



NATIONAL INSTITUTE OF MENTAL HEALTH & NEURO SCIENCES
(Institute of National Importance), P.B. No. 2900, Hosur Road, Bengaluru – 560 029
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STRD4/VENKAT/PSY/2020-21

02.02.2021

Subject: Purchase of TMS coils for MagVenture Magnetic stimulator for Dr. Venkatasubramanian, Dept. of Psychiatry, NIMHANS (Project)

A request letter has been received from Dr. Venaktasubramanian from Dept. of Psychiatry for procurement of **“TMS coils for MagVenture Magnetic stimulator”** on proprietary basis from **M/s. MagVenture, Denmark (Manufacturer) through M/s. Aerobe Medicare Pvt. Ltd., New Delhi.**

The proprietary certificate, specification and authorization certificate of above mentioned equipment/consumable is being uploaded on NIMHANS website for open information to invite objection, comments, if any, from any manufacturer regarding proprietary nature of the item within 14 days from the date of issue/uploading of the notification giving reference **STRD4/VENKAT/PSY/2020-21**. The comments should be sent to **Shri D.P. Nagaraj, Administrative Officer (Purchase) on or before 16.02.2021 up to 03:30 p.m.** failing which it will be presumed that any other vendor/company is having no comment to officer and case will be decided purely on merits.

SD/-

Shri D.P. Nagaraj
Administrative Officer (Purchase)

Enclosures:

1. Proprietary Certificate (SSC) from M/s. MagVenture, Denmark.
2. Authorization Certificate from M/s. MagVenture, Denmark towards M/s. Aerobe Medicare, New Delhi.
3. Proprietary Certificate from Dr. Venkatasubramanian, Dept. of Psychiatry.
4. Specification Sheet of the Equipment/consumable that is to be procured on proprietary basis

Date: November 24. 2020

To Whom it may concern

We Magventure A/S, Lucernemarken 15 - DK-3520 Farum - Denmark, an established and reputable Manufacturers of Transcranial Magnetic stimulators has appointed Messrs. Aerobe Pvt Ltd. K-92B, IInd Floor Lajpat Nagar II, New Delhi, 110024 as our authorized distributor/importer in India, and are trained to support directly. Their performance has been satisfactory in all regards.

We further confirm that no supplier or firm or individual other than Messrs. Aerobe Pvt Ltd. K-92B, IInd Floor Lajpat Nagar II, New Delhi, 110024 is authorized to submit a tender, process the same further or enter into a contract for the sale of the above goods manufactured by us.

Yours faithfully,

Sincerely yours,
MagVenture A/S

A handwritten signature in black ink, appearing to read 'Tommy B. M.', written over a horizontal line.

Annexure for TMS coils: (Indent number: PI/000667/20-21)

Name of the Item: TMS coils for MagVenture magnetic stimulator
Number: 4 (2+2)

Technical Specifications:

1. TMS Coils

1.1 MagVenture Coil Cool-B70 Cooled dynamically with external coil cooler unit compatible with R30, R100 & X100 – two nos.

1.2 MagVenture MCB70 Figure-of-eight non-cooled coils – two nos.

2. Support and others:

2.1 Five-years warranty on all hardware and software.

2.2 Any major upgradation within the warranty period should be provided free of cost.

2.3 The bidder should provide documents to support the compliance with all the technical specifications as annexures. In addition, the bidder should indicate the exact location of the text in the annexure (for example annexure no., page, paragraph, and lines detail) that provides the necessary documentary support for the respective technical specification. Scrutiny for matching the technical specifications will be solely based on the hard copy documents & details of the text location (as specified above) provided with the technical bid, preferably along with cross-referencing from the product website.

