F System  
**FLEXAVISION™**  
HB package eXceed edition

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**A Wide Range of Features and Options  
Accommodate Numerous Examination Scenarios**

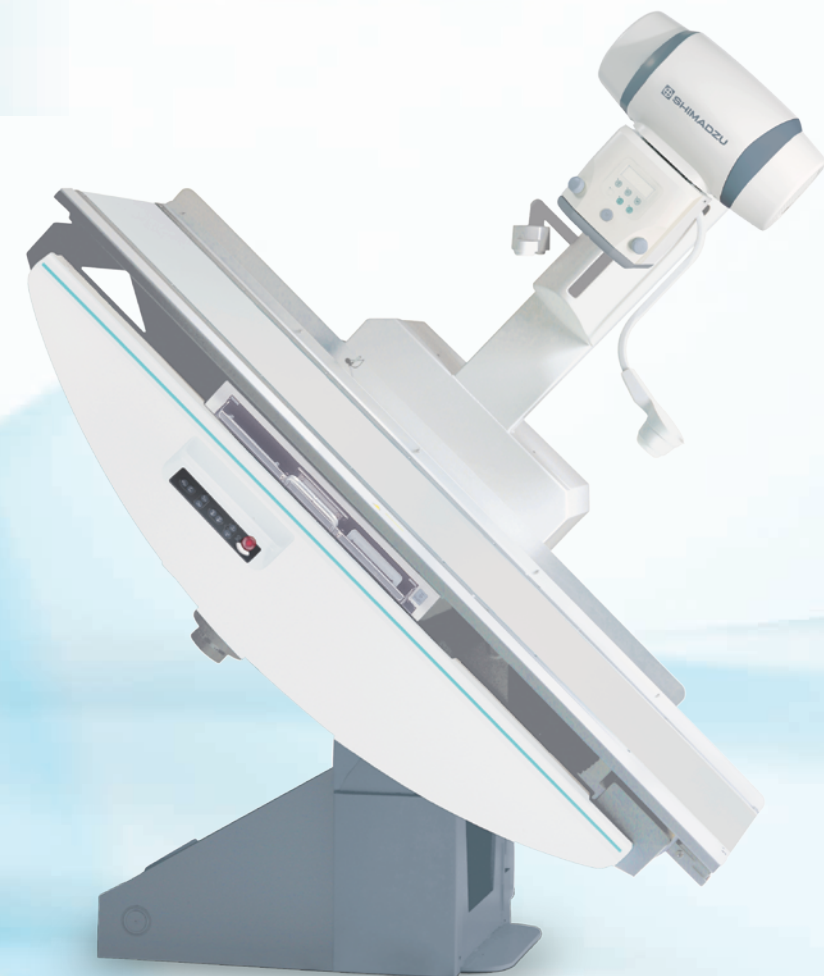
FLEXAVISION is a hybrid R/F system equipped with an extensive range of functions. It was designed to respond easily and flexibly to a wide range of examination requirements, such as examinations of the gastrointestinal tract, chest, and abdomen, as well as specialized examinations required during urology and rehabilitation. This new offering from Shimadzu incorporates the user-friendliness and flexibility needed for our world's ageing societies.



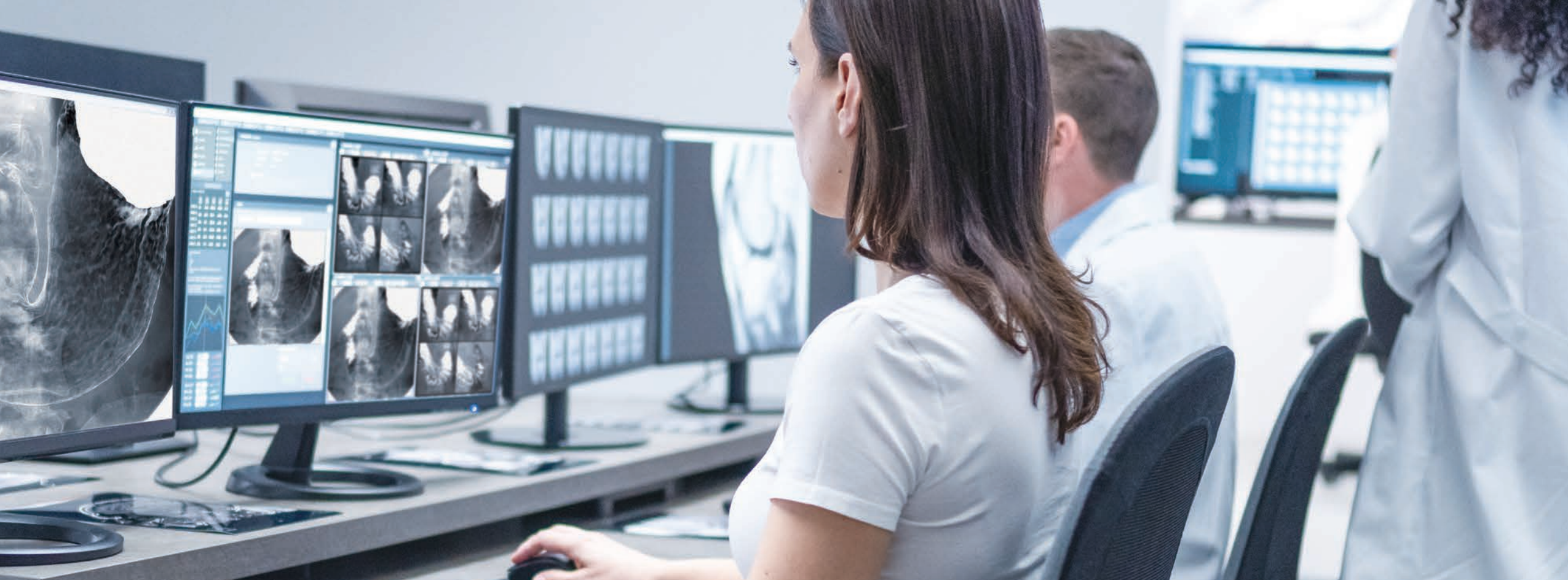
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**Full Digital Solution for Flexibly  
Accommodating a Variety of Examination Needs**







