



# Together for mammography excellence

Agfa mammography portfolio



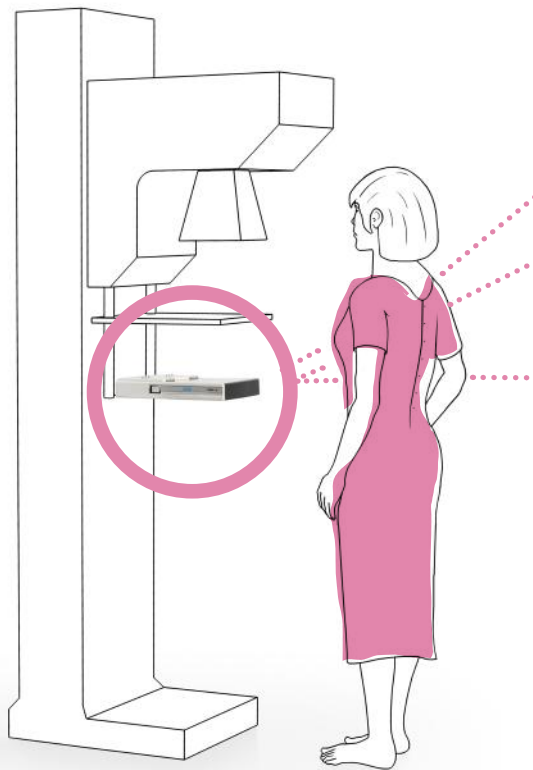
## A SPECIALIZED PORTFOLIO, OPTIMIZED FOR MAMMOGRAPHY

Every woman deserves the best mammography experience. That's why Agfa offers a comprehensive, top-quality and dedicated mammography portfolio that fits the requirements of various imaging environments.

Our vendor-neutral solutions, which range from classic film and diagnostic printing, to digital radiography and a workstation for mammography data and image management, are compatible with all mammography modalities, and are suitable for both screening and diagnostic purposes.

Because knowledge about radiation dose is top of mind, we have designed these solutions to balance low radiation dose and high image quality. So, regardless of which Agfa mammography solutions you choose, you can be sure you are giving your patients optimum care.

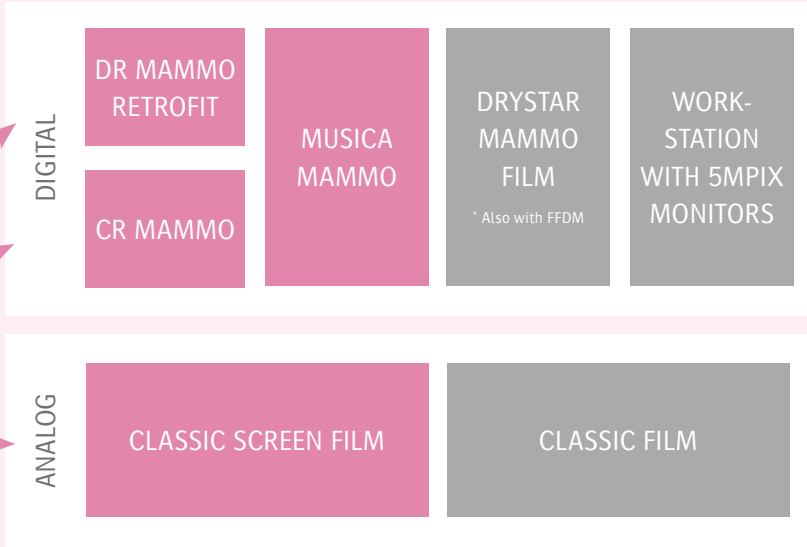
## FIND THE RIGHT SOLUTION FOR YOUR FACILITY



Agfa's mammography portfolio includes analog and digital solutions for image acquisition with image processing, and diagnostic viewing, to fit an imaging environment's needs.