2.4 Required Mandatory Accessories to ensure turnkey operation

3. Optional

3.1 Quotation for comprehensive maintenance care after 5 years of warranty

3.2 Quotation for annual maintenance care after 5 years of warranty

Compliance Form

| Specification | Compliance (Yes/No) | Reference to the text in brochure with page No. (and indicate reference to the enclosed certificate/document as applicable if any) |
|--|------------------------|---|
| 1. TMS Coils | | |
| 1.1 MagVenture Coil Cool-B70 Cooled dynamically with external coil cooler unit compatible with R30, R100 & X100 – Two nos. | | |
| 1.2 MagVenture MCB70 Figure-of-eight non-cooled coils – Two nos. | | |
| 2. Support and others | | |
| 2.1 Five-years warranty on all hardware and software | | |
| 2.2 Any major upgradation within the warranty period should be provided free of cost | | |
| 2.3 The bidder should provide documents to support the compliance with all the technical specifications as annexures. In addition, the bidder should indicate the exact location of the text in the annexure (for example annexure no., page, paragraph, and lines detail) that provides the necessary documentary support for the respective technical specification. Scrutiny for matching the technical specifications will be solely based on the hard copy documents & details of the text location (as specified above) provided with the technical bid, preferably along with cross-referencing from the product website. | | |
| 2.4 Required Mandatory Accessories to ensure turnkey operation | | |
| 3. Optional | | |
| 3.1 Quotation for comprehensive maintenance care after 5 years of warranty | | |
| 3.2 Quotation for annual maintenance care after 5 years of warranty | | |

Price quoted format

| Sl.No | Item | Quantity | Amount (inclusive of GST) |
|-------|---|----------|---------------------------|
| 1 | MagVenture Coil Cool-B70 Cooled dynamically with external coil cooler unit compatible with R30, R100 & X100 | 2 | |
| 2 | MagVenture MCB70 Figure-of-eight non-cooled coils | 2 | |
| 3 | Optional accessory: Quotation for comprehensive maintenance care after 5 years of warranty | 1 | |
| 4 | Optional accessory: Quotation for annual maintenance care after 5 years of warranty | 1 | |

PROPRIETARY CERTIFICATE FORM

I hereby certify that the items quoted for are proprietary in nature and are manufactured solely by **MagVenture A/S, Lucernemarken 15, DK-3520 Farum, Denmark.**

No other makes or models are acceptable for the following reasons:-

These are proprietary items that are required to be compatible with the existing MagPro R 30, R100 and X100 TMS systems (MagVenture) available at the TMS lab, Department of Psychiatry, NIMHANS.

I hereby certify to the best of my knowledge and belief that the authorized reseller in academic segment for India is

AEROBE MEDICARE PVT. LTD.

Address: K - 92 B, II Floor, Lajpat Nagar - II, New Delhi 110024. India

Phone: (11) 6528 0010

Fax: +91 11 4607 3966

E-mail: info@aerobe.com

Website: www.aerobe.com

2. And the requirement of the research project will not be met by any substitute stores due to following reason:

There are no other authorized resellers for this region.

This is against purchase indent no. PI/000667/20-21 dated 15-01-2021

Dr. Urvakhsh Meherwan Mehta

Associate Professor, Department of Psychiatry

(Co-Principal Investigator)

सह प्राध्याप्य मनोरोग

Associate Professor of Psychiatry

मनोरोग विभाग / Department of Psychiatry

Date: 15-01-2021

निम्हान्स / NIMHANS

बैंगलूर / Bangalore - 560 029

Date: September 23.2019

PROPRIETARY ARTICLE CERTIFICATE

To Whom it may concern

We, MAGVENTURE A/S, Lucernemarken 15, DK-3520 Farum, Denmark hereby certify that all MagPro Coils and accessories are proprietary Items available for the MagPro series of stimulators.

No other company manufactures identical equipment and related accessories with comparable specifications.

Yours faithfully,

Sincerely yours,
MagVenture A/S

A handwritten signature in black ink, appearing to read "Tomas Dønnergaard Larsen".

