AWS — Operation workstation

Designed to optimize workflow

User-friendly interface

Equipped with an X-ray control section. Imaging conditions can be set and confirmed on the same screen

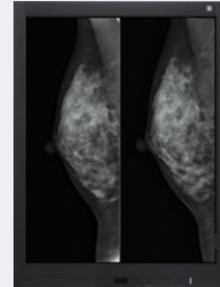| Enables setting and switching of 1, 2, or 4 divided displays on the test screen |
| --- |

Left and right image alignment

Allows arbitrary image output even during testing

High-Definition 3M/5M Second Monitor (Optional)


AWS

5M Second Monitor
(see past reference images)

- Second monitor allows for the display of current and/or past images for comparison* (*when connected to PACS)
- Automatically displays tomosynthesis reconstructed images
- Targeting for biopsy procedures. Displays stereotactic/tomo biopsy images.

Quality control tools for FUJIFILM Mammo QC Mammography (Optional)

Quality control program designed exclusively for the FUJIFILM Digital Mammography System. Provides high-quality images that enables highly reliable testing and diagnosis.
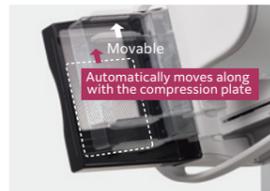

- 10-item image quality evaluation can be performed within 5 minutes
- Graphically represents day-to-day fluctuations
- Capable of data analysis and history management of daily inspection items, including the X-ray equipment
- Accumulated management data can be managed individually in a CSV file

5 minutes

Phantom imaging → Visual result entry → Automatic calculation
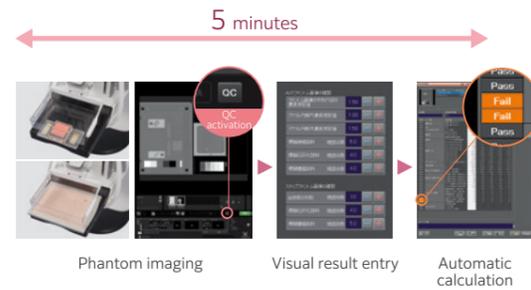
Compression Plate (Optional)

18 × 24 Shift Compression Plate

Movable
Automatically moves along with the compression plate

The compression plate can be moved to the center for the CC view and to the top for the MLO view. In addition, the radiation field automatically moves along with the compression plate.

FUJIFILM

FUJIFILM Corporation
26-30, Nishiazabu 2-chome, Minato-ku, Tokyo 106-8620, Japan

global.fujifilm.com

The instructions for use of these products are provided in electronic form by PDF format.
Please access to the following address and find this product page.
https://med-lib.fujifilm.com

- External appearance and specification are subject to change without notice.
- All brand names or trademarks are the property of their respective owners.
- All products require the regulatory approval of the importing country.
- For the details and availability, please contact our local representative.

Women's Health Solution

INNOMUSE
— Innovation for all women —

FUJIFILM Group support the Pink Ribbon Campaign for early detection of breast cancer

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FUJIFILM
Value from Innovation

NEW

Digital Mammography

AMULET SOPHINITY

Sophisticated features. Human comfort.

Amulet SOPHINITY

Smarter and more comfortable. Pursuing a design concept that is close to the senses of patients, doctors and technologists. This leads to a smooth and relaxed test experience and provides high-quality test results and diagnostic images more reliably. This is the birth of AMULET SOPHINITY, which has refined "gentleness" to meet the needs of all women.

Concept Movie ↓

USABILITY

A more comfortable positioning experience

The thin and compact imaging table with reduced side bulging reduces stress during positioning. The curved shape of the front of the detector reduces the feeling of pressure on the abdomin associated with the CC view and improves the fit of the side of the body for the MLO view, providing for more comfortable positioning.

Accessible button layout improves the test flow

Arm rotation and height buttons have been added to the side of the tube head. Easy-to-operate buttons can be selected according to the situation, enabling smoother testing.

Easy paddle attachment / removal

An array of compression paddles are tailored for the size of the breast and view to be performed. The attachment and removal of the paddles from the gantry is fast and easy for the technologist.

Armrest improves patient comfort for various imaging views

The bar on which the examinee places her arms/hands during imaging has been made longer to support comfortable examination postures for examinees. Can also be used as a hand rest during the CC view.

