

FLEXAVISION HB package

Remote Controlled R/F System
Hybrid (SFD & Digital) System

eXceed edition



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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.

A Wide Range of Features and Options Accommodate Numerous Examination Scenarios

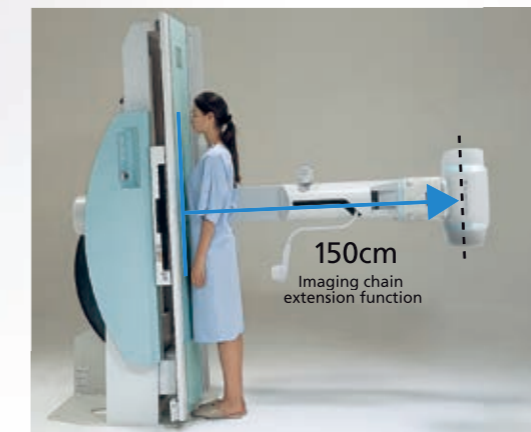


The product's pictures on this brochure is for the CE-compliant type system. Non-CE type system has a different appearance in some components such as collimator.

FLEXAVISION Mechanisms That Enhance Ease of Use

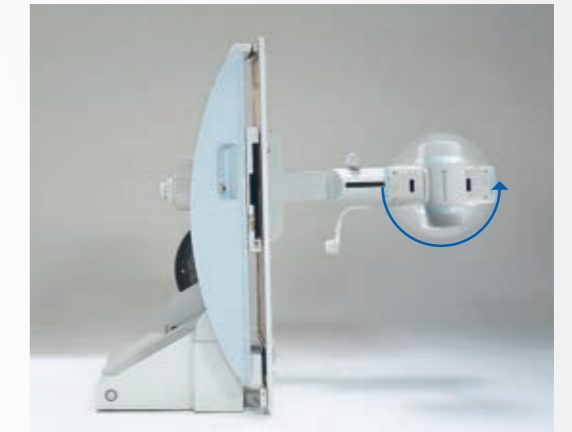
Shimadzu's Unique Imaging Chain Extension Function

Our imaging chain extension function allows you to easily secure the area required for a variety of examinations. This function is also effective for low-magnification standard radiography of the chest and abdomen.



