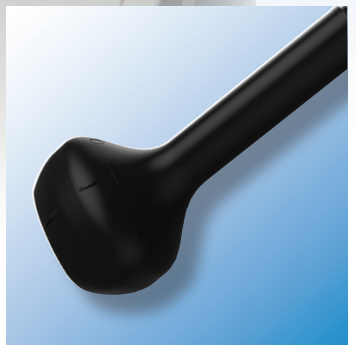
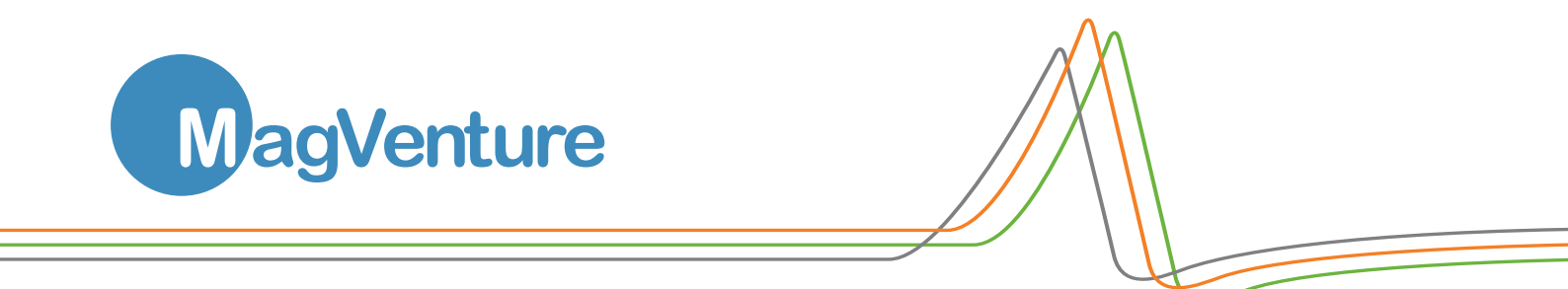


MagPro[®] by MagVenture

Versatility in Magnetic Stimulation



MagVenture



MagPro® – A proven record of innovation

With 7 different magnetic stimulators and 33 different coils, the MagPro line from MagVenture provides the solution to a wide range of clinical and research applications including Motor Evoked Potentials (MEP), Transcranial Magnetic Stimulation (TMS), repetitive Transcranial Magnetic Stimulation (rTMS) and Functional Magnetic Stimulation (FMS) as well as interleaved TMS/fMRI.

Innovation led by research cooperation

In close collaboration with leading researchers, MagVenture has developed several "first mover" features such as the Biphasic Burst stimulation, the rTMS Research System and the recent High-Performance Cooling Option which allows a higher number of repetitions and more aggressive protocols – without having to change coils.

First in class

The MagPro stimulators provide all-in-one stand-alone solutions and include a number of unique and useful features:

- Automatic sequence setup and user defined protocols
- Store and retrieve setups and protocols
- Transfer data to external devices via USB or serial port
- Monitor and read-out realized output, coil temperature and available stimuli
- Biphasic, Monophasic and Half Sine waveforms
- Biphasic Burst (Theta Burst Stimulation - TBS) with burst pulses of equal amplitude
- Dual and Twin pulses up to 20 pps, also in repetitive mode
- Selectable current direction
- Advanced Power Pulse for 40% additional stimulation power
- Versatile In/Out triggers for EEG, EMG and EP equipment
- MEP Monitor (optional)
- MRI compatibility



MagPro R30 with a Cool-B70 coil placed in a Super Flexible Arm.

Amplitude 60 %	Realized d/9/	11:29:14 - Protocol Line (7)	2014-01-22																																																																																																																																																						
Status Enabled	Coil Temperature 22°C	Coil Type Cool-B65	Available Stimuli 52777																																																																																																																																																						
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Advanced settings with the protocol tool.