Tomas Dønnergaard Larsen
Head of Partner Sales

Date: November 24, 2020

To Whom it may concern

We Magventure A/S, Lucernemarken 15 - DK-3520 Farum - Denmark, an established and reputable Manufacturers of Transcranial Magnetic stimulators has appointed Messrs. Aerobe Pvt Ltd. K-92B, IInd Floor Lajpat Nagar II, New Delhi, 110024 as our authorized distributor/importer in India, and are trained to support directly. Their performance has been satisfactory in all regards.

We further confirm that no supplier or firm or individual other than Messrs. Aerobe Pvt Ltd. K-92B, IInd Floor Lajpat Nagar II, New Delhi, 110024 is authorized to submit a tender, process the same further or enter into a contract for the sale of the above goods manufactured by us.

Yours faithfully,

Sincerely yours,
MagVenture A/S

A handwritten signature in black ink, appearing to be "V. M. S. M.", written in a cursive style.

Annexure for TMS:

Name of the item: TMS-Transcranial Magnetic Stimulation Device with Accessories with 5 Years Warranty

Quantity: 1

Technical Specification:

1. Transcranial magnetic stimulation unit with /non-cooled coils and cooled coils, synchronized with a multichannel pre-amplifier for electromyography (EMG) recordings and data acquisition and analysis package, capable of performing the following functions:

1.1 Administration of monophasic and biphasic single-pulse stimuli to cortex and record active/resting motor threshold and motor evoked potentials

1.2 Administration of monophasic and biphasic paired-pulses to a single cortical region to acquire a combination of the following in a single sequence:

1.1.1 Short interval intracortical inhibition (SICI), long interval intracortical inhibition (LICI), short interval intracortical facilitation (SICF), and long interval intracortical facilitation (LICF) according to standard protocols.

1.1.2 In the above paired-pulse paradigms, the experimenter should have the option of varying the following:

1.1.2.1 Stimulus intensity of individual pulses in each pair

1.1.2.2 Inter-stimulus interval

1.1.2.3 Inter-pair interval

1.3 The TMS device should be compatible for External Trigger System using Signal (CED, UK) through cables.

1.4 Administration of conventional repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, that includes:

1.1.3 Low-frequency rTMS given at ≤ 1 Hz.

1.1.4 High-frequency rTMS given at 5-30Hz.

1.5 Administration of patterned repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, with prediction/measurement of magnetic power and its decay during each stimulation, that includes:

1.5.1 Theta-burst stimulation (TBS): Three pulses of stimulation given at 50 Hz, repeated every 200 milliseconds in the following patterns:

1.5.1.1 Intermittent TBS: A 2 second train of TBS is repeated every 10 seconds for a total of 1800 pulses.

1.5.1.2 Intermediate TBS: A 5 second train of TBS is repeated every 15 second for a total of 1800 pulses.

1.5.1.3 Continuous TBS: A 40 second train of uninterrupted TBS is given for 1800 pulses.

1.5.2 Quadripulse stimulation (QPS): Four equal TMS pulses administered at inter-stimulus intervals varying between 1.5 to 1250 milliseconds, with an inter-train interval of 5 seconds (i.e., 0.2 Hz) for a total duration of 30 minutes.

2. EMG unit

2.1 EMG unit capable of acquiring data during 1.1 and 1.2 from at least two muscles simultaneously.

2.2 EMG unit compatible with the Signal (CED, UK) software (version 7 or latest) for acquisition and analysis.

2.3 Multi-channel isolated pre-amplifier with two channels electrodes adaptor box and 1.5mm cable, 1.5 mm touch-proof safety socket with USB cable, Serial Connector & Trigger Cable

3. Support

3.1 Five-years warranty on all hardware and software.

3.2 Full technical support in setting TMS parameter, EMG acquisition with the acquisition software.

3.3 On-site installation and comprehensive training by a qualified support engineer must be provided at the sites. These equipments are being procured as per multi-centred collaborative project involving NIMHANS, Central Institute of Psychiatry (Ranchi) & Kasturba Medical College

(Manipal). The vendor should ensure delivery and installation & maintenance of the equipment these centres as per project requirements.