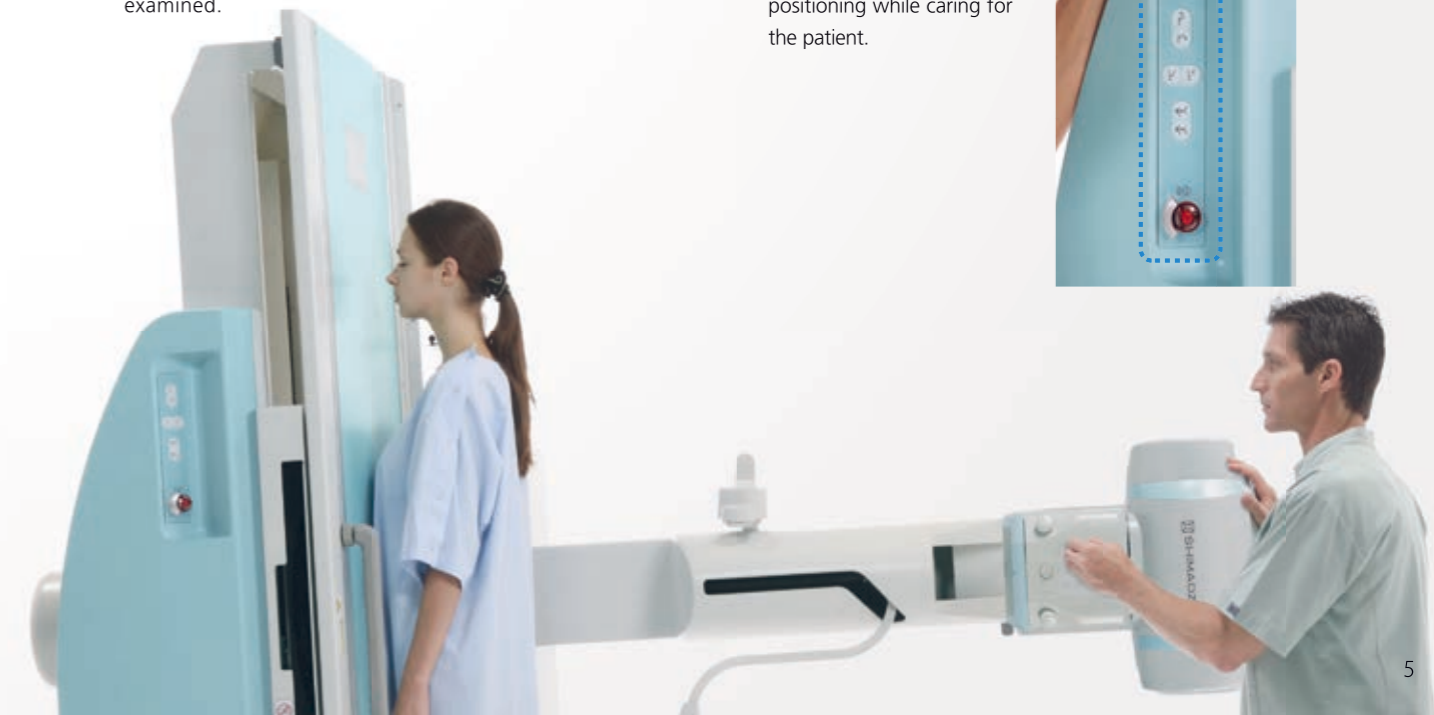
X-ray Tube 180° Swing Unit OPTION

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



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.



Bedside Switches

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



Table Elevation: a Unique function in its class OPTION

Previously available only in high-end systems, FLEXAVISION can be equipped with a table elevation function. 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.)



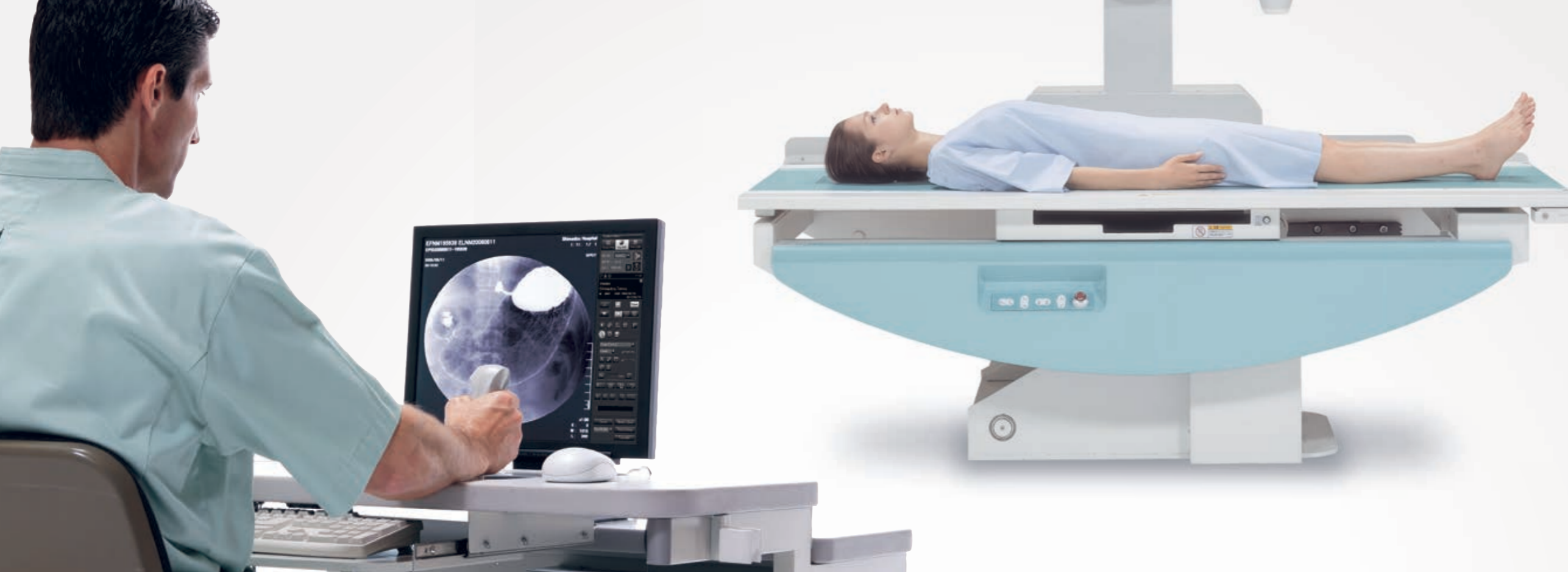
* Optional specification for CE-type. 69cm - 95cm elevation option for Non-CE standard type.

