

ASPIRE *Cristalle*

Digital Mammography Solution



Diagnostic confidence.
Unmatched patient comfort.

Meet our motivation



Fujifilm is dedicated to developing the most advanced mammography solutions to assist in the early detection of breast cancer. ASPIRE Cristalle embodies Fujifilm's commitment to research, expertise and experience. Here, we find inspiration in the individuals and concepts that fuel our mission:

Motivated by Patients

The patented Comfort Paddle and Comfort Comp automation are just a few of many features designed to make mammograms more comfortable. Our innovative technologies also provide exceptional imaging of all breast types to help reduce the anxiety of call backs.

Motivated by Clinicians

ASPIRE Cristalle's Hexagonal Close Pattern (HCP) capture technology delivers high DQE and MTF, ensuring excellent image quality. Precise algorithms optimize contrast and dose by breast type, minimizing repeat exams and dose.

Motivated by Technologists

Fast system start-up, one button mirrored positioning, simple user interface and a 7 minute weekly QC routine. These features and more, help technologists prioritize patient care and workflow efficiency.

Motivated for Administrative Success

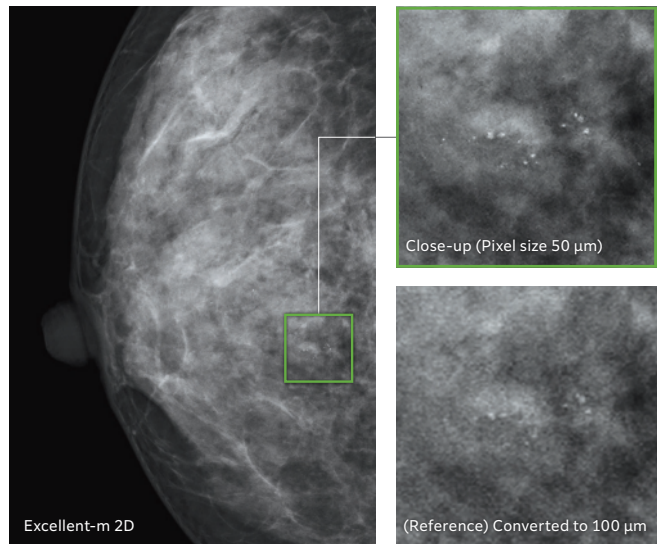
In a competitive business environment, ASPIRE Cristalle is the best investment you can make in the future. Fujifilm's renowned reliability and uptime are backed by 24/7 remote monitoring and diagnostic services.

ASPIRE **Cristalle**

Outstanding image quality, workflow, and patient comfort

ASPIRE Cristalle provides clinicians the confidence that only 90 years of imaging experience can provide. Intelligent feature recognition and processing algorithms optimize image quality, contrast and dose to individual breast type.

Third generation detector



ASPIRE Cristalle features an advanced detector using Amorphous Selenium (a-Se) for mammographic X-rays. The Hexagonal Close Pattern (HCP) design efficiently captures electrical signals achieving high-resolution and low-noise images. This allows ASPIRE Cristalle to produce high-definition images with a pixel size of 50 μ m for 2D imaging and magnification views, making it the finest resolution direct-conversion detector.

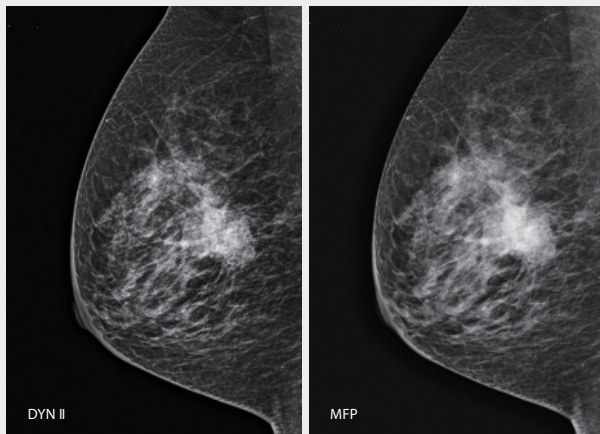
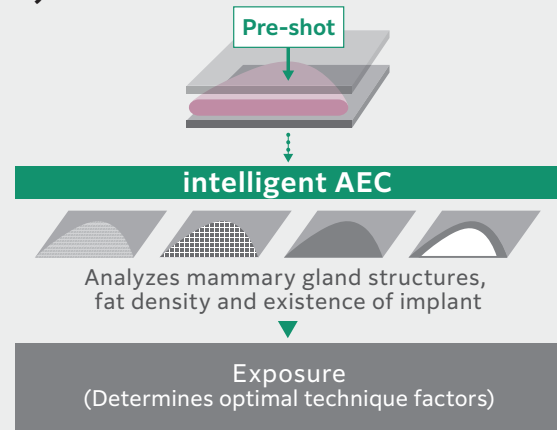


