

MAMMOMAT Inspiration

The reference in low-dose mammography

siemens-healthineers.com/inspiration





How less becomes more

1 in 8 women will develop invasive breast cancer.¹ Thankfully screening saves countless lives every year. But especially for healthy women, low dose is of upmost importance. At the same time, image quality is key for detecting the smallest detail. Siemens Healthineers rose the challenge to develop a system that would be the new reference in low-dose mammography, without compromising on image quality. Seeking to improve, but ended up revolutionizing.

At the core of our vision are:

- Providing a better mammography experience for patients
- Making anatomical details clearly visible
- Reducing dose without compromising image quality
- Increasing process efficiency

At Siemens Healthineers, we strive to create the most comprehensive ecosystem of products and services on the market – providing valuable and easy-to-capture synergies across all modalities in a radiology department.

Now is your chance to join the revolution.



The reference in low-dose mammography

Mammography screening entails examining thousands of healthy women. So keeping dose as low as possible is extremely important and high image quality is the key to detecting the smallest detail. MAMMOMAT Inspiration results in up to 30% less dose¹, without compromising image quality.

At the same time patient experience should also stay in focus. We develop breast care solutions that give patients optimal care. To produce the best imaging results, it is key that the patient feels at ease during the examination. Providing women with a calming atmosphere during mammography screening can help women relax, ensuring a smooth examination.

Help to enhance your institution's reputation by providing a better mammography experience for patients and become the institution of choice by providing standard-setting low-dose mammography system for your patients.

Discover MAMMOMAT Inspiration

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¹ Compared to grid-based acquisition with MAMMOMAT Inspiration, depending on breast thickness - L.B. Larsen, A. Fieselmann, H. Pfaff, T. Mertelmeier Performance of grid-less digital mammography acquisition technique for breast screening: analysis of 22,117 examinations Presentation B-1025 ECR 2015.

Greater comfort, relaxed patients

Put women at ease: features for a relaxing exam

Help to enhance your institution's reputation by providing a better mammography experience for patients.

Breast Health Moods¹

With the new Breast Health Moods, our colorful room design concept, you can help your patients feel safe and calm. The pleasant atmosphere, warm colors, and soothing lights create a relaxing environment, which can help your patients to unwind and be at ease during the examination.

Appealing design

Smooth shapes, non-intrusive lines and a color palette of pastel pink, lime or silver: the design offers visual comfort during the exam.

Calming MoodLight

Getting women to relax during mammograms can be as simple as changing the lighting. The unique MoodLight panel allows you to select specific colors or a series of changing colors.

Individualized OpComp[®]

Instead of using a standard compression level, OpComp[®] only compresses as long as a woman's breast is soft and pliable. As soon as it has reached optimal compression level for the best image quality, it stops automatically. For increased comfort, more efficiency and, often, lower dose.







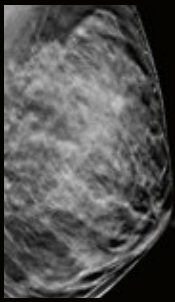
50° Wide-Angle Tomosynthesis

**Define tissue
and lesions in
unprecedented
detail:**

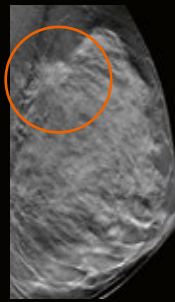
50° Wide-Angle Tomosynthesis

Overcome diagnostic challenges like overlapping tissue with the highest depth resolution on the market.¹

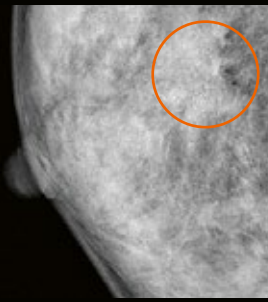
With our 50° wide-angle technology, MAMMOMAT Inspiration makes anatomical details clearly visible – with up to 3.5 times higher depth resolution compared with a narrow-angled system¹.