3.4 The training must be comprehensive and include:

3.4.1 Hands on training on setting-up, starting on delivering TMS with concurrent acquisition of EMG.

3.4.2 Hands-on demonstration of visualizing, saving and analysing the recorded EMG data in a compatible format

3.5 Data acquisition and analysis in the Signal (CED, UK) software (version 7 or latest).

3.6 Any major upgradation to the software or the hardware within the warranty period should be provided free of cost.

4. Mandatory accessories

4.1 Voltage stabilizer and UPS according to guidelines set by the manufacturer

4.2 Trolley for TMS console

4.3 Figure-of-eight cooled coils compatible with the supplied stimulator device (The cooling system should be sufficient to be able to deliver continuous theta burst trains of 1800 pulses in quick succession (~5min) without overheating.) – two nos.

4.4 Figure-of-eight non-cooled coils compatible with the supplied stimulator device – two nos.

4.4 Please specify the roll offs for cooled figure of eight coils (see above) at varying pulse frequencies (e.g., 20Hz, 50 Hz ,100 Hz, 200 Hz) for trains ranging from 300 to 1800 pulses.

4.5 Coil holder for holding the TMS coil

4.6 Ag/AgCl sintered ring electrodes (20 nos.) for EMG

4.7 Signal (CED, UK) software (version 7 or latest) and hardware interface (Micro 1401) to trigger the TMS device and receive signals from the TMS device (stimulation artefacts) and electromyography unit, as well as perform analysis of the EMG data

4.8 State-of-the-art laptop computer system with 14-16 inch monitor to host the trigger and EMG software (Signal) with Intel I6 processor, 8GB RAM, 1TB storage and Wi-Fi / Bluetooth connectivity

4.9 One-unit cost and the quantity per unit to be quoted for all the mandatory accessories and consumable items to be provided.

5. Others

5.1 List of users with contact details (e-mail & telephone / mobile number) in research institutes (India & Abroad) to be provided

5.2 The bidder should provide documents to support the compliance with all the technical specifications as annexures. In addition, the bidder should indicate the exact location of the text in the annexure (for example annexure no., page, paragraph, and lines detail) that provides the necessary documentary support for the respective technical specification. Scrutiny for matching the technical specifications will be solely based on the hard copy documents & details of the text location (as specified above) provided with the technical bid, preferably along with cross-referencing from the product website.

5.3 Certification: FDA or CE or CDSCO or equivalent certification with validity for the use of equipment in human subjects is mandatory and a copy of the same should be enclosed.

5.4 Required Mandatory Accessories to ensure turnkey operation.

5.5 The technical bid should be accompanied by an item-wise compliance report (as per enclosed format) that is signed & stamped by the authorized signatory of the bidder in all pages. This compliance report should have reference to the page number of the manual in which the specific technical compliance details with respect to each item (i.e. 1.1., 1.2., 1.3., ...) as per the instructions provided in item no. 8.3 above. The pdf / hard copy of the manual should be submitted along with the technical bid. It is preferable that the vendor provides additional reference to these technical details in their product web site as well.

5.6 If requested, the bidder must be able to organize for a physical demonstration of the product at NIMHANS with regards to all the technical specifications mentioned in this document within a notice period of 1 week.

6. Optional

6.1 Quotation for comprehensive maintenance care after 5 years of warranty

6.2 Quotation for annual maintenance care after 5 years of warranty

Quote must have a compliance report on all the above points.

The decision of L1 (lowest price bid) will be decided based on the price quoted for sections 1 to 6.

