Allengers
Passion for excellence

VENUS DRV+

FULL FIELD DIGITAL MAMMOGRAPHY SYSTEM

EARLY DETECTION MATTERS

Quality, System and Safety Certifications

bsi. CE CERTIFIED

TÜV ISO 9001:2015

bsi. ISO 13485:2016

AERB APPROVED

BIS APPROVED

34 **Years** of Serving **Healthcare**

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 1,00,000 Sq. Mtrs. (1 Lakh Sq. Mtrs.)

GLOBAL PRESENCE

Presently, being exported to 91 countries in the continents of Africa, Asia, South America, Europe, Middle East and CIS

Installation Base
80000+
W🌐rldwide

DOMESTIC PRESENCE

✓ **24** branches with direct sales and services operations

✓ **40** Exclusive and non-exclusive Channel Partners

Map labels: Srinagar, Jammu, Amritsar, Jalandhar, Ludhiana, Bathinda, Khanna, Chandigarh, Dehradun, Hisar, Meerut, Haldwani, Moradabad, Bareilly, Delhi, Nepal, Siliguri, Guwahati, Tezpur, Dibrugarh, Jaipur, Agra, Lucknow, Gorakhpur, Muzaffarpur, Purnia, Silchar, Gwalior, Kanpur, Azamgarh, Jodhpur, Prayagraj, Patna, Dhanbad, Udaipur, Ahmedabad, Bhopal, Jabalpur, Ranchi, Kolkata, Rajkot, Vadodara, Indore, Nagpur, Raipur, Sambalpur, Surat, Akola, Bhubaneswar, Nashik, Aurangabad, Thane, Nanded, Mumbai, Pune, Visakhapatnam, Gulbarga, Rajamoundry, Solapur, Hyderabad, Vijayawada, Kohlapur, Goa, Hubli, Kurnool, Mangaluru, Bengaluru, Chennai, Puducherry, Kozhikode, Coimbatore, Tiruchirappalli, Kochi, Madurai, Thiruvananthapuram, Tirunelveli

Legend:
- Corp. Off.
- Works
- Zonal Offices
- Sales / Service Branches
- Channel Partners Sales
- Channel Partners Service
- Resident Engineer Service
- Resident Engineer Sales

Venus DRV+

Huge advancements have taken place in last two decades in digital mammography. Allengers with years of expertise in imaging solutions, coupled with innovative research has resulted in providing a high end digital mammography machine in value segment for ensuring better health care for women.

Standalone Protection Lead Screen

High Definition Display

Acquisition System Table

High Power X-Ray Tube

Compression Paddle

FPD Detector 24 cm x 30 cm with Grid

Integrated HF X-Ray Generator

Foot Switches

FULLY INTEGRATED FULL - FIELD DIGITAL MAMMOGRAPHY

Motorized Movement :
Gantry up - down movement.
Manual Movement :
Gantry angular movement with ergonomically placed motion controls.

VENUS DRV+
5 KW
20 - 40 KVP
1 - 700 mAs

F E A T U R E S

SMART AEC	HIGH QUALITY FPD	INSTANT IMAGE DISPLAY	PATIENT COMFORT	ADVANCED PROCESSING
Advanced breast density detection algorithm to achieve accurate exposure parameters.	24 cm x 30 cm Flat Panel Detector with high DQE, spatial resolution and dynamic range.	Instant image display on high resolution monitor. Time to acquire and display image is less than 10 seconds.	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.	Improved processing which achieves 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.

ADVANCED FEATURES

- Patient Entry : Manual / MWL / Emergency.
- Movements : +90° to -90° (manual).
- Examination : Manual / APR / SMART AEC.
- Detector : 24 cm x 30 cm / High DQE / High spatial resolution.
- Generator Controls : KV / mAs / Filament.
- 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 paddles : 24 cm x 30 cm and square spot compression paddle.
- Magnification Stand : 1.8 x.
- Monitor : 3MP for display.
- Collimation :
  - Light beam collimator of 24 cm x 30 cm field size with auto shut off timer.
  - Cone for radiation protection.
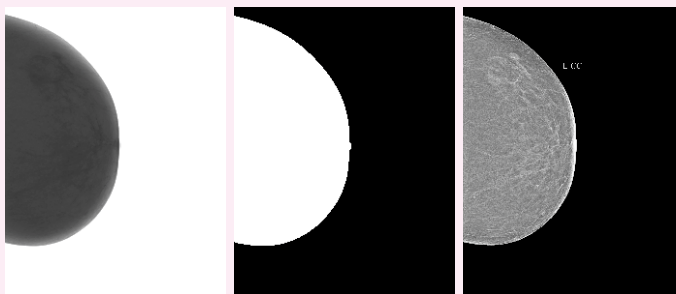
OPTIONAL FEATURES