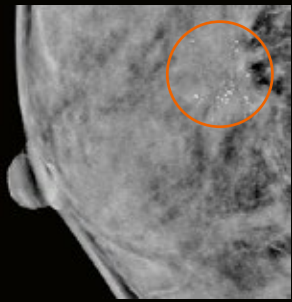
15° Tomosynthesis



50° Tomosynthesis



Mammogram



Insight 2D

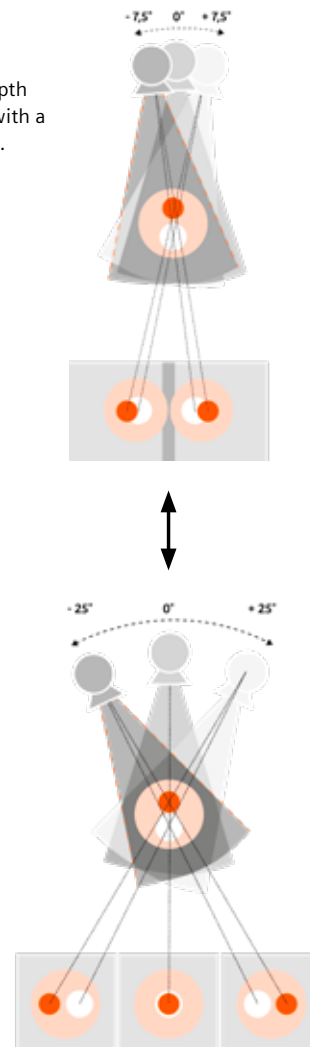
Wide angle image acquisition

The widest tomo angle of 50°² and 25 projections provide the superior depth resolution¹ and tissue layer separation that cannot be achieved with smaller angles. The state of the art detector is read out at full resolution, without the need for binning, capturing every detail so you can trust in what you see.

Insight – get more than just another view

Get unique synthetic visualization with Insight 2D and 3D³. Because it looks similar to a mammogram, Insight 2D is ideal for easy comparison with prior images.^{4,6} However, since it is created from the same dataset as the tomosynthesis slices, you reduce dose by 40%.⁵ The same data can also be uniquely displayed in 3D to speed up tomosynthesis reading. Used as an adjunct to tomosynthesis, Insight 3D provides superior diagnostic accuracy compared with a mammogram. And it supports easier analysis of micro-calcifications at a glance.⁵

Superior depth resolution with a wider angle.



¹ Maldera et al. (2016): Digital breast tomosynthesis: Dose and image quality assessment. *Physica Medica*, pp. 1-12.; Marshall N.W. and Bosmans H. (2012): Measurements of system sharpness for two digital breast tomosynthesis systems. *Phys. Med. Biol.* 57, pp. 7629-7650.; Rodríguez-Ruiz A. et al. (2016): Evaluation of the technical performance of three different commercial digital breast tomosynthesis systems in the clinical environment. *Physica Medica* 32, pp. 767-777.

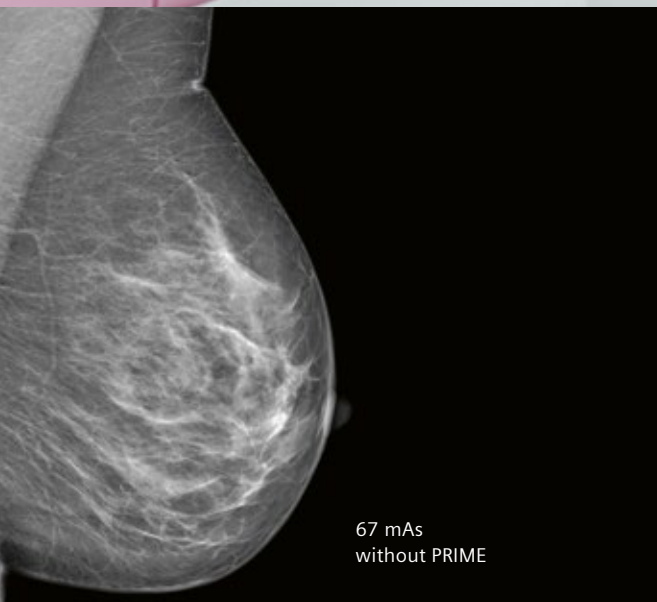
² Table 1 Specifications and geometry of breast tomosynthesis systems currently available or in development (based on Sechopoulos 2013 and subsequent information from manufacturers). Protocol for the Quality Control of the Physical and Technical Aspects of Digital Breast Tomosynthesis Systems, version 1.03.