Forward-thinking technology with Fujifilm innovation

Intelligent Automatic Exposure Control (iAEC) optimizes dose for maximum image quality

Image quality is further enhanced with Fujifilm's Intelligent Automatic Exposure Control (iAEC).

iAEC analyzes breast composition and thickness and auto-detects implants to optimize contrast and dose. This generates exceptional images at low dose for all breast types, including breasts with implants.



Dynamic Visualization (DVIIIm) provides high contrast images without saturation in breast region

DVIIIm adapts noise reduction, edge enhancement, contrast and spacial frequency to varying densities of glandular and adipose tissue throughout each breast, enhancing sharpness and clarity for all breast types and especially helpful in screening thick and dense breasts.

ISR Iterative Super-Resolution reconstruction

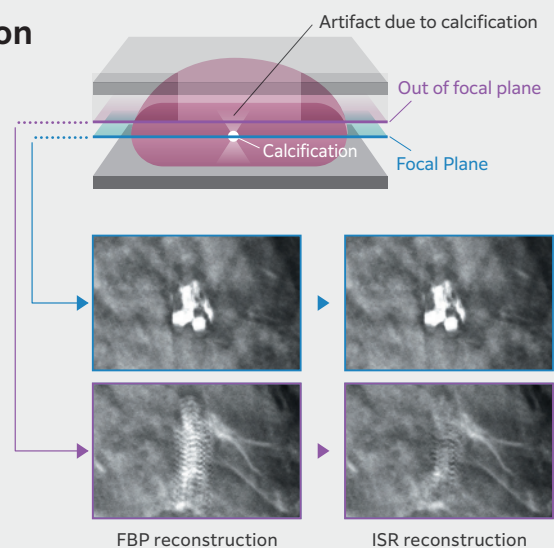
High quality images using unique iterative super-resolution (ISR) reconstruction, enables 40% dose reduction* for 3D.

(1) Artifact suppression

Fujifilm's ISR (Iterative Super-Resolution) processing reduces out-of-plane blurring artifacts associated with conventional filtered back projection (FBP). This results in clearer and sharper images for improved diagnostic visibility.

(2) Noise reduction

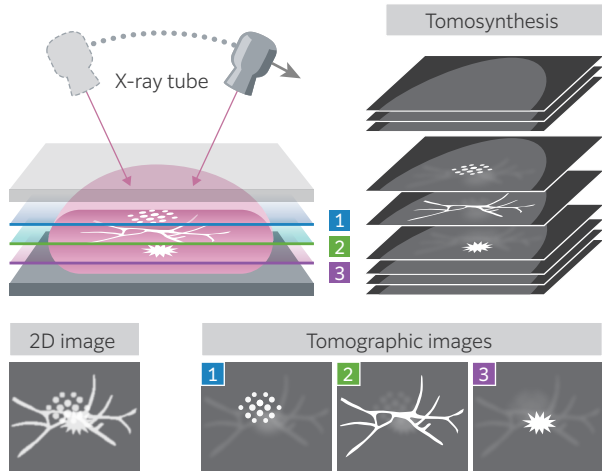
Fujifilm's ISR selectively removes "noise without structure" improving granularity and maintaining sharpness, particularly in the visualization of calcifications, even when using low-dose.



*Based on the comparison to our previous images acquired by the conventional method.

Tomosynthesis with dual modes and low dose

Digital breast tomosynthesis acquires a series of low-dose images at different angles. The acquired images are reconstructed into a series of high-resolution slices displayed individually or dynamically in a cine mode. The reconstructed tomographic images make it easier to identify lesions which might otherwise be difficult to visualize because of the presence of overlapping breast structures.