## ACQUISITION & PROCESSING

## DIAGNOSTIC VIEWING



## CLASSIC FILM



Mamoray HDR-C Plus

## DIAGNOSTIC PRINTING & VIEWING



DRYSTAR AXYS



DRYSTAR 5503



DRYSTAR  
mammography film



SE workstation

## DIGITAL MAMMOGRAPHY (DR AND CR)



MUSICA for digital  
mammography



DR Mammo Retrofit based  
on DR 24M and DR 18M



CR Mammo  
based on CR 30-Xm



## INTELLIGENT AEC CALIBRATION

### **For optimized dose and X-ray beam**

Agfa's mammography solutions use a unique dose alignment procedure to calibrate the automatic exposure control (AEC). Dose and X-ray beam quality are optimized for all breast thicknesses and compositions, automatically and intelligently. The Agfa team is specially trained to work with your modality engineer to calibrate the AEC, which steers the generator.

# CLASSIC FILM SOLUTIONS



## MAMORAY HDR-C PLUS FILM

**Dedicated mammography film offering exceptional mammography image quality**

- Mamoray HDR-C Plus film uses two emulsion technologies – Split Emulsion Layer (S.E.L.) and Cubic Crystal – to enhance skin line visualization.
- Cubic Crystal technology minimizes noise, speeds up development and improves image consistency.
- The high contrast improves the visualization of clinically significant information.
- The neutral image tint enhances reading comfort, and makes tiny, low-contrast details more easily visible.

### **Mamoray cassettes:**

- Mamoray HDR-C Plus film is compatible with the lightweight, easy-to-handle Mamoray cassettes.
- Mamoray cassettes ensure close contact of the film with the thoracic edge of the cassette (less than 2 mm distance), for minimal or no loss of diagnostic information in the image.

### **Mamoray screens:**

- Using Mamoray HDS screens with Mamoray HDR-C-Plus mammography film helps ensure images with outstanding sharpness, even at low dose.

You can find more information on the benefits and features of Mamoray HDR-C Plus film in the [datasheet](#).

# DIAGNOSTIC PRINTING SOLUTIONS

## DRYSTAR IMAGERS

### Setting the standard in mammography hardcopy

Agfa's DRYSTAR portfolio offers you a choice of mammography hardcopy imagers, to make sure you get the right fit. But whichever you select, you can be sure that all DRYSTAR imagers, enhanced with A#Sharp technology for consistently sharp images, offer you:

- A simple mechanism, making the imager both compact and highly reliable.
- Solid state imaging, ensuring long life and controlled, consistent image quality.
- Total daylight film handling, enabling ease of use.
- High throughput and the shortest image access time, supporting an efficient workflow.
- Flexibility of media trays.
- DICOM compatibility.
- An excellent price/performance ratio.





## DRYPSTAR AXYS

### High-quality, fast mammography imaging from a compact, tabletop imager

With the DRYPSTAR AXYS, you have a high-resolution, high-throughput imager that is optimized for mammography, yet also supports the other imaging applications.

- The high resolution of 508 ppi is the most efficient resolution available in today's market, providing the excellent quality needed for mammography images or any other mammography modality.
- Integrated A#Sharp technology intensifies the imaging capability, for consistently sharp images.
- The dual on-line media trays can handle three sizes of mammography film (8x10 inch, 10x12 inch and 11x14 inch), as well as a variety of other media in many different sizes.
- The ultra-short access time for the first four prints, plus the efficient throughput, enhances mammography productivity.
- With its small footprint, the DRYPSTAR AXYS can fit even the most limited space.





## DRYSTAR 5503

### Mammography quality from a high-throughput, triple media-size imager

The DRYSTAR 5503 offers you mammography-quality images in a high-throughput imager that can be networked for maximum productivity.

- The high resolution (508 ppi) and A#Sharp technology match the modality resolution of the highest resolution CR digitizers.
- Triple on-line media trays can handle three sizes of mammography film (8x10 inch, 10x12 inch and 11x14 inch), plus a variety of other media in many different sizes.
- The DRYSTAR 5503 can print up to 120 sheets/hour for 8x10 inch size, enhancing your throughput.
- The built-in, automatic quality assurance tool helps with quality checks.