³ Option.

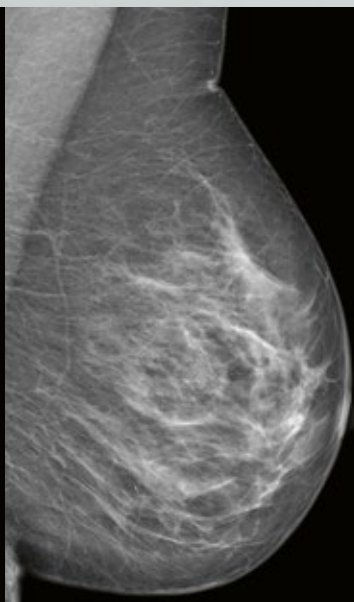
⁴ Up until now and independent of the manufacturer, the use of a synthetic mammogram is only approved in combination with 3D to substitute the digital mammogram in a tomosynthesis screening examination. It is not approved to replace a digital mammogram as a 2D standalone.

⁵ Uchiyama N. et al. (2016): Diagnostic Usefulness of Synthetic MMG (SMMG) with DBT (Digital Breast Tomosynthesis) for Clinical Setting in Breast Cancer Screening. Springer International Publishing Switzerland. IWD 2016, LNCS 9699, pp. 59-67.

⁶ Data on file.



67 mAs
without PRIME



45 mAs
with PRIME

up to 30%
less dose¹

Up to 30% less dose¹, uncompromised image quality

Discover how less becomes more: revolutionary PRIME Technology

Attract more women for screening by offering mammography with up to 30% lower dose¹ without compromising on image quality.

PRIME Technology defined

Progressive Reconstruction Intelligently Minimizing Exposure, or PRIME Technology for short, is the world's first software-based anti-scatter solution for mammography.

Behind the technology

Up to 30% less dose¹: Sliding back the mechanical grid means there is no longer a fixed object absorbing radiation between the breast and detector, so you can utilize 100% of the primary radiation – and achieve lower overall dose levels.

Uncompromised image quality

Progressive Reconstruction identifies scatter-causing structures and optimizes the image improving contrast and reducing scatter effects.

Time-tested Tungsten Tube

The Tungsten/Rhodium combination can reduce dose by up to 50%² compared to a molybdenum/molybdenum combination, especially for dense breast tissue.

Personalized OpDose®

OpDose determines the exposure parameters and uses Automatic Exposure Control to acquire the best-possible image depending on breast density and thickness. OpDose works in every position and automatically excludes the pectoral muscle from its calculations.

Flexible OpView®

Enjoy sharper, easily adjustable images using refined image processing software. You can select the best fit for your clinical needs from a range of predefined image impressions and flavors.

Fast direct-to-digital aSe Detector

The direct-to-digital amorphous selenium (aSe) detector directly converts X-ray energy into an electric charge. Your advantage: higher Detective Quantum Efficiency (DQE³). Its fast read-out reduces the time required between exposures, making for optimized workflows and higher patient throughput.



Scientific proof up to 30% less dose¹ and uncompromised image quality

Performance indicators for screening mammography were equivalent for PRIME and conventional grid-based screening in terms of detection rate, recall rate and specificity.⁴

¹ Compared to grid-based acquisition with MAMMOMAT Inspiration, depending on breast thickness – L.B. Larsen, A. Fieselmann, H. Pfaff, T. Mertelmeier Performance of grid-less digital mammography acquisition technique for breast screening: analysis of 22,117 examinations Presentation B-1025 ECR 2015.

² Uhlenbrock DF, Mertelmeier T. Comparison of Anode/Filter Combinations in Digital Mammography with Respect to the Average Glandular Dose; Röntgenstr 2009; 181: 249-254.

