Allengers

Passion for excellence

Serving Healthcare since 1987

Fairy DR 3D

Full Field Digital Mammography with 3D Tomosynthesis

Quality, System and Safety Certifications

bsi. CE 2797 | bsi. ISO 13485:2016 | intertek | TÜV ISO 9001:2015 | AERB APPROVED | BIS APPROVED

ABOUT US

Allengers since 1987, is revolutionizing the medical world with its offering of a wide range of high quality, cost effective state of art technology medical equipment from its headquarters at Chandigarh.

Thanks to the trust and confidence of our valued customers, Allengers has emerged as a fine, world class company and a major force to reckon with in the medical equipment field.

MANUFACTURING UNITS

One of the India's largest manufacturing facilities of medical devices - Spread over an area of 100,000 Sq. Mtrs.

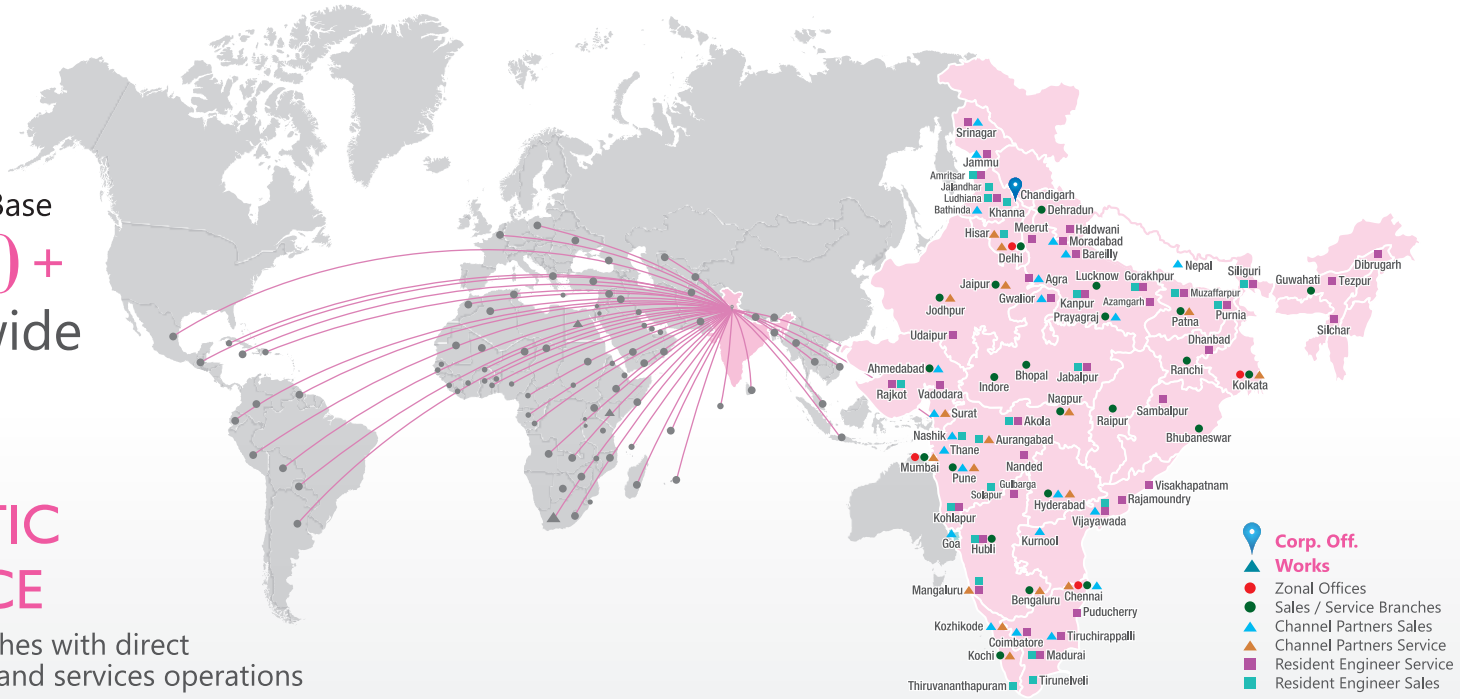
GLOBAL PRESENCE

Presently, being exported to more than 100 countries in the continents of Africa, Asia, South America, Europe, Middle East and CIS