Smooth compression plate operation

Allows fine adjustment of electric compression without removing the line of sight from the breast area during positioning. The compression plate can be operated while confirming the breast condition, contributing to pain reduction for the patient.

Displays and imaging information at a readily visible panel location

Displays the patient and positioning information on the panel at the bottom of the shooting stand. The operator can easily see the information regardless of the situation during the test.
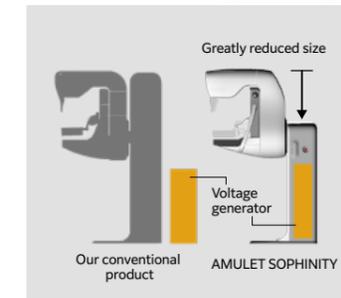
A new exterior design that significantly saves space and is aesthetically pleasing

By integrating a high-voltage device within the main unit, the overall size has been significantly reduced. Can be installed in a limited space. The slim and rounded design is more aesthetically pleasing for patients and technologists alike of the patient.
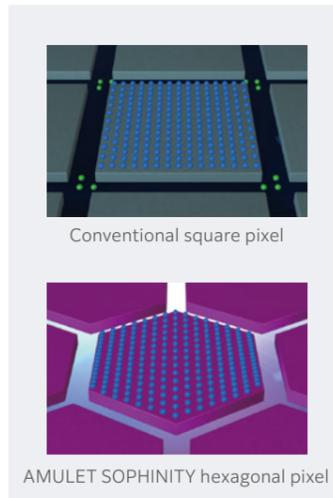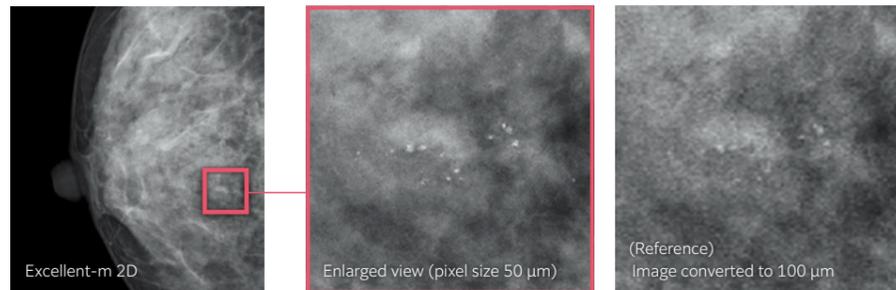
FUJIFILM

Greatly reduced size

Voltage generator

Our conventional product · AMULET SOPHINITY

Excellent-m 2D

High-definition images with 50 μm pixel size.
Enables low-dose imaging.

The smallest direct conversion FPD pixel size of 50 μm enables high-definition imaging of microcalcifications. It also include ISC, which adjusts contrast and low X-ray dose using a Tungsten target.

Excellent-m 2D

Enlarged view (pixel size 50 μm)

(Reference)
Image converted to 100 μm

Conventional square pixel

AMULET SOPHINITY hexagonal pixel

Dynamic Visualization — Provides high contrast image

It has density/contrast adjustment processing, frequency enhancement processing, and dynamic range compression processing, which allow for automatic adjustment of the amount of dynamic range compression for each image. It recognizes image areas that include the characteristics of the mammary gland and fat areas, and increases the contrast of those areas independently making the density of each constant.

MFP
(multi-frequency processing)

DYN
(Dynamic Visualization)

Excellent-m 3D

X-ray tube
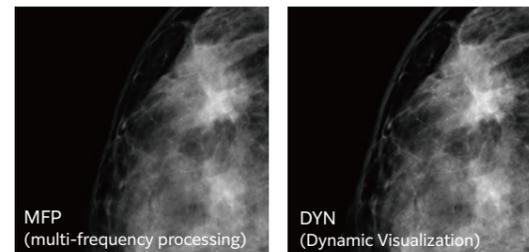
Tomosynthesis (Optional)

Generates more projection images to reduce artifacts

Continuous tube motion for tomosynthesis sweep and images taken from multiple positions are reconstructed. It can provide images focused on the structures you want to see, further facilitating observation of lesions that are difficult to detect due to overlapping mammary gland structures.

