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STERNMED®

Marcom 0.35T

permanent magnet MRI scanner

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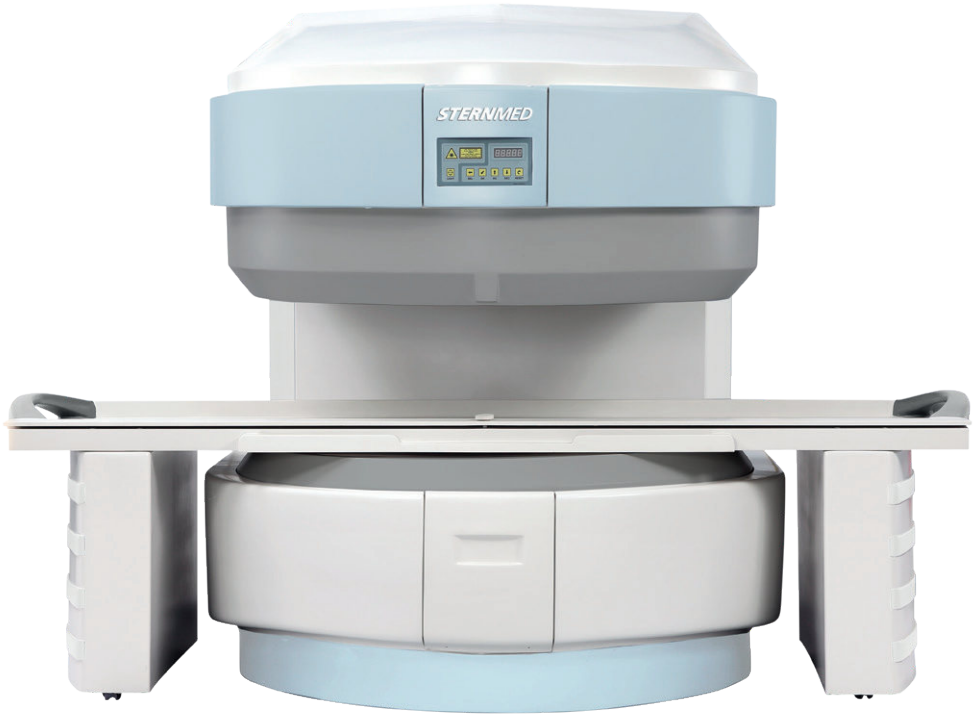


Marcom 0.35T

permanent magnet MRI scanner

Marcom 0.35T is an open 0.35T permanent magnet MRI scanner which supplies fast imaging and high-quality images and provides rich preset scan protocols as well as advanced applications.

- Main field strength 0.35T
- 4 receiving channels
- Full digital spectrometer
- Phase array receiving coils
- Advanced imaging techniques and clinical application
- Comprehensive scanning sequences

FEATURES

Eddy zero technology
The shimming algorithm technology (ensure field strength with high uniformity and stability), ensure the MRI system operating stably with high quality and high performance.

Eddy Zero Technology:
Magnet design uses breakthrough anti-eddy current technology

The gradient coil using self-shielded active anti-eddy current technology

Implementation of precision eddy current compensation algorithm, completely eliminate the impact of eddy current.

The eddy current because of the high gradient and high slew rate come from ultra-fast sequence was resolved completely, which guarantee to get the best clinic image.

Open wide design
More patient comfort and more space for surgery. Affinity C-shape magnets, creating a maximum of openness, offer a maximum vision for patients, especially leave much space comfort for obese patients, minimizing claustrophobia of patients and providing more space for MR intervention surgery.

FEATURES

Advance gradient system

Gradient system helps to provide higher resolution pictures, Marcom 0.35T gradient system X Y Z gradient intensity is 25mT/m higher the gradient intensity, faster imaging speed, shorter of scanning time; Higher the gradient intensity, thinner of imaging slice, higher of image resolution

The new technology of 4D shimming

Use of advanced active shimming algorithm for real-time automatic shimming on each examination to ensure the magnetic field always maintain the highest uniformity. Magnetic field homogeneity and stability of the MRI images always are the most important guarantee of the high-resolution, high SNR and high contrast. They are the important indicators of the level of magnet design, the better the smaller the value, directly determines the SNR of the image, like a car chassis, stability is essential, the magnetic field uniformity is maintained at <2.5ppm in 40cm the DSV Vrms, the system can complete a wide range of scanning (40cm).

Advanced RF system

The Marcom 0.35T is equipped with Fast 4 channels RF system and all phased array coils provide best SNR pictures.