Compliance Form

| Specification | Compliance (Yes/No) | Reference to the text in brochure with page No. (and indicate reference to the enclosed certificate/document as applicable if any) |
|---|---------------------|--|
| 1. Transcranial magnetic stimulation unit with true/sham/non-cooled coils, synchronized with a multichannel pre-amplifier for EMG recordings and data acquisition and analysis package, capable of performing the following functions: | | |
| 1.1 Administration of monophasic and biphasic single-pulse stimuli to cortex and record active/resting motor threshold and motor evoked potentials | | |
| 1.2 Administration of monophasic and biphasic paired-pulses to a single cortical region to acquire a combination of the following in a single sequence: | | |
| 1.2.1 Short interval intracortical inhibition (SICI), long interval intracortical inhibition (LICI), short interval intracortical facilitation (SICF), and long interval intracortical facilitation (LICF) according to standard protocols. | | |
| 1.2.2 In the above paired-pulse paradigms, the experimenter should have the option of varying the following: | | |
| 1.2.2.1 Stimulus intensity of individual pulses in each pair | | |
| 1.2.2.2 Inter-stimulus interval | | |
| 1.2.2.3 Inter-pair interval | | |
| 1.3 The TMS device should be compatible for External trigger system using Signal (CED, UK) software through external trigger cables | | |
| 1.4 Administration of conventional repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, that includes: | | |
| 1.4.1 Low-frequency rTMS given at ≤ 1 Hz. | | |
| 1.4.2 High-frequency rTMS given at 5-30Hz. | | |
| 1.5 Administration of patterned repetitive transcranial magnetic stimulation (rTMS) protocols over several trains at variable inter-train intervals, with prediction/measurement of magnetic power and its | | |

| | | | |
|--------------------------------|---|--|--|
| | decay during each stimulation, that includes: Theta-burst stimulation (TBS) and Quadripulse stimulation (QPS) | | |
| 1.5.1 | Theta-burst stimulation (TBS): Three pulses of stimulation given at 50 Hz, repeated every 200 milliseconds in the following patterns: | | |
| 1.5.1.1 | Intermittent TBS: A 2 second train of TBS is repeated every 10 seconds for a total of 1800 pulses. | | |
| 1.5.1.2 | Intermediate TBS: A 5 second train of TBS is repeated every 15 second for a total of 1800 pulses. | | |
| 1.5.1.3 | Continuous TBS: A 40 second train of uninterrupted TBS is given for 1800 pulses. | | |
| 1.5.2 | Quadripulse stimulation (QPS): Four equal TMS pulses administered at inter-stimulus intervals varying between 1.5 to 1250 milliseconds, with an inter-train interval of 5 seconds (i.e., 0.2 Hz) for a total duration of 30 minutes. | | |
| 2. EMG unit | | | |
| 2.1 | EMG unit capable of acquiring data during 1.1 and 1.2 from at least two muscles simultaneously. | | |
| 2.2 | CED External Trigger System with cables and software | | |
| 2.3 | Multi-channel isolated pre-amplifier with two channels electrodes adaptor box and 1.5mm cable, 1.5 mm touch-proof safety socket with USB cable, Serial Connector & Trigger Cable | | |
| 2.4 | EMG recording with Ag/AgCl electrode | | |
| 3. Support | | | |
| 3.1 | Five-years warranty on all hardware and software. | | |
| 3.2 | Full technical support in setting TMS parameter, EMG acquisition with the acquisition software. | | |
| 3.3 | On-site installation and comprehensive training by a qualified support engineer must be provided at the sites. These equipments are being procured as per multi-centred collaborative project involving NIMHANS, Central Institute of Psychiatry (Ranchi) & Kasturba Medical College (Manipal). The vendor should ensure delivery and installation & maintenance of the equipment these centres as per project requirements | | |
| 3.4.1 | Hands on training on setting-up, starting on delivering TMS with concurrent acquisition of EMG. | | |
| 3.4.2 | Hands-on demonstration of visualizing, saving and analysing the recorded EMG data in a compatible format | | |
| 3.5 | Data acquisition and analysis in Signal (CED, UK) software (version 7 or latest). | | |
| 3.6 | Any major upgradation to the software or the hardware within the warranty period should be provided free of cost. | | |
| 4 Mandatory accessories | | | |