Two modes suitable for a range of clinical purposes



ST (Standard) mode

- Acquisition angle: $\pm 7.5^\circ$
- Pixel size: 100/150 μm

The smaller angular range and fast image acquisition allow Tomosynthesis scans to be quickly performed with a relatively low X-ray dose.

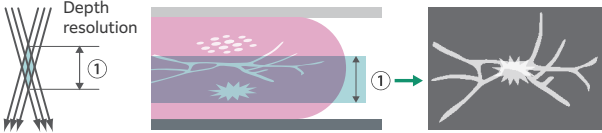


HR (High Resolution) mode*

- Acquisition angle: $\pm 20^\circ$
- Pixel size: 100/50 μm

With a larger acquisition angle the depth resolution is improved. This allows the region of interest to be defined more clearly and brought into clearer focus.

Check-up, screening, follow-up, etc.



Additional imaging for complete checkup, dense breasts, etc.



*Pending regulatory approval in the U.S.

Designed for comfort

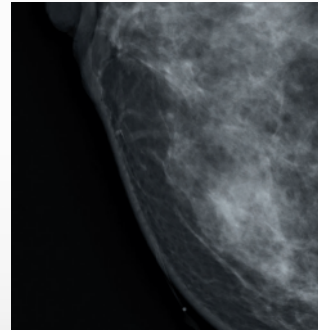
ASPIRE Cristalle incorporates a range of comfort features - all standard on every new system.

“By far the best mammogram I have had in all my years of having them.”

-ASPIRE Cristalle patient

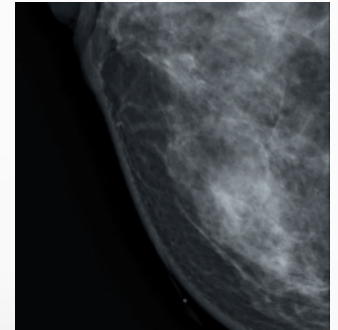
Comfort Comp Automatic compression reduction

This function reduces compression pressure within a range (within + 3 mm) maintaining thickness of normal breast compression and alleviating patient pain. During breast compression a (hysteresis*) phenomenon occurs where the thickness of the breast becomes thinner during decompression after compression than during compression, even with the same pressure. By leveraging this phenomenon, it is possible to automatically reduce compression so that the breast condition remains almost the same, even if the duration of maximum compression pressure is reduced.



Conventional

29kV 44mAs 0.83mGy
33mm 102N



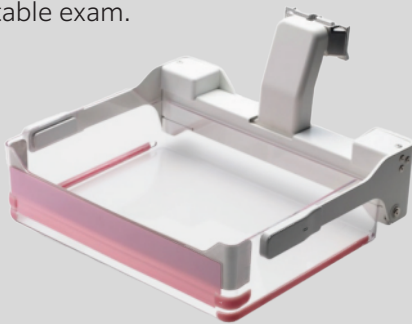
Comfort Comp

29kV 44mAs 0.83mGy
34mm 62.8N

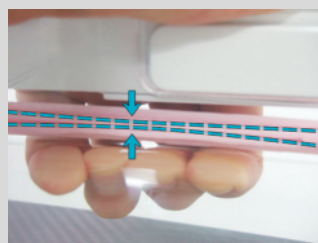
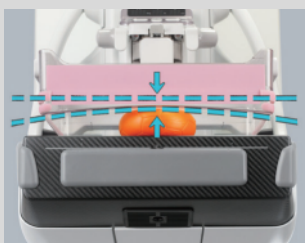
* Hysteresis: A phenomenon where the state of a substance or system depends on the course of force added in the past. L. Han, M. Burcher, and J.A. Novle. Non-invasive Measurement of Biomechanical Properties of in vivo Soft Tissues. MICCAI 2002, LNCS 2488, pp. 208-215, 2002.

Comfort Paddle

The ASPIRE Cristalle's patented Comfort Paddles are the only paddles designed with a 4-way flex to conform to all breast shapes and sizes for a noticeably more comfortable exam.



The Comfort Paddle distributes pressure that is normally concentrated on the thickest part of the breast, helping to compress evenly along the natural curve of the breast with appropriate - not excessive - force, to maintain more comfortable positioning.



Decorative Gantry Decals

Six different gantry decal designs are available to create a calming exam environment.