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.





Highest Image Quality in Its Class

High-definition, full-digital images from the 1-megapixel CCD camera allow monitoring in both radiography and fluoroscopy modes. 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 × 1024-Matrix, 12-bit (4096-Gradation), Full-Digital Images

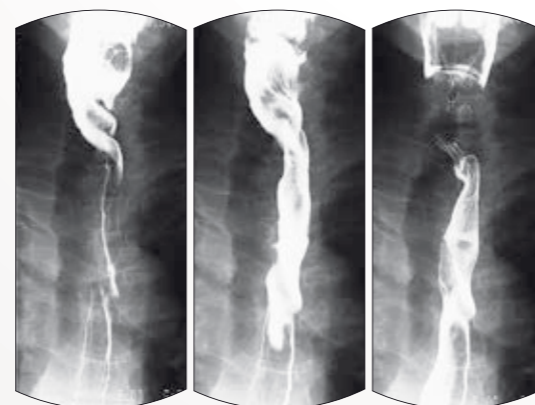
Equipped with a high-definition 1-megapixel CCD camera, the 12-inch (30cm) image intensifier provides a large field of view. In fluoroscopy and radiography, real-time acquisition of high-definition, full-digital images allows immediate viewing on a monitor.

New "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

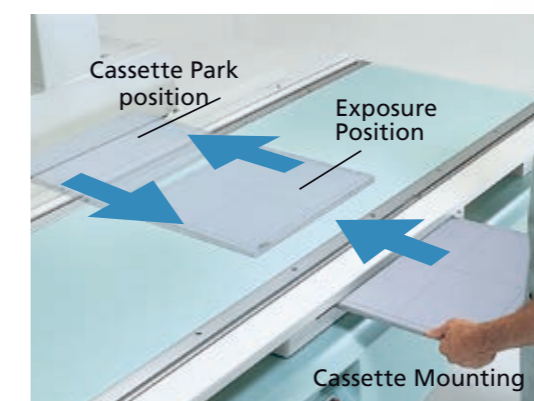
Digital serial radiography at up to 3 fps (7.5 fps option) ensures precise image timing in regions such as the esophagus, where contrast medium flow is difficult to capture.



esophagus

Cassette Spot Filming Function

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 perfect capture of the region of interest.



Wide Selection of Cassette Sizes

A selection of cassette sizes, from 18 × 24 cm to 35 × 43cm, 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.

"Memory Shot" Function Ensures Optimal Radiography Conditions

For spot film radiography performed during a fluoroscopy examination, the optimum radiography conditions for radiography of the region of interest, is instantly and automatically set from the required fluoroscopic exposure condition. Additionally, the systems APR function allows the presetting of up to 12 exposure conditions. This allows for quick and optimal imaging of common procedures.

APR Function

User programming of radiography conditions
Tube voltage, tube current, exposure time, phototimer settings, etc.

(Sample program)

- 1 Chest, high voltage
- 2 Chest, low voltage
- 3 Abdomen, low voltage, contrast priority
- 4 Abdomen, low voltage, time priority
- ...
- 12 Additional

Users can create programs for any procedure, based on 12 types of radiography technique.

Your Clinical Partner For Accommodating varied Examinations

Gastrointestinal Examinations

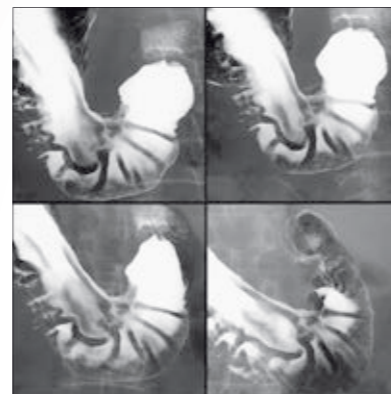
Easily Control Contrast Medium Flow in Upper Gastrointestinal Tract Examinations

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



Sub-divisional Digital Radiography

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



4-frame imaging

Accurate Timing of Esophagus Radiography

Digital serial radiography at 3 fps (up to 7.5 fps with option) allows precise timing of esophageal examinations.