³ DQE measures the efficiency of a detector.

⁴ Abdi et al. Comparison of screening performance metrics and patient dose of two mammographic image acquisition modes in the Danish National Breast Cancer Screening Programme. European Journal of Radiology. 2018;105:188–194.



Easy-to-use, outstandingly quick

Work with ease and efficiency

Enable high patient throughput and reduce staff training requirements with time-saving features and the unique *syngo* user interface.

Seamless Isocentric Rotation

No matter which position is next, the center of the detector always stays at the same height, letting you switch to the next view at the touch of a button.

Multiple release options

Three X-ray release options provide more flexibility. Choose between the control console button, the hand switch¹ or the foot switch¹, depending on what best fits your needs.

Ergonomic Acquisition Workstation

"Less is more" is the best way to describe the Acquisition Workstation (AWS). Benefit from the convenience of the *syngo* user interface and swiftly adjust the table's height to your needs motorized.

Convenient Single-Touch Positioning

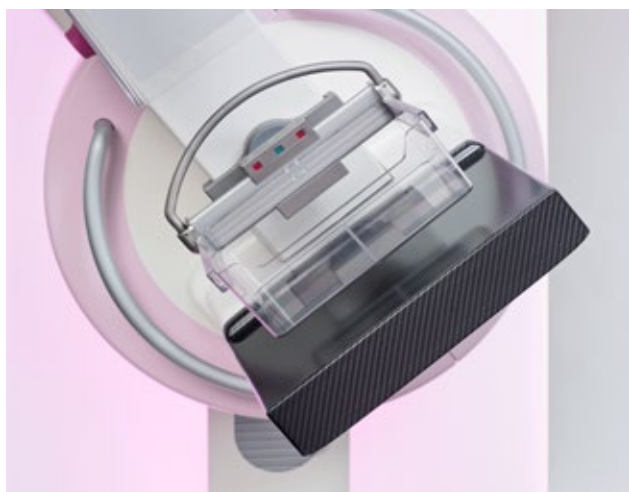
This feature moves the system from one position to the next in an instant. With only a single touch.

Efficient one-click-to-image

The scheduler opens automatically as soon as an exam is completed, allowing you to move seamlessly from one patient to the next – even in special cases such as magnification views and patients with implants. Clicking once opens the next exam and the system is ready for the first exposure.

Automated Quality Control

Our Automated Quality Control¹ is a smart quality assurance application based on the international Quality Control Manual. It automatically evaluates the results, generates a test report and stores it as a PDF file.



¹ Option.



MAMMOMAT Inspiration

Easy-to-use, outstandingly quick

Operate seamlessly and confidently

Become more efficient and obtain greater diagnostic confidence with an automated workflow and multimodality reading on a single workplace.

Stereotactic biopsy

Clear-cut procedures and intuitive operations are the key to fast and accurate examinations. With this in mind, we designed a stereotactic biopsy solution that reduces the necessary workflow steps and guides the operator through the procedure.

Lightweight and flexible

Simply slide the lightweight unit onto the detector and the system automatically switches to biopsy mode. Get more flexibility with both vertical and lateral access and a wide range of compatible biopsy devices.

syngo.Breast Care

syngo.Breast Care is the advanced multimodality solution for state-of-the-art mammography and Siemens Healthineers unique tomosynthesis reading. Marked by outstanding flexibility, it offers comprehensive tools, customizable layouts and individually configurable workflows for confident diagnosis and decision-making in both 2D and 3D.

As a stand-alone workstation or a multiple client server solution – syngo.Breast Care completely fulfills your need for high quality and efficient daily work. View and share the images easily wherever¹ you are – even on your mobile PC.



¹ Prerequisites include: Internet connection to clinical network, DICOM compliance, meeting of minimum hardware requirements, and adherence to local data security regulations.

MAMMOMAT Inspiration

System features

Calming MoodLight

An integrated LED panel with a broad range of colors to choose from emits a soothing light. For a more relaxing exam.

Personalized OpDose®

Provides the right dose for each woman individually, selecting the best anode/filter combination.