## High Quality Imaging

High-definition, full-digital images from the 1-megapixel CCD camera allow monitoring in both radiography and fluoroscopy modes. AS for HB package, the multi-cassette spot filming function ensures this system can flexibly accommodate a range of examinations requiring a large field of view, such as those of the urinary tract and abdomen.

### 1024 x 1024-Matrix, 12-bit (4096-Gradation), Full-Digital Images

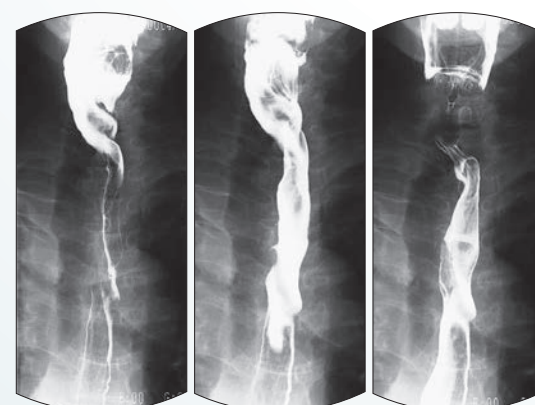
Equipped with a high-definition 1-megapixel CCD camera, the 12-inch (30 cm) image intensifier provides a large field of view. In fluoroscopy and radiography, real-time acquisition of high-definition, full-digital images allows immediate viewing on a monitor.

### "Smart FIT" Fluoroscopy Image Processing Function Reduces Noise and Ghosting

New real time digital filtering can efficiently reduce noise in low dose fluoroscopic images. High quality fluoroscopic images with the filtering can be viewed without any ghosting.

### Serial Radiography

Digital serial radiography at up to 3 fps (7.5 fps: option) ensures precise image timing in regions such as the esophagus, where contrast medium flow is difficult to capture.

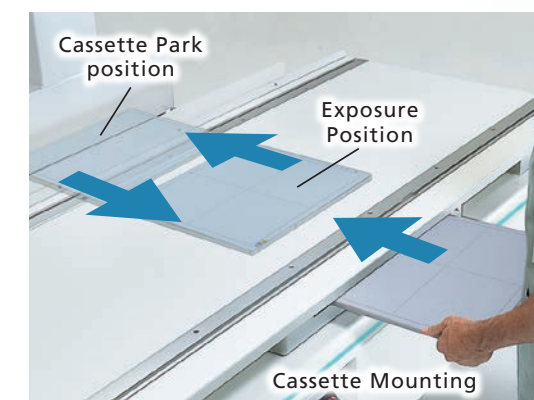


esophagus

### Cassette Spot Filming Function

HB package

Advanced technology in the Spot Film Device gives precise radiography timing. Cassette movement from the "park" position to the "exposure" position is almost instantaneous, allowing capture of the region of interest.