A 2D image

Tomographic images
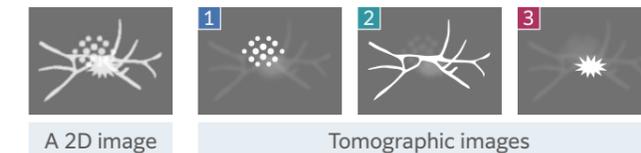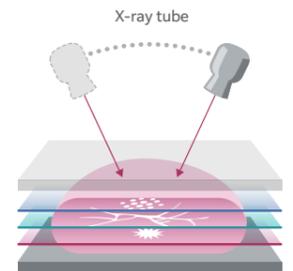
Two modes for a wide range of clinical applications

ST (Standard) mode

About 5 seconds

Sweep angle: ±7.5°
Number of shots: 19
Pixel size: 100/150μm

This mode enables high-speed imaging by reducing the sweep angle and speeding up image readout. The depth of field is deep, and the cine display allows efficient viewing of tomographic images.

Exam / screening / follow-up, etc.

HR (High Resolution) mode

About 12 seconds

Sweep angle: ±20°
Number of shots: 35
Pixel size: 50/100μm

This mode has a larger sweep angle with improved depth resolution. The shallow depth of field allows for a better focus on an area of interest.

Additional imaging for close examination / morphology, etc.

Functions to support diagnosis

S-View (Synthesized View) (Optional)

A synthetic 2D image that includes breast thickness information is created from the tomosynthesis image at 50 μm. A single tomosynthesis imaging session produces a tomosynthesis (3D) image and a synthetic 2D (S-View) image that includes features of tomosynthesis.

Tomosynthesis images

Synthesis

S-View image

Enlarged view
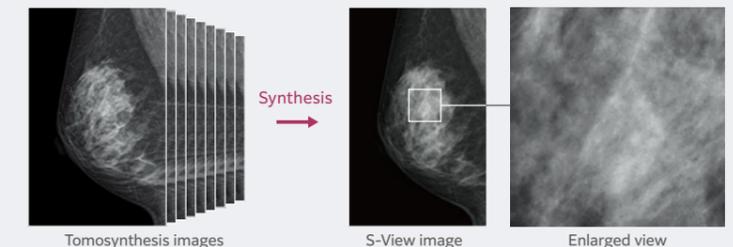
Fixed face guard for tomosynthesis imaging (Optional)
(Face Guard T Comfort)

To prevent movement of the face guard during tomosynthesis imaging, the face guard is secured to the supporting column of the device. The arm connecting the face guard to the supporting column collapses in accordance with the tube movement, so the face guard will not be visible at either the ST (15 degrees) or HR (40 degrees) angles.
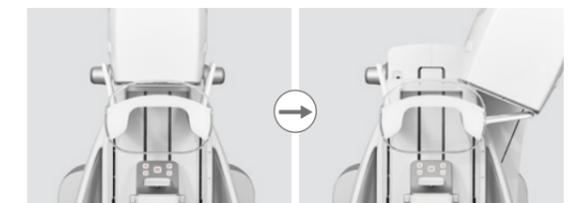
Positioning support function developed using AI technology