Amplitude 70 %	Realized d/9/	10:54:15 - Coil Type: Cool-B65 (60)	2014-01-17																				
Status Enabled	Coil Temperature 24°C	Coil Type Cool-B65	Available Stimuli 34693																				
<table border="1"> <thead> <tr> <th>Timing</th> <th>Configure</th> <th>Recall</th> </tr> </thead> <tbody> <tr> <td colspan="3"> <table border="1"> <tr><td>Setup</td><td>A</td></tr> <tr><td>Mode</td><td>Standard</td></tr> <tr><td>Current Direction</td><td>Normal</td></tr> <tr><td>Waveform</td><td>Biphasic Burst</td></tr> <tr><td>Burst Pulses</td><td>5</td></tr> <tr><td>Inter Pulse Interval</td><td>100 msec</td></tr> <tr><td>Pulse B/A Ratio</td><td>1.0</td></tr> </table> </td> </tr> </tbody> </table>				Timing	Configure	Recall	<table border="1"> <tr><td>Setup</td><td>A</td></tr> <tr><td>Mode</td><td>Standard</td></tr> <tr><td>Current Direction</td><td>Normal</td></tr> <tr><td>Waveform</td><td>Biphasic Burst</td></tr> <tr><td>Burst Pulses</td><td>5</td></tr> <tr><td>Inter Pulse Interval</td><td>100 msec</td></tr> <tr><td>Pulse B/A Ratio</td><td>1.0</td></tr> </table>			Setup	A	Mode	Standard	Current Direction	Normal	Waveform	Biphasic Burst	Burst Pulses	5	Inter Pulse Interval	100 msec	Pulse B/A Ratio	1.0
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Biphasic Burst mode with 5 pulses in burst.

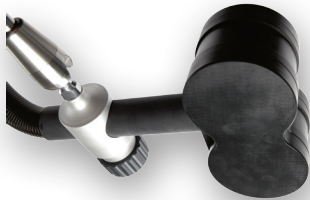
Amplitude 80 %	Realized d/9/	10:54:22 - Model: X100-Option	2014-01-17																			
Status Enabled	Coil Temperature 24°C	Coil Type MCF-B65	Available Stimuli 100000																			
<table border="1"> <thead> <tr> <th>MEP Menu</th> </tr> </thead> <tbody> <tr><td>Time Base</td><td>5 ms/div</td></tr> <tr><td>Sensitivity</td><td>1 mV/div</td></tr> <tr><td>Planning</td><td>0 ms</td></tr> <tr><td>Curve No</td><td>1-10</td></tr> <tr><td>Lower Frequency Limit</td><td>20 Hz</td></tr> <tr><td>Upper Frequency Limit</td><td>10 kHz</td></tr> <tr><td>Trigger Mode</td><td>Stimulus</td></tr> <tr><td>Display Size</td><td>Full</td></tr> <tr><td>Stay On Top</td><td>Off</td></tr> </tbody> </table>				MEP Menu	Time Base	5 ms/div	Sensitivity	1 mV/div	Planning	0 ms	Curve No	1-10	Lower Frequency Limit	20 Hz	Upper Frequency Limit	10 kHz	Trigger Mode	Stimulus	Display Size	Full	Stay On Top	Off
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Trigger Mode	Stimulus																					
Display Size	Full																					
Stay On Top	Off																					

MEP mode.

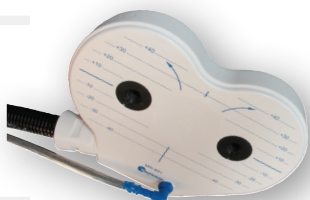
Reliable research solutions for all your needs

Treatment Chair and Super Flexible Arm

The specially designed neck rest and vacuum pillow ensures stable positioning of the head. The Super Flexible Arm has 3 joints which provides an easy and flexible positioning.



The Cool-B65 A/P coil for research studies with active and sham stimulation for double-blind trials. Includes current stimulation output to create skin sensation.



Induce neural activity into targeted cortical regions directly in the MRI scanner with the MRI-B91 coil. Choose the MRI-B91 Air Cooled coil for even tougher protocols.



The Cool-40 Rat Coil for the stimulation of rat brains.

Real double-blinded research studies

MagVenture's rTMS system solution for double-blinded clinical studies is ideal for multi-centre depression studies as it addresses your requirements for accuracy and consistency. It can also be used for other areas such as stroke rehabilitation.

- Specific software for MagPro offering complete study control by study master or principal investigator
- Patient codes and operator codes ensuring true double-blinding
- Combined active and placebo (A/P) coil with current stimulation
- Treatment chair with vacuum pillow for stable and comfortable head rest

Take TMS to a new level with interleaved TMS-fMRI and TMS-EEG

MagPro stimulators and coils are designed for use in advanced research set-ups. An example is a complete turn-key solution for interleaved TMS-fMRI which can be installed in scanners up to 4T in order to meet demands for reduced RF noise, image quality, and safety.