### Wide Selection of Cassette Sizes

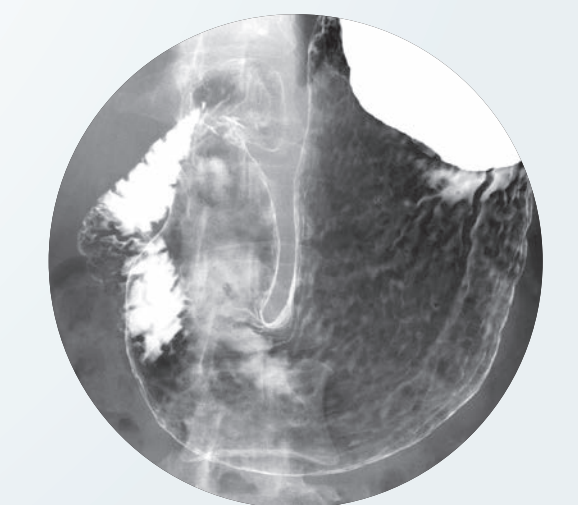
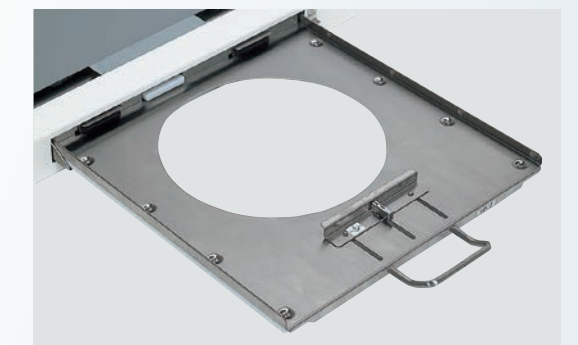
HB package

A selection of cassette sizes, from 18 x 24 cm to 35 x 43 cm, can be used to perform a wide range of examinations, from thoracic to orthopedic. Also, a xenon-filled phototimer (option) with 4 spot fields and minimal radiation scattering ensure that X-ray efficiency is high and radiography is stable.

### Cassette tray

FD package

This system can also perform general radiography using large-field 35 x 43 cm cassettes. The use of CR cassettes together with a digital CCD allows the full-digital observation of images.



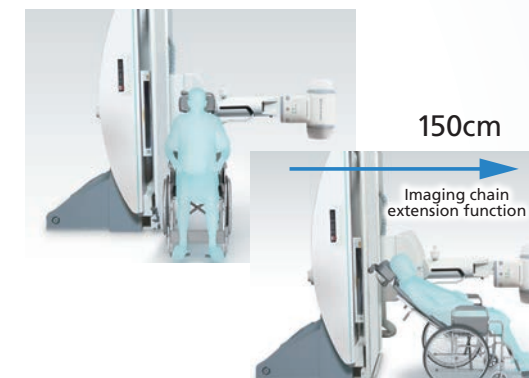




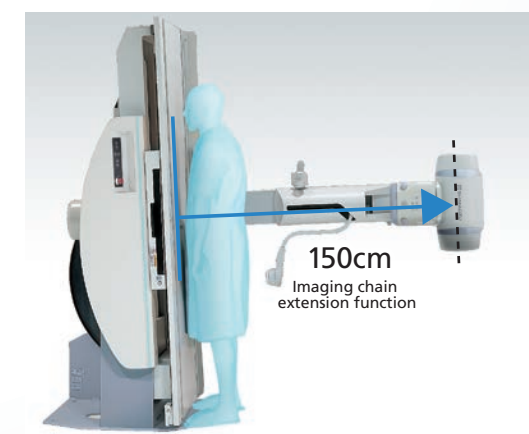
## Flexible Easy-to-Use System

### Imaging Chain Extension Function

Our imaging chain extension function allows you to easily secure the area required for a variety of examinations. For example, with Videofluoroscopic Swallow examinations of patients in wheelchairs, this function eliminates the need to transfer the patient to the table and then raise the table to perform imaging, reducing the operator's work and patient's anxiety.

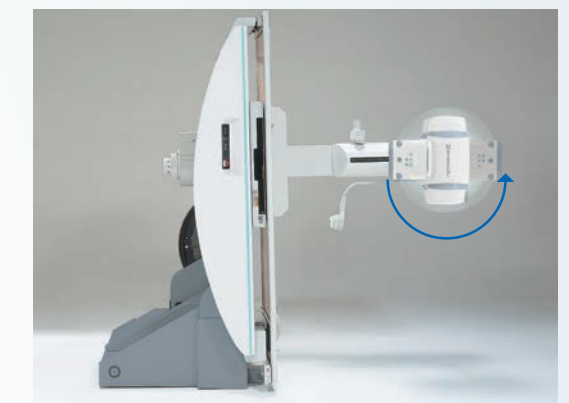


Also, this function is also effective for low-magnification standard radiography of the chest and abdomen.



### X-ray Tube 180° Swing Unit OPTION

180° rotation of the X-ray tube/collimator easily and effectively accommodates chest examinations using a bucky stand.