Projection Function (Positioning MAP) Optional

Skin lines and nipple positions extracted from past images are projected onto the imaging table surface, making it possible to capture images that can be easily compared with past images. To compare the right and left breasts, the image of the opposite side can be inverted and projected onto the table.
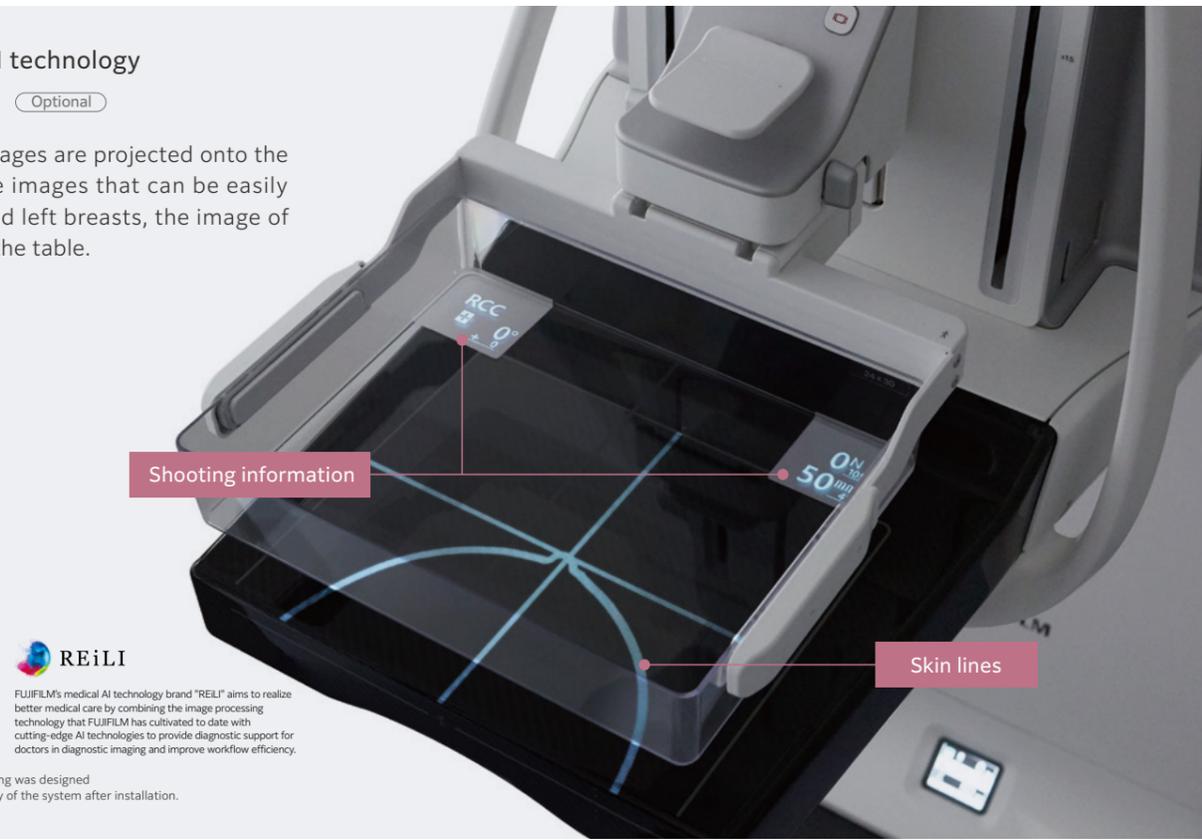
Positioning Analysis Optional

To further improve positioning techniques

REiLI

FUJIFILM's medical AI technology brand "REiLI" aims to realize better medical care by combining the image processing technology that FUJIFILM has cultivated to date with cutting-edge AI technologies to provide diagnostic support for doctors in diagnostic imaging and improve workflow efficiency.

Supports technicians in improving their imaging skills by using AI technology to analyze positioning from the images taken.

*The extraction of the reference point of the pectoralis major muscle and nipple position for positioning was designed using an AI technique called deep learning. There is no automatic change in performance or accuracy of the system after installation.

Shooting information

Skin lines

CEDM function Optional

(Contrast Enhanced Digital Mammography)

With one compression, it continuously performs low tube voltage (low energy) imaging close to the ordinary mammography imaging and high tube voltage (high energy) imaging with a Cu filter, and automatically generates and displays a subtraction image of the obtained images.
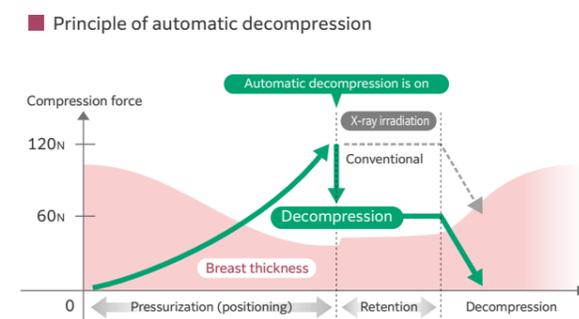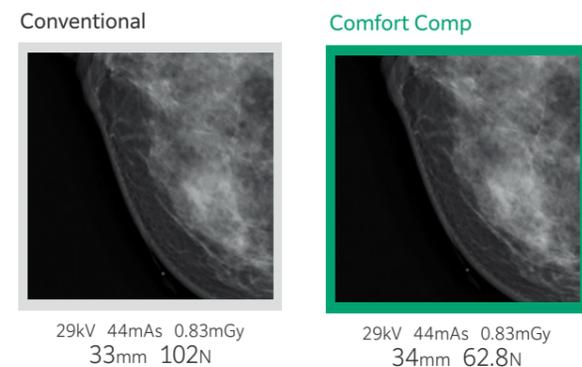

