Small footprint – giant steps.

MAGNETOM C! with syngo MR A30
Expanding the scope of mid-field MRI

Work that flows, image quality that convinces and patient comfort that satisfies: these are just the beginning of the advantages of MAGNETOM C!

Field-proven technology and extensive experience are distilled into the surprisingly powerful MAGNETOM C! with the most compact, C-shaped magnet and smallest pole diameter of 137 cm (54 inches).

4 x 4. True multi channel imaging with 4 element coils and 4 channels allows simultaneous placement of up to 4 coils for faster head-to-toe scanning.

Optimized component integration, high-field technology and superior workflow support deliver superb image quality and high diagnostic confidence in an excellent price/performance package.
The generous, open feeling and inviting appearance contribute substantially to patient acceptance. Easy 270° accessibility and patient-friendly side loading add to optimum comfort and will make a crucial difference to your patients as well.

You will benefit from shorter scan times and higher throughput. Increased health care quality, **seamless workflow** and low operating costs all promote a high return-on-investment.

Discover the changing face of mid-field MRI.
Unique, trendsetting syngo applications

Expanding new horizons to mid-field open MRI with applications formerly considered exclusively high-field:

- **syngo GRAPPA** – parallel acquisition technique for higher spatial and temporal resolution.
- **syngo SPACE** – isotropic 3D imaging in different contrasts e.g. for patients with spinal abnormalities.
- **syngo REVEAL** – orthopaedic imaging, abdominal imaging e.g. for following up of treatment of liver cancer.

Experience high-field competence in mid-field.

Superior components

True multi channel imaging with fast and easy, simultaneous placement of up to 4 coils permits the largest anatomical coverage in mid-field MRI. Benefit almost instantly from extraordinary image quality in head-to-toe applications through the exceptional gradient system.

Seamless workflow

syngo, intuitive and easy-to-use software integrates all patient related information, physiological and imaging data across your entire clinical workflow.
Phoenix gives superb reproducibility based on your image. Extract MR protocols from images by drag & drop. This means increased comfort for patients and technologists, as well as shorter exam times.

**True multi channel RF system**
- Complete range of 4-element coils
- Simultaneous placement of up to 4 coils (up to 13 elements)
- iPAT (integrated parallel acquisition technique) for high spatial and temporal resolution

**High-field technology**
- Gradient system with 24 mT/m and 55 T/m/s slew rate

High resolution isotropic 3D imaging for multiplanar reconstruction with syngo SPACE
Applied high-field competence

**MAGNETOM C!**

**Strong gradients – advanced applications**

Most powerful gradients in class
- Gradient 24 mT/m
- Slew rate 55 T/m/s

**Advanced applications – syngo SPACE**

Isotropic 3D imaging in different contrasts e.g. for patients with spinal abnormalities.

**Advanced applications – syngo REVEAL**

Orthopaedic imaging, abdominal imaging e.g. for following up of treatment of liver cancer.

High-resolution imaging with good delineation of cartilage with unique 3D CISS.

High-field gradients for faster scans like contrast enhanced MR angiography in the abdomen.

High-field gradients to catch motion in cardiac cine studies.

Syngo SPACE for isotropic 3D imaging in various contrasts.

Advanced abdominal imaging with syngo REVEAL diffusion imaging in all body regions including liver.
“Higher field strength means higher signal-to-noise ratio – but it is not the only prerequisite for good image quality. Gradient and RF technology of the MAGNETOM C! enable us to achieve mid-field images with a quality comparable to high-field MR systems.”

Prof. H.-M. Klein of Radiological Centre – Ev. Jung-Stilling Hospital, Siegen, Germany

Flexibility
Unprecedented coil combinations.
13 x 4 for coverage up to whole CNS.

Accuracy
Excellent image quality.
Superb SNR with comprehensive family of 4 element coils.

Speed
Better results, faster. iPAT ensures fast acquisition with high resolution.

Advanced applications – syngo GRAPPA
Parallel acquisition technique for higher spacial and temporal resolution.

Speed and accuracy – iPAT (Parallel acquisition techniques)
• iPAT for faster scans
• iPAT for higher resolution
• iPAT for larger coverage

Flexibility – true multi-channel RF system
• Complete range of 4 element coils
• Up to four coils can be positioned simultaneously = 13 elements for one examination
• Posterior parts of the coils can stay on the table for more than 95% of the exams

syngo GRAPPA for larger coverage and higher resolution. 120 slices of 1.5 mm and 512 matrix in the head in 6:30 min.