- Mammography diagnostic and reporting workstation.
- 1 MP+3MP monitors for reporting workstation.
- 1 MP+5MP monitors for reporting workstation.
- 1 MP+ Dual 5MP monitors for reporting workstation.
- 1 MP+12MP monitors for reporting workstation.
- Mammo dedicated keyboard.
- CAD.
- AI CAD.
- Breast density calculation software.

- Compression Paddle : 18 cm x 24 cm.
  - Round spot compression paddle.
  - Straight round spot compression paddle.
  - Sliding compression paddle 18 x 24 cm.
- Magnification Stand : 1.5 x.
- Filter :
  - Molybdenum (Mo) & Rhodium (RH).
  - Molybdenum (Mo) & Aluminum (Al).
- Automatic Filter selection.

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 optimum dose to the patient and gives good quality image.

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

Preshot → Calculate density and decide main shot mAs → Main Shot

SYNERGY ACQUISITION SOFTWARE (ADVANTAGES)

In house designed and developed mammography acquisition software provides quick and hassle free 2D image acquisition 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.
- Advanced printing : Film and paper.
- Various advanced image analysis tools such as SNR, Mean, Median etc.
- Image annotations along with measurement tools.

ADVANCED PRINTING MODULE
(Supports variety of printers)

1. **Multiple printer configuration.**
2. **Supports variety of printers (Paper or DICOM).**
3. **Auto mammo view adjustment.**
4. **Ease of operation.**
5. **Multiple mammo layouts.**
6. **Customized layouts.**
7. **Easy configuration support.**

COMPRESSION

Compression paddle is designed to minimize patient pain and discomfort perception. Allengers Venus DRV provides a wide range of compression paddles.

Compression Paddle 24 cm x 30 cm (standard)

Compression Paddle 18 cm x 24 cm (optional)

SPOT COMPRESSION PADDLES (standard)

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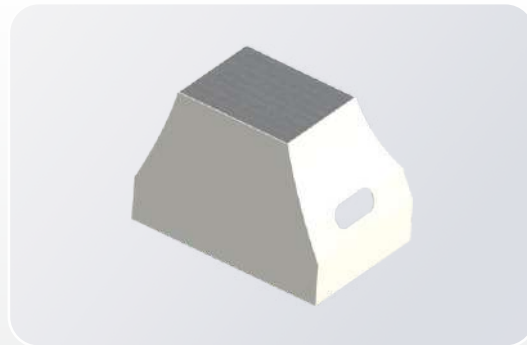

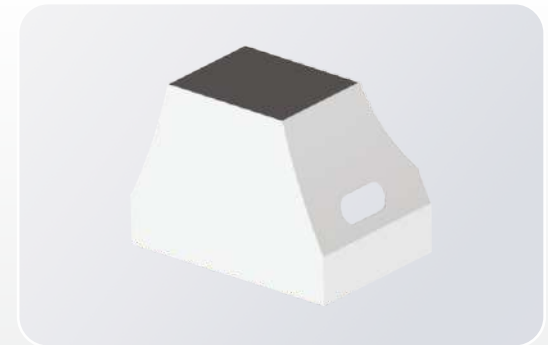## STRAIGHT SPOT COMPRESSION PADDLES (optional)

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

MAGNIFICATION STAND
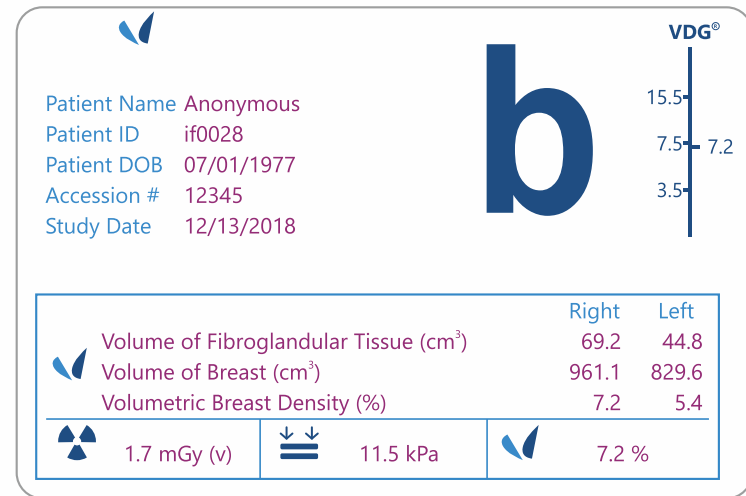

1.8 x (standard)