Installation Base

80000 +

Worldwide



DOMESTIC PRESENCE

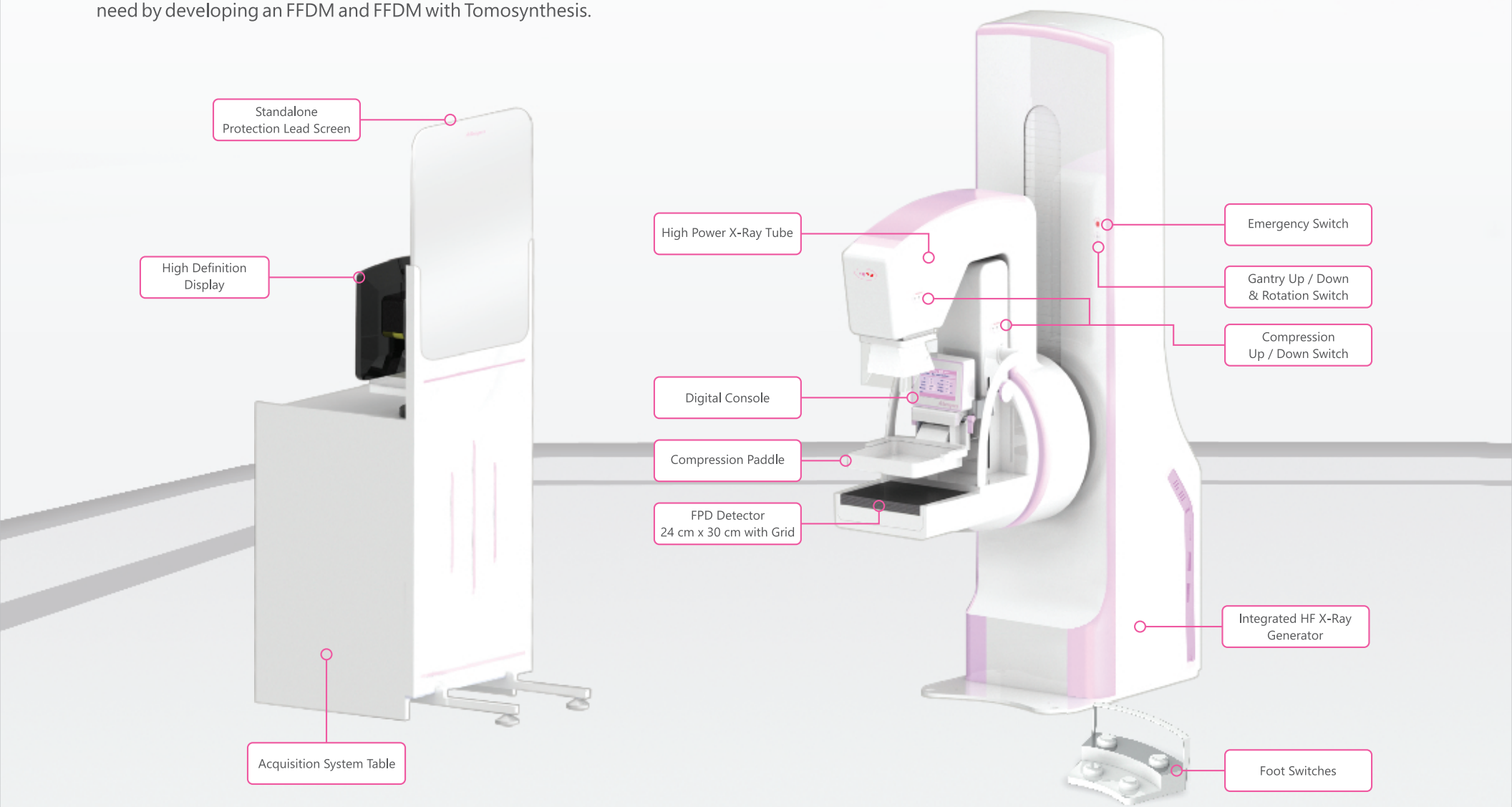
✓ 26 branches with direct sales and services operations

✓ 44 Exclusive and non-exclusive Channel Partners

FAIRY DR 3D

Keeping in line with the technological advancements, Allengers "Fairy DR 3D" comes with 3D digital tomosynthesis, which increases the ability to detect and diagnose smallest of the "Breast Anomalies" that may be hidden on a conventional mammography system. **The technique used in FFDM is tuned to get consistent results in all mammography views.**

The theory of removing all palpable breast masses in hopes of finding earlier cancers was developed, and it was recognized that careful physical examination of the breast could detect some early breast cancers. Most patients with breast cancer still were not diagnosed until their disease was advanced. However, this fact coupled with the dismal breast cancer survival statistics, highlighted the need for a tool for the early detection of breast cancer. Allengers Mammography fills that need by developing an FFDM and FFDM with Tomosynthesis.