Convenient Single-Touch Positioning

Easy positioning with a single touch makes your workflow more efficient.

Individualized OpComp®

Compression stops automatically as soon as it reaches the right compression thickness to achieve the best image quality. For added comfort, more efficiency and, often, lower dose.

Revolutionary PRIME Technology

PRIME: Progressive Reconstruction Intelligently Minimizing Exposure allows you to use less dose without compromising image quality.

Flexible OpView

Selection of five so-called flavors for image impressions. Choose the one for your needs.

50° Wide-Angle Tomosynthesis

With the widest angle of 50° for highly defined tissue and lesion morphology in unprecedented detail and deeper insights visualized in 2D and even 3D.

Insight

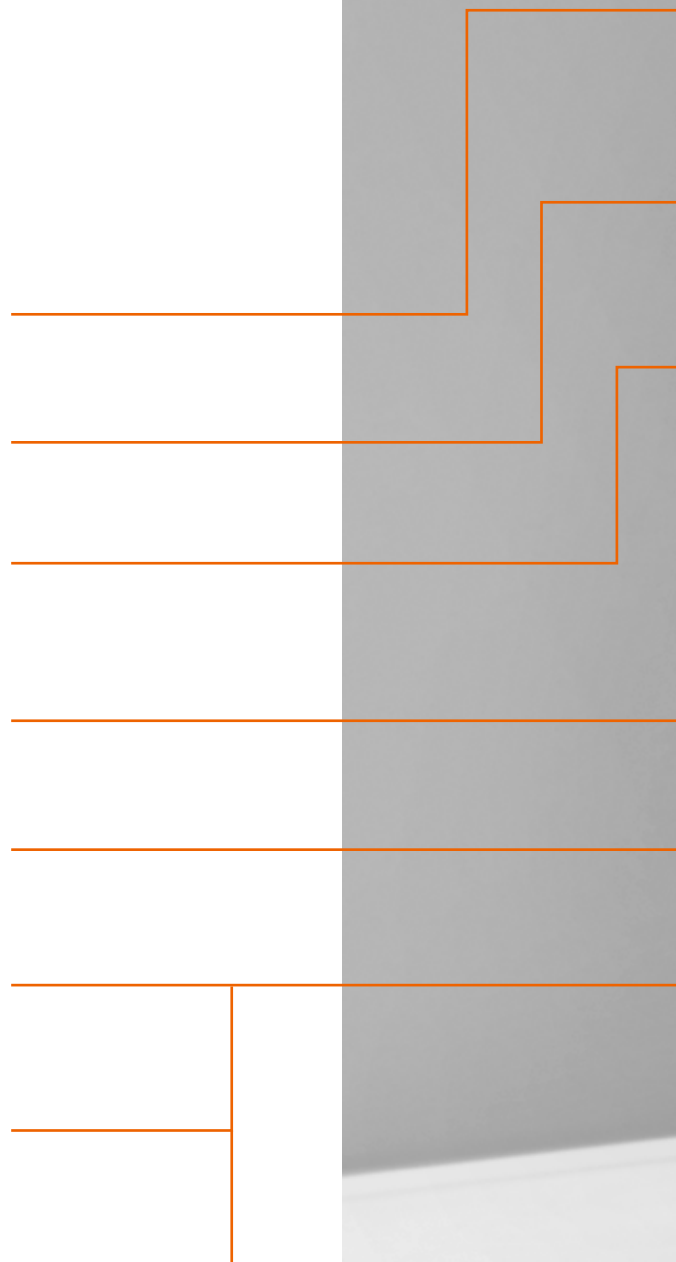
More than just another view. 50° Wide-Angle Tomosynthesis, visualized in 2D and 3D.

