

DuoMAG[®] XT

MAGNETIC | STIMULATION



CLINICAL & RESEARCH rTMS SYSTEM



What is rTMS?

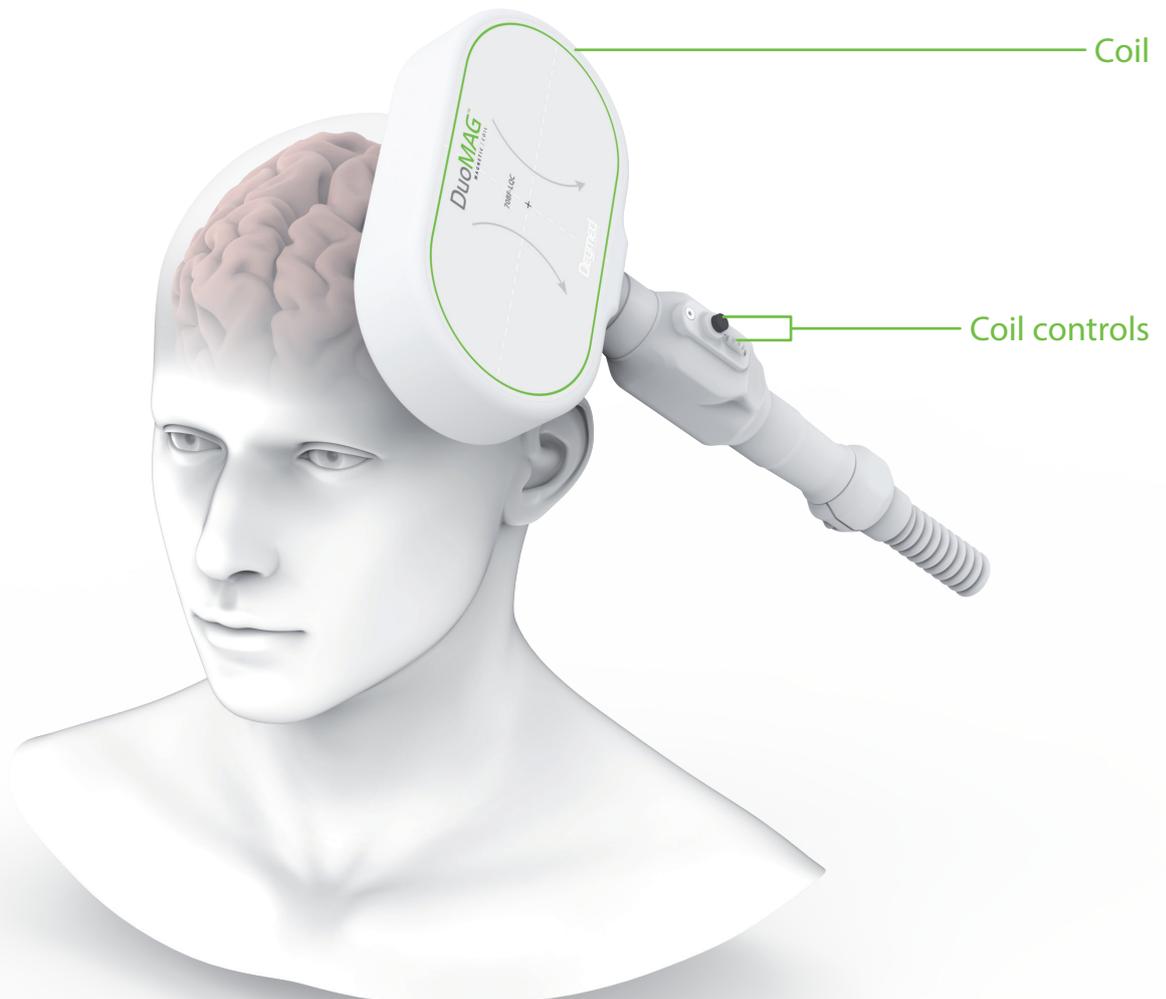
Repetitive Transcranial magnetic stimulation is a non-invasive painless neuromodulation brain stimulation technique, which is used to either cause depolarization or hyperpolarization of the cortical neurons within the brain.