FEATURES

Fairy DR 3D

Specifically designed for 2D, 3D and Biopsy examinations of breast.

PATIENT COMFORT

The exposure time to achieve good image quality in FFDM is very less and hence the compression time is also less. The compression is auto released after exposure.

OPERATOR COMFORT :

- Pre-set gantry positions for mammography positioning.
- Ergonomically placed operating panels and displays.

ADVANCED PROCESSING

Improved processing which achieve contrast between dense and non-dense breast tissue in case of heterogeneously dense and extremely dense breast resulting in easy detection of mass, asymmetrical distortion or abnormal nodules.

HIGH QUALITY FPD

24 cm x 30 cm Flat Panel Detector with high DQE, spatial resolution and dynamic range.

INSTANT IMAGE DISPLAY

Instant image display on high resolution monitor. Time to acquire and display image is less than 10 seconds.

SMART AEC

Advanced breast density detection algorithm to achieve accurate exposure parameters.

DEDICATED MAMMOGRAPHY 2D / 3D WORKSTATION.

FULLY INTEGRATED SYSTEM, X-RAY GENERATOR, MOTION AND IMAGING SYSTEM ALL WORK IN SYNCHRONIZATION

MAMMOGRAPHY DEDICATED KEYBOARD

ARTIFICIAL INTELLIGENCE BASED CAD (Optional)

Support AI to detect suspicious areas, masses and calcifications to support radiologist.

DIGITAL STEREOTACTIC BIOPSY COMPATIBLE (Optional)

FULLY INTEGRATED FULL - FIELD DIGITAL MAMMOGRAPHY WITH TOMOSYNTHESIS

Fully motorized movements with ergonomically placed motion controls

5 KW High Frequency X-Ray generator with KV range from 20 - 40 and mAs range from 1 to 700

Dedicated Mammography Synergy Acquisition Software with 2D and 3D acquisition and post processing features

Dedicated mammo 3D diagnostic workstation

Fairy DR 3D

ADVANCED FEATURES

- Patient Entry : Manual / MWL / Emergency.
- Acquisition Mode : 2D, 2D + 3D, 3D.
- Movements : ±180° / Motorized / Preset.
- Tomosynthesis Modes : ST, HT, UHT.
- Dose display on image.
- Examination : Manual / APR / SMART AEC.
- Detector : 24 cm x 30 cm / High DQE / High spatial resolution.
- Generator Controls : KV / mAs / Filament / Filters.
- Automatic filter selection.
- Auto release of compression after exposure.
- Image Processing : View specific - dynamic range scaling.
- Advanced DICOM printing and hanging protocols.
- Export : CD / DVD / DICOM printer / DICOM PACS / DICOM workstation.
- Compression : 24 cm x 30 cm / 18 cm x 24 cm / Square Spot compression / straight round spot compression paddles.
- Magnification Stands : 1.8X.
- Monitors : 1MP for acquisition and 1MP + Dual 5MP for reporting workstation.

OPTIONAL FEATURES

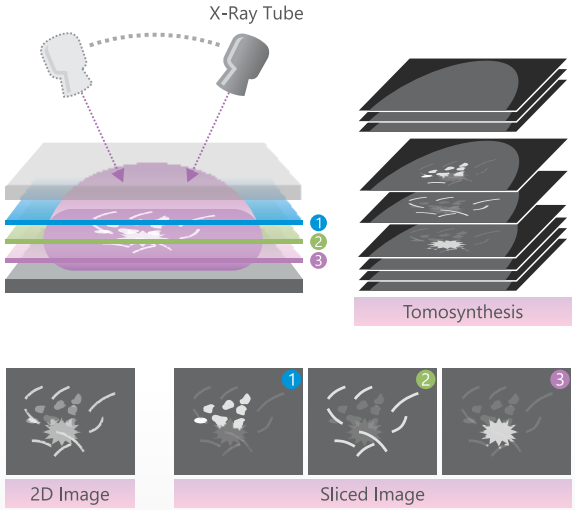
- CAD.
- AI CAD.
- Digital stereotactic biopsy.
- 1 MP + 12 MP monitor for reporting workstation.
- Breast density calculation software.
- Contrast-Enhanced Digital Mammography (CEDM)
- Multiple collimation selection :
  - 24 cm x 30 cm, 18 cm x 24 cm, 12 cm x 18cm.
- Magnification stand : 1.5X.
- Round spot compression paddle.
- Sliding compression paddle 18 cm x 24 cm.
- Automatic X-Ray collimation selection as per inserted compression paddle.