OUTSTANDING FEATURES

- Fully open Magnet
- Nd-Fe-B magnet
- 4D shimming
- Eddy Zero Technology
- self-regulating constant temperature
- Fully Digital 4 Channel Receiving Spectrometer
- Automatic coil tuning
- Accurate position assist
- Comprehensive scanning sequences
- Advanced imaging techniques

Marcom 0.35T has a variety of different phased array coils and all of them provide best SNR pictures.

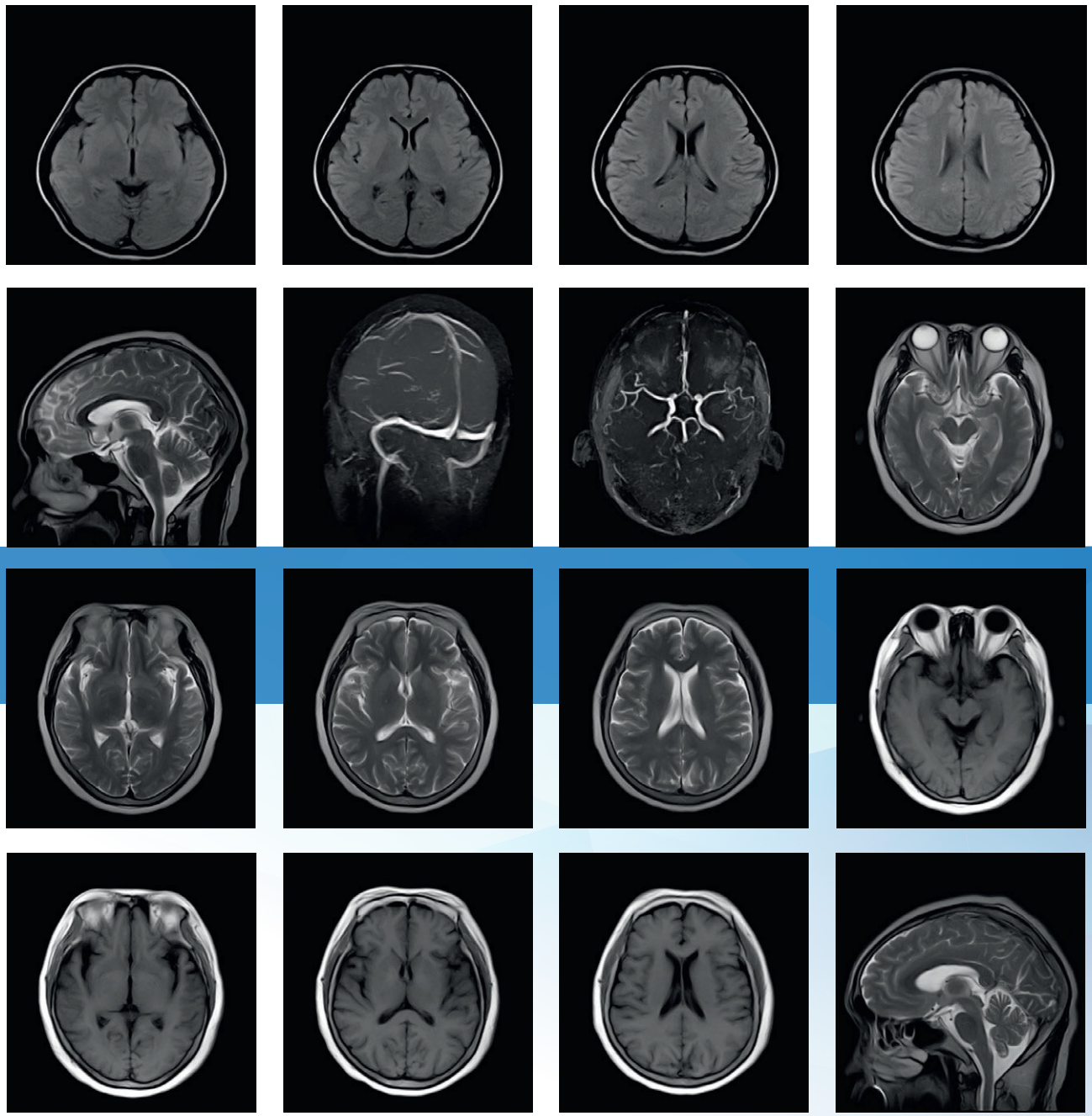
Standard

- Head coil
- Neck coil
- Small body coil
- Large body coil
- Knee coil

Optional

- Shoulder coil
- Sport joint coil
- Wrist Coil
- Breast Coil
- Flexible coil
- Flexible body coil
- Flat spine coil