1.5 x (optional)

MAMMOGRAPHY KEYBOARD (Optional)

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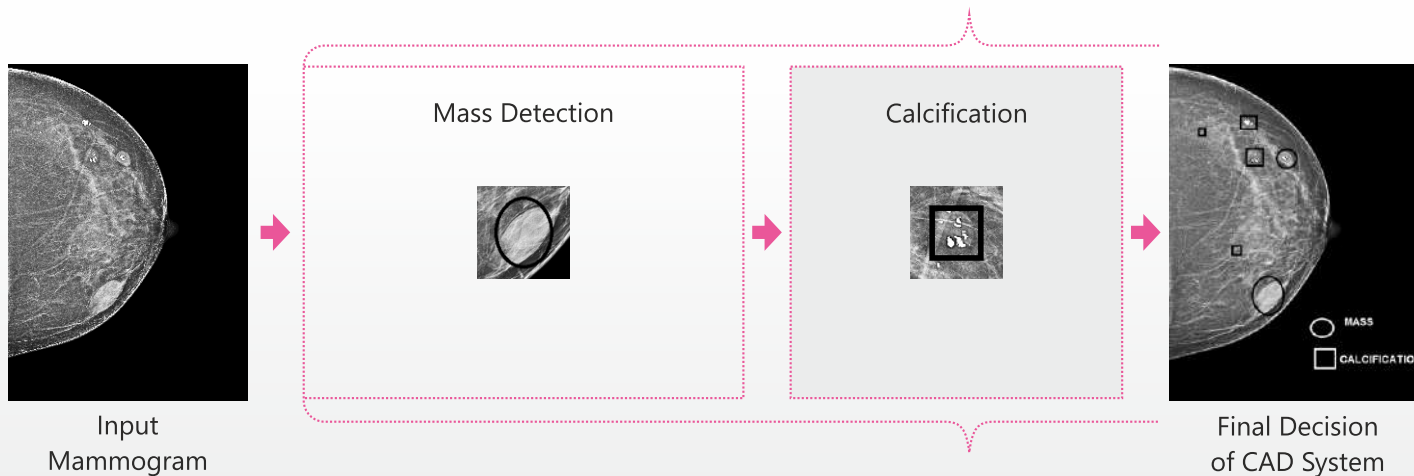

BREAST DENSITY MEASUREMENT (Optional)

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.

VDG®

Patient Name	Anonymous	
Patient ID	if0028	
Patient DOB	07/01/1977	
Accession #	12345	
Study Date	12/13/2018	

15.5
7.5 — 7.2
3.5

	Right	Left
Volume of Fibroglandular Tissue (cm^3)	69.2	44.8
Volume of Breast (cm^3)	961.1	829.6
Volumetric Breast Density (%)	7.2	5.4

1.7 mGy (v)	11.5 kPa	7.2 %

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.

Input Mammogram → Mass Detection → Calcification → Final Decision of CAD System

GANTRY MOVEMENTS

Display	Digital display of angulations degree on LCD display
Angulation Movement - Manual Rotation	±90^0
Source to Image Distance	65 cm
Motorized Vertical Travel	55 cm (Range from 70 cm to 125 cm)

MAJOR TECHNICAL SPECIFICATIONS*

MODEL	MAM VENUS+
SERIES	Venus DRV+
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.

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

A.S.S.U.R.E version mentioned is based upon highest configurations of safety standard protocols.

DISTRIBUTED BY

EURONOXX™

EURONOXX MEDICAL GROUP

FOR ANY ENQUIRIES CONTACT US

+44 20 3642 1175
info@euronoxxmedical.com
www.euronoxxmedical.com
35 Berkeley Square, Mayfair, London, W1J 5BF