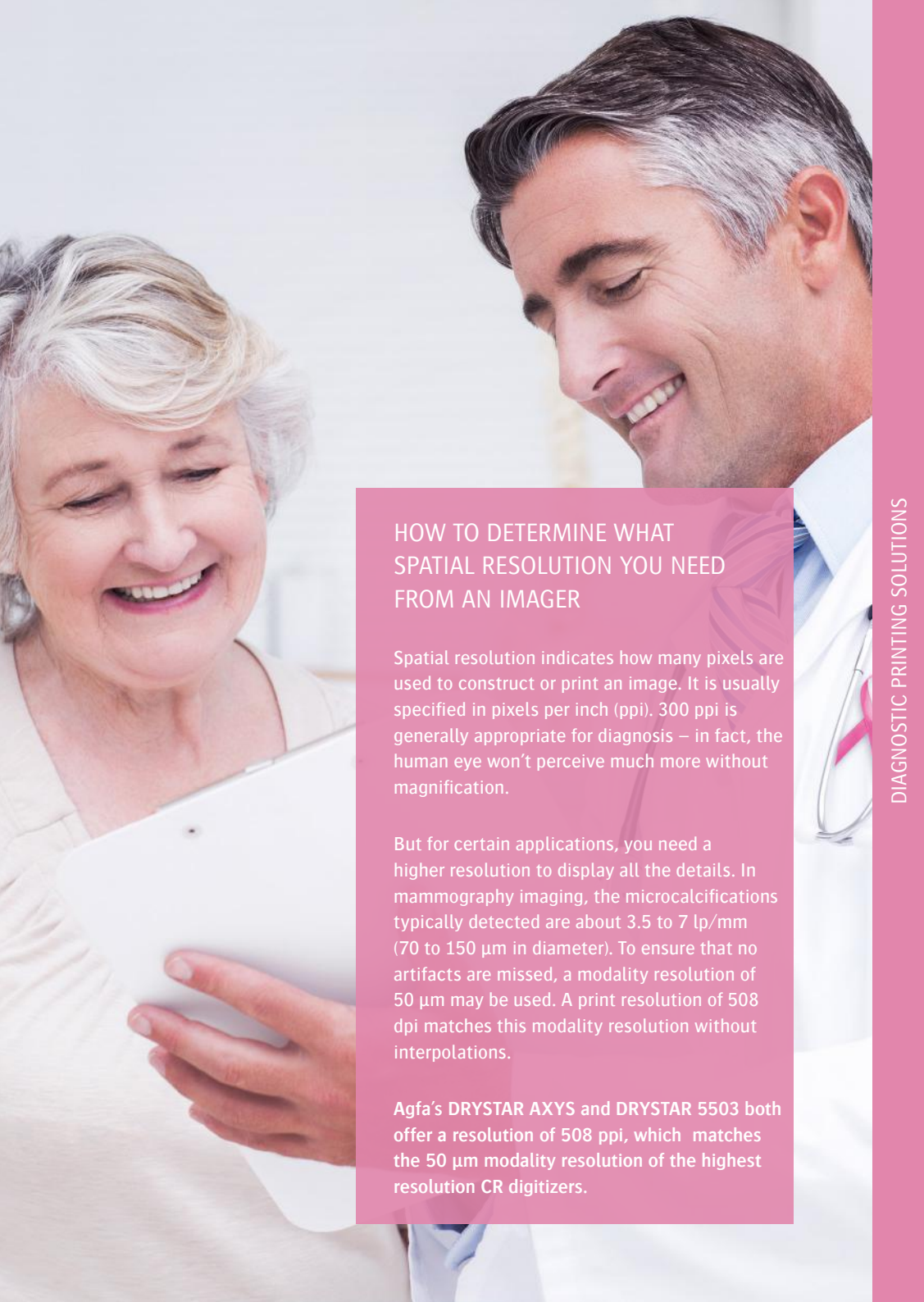
## DRYSTAR MAMMOGRAPHY FILM

- Designed for use with the DRYSTAR 5503 and DRYSTAR AXYS, this high-density, high-contrast dry processing film offers optimum diagnostic-quality hardcopies for digital mammography.
- This film has been specially developed to meet the high optical density requirements of digital mammography.
- You can visualize the most subtle grey-level changes required for mammography applications.