Mood Lighting

Inviting, ambient lighting illuminates the exposure stand, helping make for a more relaxing environment. Mood lighting also indicates to the technologist that the system is powered on.

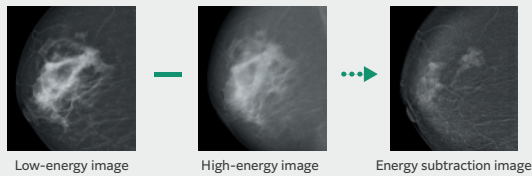


Wide range of additional functions

Image processing

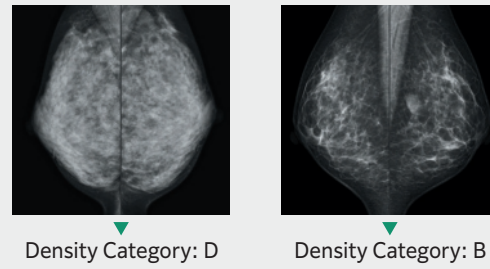
■ CEDM function

Generates high contrast images from a single compression that uses both low- and high-tube voltage (energy) imaging where each energy level enhances specific tissues differently for high image quality with low total radiation dose.



■ Breast Density software by Volpara

Breast Density software is available as an objective way for radiologists to document a patient's breast density BI-RADS score.



■ S-View function (Synthesized View)

Tomosynthesis by ASPIRE Cristalle automatically produces not only tomograms obtained at 1 mm intervals but also a synthetic 2D image by combining multiple image slices. With the S-View image replacing the acquired 2D, patients are under compression for less time and dose is reduced by ~50%



Biopsy function

■ Biopsy

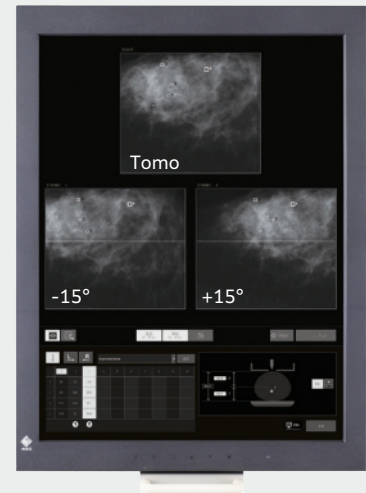
The system is designed to support flexible positioning of tube and detector, from -90° to $+90^{\circ}$. Ergonomically designed arm rests ensure patient comfort and safe positioning.



■ Tomosynthesis Biopsy

Targeting is supported using tomosynthesis images.

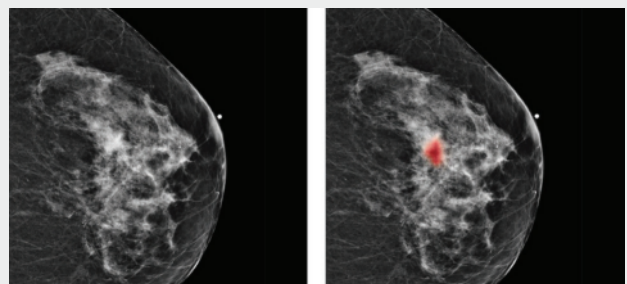
Tomosynthesis acquisition can be performed in both ST (Standard) and HR (High Resolution) modes, according to desired accuracy and lesion size.



Breast AI for 2D and 3D Mammography

Capable of highlighting small lesions that the human eye might not notice due to fatigue or other reasons. When used, mammography AI helps improve breast cancer detection, lower false-positive rates, and can help detect cancers earlier.

*Available through third party partnerships





Fujifilm is driven by our legacy of pioneering diagnostic imaging technologies and our commitment to bringing future imaging innovations. Most importantly, we are dedicated to helping you deliver the highest quality patient care.

We meet your real needs with real solutions. We help you deliver better outcomes – financial, operational, and clinical – through exceptional image quality, increased patient safety, enhanced workflow, and improved return on investment.

**This is true “value from innovation”
and what we offer every day.**



FUJIFILM Healthcare Americas Corporation
81 Hartwell Avenue, Suite 300, Lexington, MA 02421
fujifilmhealthcare.com

© FUJIFILM Healthcare Americas Corporation

DOC-0004525-E

FUJIFILM
Value from Innovation