Siemens Has Your Answers

MAMMOMAT 3000 Nova clinical solutions are multi-purpose, reliable, and full of high-performance features. The system provides excellent return on investment and is scalable to suit all environments from the private clinic to the multi-department institution. Siemens also protects your investment – MAMMOMAT 3000 Nova is upgradeable at any time.

Please contact your local Siemens representative for more information on MAMMOMAT 3000 Nova and other top-quality systems for Women's Health.

Siemens medical Solutions that help

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SIEMENS

Because she deserves the very best

MAMMOMAT 3000 Nova

Partners in Women's Health Care

Whether we are captivated by international breast cancer statistics or touched by the personal experiences of our own patients, it is clear that breast care challenges are diverse and numerous.

Your breast care systems must enable you to handle your patients' needs with confidence, speed and efficiency – from screening and diagnosis through therapy. MAMMOMAT® 3000 Nova, an anchor system in Siemens' spectrum of breast care solutions, expands the MAMMOMAT legacy by offering screening, diagnostic work-up, and stereotactic biopsy capabilities in a single unit.

MAMMOMAT 3000 Nova is a high performance, reliable mammography system. It is patient- and user-friendly, and yields the highest quality images. If your goal is to accurately diagnose breast disease in its earliest, most treatable stages, then you couldn't have a better partner than Siemens -- or a more versatile mammography system than MAMMOMAT 3000 Nova.

One system for all procedures from screening through interventional diagnostics

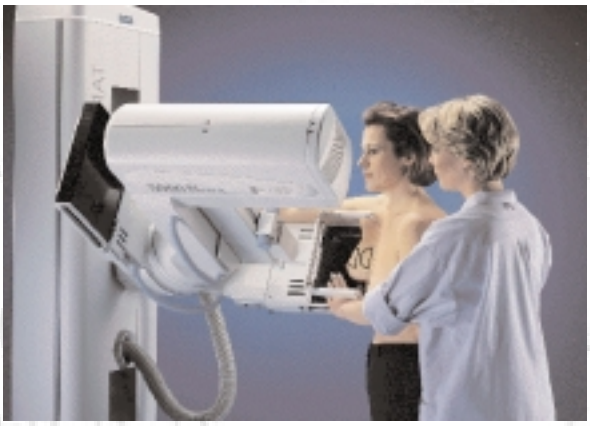
MAMMOMAT 3000 Nova offers the most versatile technology for breast imaging and biopsy guidance. Its open design, integrated features, and work-horse reliability ensure the highest performance.

Because it is a screening unit, diagnostic work-up system and stereotactic biopsy unit all in one, MAMMOMAT 3000 Nova maximizes system utilization potential, return on investment and space savings. Imagine the efficiency of using one system for:

- Screening
- Special Views
- Magnification
- Stereotactic biopsy, fine needle and core
- Needle localization
- Specimen radiography

Stereotactic biopsy can be performed with the patient in a comfortable sitting or recumbent position. The system accommodates biopsy between +120° and –165°, in steps of 15°.

With the functions of a dedicated biopsy system and the versatility to handle all mammography procedures, MAMMOMAT 3000 Nova is an investment which pays for itself, over and over again.

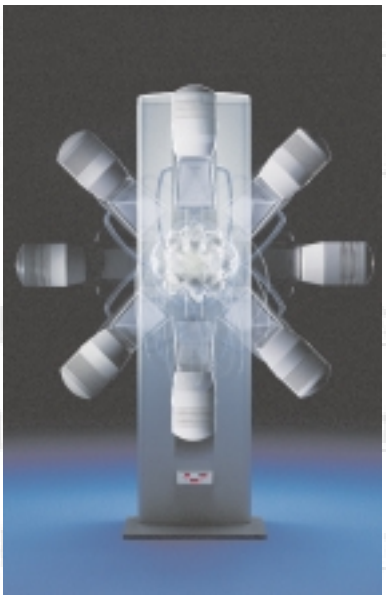


Mammogram, mlo view

Stereotactic biopsy, patient seated

Stereotactic biopsy, patient recumbent

Ergonomic design and handling patient-friendly and user-friendly



Siemens' engineers added new design elements, softer lines and a fresh look for MAMMOMAT 3000 Nova, while preserving the highly-appreciated features and options of our proven M3000.

Superior Accessibility
The slim tube-head design and narrow base allows easy, proper positioning of patients, including those in wheelchairs. Excellent ergonomic conditions are preserved for both operator and patient, even during biopsy procedures.

Isocentricity
Motorized isocentric movement offers precision and time-savings when positioning patients. Because the swivel arm moves isocentrically, the object table remains at the proper height between projections. Change between angle settings – every angle from cc to the inverted 180° – without readjusting the height.