EXCELLENT CLINICAL IMAGES



TECHNICAL SPECIFICATIONS
Marcom 0.35T | SternMed permanent magnet MRI

PERMANENT MAGNET	
Operating Field Strength	0.35 Tesla 3500 Gauss
Magnet Type	Full open C-shaped, 2-column
Magnetic material	Permanent Nd-Fe-B magnet
Dimension	1970mm*1320mm*1820mm
Magnet net weight	17,500KGS
Homogeneity	(400mm DSV) ≤ 2.5ppm (Vrms)
Shimming	Active/Passive/Dynamic
Patient aperture	400mm
Accessibility (Horizontal opening angle)	>270°
5 Gauss fringe field	2.5m*2.5m*2.5m
GRADIENT	
Gradient strength	max. 25mT/m (Gx/Gy/Gz)
Slew rate	75mT/M/ms (Gx/Gy/Gz)
Gradient cooling system (Gradient coils and power electronics)	Air
Rise time	0.3ms
Gradient linearity	<5%(400mm×400mm×380mm)
RF SYSTEM	
Spectrometer	Digital (4 Channels)
Noise factor	0.3dB
Coil type	Phase array
Dynamic range	≥80dB
RF bandwidth of receiver	Each 400KHz
Power of transmitter amplifier	6KW
Receiving coil type	Standard: Neck coil, Head coil, Large body coil, Small body coil Optional: Knee, shoulder, Wrist, breast coil, ankle coil, etc.
WORKSTATION	
Operating system	WINDOWS 7
CPU	2.8GHz (Dual Core Processor), be able for extension
RAM	≥2GB, be able for extension
Hard disk	≥250GB, be able for extension
The main screen displays	24" LCD
Network components	DICOM 3.0 standard interface, through the local Ethernet network easily to link camera, diagnosis and treatment workstations, medical information systems, remote diagnostics system.
PULSE SEQUENCES	
Spin-Echo sequence	SE 2D/3D Fast spin echo (FSE) Fast double echo(FDE) Fast recover fast spin echo(FRFSE) Single shot fast spin echo (SSFSE) Multi shot fast spin echo (MSFSE) Inversion recovery fast spin echo (IRFSE) Multi-slice multi-echo(MSME)
GRE sequence	GRE 2D/3D Steady state process gradient echo (SSPGRE)
IR sequence	Inversion recovery (IR) Short time inversion recovery (STIR) Fluid attenuated inversion recovery (FLAIR)

TECHNICAL SPECIFICATIONS
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PULSE SEQUENCES		
Advanced imaging technology	Body Imaging	MR cholangiopahcreatography (MRCP) MR urography (MRU) -- MR myelography (MRM)
	MR Angiography (MRA)	2D/3D TOF technology Magnetization transfer (MTC)
	Diffusion weighted imaging (DWI)	
	Flow compensation	
	Gating technology	
	Pre-saturation technology (PS)	
	Pre-saturation adjustment technology	
	Part metal implant scan technology	
	Automatic coil tuning	
	Multi-layer and multi-angle scanning technology	
	Optimize bandwidth acquisition technology	
	Parallel acquisition technology	
	Section acquisition technology	
	Scan parameter preset	
	Oversampling technology	
	MIP --- MinIP	
	Image fusion technology	
	Artifact suppression technology	
	Thin imaging technology	
	Online image filtration	
	Optimal algorithm of active shimming	
	Scan sequence queuing	
	Online post procession	
	Movie playback technology	
	Post processing package	
SCANNING PARAMETER		
FOV	20 ~ 400mm	
Maximum display matrix	1024x1024	
Slide thickness	(2D) Min. = 1mm(1mm increment), (3D)Min. = 0.1mm	
Slide orientation	Sagittal, coronal, transversal, any angle any oblique	
Image type	T1 weighted imaging, T2 weighted imaging, T2*weighted imaging, proton density imaging, Water suppressed imaging, Fat Suppressed imagine, MRM, MRU, MRCP, Magnetic Resonance Angiography (MRA), Diffusion Weighted Imaging (DWI)	
PATIENT TABLE		
Patient table	Available with laser light localizer for patient positioning, equipped with intercommunication between patient and operator.	
Longitudinal travel range	≥1650mm	
Max. patient load	200Kg	
Positioning accessories	mattress, pillow, head pillow, various parts of the fixed pad	
POWER SUPPLY		
Voltage and frequency	3N~ 380 V / 50 Hz	
Input power	15 kVA	

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