This is achieved by electro-magnetic induction, where a rapidly changing magnetic field is able to induce weak electric currents within the cortex.

These magnetic fields are able to affect specific or general area of the brain with minimal discomfort, allowing for cognitive function and intercortical brain networks to be studied.

Recent research has shown rTMS to be a possible new effective treatment modality for various neurological and psychiatric disorders and as research continues to open up new treatment protocols international regulators have approved the use of rTMS, within the scope of local clinical guidelines.

rTMS is recognised as a well-researched, safe and effective therapeutic treatment intervention for many neuropsychiatric disorders such as; Treatment Resistant Depression, Obsessive Compulsive Disorder, Post Traumatic Stress Disorder, Cocaine Addiction, Parkinson's Disease, Tinnitus and Auditory Hallucinations.





Advantages of DuoMAG rTMS

Deymed manufactures reliable and high-quality neurodiagnostic and neurocare systems. Our goal is to advance the Neurology and Neurophysiology fields to new heights with bold engineering innovations. All Deymed Neurocare systems are designed for ease-of-use and durability with advanced features intended to optimise and simplify your workflow.



Intelligent Charging **NEW**

Deymed's new ultra-low capacitance induction charging technology guarantees the highest quality EMG signal possible for sensitive neurophysiological tests, while also keeping the system's batteries full.



Session and Patient Report **NEW**

PDF reports can be generated for specific patients or sessions. 'Patient Report' shows a list of performed sessions, while 'Session Report' shows detailed information on performed stimulation protocols or MEP.



Powerful System

Capable of intensive high frequency protocols for the most complex clinical, psychiatric and research uses, the DuoMAG XT-100 can reach 100 pps at 47% intensity.



Counter-balanced Coil Holder

The MagTower cart with its counter-weight balanced positioning arm and auto-locking position greatly reduces the effort required to find and secure the placement of coils.



Multi-system Integration

Integration with Deymed's clinical EMG and EEG amplifiers allows multiple configurations of EMG/MEP or EEG signals to be displayed. Deymed amplifiers are designed to eliminate all TMS stimulation artefacts.



Cooled Coil

Deymed coils with double air-cooled fans or liquid-based systems allow for even the most intense TBS protocols to be used for extended periods without over-heating the system.



Touch-Screen Interface

Combined with intuitive software for ease of use. Built on a Windows platform, allowing full integration for third-parties products such as; neuro-navigation.



Custom Protocol Editor

The Custom Protocol Editor allows the user to save any conceivable protocol design, including customisable stimulation trains, Theta Burst Stimulation (iTBS-cTBS) protocols and changing stimulation intensities.



Touch-Screen Interface

Combined with intuitive software for ease of use. Built on a Windows platform, allowing full integration for third-parties products such as neuro-navigation.

Counter-Balanced Coil Holder

The counter-weight balanced positioning arm and auto-locking position greatly reduces the effort required to find and secure the placement of coils.

User-friendly Coil Controls

Built-in controls allow full control over stimulation and intensity settings through the coil handle, removing the need for the user to divert their attention to external panels or triggers, and allowing the system to be used by a single operator.

Intelligent Charger

Built in to the rotating metal arm that holds the EMG amplifier, the DuoMAG Intelligent Charger uses inductive charging technology to keep the headbox batteries at full capacity. This method of charging also maintains the optical isolation and safety benefits of battery-operated EMG for sensitive neurophysiological tests.

Combine with EMG/EEG

The DuoMAG family of stimulators can be integrated seamlessly with other Deymed systems, such as the TruScan EEG and TruTrace EMG/MEP systems.