Additional information on Agfa's hardcopy portfolio, including the DRYSTAR AXYS and DRYSTAR 5503, can be found in the [brochure](#).

Hardcopy continues to play a key role in medical imaging, but not all imagers are suitable. Find out what you need to consider and look for, in Agfa's White Paper "[Diagnostic printing in the digital era](#)"





## HOW TO DETERMINE WHAT SPATIAL RESOLUTION YOU NEED FROM AN IMAGER

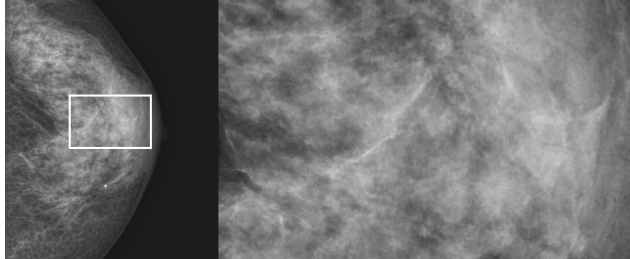
Spatial resolution indicates how many pixels are used to construct or print an image. It is usually specified in pixels per inch (ppi). 300 ppi is generally appropriate for diagnosis – in fact, the human eye won't perceive much more without magnification.

But for certain applications, you need a higher resolution to display all the details. In mammography imaging, the microcalcifications typically detected are about 3.5 to 7 lp/mm (70 to 150  $\mu\text{m}$  in diameter). To ensure that no artifacts are missed, a modality resolution of 50  $\mu\text{m}$  may be used. A print resolution of 508 dpi matches this modality resolution without interpolations.

Agfa's **DRYSTAR AXYS** and **DRYSTAR 5503** both offer a resolution of 508 ppi, which matches the 50  $\mu\text{m}$  modality resolution of the highest resolution CR digitizers.

DIRECT  
RADIOGRAPHY (DR)  
AND COMPUTED  
RADIOGRAPHY (CR)





# MUSICA

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## TECHNOLOGY

### MUSICA FOR DIGITAL MAMMOGRAPHY

**Agfa's most advanced image processing software, specially adapted for mammography**

All Agfa DR and CR solutions come with MUSICA image processing, specially adapted for mammography. MUSICA gives you the right processing for your mammography images immediately – without manual post-processing. All relevant data in the image is rendered and adapted to the sensitivity of the eye. There's no need for window/level adjustments to improve the visualization of certain regions in the breast. You get more information on all relevant image areas, making it easier to distinguish and visualize the most subtle pathologies and lesions, and you save time and effort.

#### The diagnosis is in the details:

- The skin line, subcutaneous periphery and nipple area are well defined and visible without additional window/level adjustments.
- Cooper's ligaments, subcutaneous area and the mamilla of the breast show their structure and details in high fidelity.
- Noise level is very low: there are no grainy areas within the clinical parts.
- Contrast variation between adipose and glandular tissue is well balanced within a study.
- Contrast variation is balanced for both small and large breasts.
- Dense bright areas remain transparent, and not bright and burned.
- The sharpness impression is very high, and microcalcification as well as mass-like pathologies are easily detectable.



More information on Agfa's [MUSICA gold-standard image processing](#) and [MUSICA for digital mammography](#) can be found in the brochures.

## DR MAMMO RETROFIT

Affordably upgrade to DR mammography image quality, productivity and lower dose



With the DR Mammo Retrofit, you can cost-effectively take the next step in your mammography evolution by upgrading your existing analog and CR mammography X-ray modalities to DR.