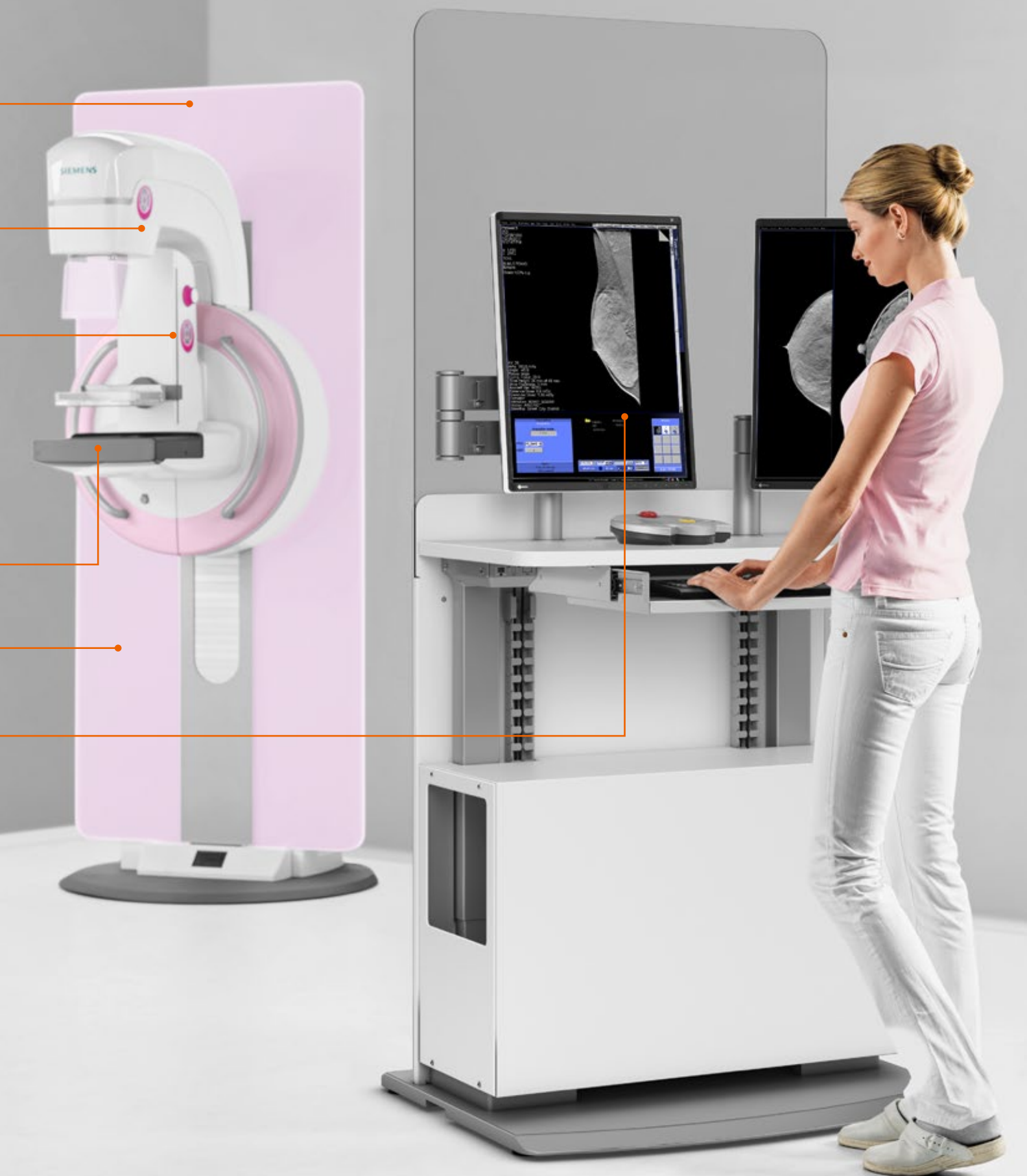
Stereotactic Biopsy

The system intuitively guides you through the entire procedure. Efficient and reliable for optimum diagnostic confidence.