Furthermore, MagVenture offers The External Control Program, which enables you to control the stimulator from an external PC. The external interface allows for control of amplitude as well as the enabling/disabling of the stimulator, definition of protocols, starting of trains, and triggering single stimulations. It also displays and logs the coil temperature, number of stimuli, and the realized di/dt which is exported from the MagPro stimulator.

Other solutions include TMS-EEG as well as navigation-guided TMS.

External integration made easy

Regardless of which research system configuration you use, it is easy to transfer treatment data to navigation systems and PC's and define and execute the stimulation protocol from external devices.

You decide: 7 stimulators to choose from

Whatever the stimulation need, there is a MagPro to meet those needs. From MEP and other clinical examinations with the MagPro Compact all the way to advanced paired pulse investigations and Theta Burst protocols with the X100 with MagOption.

The "R" line meets the demands for clinical practice as well as research whereas the "X" line targets the needs within advanced research applications. The R30 and X100 stimulators are designed with demanding repetitive protocols in mind and will deliver a high number of pulses when used with the MagPro Cool Coils. The R30 and the X100 also keep operators informed about important performance parameters such as number of remaining stimuli with the coil in use and the actual power being delivered to the coil.

With its 5 different stimulation modes, including ramp up/down and sweep, the R100 specifically targets the rehabilitation research market.

The R20 is the basic, user friendly solution for rTMS for customers running a limited number of sessions per day.

All models deliver more than adequate power, and motor threshold is typically reached at 50-60% of maximum power.

TMS Depression Treatment

MagVita TMS Therapy® is FDA cleared for:

"Treatment of Major Depressive Disorder in adult patients who have failed to receive satisfactory improvement from prior antidepressant medication in the current episode."

MagVita TMS Therapy® is CE approved for:

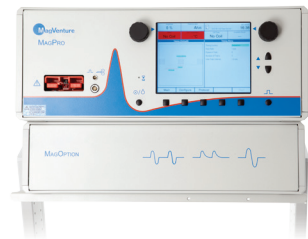
"Treatment of Major Depressive Disorder in adult patients who have failed to achieve satisfactory improvement from two prior antidepressant medications, at or above the minimal effective dose and duration in the current episode."



MagPro Compact



MagPro R20



MagPro X100 with MagOption

		Compact	R20	R30	R30 with MagOption	R100	X100	X100 with MagOption
Maximum Repetition Rate	5 pps	•						
	20 pps		•					
	30 pps			•	•			
	60 pps			•*				
	100 pps					•	•	•
Pulse Mode	Standard	•	•	•	•	•	•	•
	Dual/Twin				•		•	•
	Theta Burst			•**			•	•
	Power Mode							•
Waveform	Biphasic	•	•	•	•	•	•	•
	Monophasic				•		•	•
	Half-Sine							•
Current Direction	Normal/Reverse						•	•
MEP Monitor	(Option)			•	•	•	•	•

* With 60 pps Option

** With Theta Burst Option

Coil selection second to none

The Cool-D50 research coil is asymmetrical with the stimulation center at the edge of the coil. Use two D50 coils to simultaneously stimulate two centers in the brain.

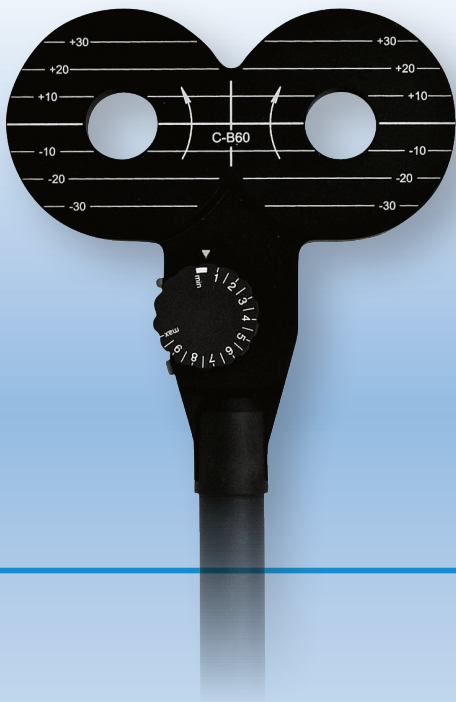


With a wide range of coil and accessories models to choose from, MagVenture covers all research and clinical applications. Unique capabilities and features include:

- Cool-Coil concept with external cooling unit provides from 10,000 up to 20,000 pulses when performing standard depression protocols
- High-Performance Cooling Option available for all cool coils for even more aggressive protocols
- Specialized parabolic and elliptical coils for rehabilitation research
- Coil for interleaved TMS/fMRI
- Cool Coil specifically designed for the stimulation of rat brains

Circular Coils			
A "general purpose coil" which can be positioned over many parts of the body to stimulate a fairly large area.			
Model	Type	Coil Winding Diameter	Number of Pulses before warm-up 1pps / 75% / 20°C
C-100*	Circular	110 mm	400
MC-125	Circular	114 mm	450
MMC-90	Parabolic	87 mm	450
MMC-140/140 II*	Parabolic	120/126 mm	650
MMC-140 A/P	Parabolic	120 mm	1,000**
MCF-75	Circular	65 mm	500
MCF-125	Circular	121 mm	2,000
Cool-125	Circular	121 mm	>20,000***
Butterfly Coils			
The butterfly coil is useful in focused stimulation. The two windings are placed side-by-side which enables the coil to stimulate structures with focus right under its center.			
MC-B35	Butterfly	2 x 47 mm	75
C-B60*	Butterfly	2 x 75 mm	350
D-B80	Butterfly, 120°	2 x 95 mm	500
MC-B65-HO	Butterfly, Orthogonal handle	2 x 75 mm	350
MC-B70	Butterfly, 150°	2 x 97 mm	400
MC-P-B70	Butterfly, Placebo	2 x 97 mm	400
MCF-B65	Butterfly	2 x 75 mm	2,000
MCF-P-B65	Butterfly, Placebo	2 x 75 mm	1,600
MCF-B70	Butterfly, 150°	2 x 96 mm	5,500
MCF-P-B70	Butterfly, 150°	2 x 96 mm	1,500
Cool-B35/Cool-B35 RO	Butterfly	2 x 46 mm	300
Cool-B65/Cool-B65 RO	Butterfly	2 x 75 mm	>20,000***
Cool-B65 A/P	Butterfly, Active/Placebo	2 x 75 mm	>20,000***
Cool D-B80	Butterfly, 120°	2 x 95 mm	>20,000***
Cool D-B80 A/P	Butterfly, Active/Placebo	2 x 95 mm	>20,000***
Cool-B70	Butterfly, 150°	2 x 96 mm	>20,000***
Special Coils			
We have developed a number of special coils for our various system solutions. Custom designed coils are available as well as modifications to existing coils.			
Cool-40 Rat Coil	Circular	40 mm	300****
RT-120/RT-120 II*	Racetrack	ø80 x 160 mm	1,500
MRi-B91/MRi-B91 Air Cooled	Butterfly, MRI	2 x ø79/ø92 mm	500
Cool-D50	D-shaped	80 x 59 mm	>20,000*****
*With built-in power control. **At 1 pps, 45% power, 20°C ambient temperature. ***At 2 pps, 100% power, 20°C ambient temperature. ****At 1 pps, 70% power, 20°C ambient temperature. Requires the High-Performance Cooling System. *****At 1 pps, 80% power, 20°C ambient temperature. Requires the High-Performance Cooling System.			





All products are developed and manufactured in accordance with the standard ISO 13485:2012, the current EU Medical Device Directive, the Canadian Medical Devices Regulation (CMDR), US 21 CFR 820 for the USA, and in accordance with a number of additional country-specific regulations. MagPro stimulators and coils are approved as medical devices in Europe, the USA, Canada, China, Japan, South Korea, Australia, Russia, and other markets worldwide.

MagPro[®], MagVita TMS Therapy[®] and MagVenture[®] are registered trademarks of MagVenture A/S.

Please note that not all stimulators, coils, and accessories are cleared for sale in the USA by the Food and Drug Administration (FDA). Please also note that in the USA Transcranial Magnetic Stimulation is considered investigational - except for the cleared intended use for treatment of Major Depressive Disorder in adult patients who have failed to receive satisfactory improvement from prior antidepressant medication in the current episode.



**World Leading Transcranial
Magnetic Stimulation Systems.**

**MagPro is a complete line
of non-invasive Magnetic
Stimulation Systems,
including both dedicated
and general-purpose
stimulators.**



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