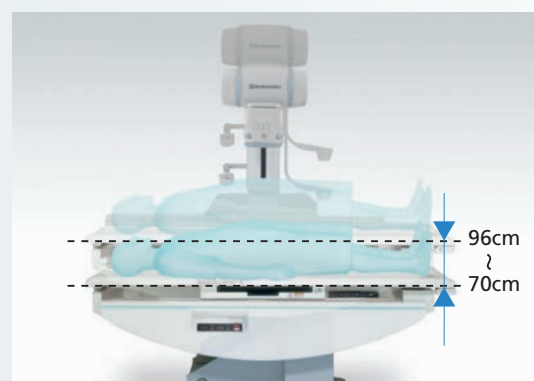
### Bedside Switches

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



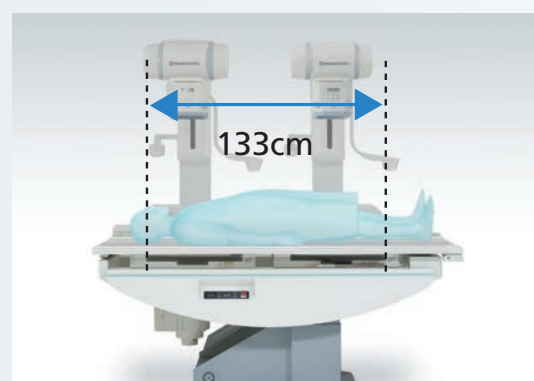
### LED Collimator Lamp

Using LED lights for the exposure field lamp in the collimation unit increased lamp brightness and longer life. The brighter illumination makes it easier to confirm the field of view at the location being examined.



### Table Elevation OPTION

In addition to allowing safe patient transfer onto the table from a wheelchair or stretcher, this function makes it easy for the operator to perform approaches during a wide variety of procedures, including digestive tract examinations, IVR, and urological examinations, and also helps to reduce both patient and operator stress. (Systems without this function are also available.)



### Allows a Variety of Examination Approaches

FLEXAVISION incorporates a compact, fast-moving table that allows the operator to rapidly perform a variety of examinations, with a large coverage area that accommodates each type of examination range.

Vertical, lateral, and oblique imaging chain movement, combined with table inclination and elevation let the operator easily perform approaches in a variety of procedures with a minimum of patient movement, ranging from gastrointestinal tract, urinary organ and orthopedic examinations.

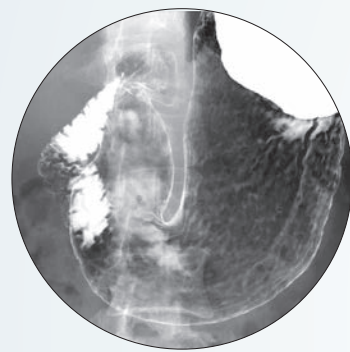


# Your Clinical Partner for Accommodating Varied Examinations

## Gastrointestinal Examinations

### Easily Control Contrast Medium Flow in Upper Gastrointestinal Tract Examinations

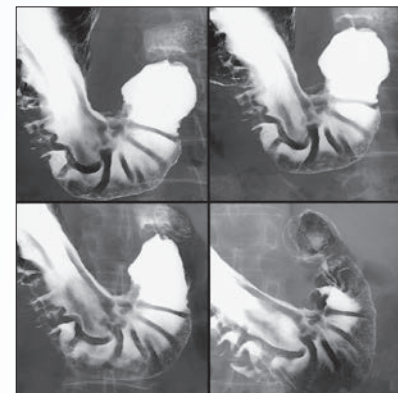
Supports radiographic esophageal examinations in the vertical position and Trendelenburg position up to -30°.



Radiography of upper gastrointestinal tract performed

### Sub-divisional Digital Radiography

2-frame and 4-frame Digital Radiography is efficient for screening.



### Large Field of View in Digital Radiography

The 12 inch (30 cm) Image Intensifier provides a large examination area which is required in enema examinations.

## Other examinations

### View Moving Images, Such as for DIP

By acquiring a series of images with three frames per second, the images can be viewed as a moving image, such as for DIP radiography. Plain radiography with a large field of view is also possible using a 35x43 cm type CR/wireless FPD.

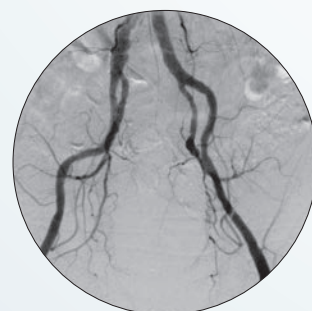


DIP Image (35x43 cm size)

### Angiography

OPTION

High-speed, high-definition real-time DSA is available at 7.5 fps on a 1024 x 1024 matrix.



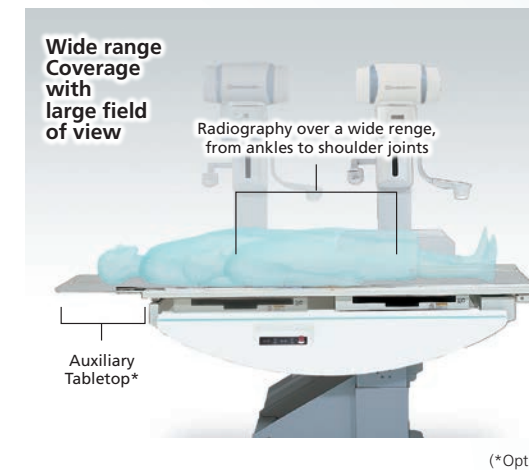
## Orthopedic Examinations

### View Kinetics with Fluoroscopy

The status of joints and other areas can be viewed in real time using fluoroscopy. Furthermore, the status can be viewed with weight applied by tilting the table.