BREAST TOMOSYNTHESIS

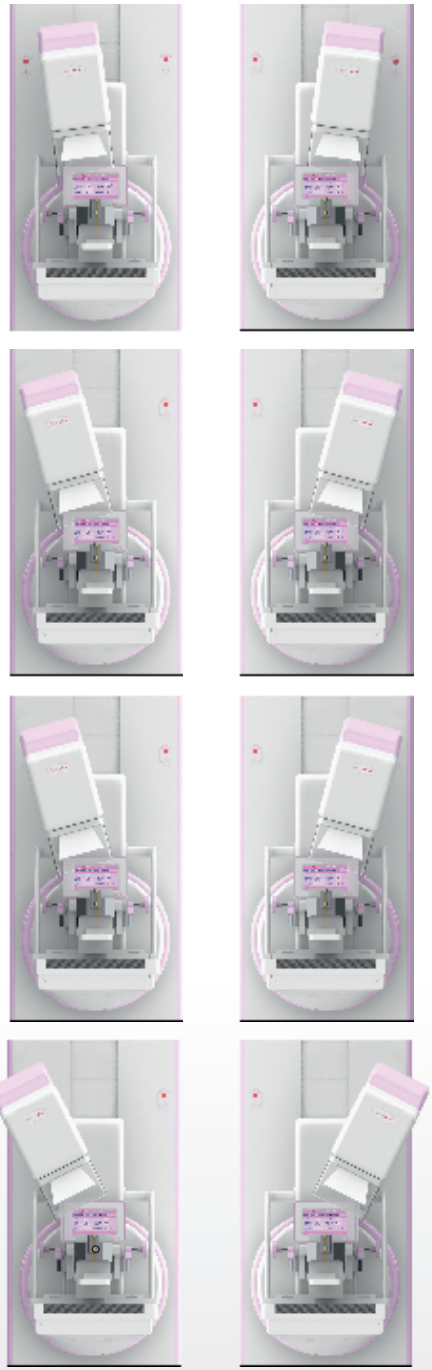
Breast Tomosynthesis is an advanced form of mammography to detect breast cancer in its early stage. Tomosynthesis is preferable over 2D mammogram to better diagnose the cancer which is hidden due to overlapped breast structure.

In breast tomosynthesis the X-Ray tube creates an arc and captures low dose images in series. These images are taken from different angles and thereafter all the images are reconstructed and slices of specific thickness are created from those images which shows the internal structures very clearly.

It is better to diagnose the breast cancer and easy to identify the lesion which is hidden due to overlapped breast structures. We provide 3 different modes of Tomosynthesis i.e. Standard Mode, High Definition Mode and Ultra High Definition Mode.



	ST Mode	HT Mode	UHT Mode	WAT Mode (optional)
Rotation Angle	-7.5^0 to $+7.5^0$	-15^0 to $+15^0$	-15^0 to $+15^0$	-27^0 to $+27^0$
Projection Angle	1^0	2^0	1^0	3^0
Scan Time	5 Seconds	10 Seconds	10 Seconds	18 Seconds



Standard Mode (ST)
- Acquisition angle $\pm 7.5^0$
- Exposure at every degree
- The small angular range for fast image acquisition
- Relatively low dose to the patient

High Definition Mode (HT)
- Acquisition angle $\pm 15^0$
- Exposure at every 2^0
- Large area coverage
- The large angular range and fast image acquisition

Ultra High Definition Mode (UHT)
- Acquisition angle $\pm 15^0$
- Exposure at every degree
- Large area coverage
- The large angular range and better diagnostic value

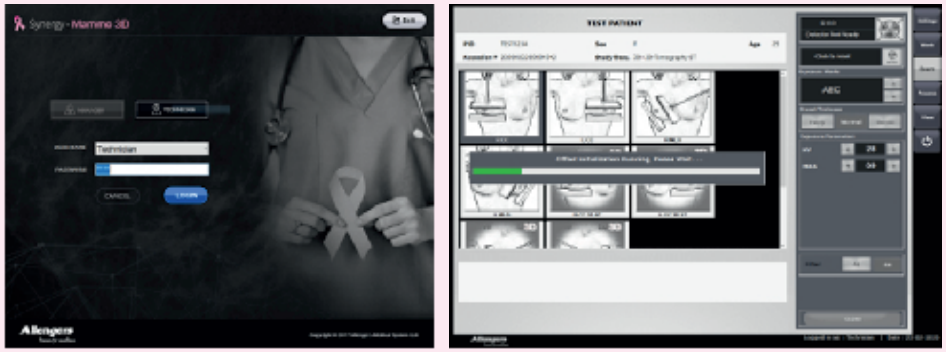
Wide Angle Tomo Mode (WAT)
- Acquisition angle $\pm 27^0$
- Exposure at every 3^0
- Extra large area coverage

SYNERGY ACQUISITION SOFTWARE

ADVANTAGES

In house designed and developed mammography Synergy Acquisition software provides quick and hassle free 2D and 3D image acquisition, post processing and viewing tools with minimal workflow.