Up to 4 coils with 13 elements can be positioned simultaneously for coverage up to 100 cm field of view.

The high-end RF system enables high resolution imaging up to 1024 matrices and thin slices as well as high resolution 3D imaging for visualization of nerve roots.
Confidence in diagnosis.
From a clinical perspective.

Expand your expectations. Expect superb image quality from the true multi channel RF system with the best SNR at 0.35 T and the largest anatomical coverage in mid-field. MAGNETOM C! offers exceptional gradients for rapid acquisition and highly differentiated image details. Iso-center imaging assures excellent image quality for all anatomical areas. Advanced techniques such as comprehensive cardiac imaging and the unique syngo REVEAL revolutionize mid-field capabilities. syngo REVEAL for body diffusion increases metastasis conspicuity and permits virtually instant yes/no diagnostic decisions. syngo GRAPPA parallel acquisition technique for higher resolution, larger coverage and faster scans, significantly speeds workflow. Referring physicians will notice and appreciate the improved service.

From now on, with MAGNETOM C! high-field diagnostic confidence at mid-field can be your standard.

- Exceptional image quality
  Best SNR at 0.35 T

- Multi-channel application suite
  - Broad range of sequences and techniques for all clinical applications
  - Included in the standard package

- Outstanding syngo MR Applications
  - syngo MR Neuro
  - syngo MR Ortho
  - syngo MR Vascular
  - syngo MR Cardiac
  - syngo MR Pediatric
  - syngo MR Oncology
  - syngo MR Body
Confidence
**syngo MR Neuro**

Comprehensive state of the art applications for neuro imaging including 3D FLASH, 3D HASTE, 3D TSE Restore, iPAT, Water Excitation, DIXON and Spectral Fat Saturation techniques.

Coverage up to whole CNS in one examination without patient repositioning [1]. Dark Fluid protocols for evaluation of lesions in the brain [2].


**syngo MR Ortho**

Comprehensive state of the art applications for orthopedic imaging including Siemens unique 3D DESS sequence for cartilage imaging. High resolution 3D protocols for imaging of smallest anatomies like TMJ [1] (512 matrix, 1.75 mm slice thickness with contiguous coverage).

Fat saturation to match every application with water excitation, spectral [2], DIXON or inversion recovery.

Excellent image quality with 40 cm field of view for coverage of the hips [3] and thighs.

**syngo MR Oncology**

Comprehensive oncological applications for high-field diagnostic confidence.

High-resolution lung imaging in only a 4 second breath-hold for maximum patient acceptance in oncologic imaging [1].

4 element coils for highest SNR and resolution: e.g. 4 element Breast Array coil for bilateral breast imaging [2].

T1 Spin Echo with DIXON Fat Saturation for excellent visualization of contrast enhancement in a sarcoma [3].
Vast amounts of imaging data are quickly and easily reconstructed. And it takes no extra time with Inline Technology.

Eliminating the need for unnecessary phone calls and manual retrieval of information, Structured Reporting generates and reads DICOM compatible reports across multiple modalities containing references, images, and text.

With MPPS, administrative data is automatically transferred from the scanner to the RIS.

Order the examination via MPPS DICOM worklist.

Protocol parameters can be easily extracted from existing images with syngo Phoenix to ensure consistent results, e.g. in follow-up studies.

Coils can be easily set up with parts of head and spine coils which can stay on the table. Fast protocols for higher throughput and syngo Expert-i which allows to get feedback from an expert over the network support fast and reliable examinations.

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MAGNETOM C! supports your workflow for efficient use of your time

Scheduling of patients with Modality Performed Procedure Steps (MPPS) option.

Easy to operate syngo user interface supports the user in all phases of the examination. Parallel scan and reconstruction to make efficient use of time. Data processing like filming and data distribution can be done while scanning.

Consistent results and secure comparability of images e.g. in follow up studies with protocol transfer with syngo Phoenix. New applications can be adapted by loading one image to the system.

Easy patient positioning with true Multi Channel Array coils. The posterior parts of the head an spine coils can stay on the table for almost all examinations to safe time during patient setup. Multiple coils for extended field of view can be placed simultaneously to avoid patient repositioning and facilitate image composition.

Inline processing of data reduces the need and effort for post processing. Many functions such as ADC maps and image subtraction are available on the fly programmed into the measurement protocol.

Experts can log on to the MAGNETOM C! from anywhere in the network to support the staff at the scanner whenever their expertise is needed with syngo Expert-i.