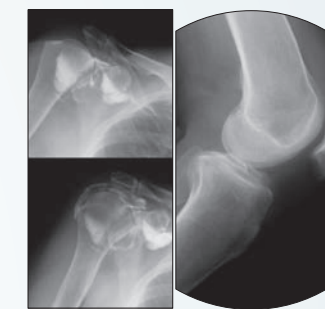
### Wide-Range Coverage

Adding an auxiliary tabletop\* enables radiography over a large range, from the ankles to the shoulder joints. (\*Option)



### Optimum Images

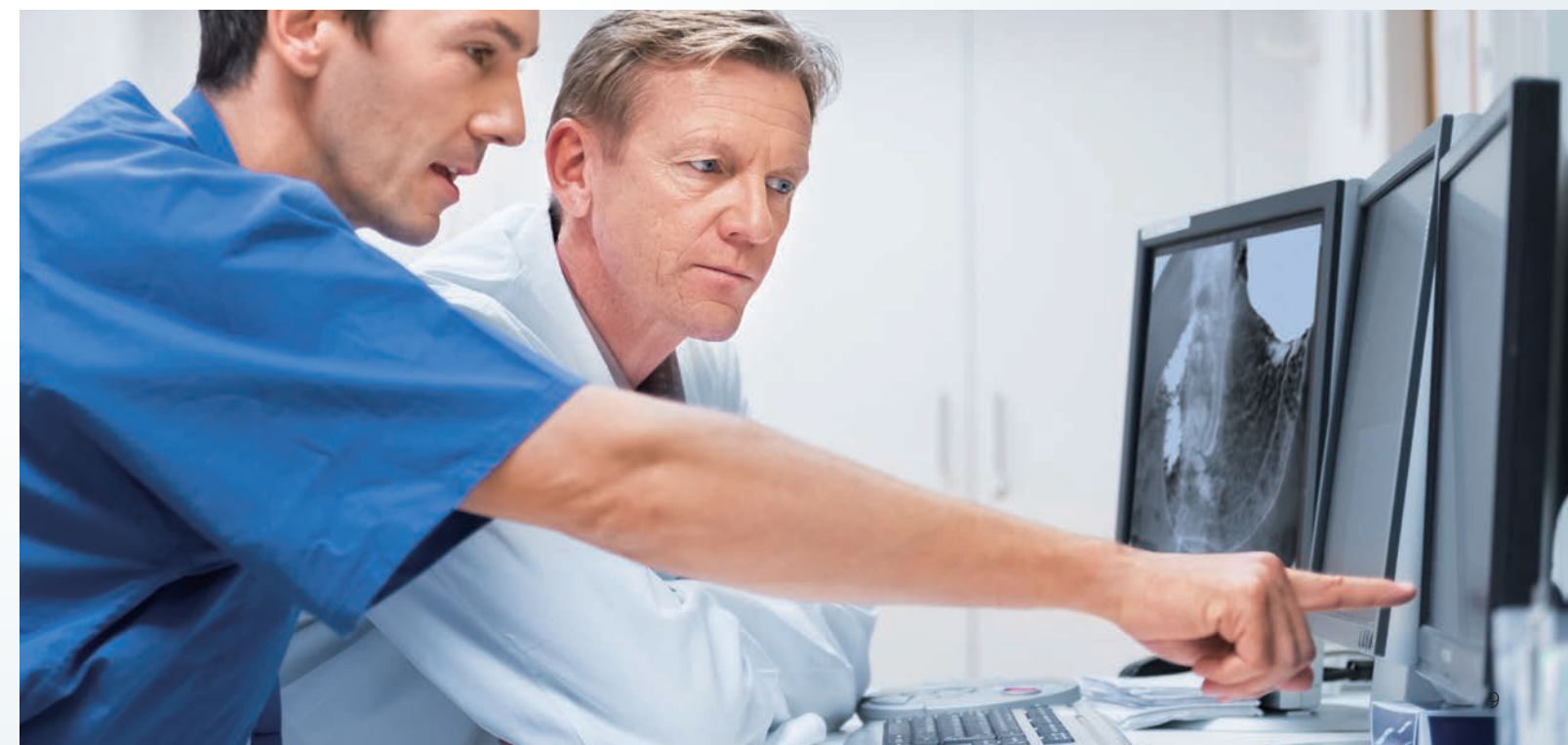
High-density resolution and multiple digital image-processing technologies produce optimum-quality images.



## Endoscopic Examination

### Easy Access from Tableside

The simple space-saving design of this system makes it easy to perform endoscopic procedures from the tableside. Distance from the bottom of the table to the observation field is 35 cm (using a 12-inch image intensifier), ensuring endoscope positions in fluoroscopic images are captured precisely.