- Easy procedure selection with positioning guide.
- Auto detector calibration to maintain the homogeneity of image.
- Fully DICOM 3.0 compliant.
- Hanging protocols for viewing of screening images.
- Image storage capability of more than 20000 images.
- Adjustable 3D loop play options for reconstructed images.
- Advanced printing : Film and paper.
- DICOM send and print of a single frame from reconstructed loop.
- Various advanced image analysis tools such as SNR, Mean, Median etc.
- Image annotations along with measurement tools.



DEDICATED MAMMOGRAPHY 2D / 3D WORKSTATION

1 Monitor : 1 MP

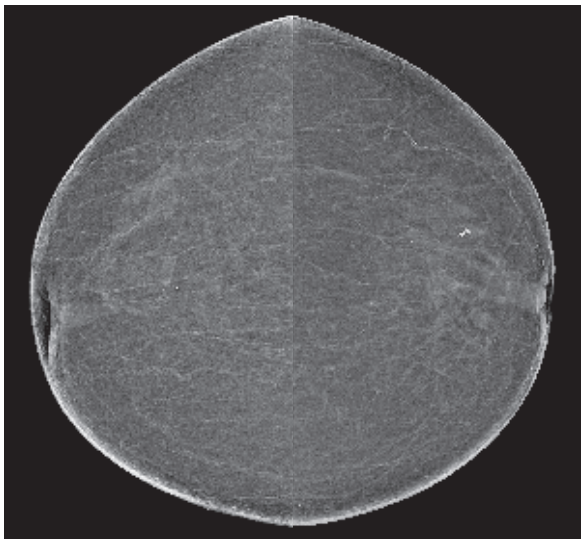
2 Monitors : 5 MP

FEATURES :

- Diagnostic breast imaging workstation which consists of software that obtains breast images screening / diagnostic / tomosynthesis exams from Modality / PACS.
- It displays and manipulates the images for radiologists to perform interpretation on images.
- Image layout - mammography - specific hanging protocols.
- Image manipulation - image contrast, zoom, pan, invert, flip and mask.
- Image quantification - caliper and measurement.
- Text annotations - clinical and technical annotations.
- Finding graphic markup, cross view reference and finding assessment.
- Dedicated mammography hanging protocol.
- Adjustable 3D loop play speed with a slider.
- Tomo slice navigation.
- Frame marking while loop play.
- Breast localization.
- Contrast, detail, saturation adjustment.
- Dynamic image processing.
- Measurement tools.