- The vendor-neutral DR Mammo Retrofit uses your existing mammography investments to seamlessly give you all of the benefits of DR mammography, including immediate, high-quality images and a smooth, fast workflow.
- Mammo DR Retrofit is up and running quickly.
- MUSICA for mammography provides excellent contrast detail.
- Cesium Iodide (CsI) scintillators and a high-resolution pixel pitch of 76  $\mu\text{m}$  deliver the excellent image quality required for DR mammography, while offering the potential for significantly reduced dose.
- The high Detector Quantum Efficiency (DQE) and the lossless dose AED further support low patient radiation dose examinations.
- The unique Dose Alignment Procedure enables intelligent programming of automatic exposure control.
- DR 24M (24x30 cm) and DR 18M (18x24 cm) flat panels fit into a standard bucky for conventional and computed radiography (CR) mammography.

What are the concrete differences between CR and DR, and how do you determine which is the right choice for your imaging environment? Discover Agfa's White Papers "[Moving from CR to DR: Optimizing Image Quality and Dose](#)" and "[Does the pixel size of a fullfield digital mammography detector matter for early detection of breast cancer?](#)"



## CR MAMMO

High-resolution mammography images,  
from a cost-effective, tabletop digitizer

CR Mammo is based on the CR 30-Xm digitizer, using dedicated plates and cassettes for mammography. You can thus use the compact, single-slot CR 30-Xm for both your digital mammography and general radiography applications – with a single investment.

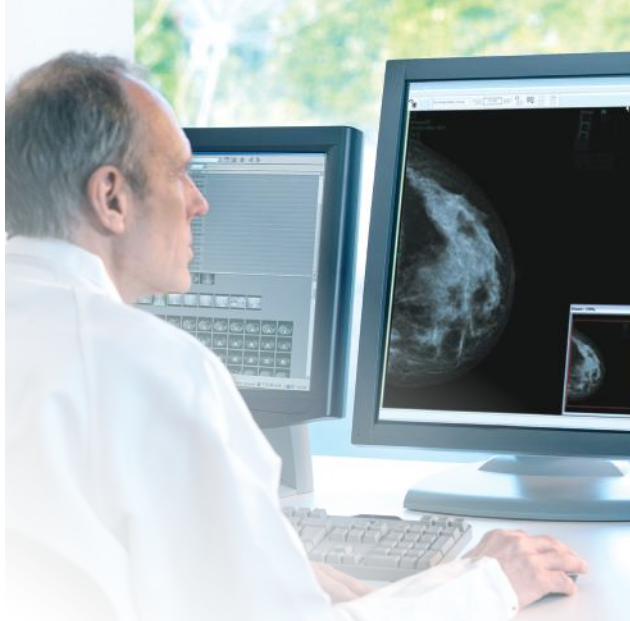
- The very high resolution of 50  $\mu\text{m}$  pixel pitch supports mammography imaging in full confidence.
- The high scan resolution, combined with dedicated MUSICA for mammography, makes it easier to detect small and subtle lesions in the breast.
- The digitizer fits in small spaces and is suitable for mobile applications.
- Dedicated mammography image plates and cassettes are available in sizes of 18x24 cm and 24x30 cm, and enable tissue imaging right up to the chest wall.
- The unique Dose Alignment Procedure enables intelligent programming of automatic exposure control.



More information on the CR 30-Xm can be found in the [brochure](#).

For a more technical explanation of the relationship between mammography, image quality and pixel size, please see Agfa's "[Technology advantages in CR digital mammography using needle crystalline detectors](#)"





## SE DIAGNOSTIC WORKSTATION

**A diagnostic workstation for  
mammography data and image management**

The SE multi-modality workstation offers you a comprehensive and self-contained software solution for the manipulation, archiving and distribution of your mammography and other medical imaging data.

- Regardless of your facility's size, you can access a comprehensive and cost-effective image and data management solution with integral viewing functionality.
- It can be tailored to the needs of a single- or multi-user environment.
- The intuitive, easy-to-use screen layout enables easy navigation between images and studies.
- The SE workstation seamlessly integrates with Agfa's DR and CR systems and hardcopy imagers.
- It is easy to install and requires low maintenance.
- A 5-megapixel monitor is available.

More information on the SE Suite can be found in the [brochure](#).

For more information on Agfa, please visit our website on [www.agfa.com](http://www.agfa.com) ■

\* Mammo DR Retrofit is not available in the US and Canada.

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