Breast Health Moods¹

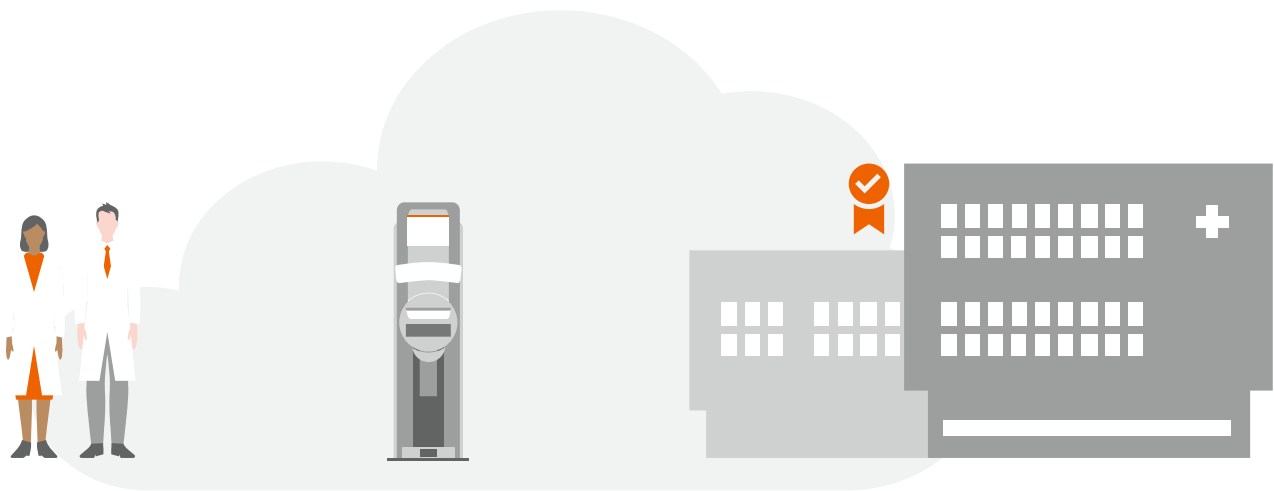
Our new colorful room design, which brings a calming environment into the examination room to help the patient feel safe.





Benefit from innovative services

Increasing value by partnering throughout the entire lifetime of your equipment



Continuously adding value and caring for your equipment, your workforce, and your entire institution.

Equipment Maintenance & Monitoring

Reliably servicing your MAMMOMAT Inspiration allows you to identify deviations from current norms to maximize equipment availability.

Education Management

Personalized education and training improves your staff's expertise as well as your equipment efficiency.

Fleet Management

A transparent overview of your fleet allows you to manage the performance and maintenance of your Siemens Healthineers equipment, 24/7.

Performance Management

An intelligible overview of your radiography performance data helps you make prompt and well-informed decisions.

Asset Management & Planning

Access to innovative medical technology and equipment throughout the entire contract life-time allows you to maximize focus on patient care.

Accessory Solutions

Products from our partner companies complement your use of our equipment in your daily workflow.

Business Modelling & Financing

Customized business and financial models address your budgetary and enterprise needs enabling you to remain more competitive.

Departmental Layout Optimization

3D-Visualization and digital twin analysis create more efficient workflows and a more enjoyable working environment.



Why Siemens Healthineers

At Siemens Healthineers, our purpose is to enable healthcare providers to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, and improving patient experience, all enabled by digitalizing healthcare. An estimated five million patients worldwide everyday benefit from our innovative technologies and services in

the areas of diagnostic and therapeutic imaging, laboratory diagnostics and molecular medicine, as well as digital health and enterprise services. We're a leading medical technology company with over 120 years of experience and 18,500 patents globally. With about 50,000 dedicated colleagues in over 70 countries, we'll continue to innovate and shape the future of healthcare.

MAMMOMAT Inspiration with VB61 and syngo.Breast Care are not commercially available in all countries. Their future availability cannot be guaranteed. Please contact your local Siemens Healthineers organization for further details.

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In the interest of complying with legal requirements concerning the environmental compatibility of our products (protection of natural resources and waste conservation), it may contain recycled components that adhere to the same quality assurance measures used for factory-new components.

The statements by Siemens Healthineers' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

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Siemens Healthineers Headquarters

Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen, Germany
Phone: +49 9131 84-0
siemens-healthineers.com