CLINICAL IMAGES

CC View

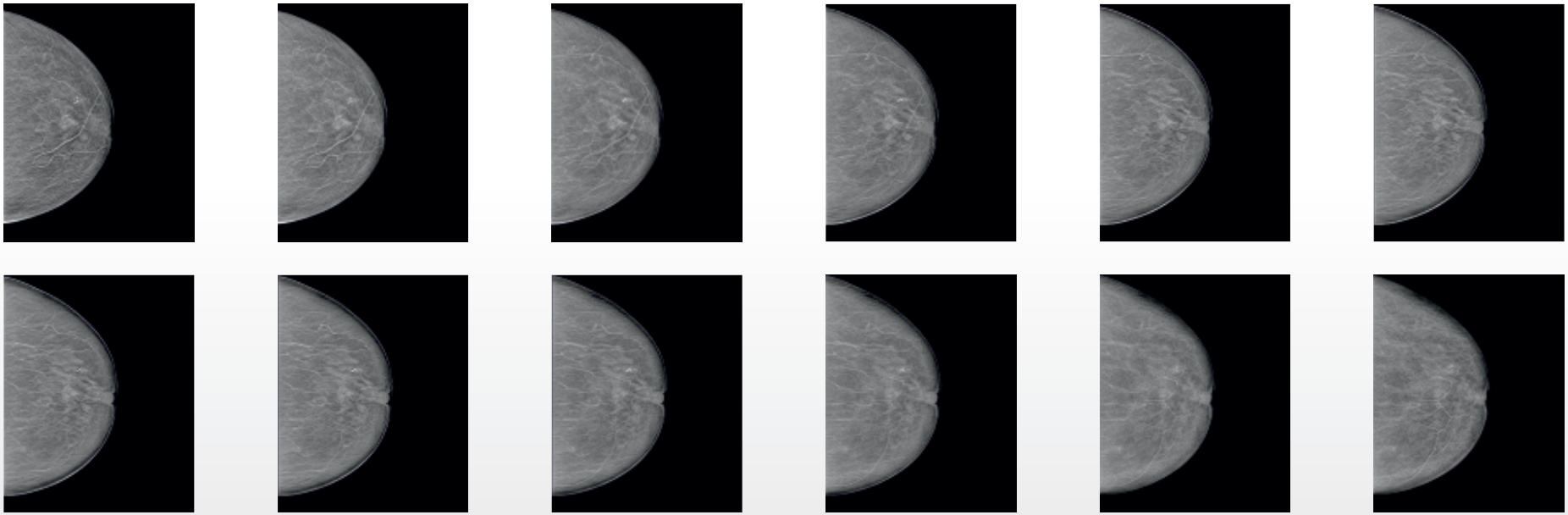


LCC RCC

MLO View

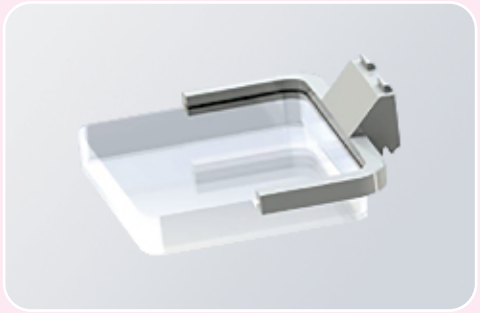
RMLO LMLO

RECONSTRUCTED TOMOSYNTHESIS IMAGES

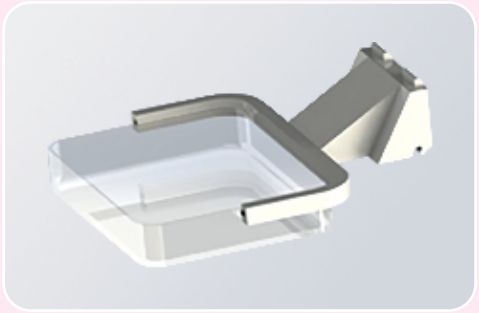


COMPRESSION

Compression paddle is designed to minimize patient pain and discomfort perception. Allengers Fairy DR 3D provides a wide range of compression paddles.



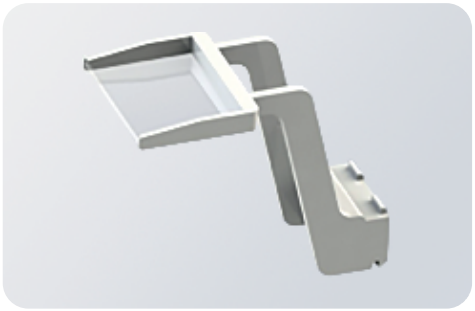
Compression Paddle 24 cm x 30 cm



Compression Paddle 18 cm x 24 cm

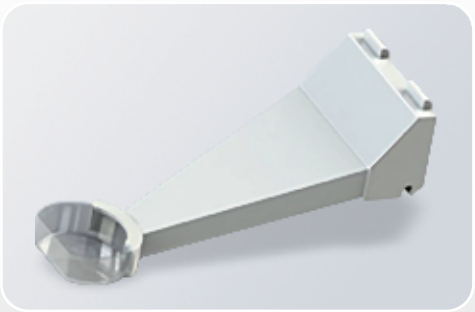
SQUARE SPOT COMPRESSION PADDLES

The square spot compression paddle to be used with magnification stand is provided with the machine.

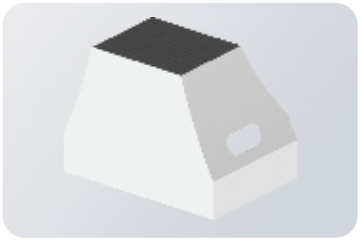


STRAIGHT ROUND SPOT COMPRESSION PADDLES

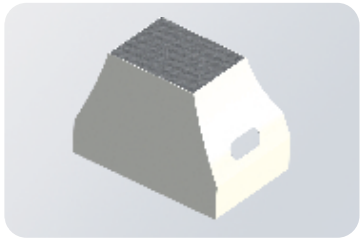
The straight round spot compression paddle is used without the magnification stand.