# System Designed for High Throughput and User-Friendliness

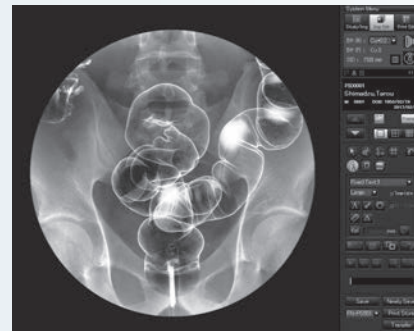
The design, manufacture, and assembly of all parts used in our FLEXAVISION system, including both the X-ray tube and image intensifier as well as the R/F table, DR, and X-ray generator, are performed in-house by Shimadzu. The system's design reflects our consideration of how to match all related aspects, such as ease of use, reduced X-ray dose, and observation using high-quality images, with the actual examination environment.

## Easy-to-Use Digital System

Our digital image processing unit system is based on highly reliable hardware. Simple operations allow processing of high-quality digital images at high speed. An easy-to-see graphical user interface (GUI) and mouse control provide an intuitive operating environment.

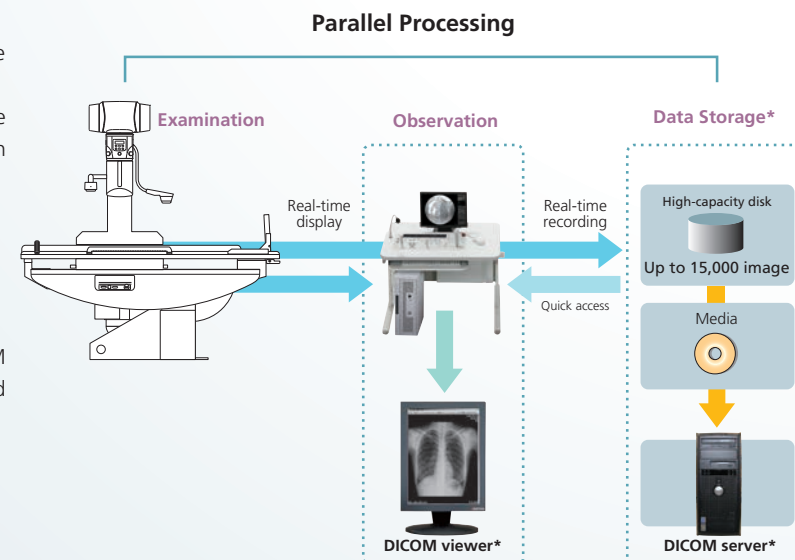


Desktop type console with small foot print is also available.



## Parallel Processing Improves Work Efficiency

Even during fluoroscopy or radiography, images can be transferred to a viewer or laser imager. The ability to execute processes independently reduces the time spent waiting for completion of non-examination processes and improves overall work efficiency.



## Automatic Image Transfer

This system supports automatic image transfer to DICOM viewers, servers and laser imagers. This function is achieved in the background, so it will improve the throughput.

# 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.

## Low-Dose Pulsed Fluoroscopy Included as Standard Feature

Three pulse rates can be selected depending on examination requirements (3.75 fps, 7.5 fps, or 15 fps). That means high-quality images can be viewed while minimizing the radiation exposure to patients, even during interventional or other procedures that require fluoroscopy for long periods.



## Automatic BH Filters Switch to Suit the Examination

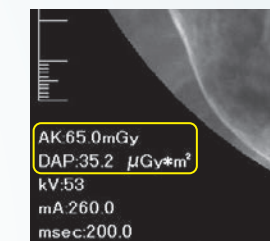
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## Lower Dose with a Removable Grid

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.

## Exposure Dose Values in Real Time

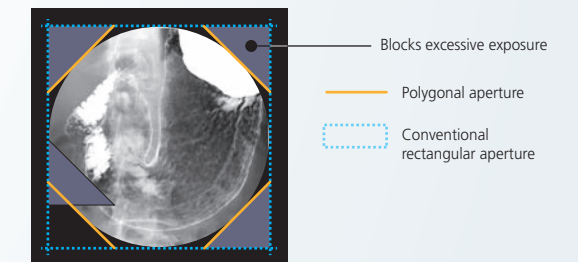
Calculated dose values are displayed on the monitor in real time.\* In addition to using the display as a guideline for exposure levels during examinations, the dose values can also be managed as examination information via the network.



\* An area dosimeter (option) can also be installed.

## Polygonal Aperture Reduces Excessive Exposure

FLEXAVISION has a polygonal aperture feature. It reduces exposure levels by blocking the unnecessary X-rays at the four corners of the field of view.





# Supporting Hospital IT Network

With FLEXAVISION, image digitization streamlines tasks involving the observation, storage and query of images, while helping to increase work efficiency.

## Diagnosis on Monitor

When acquired images are stored in the hard disk, they are also displayed in real time on the monitor. This allows immediate confirmation of images that have been captured during medical examinations, improving examination efficiency.