Structured reporting generates standardized reports including text and reference images for consistent results and information of referring physicians.
**syngo MR Pediatric**

Excellent image quality for pediatric applications with superb image quality. Special protocols which match the special T1 and T2 values of infants and children are available for comprehensive applications including neuro [1, 2], orthopedic, oncological and abdominal imaging.*

No dose lung imaging with TrueFISP technique to avoid frequent exposure to x-rays during follow up studies e.g. of tuberculosis [3].

* The safety of imaging fetuses/infants has not been established.

**syngo MR Body**

Comprehensive set of applications for quick and easy body imaging.

2D PACE motion correction facilitates abdominal imaging at mid-field by enabling free-breathing examinations without respiratory belt and motion monitored [1 small image] and anatomically reordered multi-breath-hold studies [1].

3D TSE [2] and 3D HASTE sequences for visualization of fluid in the biliary system and urinary tract.

**syngo MR Vascular and syngo MR Cardiac**

Comprehensive vascular applications with and without contrast media facilitated by the high-field gradient system.

Time of flight [2, showing recurring hemorrhage], phase contrast and contrast enhanced MRA with Care Bolus bolus timing technique [1] are easy to use with Inline Technology.

The MAGNETOM CI also offers comprehensive cardiac applications at mid-field including e.g. cine TrueFISP for evaluation of cardiac function [3].
More space means less anxiety. A unique C-shaped magnet for easy side loading and a friendly, compact design cooperate to create an open and free atmosphere. The smallest pole diameter – 137 cm (54") ensures optimal patient comfort. For up to 65% of all exams, the patient’s head remains outside the magnet, giving a feeling of spaciousness and relaxing claustrophobic tensions. Easy 270° accessibility, the patients always feel close to assistance.

Design defines acceptance
The patients will appreciate the quick and comfortable examinations. Posterior coil parts remain on table for more than 9% of the exams. Obese patients appreciate the comfortable side loading. For these patients, MAGNETOM CI comes with unique extra large body and knee coils. These advantages, combined with the open, patient-friendly design, attract more patients, who will recommend your site.

Patient friendly appearance
Most open, compact C-shaped magnet

Patient friendly exams
Side loading

Most open feeling
Smallest pole diameter – 137 cm (54 inches)

Easy set up
Posterior parts of the coils remain on table

Close to assistance
270° accessibility
Easy 270° accessibility. Children feel relaxed, parents can be close during the examination.

Smallest pole diameter of 137 cm (54 inches). The patient’s head remains outside the magnet for most exams.

Complete range of anatomically optimized coils, including 175 cm (69”) XXL body and XL 79 cm (31.4”) knee arrays for obese patients.

Open on three sides for comfortable side loading and optimum patient comfort.
Comprehensive workflow from start to finish. Every step is optimized to streamline your examinations: beginning with quick and easy patient positioning and posterior coil parts that remain on the table. New protocols and scan speed close to high-field performance assure increased throughput and higher image quality. A wide choice of applications opens opportunities for more referrals. Structured reporting and DVD burning accelerate distribution because time is essential.

And with Life, Siemens’ integrated customer care solution, you’ll know that your ever-evolving business needs are being met.

Evolve, the obsolescence protection program helps you to stay at the leading edge of technology and advancement. You will benefit more from the latest workflow improvements, clinical applications and the most advanced computer technology.

- Excellent price performance ratio
- Comprehensive application suite
- Minimal siting requirements
- Less than 30 m² (325 sq.ft)
- Low operating costs
- Permanent magnet – no helium
- Inline technology
- Processing instead of Post-Processing
- Phoenix
- What you see is what you get. Drag & drop images to scan.
- syngo Expert-i
- Allows remote access into the MR console by an expert user within the network.
- Excellent Return-On-Investment
- Decreased costs – optimized profitability
We see a way to seamlessly image up to 100 cm FoV within a single exam*

We see a way to optimize patient comfort due to a magnet pole diameter of only 137 cm*

We see a way to position up to 4 coils simultaneously for true multi channel imaging*

* Results may vary. Data on file.
Proven Outcomes. This is what Siemens is helping to deliver right now. Outcomes that result from truly efficient workflow. Outcomes that improve your bottom line. Outcomes that lead to a level of care that feels exceptional to the patient and the care provider. Proof positive of the value of integrating medical technology, IT, management consulting, and services. In a way that only Siemens can.
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