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.

Endoscopic Examination / With Rehabilitation Patients

For patients in wheelchairs, esophageal examinations no longer require transferring the patient to the table and raising it to the desired position for imaging, reducing both operator-related work and patient anxiety.



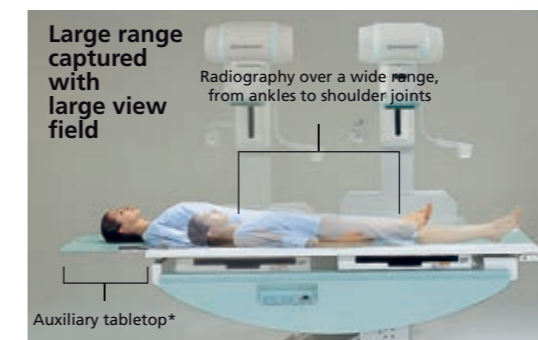
Orthopedic Examinations

Single Image Captures a Large Field of View

The multi-cassette spot filming function, which can be used with cassette sizes of up to 35 x 43 cm, allows precisely timed radiography over a large view field.

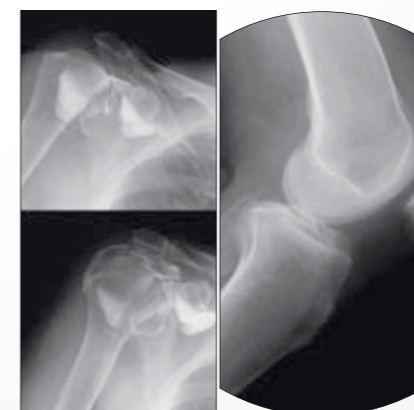
Wide-Range Coverage

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.

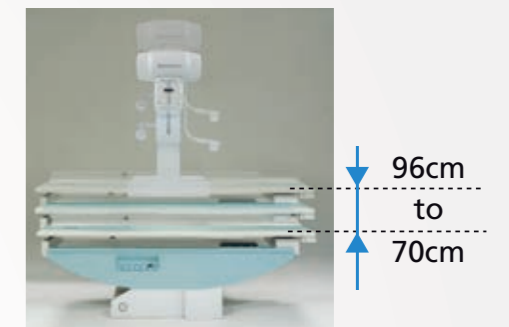


Additional Examinations

Table Elevation

OPTION

Use the table elevation function to adjust the table height from 69 to 95cm, allowing operators to perform procedures using comfortable positions.



(* Optional specification for CE-type. 69cm - 95cm elevation option for Non-CE standard type.)

Support for Large Area Radiography

Cassette spot filming, available with cassettes up to 35 X 43 cm, ensures radiography over a large field of view can be performed with precise timing.



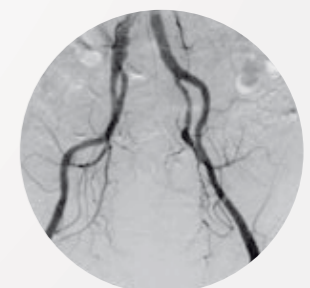
DIP (35 x 43 cm)

Chest (35 x 43 cm)

Angiography

OPTION

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



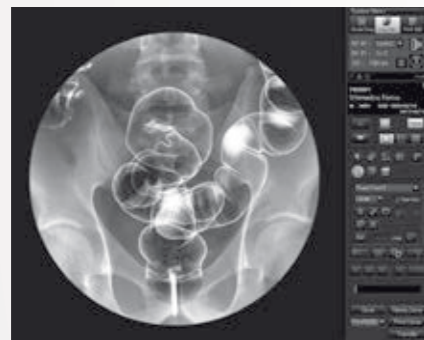
System Designed for High Throughput and User-Friendliness

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 Shlmadzu.