MAGNIFICATION STAND



1.5X (optional)



1.8X (standard)

SMART AEC

Smart AEC provides better imaging by giving appropriate dose to the patient. Smart AEC is implemented in dual shot where pre-shot captures the image on low dose and algorithm calculates and decides the dose for the main shot. In this way it smartly gives the low and required dose to the patient and gives good quality image.

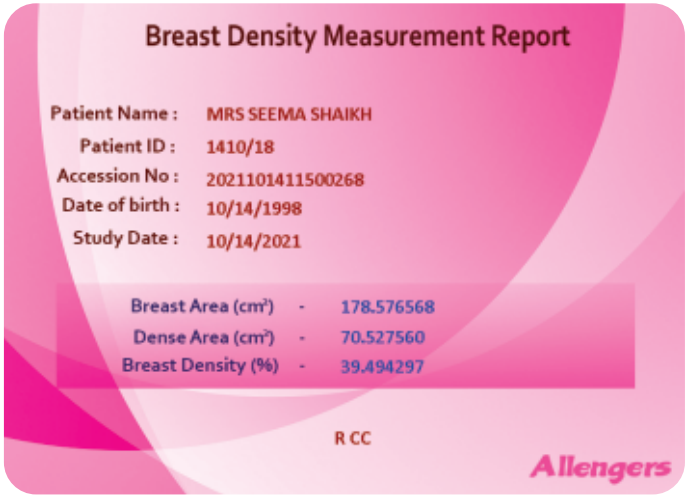
- It smartly sense the mammary glands in breast and calculates parameters accordingly whereas in conventional sensor based AEC, manual adjustment is needed.
- It provides hassle free and ease of operation.
- Provides better image by giving appropriate dose to the patient.
- It enables more accurate results.

MAMMOGRAPHY KEYBOARD

Mammography keyboard provide support to radiologists in reviewing breast images for screening and diagnosis.

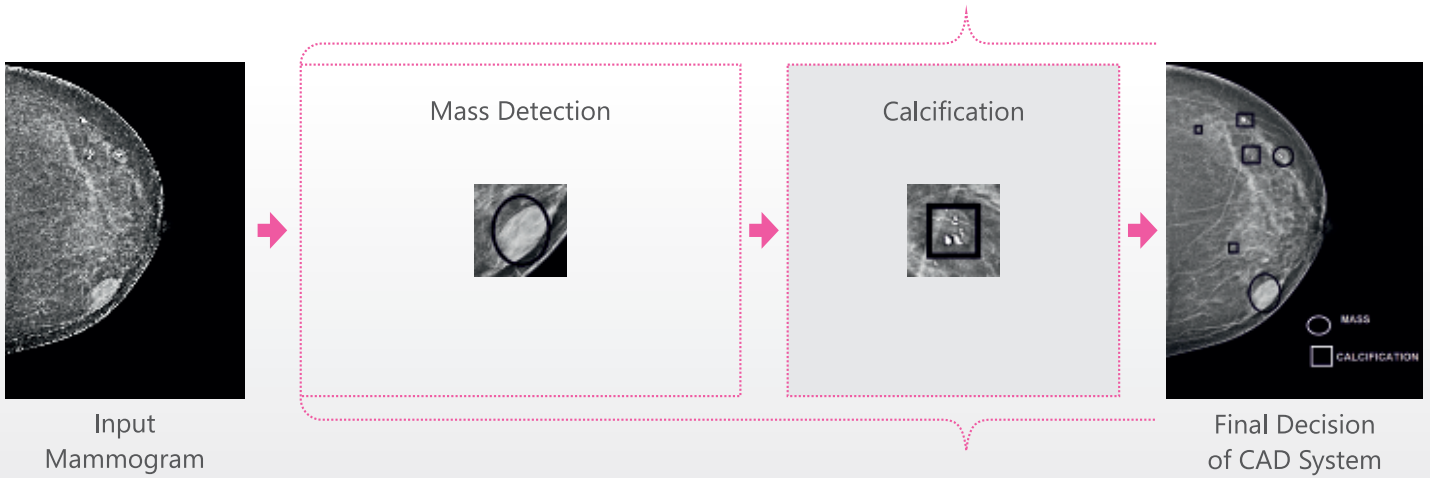
BREAST DENSITY MEASUREMENT (Optional)

Calculates mammary glands volume from breast area and gives the accurate results. It helps to classify the breast quantitatively and gives information how much dense area breast contains.



COMPUTER AIDED DETECTION (CAD) - Optional

CAD is designed for computerized second read of mammography images to suggest radiologists that a suspicious area require further investigation. It is intended to identify suspicious areas for their better localization. The diagnosis is always performed only by the radiologist after his/her in depth analysis of the mammogram. The system can assist the radiologist by identifying regions that may warrant a more meticulous review.