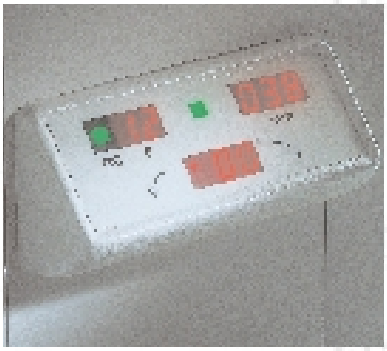
Pivoting Buckys
The unique dual Bucky design enables quick and easy switching between 18x24 and 24x30 cm formats. When the object table is changed, the appropriate collimation automatically pre-selects. Additionally, either object table can be manually replaced with the stereotactic device or magnification table.

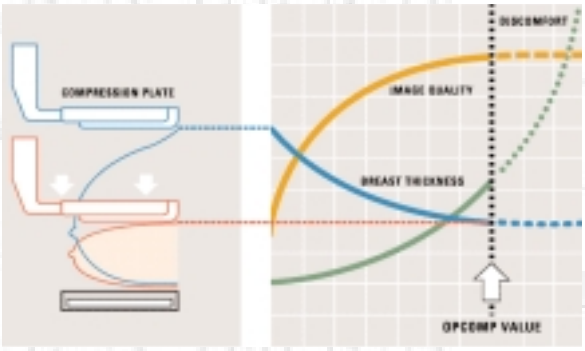
Generous gantry free-space
The 65-cm gantry opening (SID) allows easy patient positioning and accommodates popular biopsy devices. For example, the minimally-invasive vacuum-assisted Mammotome core biopsy system can be mounted in the vertical position in the stereotactic device – in line with the direction of compression for the shortest distance and greatest accuracy in reaching the lesion.

Advanced features in an advanced system

Opcomp – Optimized Compression
"No More, No Less"

Women used to complain about uncomfortable traditional mammography. Now there is Opcomp® – optimized compression. This exclusive Siemens feature, standard on MAMMOMAT 3000 Nova, senses breast thickness and "compressibility." It compresses as long as the breast is soft and pliable, then stops precisely when image quality is maximized. Opcomp spares your patient unnecessary discomfort, and ensures consistent and reproducible compression technique.





Opcomp is easy to operate - when the optimal value is reached, the green indicator light on the floor display is activated, and the system is ready for exposure.

Opdose – Optimized dose
Mo/Mo, Mo/Rh, W/Rh

Siemens invented the dual-track X-ray tube, with Molybdenum and Tungsten anode materials in 1994, and it has gained popularity with every installation. The Opdose® system auto-selects the best anode/filter combination (Mo/Mo, Mo/Rh, W/Rh), and the lowest dose, according to individual breast characteristics. This is particularly important for younger women whose breasts normally have higher density and often require higher dose. By selecting W/Rh in appropriate cases, Opdose can save up to 60% dose over a comparable Mo/Mo exposure.

Technical specifications
MAMMOMAT 3000 Nova

Generator

High-voltage wave form:	Multipulse
Exposure voltage:	23kV to 35kV, adjustable in increments of 1kV
mAs range:	Mo X-ray tube: 2mAs to 560 mAs (mAs-mode) up to 600mAs (AEC-mode) Mo/W X-ray tube: 2mAs to 710 mAs (mAs-mode) up to 752 mAs (AEC-mode)
Exposure times:	From 10 ms to 4s From 10 ms to 7s for magnification technique

Automatic exposure control

Automatic exposure control (AEC):	Microprocessor controlled, transparency compensation
Detectors:	Semi conductor detector
Accuracy of optical density (2-6 cm):	± 0.15 OD from the mean optical density for predefined film-screen combinations (separately for each grid table, magnification table and anode-filter combination at appropriate clinical kV).
Density correction:	± 3 exposure points, adjustable in 1/8 step increments
Film-screen combinations:	2; User selectable on the generator control panel (H/D).

X-ray tube assembly

X-ray tube (Mo resp. Mo/W):	Molybdenum/Tungsten rotating anode tube with Beryllium window, P40 Mo/W four focus tube with nominal focal spot value 0.1/0.3 (star pattern), 0.15/0.3 (DIN/IEC 336/1993)
Tube current (Mo resp. Mo/W):	Molybdenum max. large focal spot: 150 mA at 25 kV, max. small focal spot: 28 mA at 25 kV. Tungsten max. large focal spot. 188 mA at 25 kV, max. small focal spot 34 mA at 25 kV.
Total heat storage capacity:	1 100 00 Joule (1 500 00 HU)(IEC 613/1989)
Anode heat storage capacity:	120 000 Joule (162 000 HU)(IEC 613/1989)
Anode speed:	8 800 r.p.m.
Filter:	Mo tube : 30µm Molybdenum, 25µm Rhodium Mo/W tube: 30µm Molybdenum, 25µm Rhodium, 50µm Rhodium

X-ray stand

Height adjustment:	Motorized, 650 mm to 1350 mm floor to object table (in all angles)
Swivel range:	+135° / -180°
Rotation of swivel arm:	Motorized, isocentric
Source to Image Distance (SID):	65 cm
Film formats:	18cm x 24cm, 24cm x 30cm (15 mm thick Mammography cassettes according to DIN 6832/IEC 406). Automatic collimation to film format
Grid:	Reciprocating; Pb 4/27 (4:1 ratio, 27 lines/cm)
Compression device:	Opcomp, motorized compression initiated via footswitch or manual adjustment

