

System Specifications

These systems below would be what is needed to initially get started. Although not quoted, film may need to be developed in the event that a patient wanted a copy of it.

GE Instrumentarium Diamond Mammography

- - Dual Buckys
 - - 2 Compression Paddles
 - - Lead Glass Shield
 - - Workstation
 - - Cassettes- X-Ray Tube
- \$10,750 delivered

Fuji Clearview CR -

- - Flash IIP console
 - - Touchscreen Monitor
 - - Barcode reader
 - - 4 (8x10) mammo cassettes
 - - 4 (10x12) mammo cassettes
 - - Digital Mammography Throughput: up to 60 IPs/hr. (24 x 30 cm), 45 IPs/hr. (18 x 24 cm)
 - - Dynamic Range Control (DRC)
 - - Multi-objective Frequency Processing (MFP)
 - - Pattern Enhancement for Mammography (PEM)
 - - Dual side Reading w/ 50 micron sampling (20 pixels/mm)
- \$19,500 delivered

Refurbished AGFA Drystar 4500M Dry Imager

- 8 Inch x 10 Inch
 - A Sharp
 - Mammography Printer: 10 Inch Wide Print-Head
 - High Resolution of 508 Pixels Per Inch
 - Dimensions: 55 x 72 x 92 cm (W x D x H)
 - Weight: 209 lbs.
 - Two On-Line Film Sizes
 - 2 Media Supply Drawers
- \$12,900 delivered

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> **DRYSTAR™ 4500 M**

Optimized image quality in digital mammography

- > **The DRYSTAR 4500 M imager is a high-resolution, high-throughput, dual film-size dry hardcopy system dedicated to digital mammography.**

Close-to-application imaging

DRYSTAR 4500 M's small footprint and low investment cost mean that prints can be made where you need them: right next to you! There will always be room for this floorstanding unit within direct reach of the application it serves, even in the most space-restricted environment.

New optimized mammography media for high resolution

The new DRYSTAR 4500 M imager uses DRYSTAR Mammo media, specially developed and optimized for mammography applications. The best results are obtained when using them together. With its high maximum density ($D_{max} > 3.5$), even the most subtle grey-level changes required for mammography applications can be visualized. With its 508 ppi, DRYSTAR 4500 M produces sharp images ideally suited for digital mammography.

Two film trays/two media sizes on line

DRYSTAR 4500 M features two media trays. The top tray can hold up to 100 sheets of 8 x 10" media, while the bottom tray also holds either 100 sheets of 8 x 10", for increased capacity or 10 x 12" to print images from larger size detectors.

Two applications, one printer

In most mammography examination centres, ultrasound modalities are on site for complementary examinations. With its two film trays, DRYSTAR 4500 M make prints from both applications on dedicated media. So while the top tray holds DRYSTAR Mammo for digital mammography images, the bottom tray can be configured for DRYSTAR DT 1 B media (8 x 10" or 10 x 12") for ultrasound images. This means DRYSTAR 4500 M can cover all your department's printing requirements.

Small footprint and low investment



Optimum results with DRYSTAR Mammo media

Dual film sizes on-line



Reliable by design, easy to use

The DRYSTAR 4500 M imager can be integrated in the digital Embrace™ systems. Embrace is the complete portfolio of Agfa's Women's Care Solutions.



AGFA 

Embrace

Agfa offers systems for digital mammography. For some systems, DRYSTAR 4500 M with DRYSTAR Mammo media completes the configuration. One of these systems, CR Embrace, is based on the ADC Compact Plus digitizer with dedicated Embrace Mammo Plates and Cassettes. Additional dedicated Mammo software on ADC QS or ADC VIPS is necessary to process the mammography image before it can be printed on the DRYSTAR 4500 M imager.

Built-in quality assurance

DRYSTAR 4500 M has a built-in macro densitometer, specifically developed for mammography applications, to check film calibration and image quality. Furthermore, an automatic Quality Assurance tool is provided for daily quality checks.

High productivity

DRYSTAR 4500 M can print up to 80 sheets/hour in 8 x 10" and up to 60 sheets/hour in 10 x 12", so it fits perfectly in a department with several imaging modalities, matching the performance and functionality of them all.

Full DICOM compliancy

DRYSTAR 4500 M, like all the DRYSTAR family of imagers, is fully DICOM compliant.

Environmental benefits

The DRYSTAR family of printers received the European Environmental "Product Award for Sustainable Development" in appreciation of their improved environmental performance over conventional systems.

General

Dimensions

W x D x H: 55 x 72 x 92 cm
21.6 x 28.3 x 36.2"

Weight

95 kg/209.4 lb

Power requirements

Auto ranging 100 – 240 V: 50/60 Hz

Power consumption

Average: 300 Watt

Peak: 530 Watt

Media supply trays

Upper input tray 8 x 10", 100 sheets

Lower input tray configurable for 8 x 10" or 10 x 12", 100 sheets

Operating conditions

Temperature: 10 - 35 °C (50 - 95 °F)

Humidity: 10 - 80% RH, non-condensing

Storage / Shipping conditions

Temperature: -25 °C to +55 °C (-11 to 131 °F)
(+70 °C/158 °F for transport)

Humidity: 10 - 95% RH, non-condensing.