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



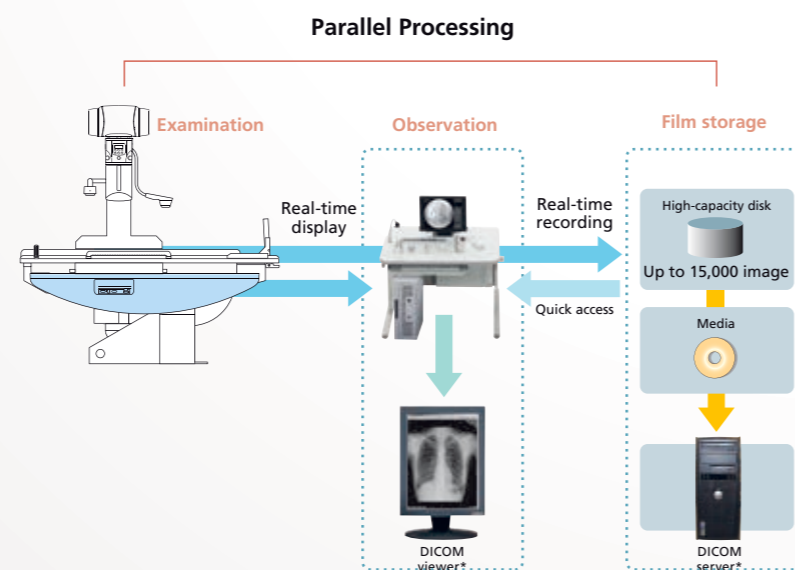
Desktop type console with small foot print is also available.

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 nonof 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 improving examination efficiency and patient throughput.



Note)* isn't included in FLEXAVISION package

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.

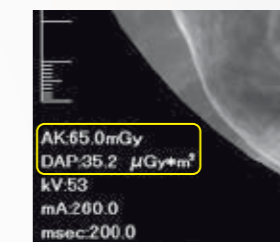
3.75fps

7.5fps

15fps

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.



* A area dosimeter (option) can also be installed.

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.

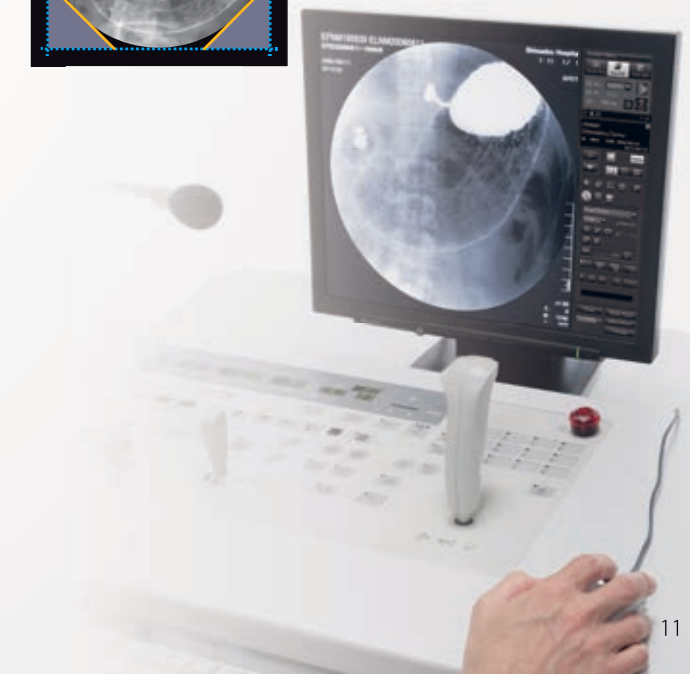
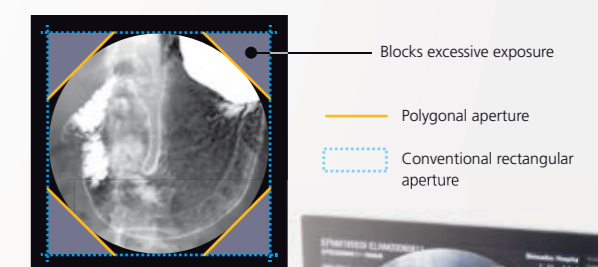
Lower Dose with a Removable Grid

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.



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.



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 Web site at 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 ISO9001:2008 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.