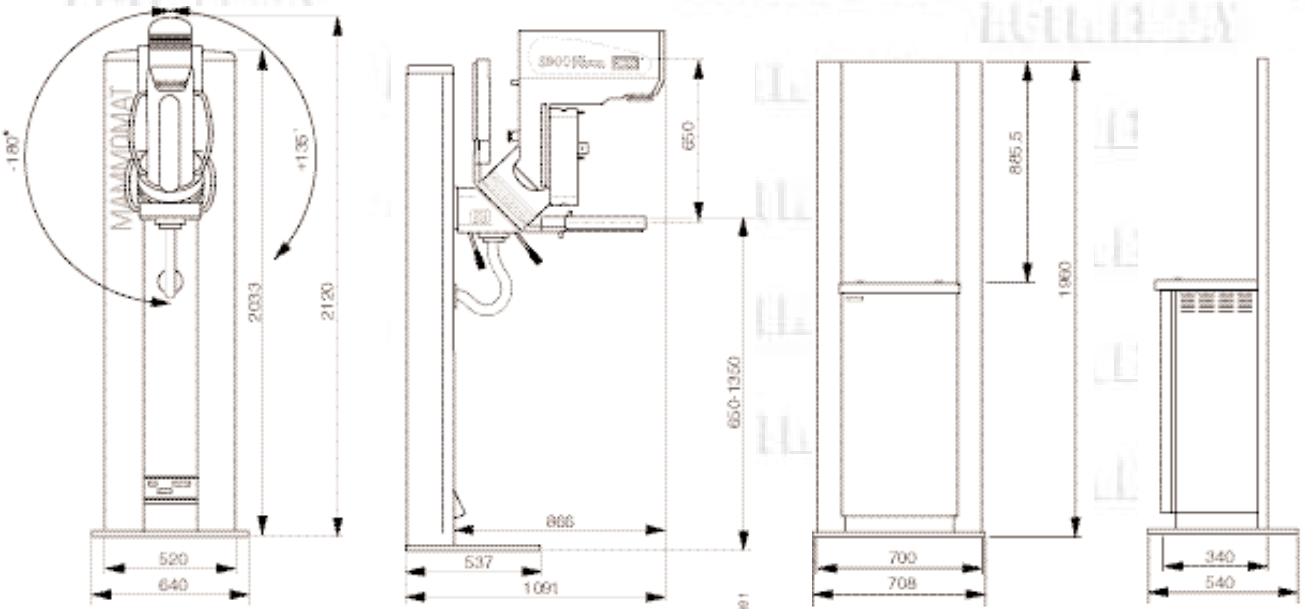
Compression force:	Maximum motorized force 200N
Magnification technique:	Factor of 1.5 and 1.8
Power supply:	110V, 208V, 230V, 240V, 277V, ± 10%, 1-phase; 208V, 230V, 277V, 400V ± 10%, 2-phase; 50 Hz or 60 Hz
Fuse:	35A at 110V 20A at 208V to 400V

Stereotactic biopsy device

Accuracy for ≤ 100mm:	x,y,z ≤ 1.0 mm
Needle position in steps:	0.1 mm
Biopsy field size:	58 x 40 mm
Compression opening:	0-140 mm
Accommodates needle lengths:	from 30mm to 175mm
Needle holders:	0.7mm (22G), 0.9mm (20G), 1.2mm (18G), 1.65mm (16G) 2.1mm (14G), 2.5mm (13G),
Open needle holders (localization):	0.9mm (20G), 1.2mm (18G)
Film size:	18cm x 24cm
Cassettes:	DIN 6832 / IEC 406 (15mm thickness)
Weight, biopsy unit:	12 kg
Weight, evaluation unit:	12 kg

Installation Information

X-ray stand including base plate:	300 kg
Generator with control console and radiation shield:	141 kg, 0.3mm Pb Eq.
Free standing radiation shield	46 kg, 0.1mm alt. 0.3mm Pb Eq.



A platform for the digital future

Opdima
Digital biopsy and spot imaging

As the gold standard, Opdima® offers the industry's largest field of view (49x85mm) and superior detector resolution for optimum clinical utility and image quality. Near real-time display sends the image quickly to the workstation for post-processing, diagnosis, target-setting, etc. With substantial time-savings versus film, Opdima means higher patient throughput and improved patient tolerance. The upgradeable MAMMOMAT 3000 Nova can be configured with Opdima initially or added later.

MAMMOMAT 3000 Nova with Opdima

FFDM
Full-Field Digital Mammography

Digital imaging has many advantages over film – post-processing, image enhancement, better workflow and more efficient image transfer/archival and retrieval processes. But because of its very high requirements for image quality, resolution and viewing, mammography has been called "the last modality to go digital." A guaranteed upgrade path ensures that your investment today is secure – MAMMOMAT 3000 and MAMMOMAT 3000 Nova are the platforms for future digital technology.