Heat dissipation

Standby power: 100W / 360kJ/h

Average printing power: 300W / 1080kJ/h

Peak power: 530W / 1908kJ/h

Safety

IEC 601-1

IEC 601-1-1

UL2601

CSA 22.2 no. 601.1-M90

VDE 0750

DOH

Performance

Throughput

8 x 10":

80 films/hour (45 sec per film);

access time first film: 90 sec.

10 x 12":

60 films/hour (60 sec per film);

access time first film: 120 sec.

Addressable print area

8 x 10": 3832 x 4844 pixel

10 x 12": 4844 x 5856 pixel

Printing resolution

Geometrical: 508 ppi

Contrast: 8/12 bit contrast resolution

Connectivity

Ethernet TCP/IP, FTP, Telnet, HTTP, SNMP,

SMTP, LPD

Image formats: DICOM, TIFF, and optional
Postscript®

Media

Media types

1. DRYSTAR Mammo blue base media optimized for mammography

2. DRYSTAR DT 1 B blue base media and
DRYSTAR TM 1 C new clear base media

Media sizes

Two on-line media sizes: 8 x 10" and 10 x 12"

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FUJIFILM

ClearView-1m



According to the National Breast Cancer Foundation, more than two million breast cancer survivors are living in the United States today. As new advancements emerge to aid in early detection, such as digital mammography, this number will continue to grow. Fujifilm is proud to be a part of this positive development. We've been dedicated to early detection for more than twenty years now: introducing digital mammography to the world with the launch of our first CR for mammography system back in 1983. Since then, Fujifilm has been improving our Women's Health products through extensive research and development, including feedback from technologists and radiologists worldwide.

High Resolution Digital Mammography

ClearView-1m is designed to complement the ClearView-CSm high resolution multi-plate CR reader. Like the ClearView-CSm it employs dual-side reading technology and 50-micron sampling capability. Images can be acquired on both 18 x 24 cm and 24 x 30 cm-sized IP (imaging plate) cassettes. The ergonomically designed single drive unit, and Fujifilm's unique IP reading technology, provide a throughput of up to 45 - 18 x 24 cm IPs per hour.*

Dual-side Reading with 50-micron Sampling

Like the ClearView-CSm, the ClearView-1m has dual-side mammography reading capability so captured x-ray information can be read from both sides of the IP simultaneously. And with 50-micron sampling (20 pixels/mm), the spatial resolution provided by the ClearView-1m dramatically reduces the difficulty of interpreting the limited contrast and narrow exposure latitude associated with screen-film mammography.

In-room or Centralized Multi-modality Capability

With ClearView-1m, you can easily convert your mammography units to digital. For high throughput, the ClearView-1m is ideal for in-room siting.[†] Installing the reader in this manner allows you to use your existing analog unit for digital mammography without the technologist having to leave the exam room. The ClearView-1m also reads standard IPs for general radiographic procedures. The system has the flexibility to process all standard sized cassettes for general radiographic work. Located in a central location, this versatile, multi-tasking feature makes the unit suitable for digital radiographic applications beyond those for mammography. It can be particularly valuable in a clinic where a single FCR reader can be used to produce high definition digital mammography and general radiographic digital images.

*Actual throughput depends on patient type and reader location.

[†]Grounding and/or shielding analysis may be required.

FCR
Digital Mammography *m*

FUJIFILM

ClearView-1m

Advanced Image Processing

Three important image-processing features of Fujifilm Digital Mammography are Dynamic Range Control (DRC), Multi-objective Frequency Processing (MFP), and Pattern Enhancement Processing for Mammography (PEM).

DRC improves the visibility of both dense and soft tissue by amplifying or reducing image density and contrast.

MFP selectively applies varying degrees of edge enhancement processing to each individual breast structure dependent on size for improved image quality. PEM detects and improves the conspicuity of minute structural information within the breast, such as micro-calcifications, through pattern recognition for easier visualization.



DIGITAL MAMMOGRAPHY

Cassettes – DM

Pixel Sampling – 50 micron

<u>IP Type</u>	<u>Throughput*</u>
HR-BD • Dual-side	
24 x 30 cm	40 IPs/hr.
18 x 24 cm	45 IPs/hr.

IIPm Technologist Console

Minimum Specifications

CPU	Pentium 4, 3.2 MHz
Memory	2GB
HDD	160GB
Monitor	2 MP LCD

Final interpretation for mammography requires FDA cleared display devices.

DIGITAL X-RAY

Cassettes – C, Long View and P

Pixel Sampling – 50 micron

<u>IP Type</u>	<u>Throughput</u>
ST-BD** • Dual-side	
24 x 30 cm	42 IPs/hr.
18 x 24 cm	48 IPs/hr.

Cycle Time

Approximate 40–65 seconds (HQ)
75–90 seconds (Dual-side)

Pixel Sampling – 100 micron

<u>IP Type</u>	<u>Throughput</u>
ST-VI or HR-V • HQ	
14" x 17" (35 x 43 cm)	60 IPs/hr.
14" x 14" (35 x 35 cm)	66 IPs/hr.
10" x 12"	72 IPs/hr.
8" x 10"	90 IPs/hr.

Network Connection

Network Drop
RJ-45 connection,
100 base-T network
Network switch set to half duplex

External Dimensions

W25.8" x D29" x H52"
W655 x D740 x H1330 (mm)

Weight

529 lbs. (240KG)

Power Requirements

110V, 7A (Max)

* Actual throughput based on patient type
and reader location.

** Pediatrics



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