Stimulator

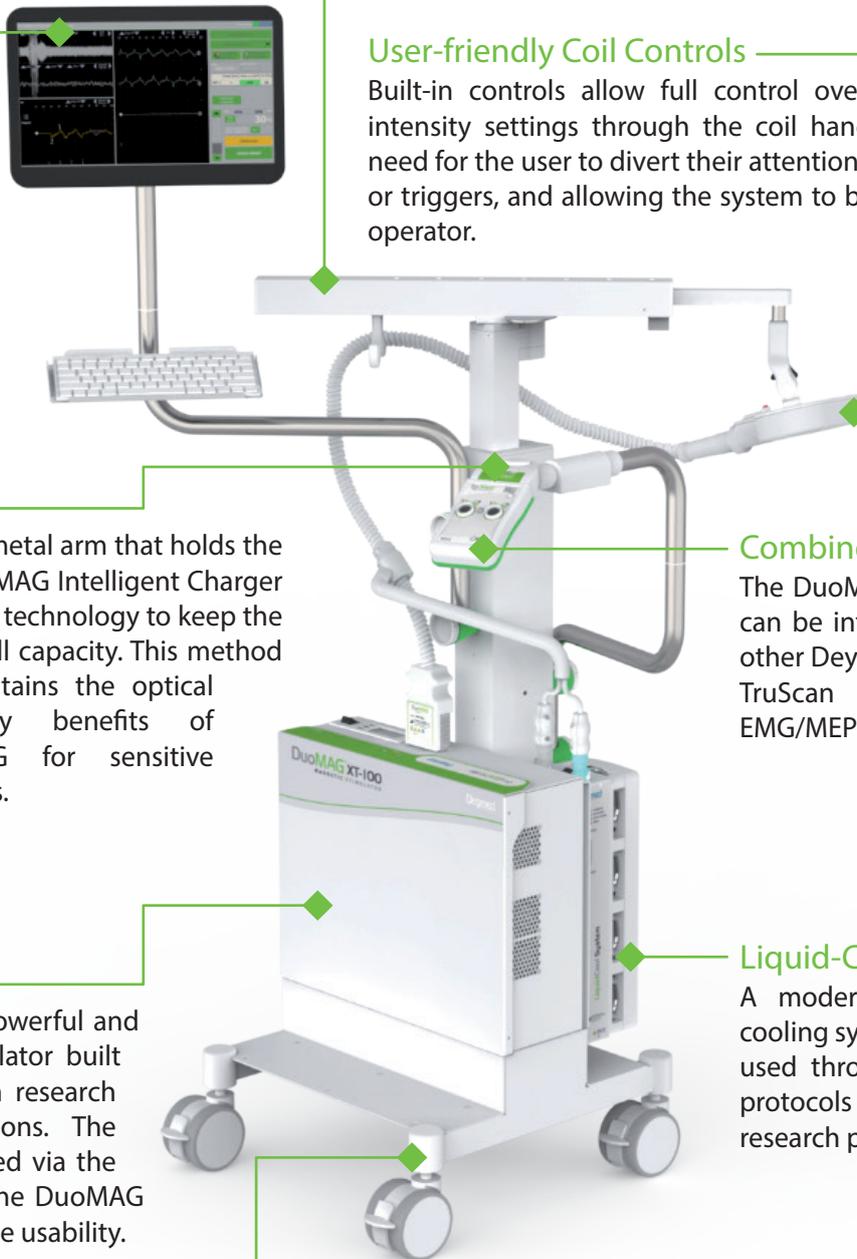
The DuoMAG XT is a powerful and flexible magnetic stimulator built for ease-of-use in both research and clinical applications. The system can be controlled via the coil controls, a PC, or the DuoMAG touch-screen for ultimate usability.

Liquid-Cooling System

A modern and powerful liquid cooling system allows the coil to be used through the most intensive protocols during clinical and research protocols.

Special developed Cart

Designed with robustness and space in mind, the carts small overall footprint, integral coil arm and large easy roll wheels means the DuoMAG XT is to fit into the most demanding of environments.