## Media Storage

Data can be stored on DVD-R or CD-R discs in DICOM-compliant format. This allows offline observation of images without conversion using a DICOM-compliant medical image observation viewer or server.

## Real-Time Image Storage in High-Capacity HD

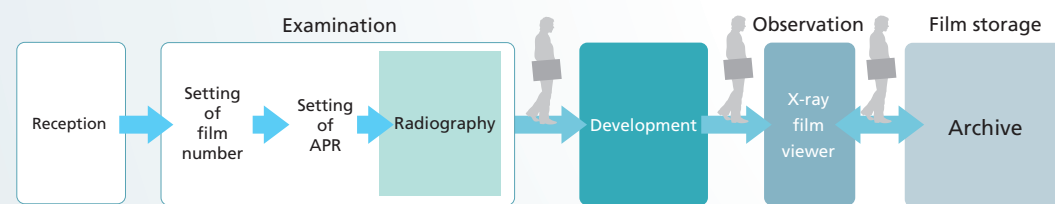
Incorporating a high-capacity hard disk, FLEXAVISION can directly store up to 15,000 images providing you with peace of mind during examinations requiring large storage capacity.

## Exports Image Data in Multimedia Formats

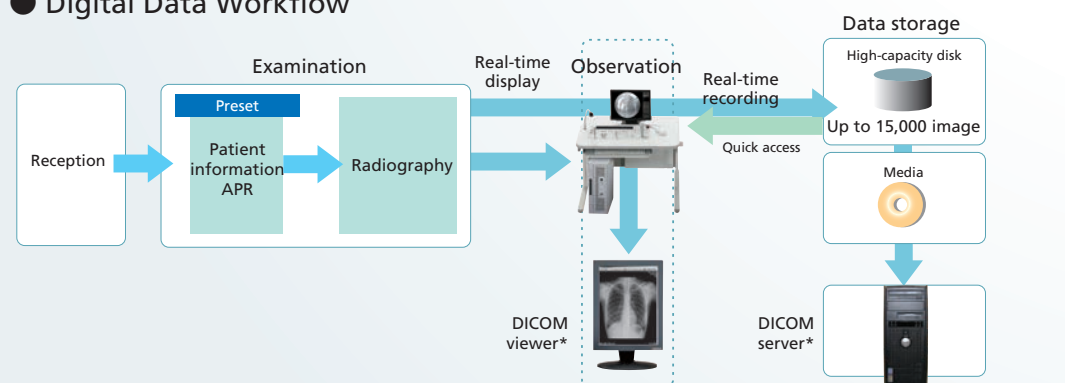
All image files can be written in JPEG or BMP format to shared folders.



### Film Workflow



### Digital Data Workflow



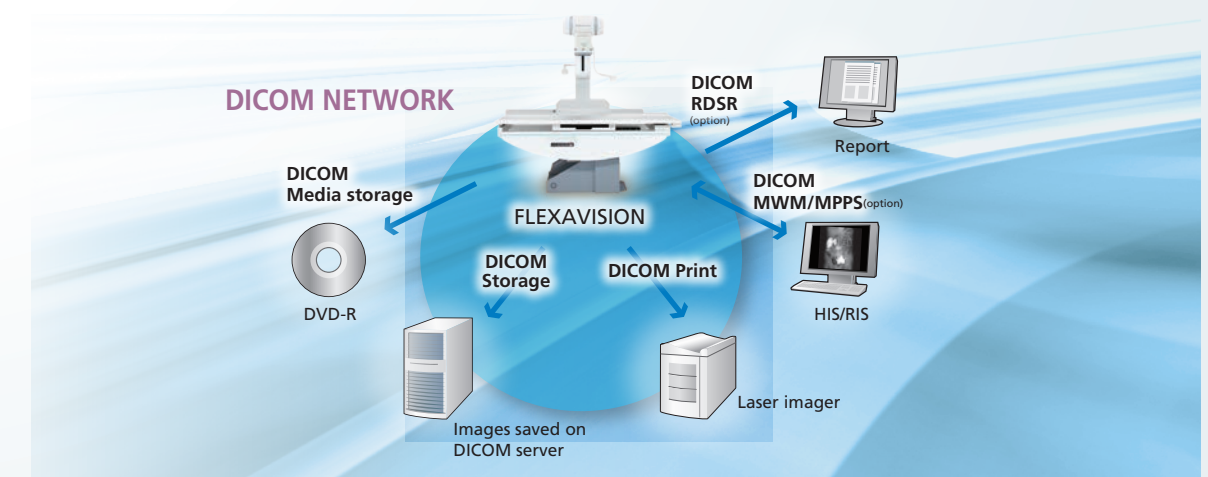
Note: \*Isn't Included in FLEXAVISION package.

## Compatible with Various Networks Within Hospitals

Network compatibility ensures patient registrations, printing out examination results and information sent to a server smoothly.