ADVANCED BIOPSY SYSTEM (Optional)

Biopsy is done on discovery of suspicious lesion after a screening (Normal mammogram or Tomosynthesis), in order to get tissue for pathological examination. Allengers provides hassle free mechanism for biopsy which is easy, convenient and accurate.

Easy Installation

It is easy to install biopsy mechanism, which is time saving and reliable.
Just slide the biopsy mechanism on machine and it is ready to use.

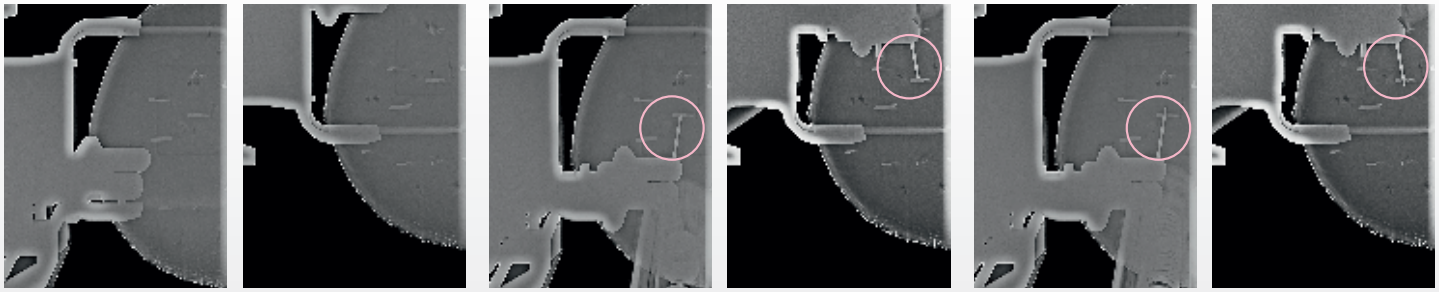
Single Click Biopsy Mode

Interactive, convenient, biopsy workflow.

Supports Variety of Needles

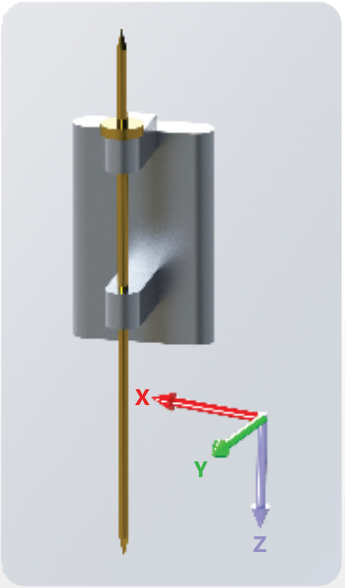
Variety of needles varying in length and sizes can be used with biopsy mechanism.

BIOPSY PROCEDURE



Stereo Image | Pre-Fire | Post-Fire

BIOPSY MOVEMENT



X - Y - Z Axis

GANTRY - MOTORIZED MOVEMENTS

Display	Digital display of angulations degree on display monitor
Motorized Rotation-Angulation Movement	$\pm 180^{0}$
Source to Image Distance	65 cm
Motorized Vertical Travel	70 cm (Range from 65 cm to 135 cm)

MAJOR TECHNICAL SPECIFICATIONS*

MODEL	MAM VENUS+
SERIES	Fairy DR 3D
X-Ray Generator	High Frequency (50 KHz) X-Ray generator
Max. Power	5 KW
Max. mA	Upto 150 mA
mAs Range	1 - 700 mAs
KV Range	20 KVP to 40 KVP
X-Ray Tube	Dual focus rotating anode X-Ray tube [Small (0.1mm) and Large(0.3mm)]
Power Requirement	Single Phase, 230 V AC ±10%, 50 / 60 Hz, 6.25 KVA, Independent earthing

* These are broader specifications with highest certifications. The final product will be dispatched as per agreed terms in quotation.

ASSURE Protocols : All X-Ray based equipments involve some potential risk of radiation exposure. We, at Allengers understand your concerns. Allengers is fully committed towards radiation safety and care of its customers.

Allengers has introduced ASSURE Protocols, which is a step in the direction of delivering best possible image quality at lowest possible dose. Allengers products with ASSURE Protocols are carefully crafted to protect users and patients from unwanted leakages in the X-Ray equipment.

ASSURE version range mentioned is based upon lowest and highest configurations of safety standard protocols and is configuration dependant, which may vary for desired combinations.

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AMSL/VOL-2(02/23)