Low energy image   High energy image   Energy subtraction image
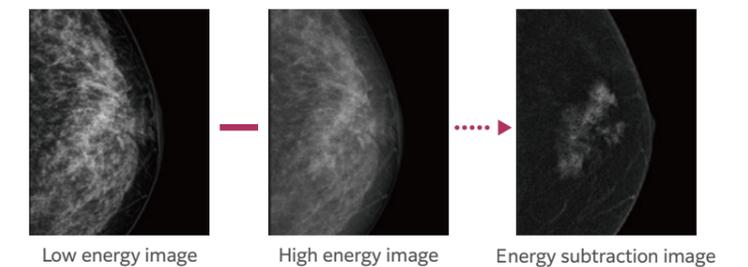
*When an iodinated contrast medium is used.

Compression automatic decompression control (Comfort Comp)

For the aim of reducing pain

This function reduces the compression pressure within the range (± 3 mm) where the thickness of the breast does not change after the completion of normal breast compression and therefore reduces the pain of the examinee. The hysteresis* phenomenon is used to reduce the time that the pressure is at maximum pressure compared to normal compression methods.

Conventional

29kV 44mAs 0.83mGy
33mm 102N

Comfort Comp

29kV 44mAs 0.83mGy
34mm 62.8N

■ Principle of automatic decompression

Compression force

Automatic decompression is on

120N   X-ray irradiation
Conventional

60N   Decompression

Breast thickness

0   Pressurization (positioning)   Retention   Decompression

*Hysteresis: A phenomenon in which the state of a substance or system depends on the course of forces applied in the past.
L. Han, M. Burcher, and J.A. Novle. Non-invasive Measurement of Biomechanical Properties of in vivo Soft Tissues. MICCAI 2002, LNCS 2488, pp. 208–215, 2002.
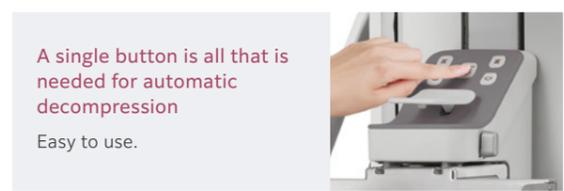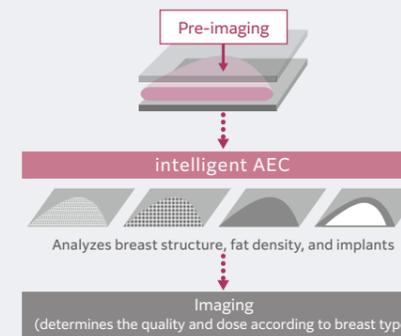
A single button is all that is needed for automatic decompression

Easy to use.

Flexible for different types of breasts

Intelligent AEC — Adjusts the x-ray dose according to breast type

The position of the mammary gland in the breast is analyzed from pre-shot images taken at a low dose. Only the mammary gland area is used, enabling imaging with appropriate technical factors and dose. Even breast implants, for which it is often difficult to determine the correct manual technique can be automatically imaged by identifying the area of the implant.

Pre-imaging

intelligent AEC

Analyzes breast structure, fat density, and implants

Imaging
(determines the quality and dose according to breast type)

■ intelligent AEC
Automatically selects the appropriate mammary gland area from pre-shot images
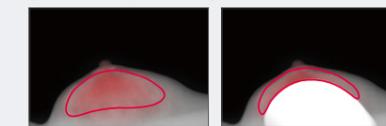
■ Manual sensor method
The technician can select the area manually during positioning, imagining the location of the mammary glands

■ Automatic sensor method
Automatically selects the appropriate sensor from pre-shot images
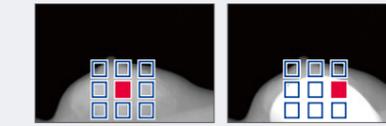
Breast Density Assessment function

(Density Category) Optional

Immediately after imaging, the AWS console automatically assesses the mammary gland volume and outputs the analyzed values to a DICOM Tag. Density Category thresholds can be set arbitrarily. It can assess not only the breast area but also the mammary gland volume in the mammary gland area.

Breast area   Mammary gland area

In the breast: 24%
Density Category: 2

Within the mammary glands: 36%
Density Category: 3