## Anti-Malware Software

Even if malware invades the system through a network connection or external media, for example, this software protects the system by preventing execution of any unauthorized software.



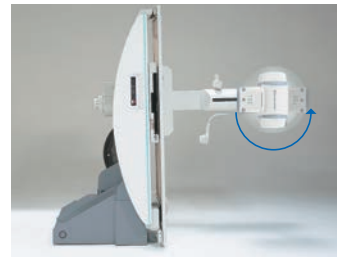
Note: A separate network must be created if a CR/wireless FPD is used.

# A Variety of Options for Supporting Examinations

## For Gastro-intestinal / General Radiographic studies

### X-ray tube 180° swing unit

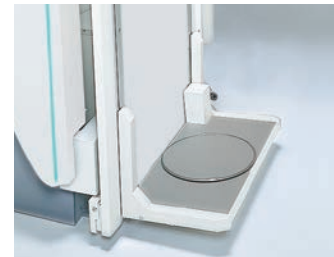
180° rotation of the X-ray tube/collimator easily and effectively accommodates chest examinations using a bucky stand.



### Rolling step

Rolling step has the left-and-right rotational function.

It helps an elderly person to rotate left and right smoothly, and helps a workflow at mass examination.



### X-ray tube swing-out unit

Allows rotating X-ray tube 37° to perform chest radiography with a leader stand.



### Compression band

- Mattress
- Oblique projection unit \*
- Table elevation function \*
- Lateral cassette holder



Compression band

### Imaging chain extension unit

## For Urogenital / Endoscopic Studies

### Drain bag

It is for receiving excrement during the examination of the urethra.



### Leg supports

One pair is mounted on the tabletop to support legs.

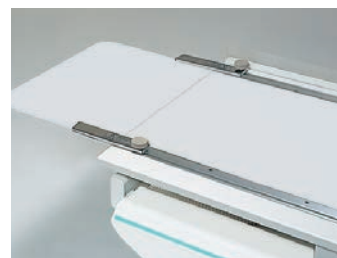


### Auxiliary tabletop

The tabletop extension kit to mount at the head side.

It is useful for flexible positioning in ERCP or lower extremities' studies etc.

Dimension : 65 cmx50 cm(WxL)



### Endoscope support

- Elbow Rest for operator in urologic procedures

## For Network Connections

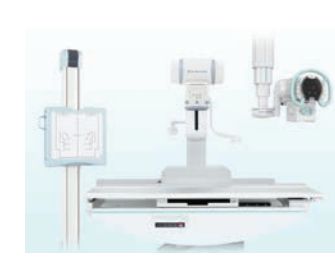
- DICOM MWM
- DICOM MPFS
- DICOM RDSR



## Other Options

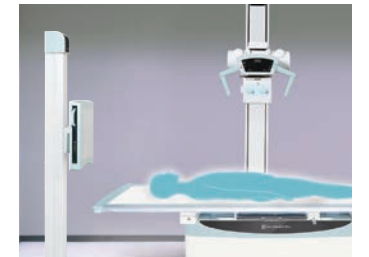
### 2nd-tube option with CH-200M

Combination with CH-200M allows general radiographic techniques such as lateral and decubitus radiography to be performed on the R/F table.



### 2nd-tube option with FH-series

Combination with FH-series and a radiography stand enables the simple and safe performance of a range of procedures from chest and abdomen radiography to general radiography.



### Foot switch

In examination room, it is possible to control radiography and fluoroscopy by foot.



- Local console
- Monitor cart
- Maximum allowable load up kit \*
- Direct phototimer
- Max. 7.5 fps Seaial acquisition
- Max. 7.5 fps DSA acquisition



Local Console

\*Indicates options installed at the factory.

Note 1)  
Some options cannot be compatible with some system configurations.  
Please inquire for the details to our sales representative.

## Product Lineup

Product		FLEXAVISION eXceed edition	
		HB package	FD package
Generator Power		50 kW or 80 kW	
X-ray tube	Focus	0.3/0.8 mm or 0.6/1.2 mm	
	Max. anode heat content	140kJ (200 kHU), 210 kJ (300 kHU), or 280 kJ (400 kHU)	
Diagnostic Table	Table elevation	Factory option	
	Oblique projection	Factory option	
	FPD or cassette handling	Spot filming device	Cassette tray



Label Description : REMOTE-CONTROLLED R/F SYSTEM FLEXAVISION

Founded in 1875, Shimadzu Corporation, a leader in the development of advanced technologies, has a distinguished history of innovation built on the foundation of contributing to society through science and technology. We maintain a global network of sales, service, technical support and applications centers on six continents, and have established long-term relationships with a host of highly trained distributors located in over 100 countries. For information about Shimadzu, and to contact your local office, please visit our website at [www.shimadzu.com](http://www.shimadzu.com)



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Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2015 Quality Management Systems and ISO13485:2016 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.
- Items and components in the photos may include optional items. Please confirm with your sales representative for details.
- 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.