COMPACT

The DuoMAG XT can be placed on a desktop or similar surface in this compact space saving configuration.



MagCart

The easy-to-move, compact MagCart features an articulated arm that allows a TMS coil to be quickly locked into place after positioning. An optional DuoMAG touch-screen system may be added to the MagCart.



MagTower

The MagTower is an innovative, counterweightbalanced coil holder for TMS. The MagTower significantly lowers the weight of the coils for use in any scenario where the user may otherwise struggle with maintaining difficult coil positioning, such as finding a motor threshold. Locking the coil position is achieved through the click of a button, and the touchscreen interface offers protocol design and control along with MEP visualisation of EMG signal.

| | XT-10 | XT-35 | XT-100 |
|-------------------------|----------------------|-----------------------------|-----------------------------|
| Pulse mode | Biphasic, repetitive | Biphasic, repetitive, burst | Biphasic, repetitive, burst |
| Maximum repetition rate | 30Hz | 60 Hz | 100 Hz |
| Mains voltage | 100-240Vac 50/60 Hz | 100-240Vac 50/60 Hz | 100-240Vac 50/60 Hz |

+ The XT-10, XT-35 or XT-100 version can be selected for each configuration.



Introducing **NEW** Liquid-Cooling System



- Unique liquid-based coil cooling system ensures continuous stimulation even for the most demanding protocols.
- The system combines a compact cooling unit compatible with liquid cooled coils, specifically designed for repetitive stimulation.
- Durable coils without any counters to limit lifetime of the coil.
- Automatically controlled, quiet cooling performance for minimal noise interference. Built-in sensors protect the coil against overheating, and regulate cooling intensity.
- The DuoMAG cooling system can be fitted to any DuoMAG rTMS system. Specially designed non-spill connectors ensure easy and quick coil replacement, without the need for additional tools.



Specially designed chair

- Specifically-designed headrest for use along with TMS folding armrests
- Electric adjustment function for height, back and leg section
- Durable parts and materials
- Complete horizontal position
- Removable head and foot section
- Easy to maintain





70BF-LQC / 60BF-LQC
 Butterfly Coil 70mm and 60mm with liquid cooling
 Typical use:
 Focused long-term cortical stimulation, mainly for rTMS.



120BFVT
 Butterfly V Cone Coil 120 mm with 100° angled surface
 Typical use:
 Deep spinal stimulation.



70BFX-LQC
 Butterfly Overlapping Coil 70mm
 Typical use:
 Focused long-term cortical stimulation, mainly for rTMS. More comfort for the patient, due to coil design.



50BFT
 Butterfly T-shaped Coil 50mm
 Typical use:
 Precisely focused stimulation, for rTMS.



90BFVT-LQC
 Butterfly V Cone Coil 90mm and 120° angled surface
 Typical use:
 Deep stimulation.



30BFT
 Butterfly T-shaped Coil 30mm
 Typical use:
 Precisely focused stimulation.



70BF - Cool
 Butterfly Coil 70mm with cooling fans
 Typical use:
 Focused long-term cortical stimulation, mainly for rTMS.



100R
 Round Coil 100mm
 Typical use:
 Stimulation of peripheral nerves or cortical stimulation.



70BF
 Butterfly Coil 70mm
 Typical use:
 Focused stimulation, mainly for rTMS.



125R
 Round Coil 125mm
 Typical use:
 Spinal stimulation.



50BF
 Butterfly Coil 50mm
 Typical use:
 Precision focused stimulation, mainly for rTMS.

LIQUID COOLING
 Requires liquid-cooling unit

AIR COOLING

OPTION AS PLACEBO

+ All coils have controls of intensity and stimulation



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DIAGNOSTIC



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Neurophysiology
EMG



Epileptology
EEG



Magnetic stimulators
TMS



Somnography
PSG



Neurofeedback
BFB / qEEG