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|----------------|--|--|--|
| 4.4 | Voltage stabilizer and UPS according to guidelines set by the manufacturer | | |
| 4.5 | Trolley for TMS console | | |
| 4.6 | Figure-of-eight cooled coils compatible with the supplied stimulator device (The cooling system should be sufficient to be able to deliver continuous theta burst trains of 1800 pulses in quick succession (~5min) without overheating.) – two nos. | | |
| 4.7 | Figure-of-eight non-cooled coils compatible with the supplied stimulator device – two nos. | | |
| 4.8 | Please specify the roll offs for cooled figure of eight coils (see above) at varying pulse frequencies (e.g., 20Hz, 50 Hz, 100 Hz, 200 Hz) for trains ranging from 300 to 1800 pulses. | | |
| 4.9 | Coil holder for holding the TMS coil | | |
| 4.10 | Ag/AgCl sintered ring electrodes (20 nos.) for EMG | | |
| 4.11 | Signal (CED, UK) software (version 7 or latest) and hardware interface (Micro 1401) to trigger the TMS device and receive signals from the TMS device (stimulation artefacts) and electromyography unit, as well as perform analysis of the EMG data | | |
| 4.12 | State-of-the-art laptop computer system with 14-16 inch monitor to host the trigger and EMG software (Signal) with Intel i6 processor, 8GB RAM, 1TB storage and Wi-Fi / Bluetooth connectivity (Please specify the model) | | |
| 4.13 | One-unit cost and the quantity per unit to be quoted for all the mandatory accessories and consumable items to be provided. | | |
| 5 Other | | | |
| 5.1 | List of users with contact details (e-mail & telephone / mobile number) in research institutes (India & Abroad) to be provided | | |
| 5.2 | The bidder should provide documents to support the compliance with all the technical specifications as annexures. In addition, the bidder should indicate the exact location of the text in the annexure (for example annexure no., page, paragraph, and lines detail) that provides the necessary documentary support for the respective technical specification. Scrutiny for matching the technical specifications will be solely based on the hard copy documents & details of the text location (as specified above) provided with the technical bid, preferably along with cross-referencing from the product website. | | |
| 5.3 | Certification: FDA or CE or CDSCO or equivalent certification with validity for the use of equipment in human subjects is mandatory and a copy of the same should be enclosed. | | |
| 5.4 | Required Mandatory Accessories to ensure turnkey operation. | | |
| 5.5 | The technical bid should be accompanied by an item-wise compliance report (as per enclosed format) that is signed & stamped by the authorized signatory of the bidder in all pages. This compliance report should have reference to the page number of the manual in which the specific technical | | |

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| compliance details with respect to each item (i.e. 1.1., 1.2., 1.3., ...) as per the instructions provided in item no. 8.3 above. The pdf / hard copy of the manual should be submitted along with the technical bid. It is preferable that the vendor provides additional reference to these technical details in their product web site as well. | | |
| 5.6 If requested, the bidder must be able to organize for a physical demonstration of the product at NIMHANS with regards to all the technical specifications mentioned in this document within a notice period of 1 week. | | |
| 6 Optional accessories | | |
| 6.1 Quotation for comprehensive maintenance care after 5 years of warranty | | |
| 6.2 Quotation for annual maintenance care after 5 years of warranty | | |

Price Quoted format

| Sl.No | Item | Quantity | Amount (inclusive of GST) |
|-------|---|----------|---------------------------|
| 1 | Transcranial magnetic stimulation Unit (As per specification 1) | 1 Set | |
| 2 | Multichannel pre-amplifier for EMG Unit (As per specification 2) | 1 Set | |
| 3 | Mandatory accessory: Voltage stabilizer and UPS according to guidelines set by the manufacturer | 1 No. | |
| 4 | Mandatory accessory: Trolley for TMS console | 1 No. | |
| 5 | Mandatory accessory: Figure-of-eight cooled coils compatible with the supplied stimulator device (The cooling system should be sufficient to be able to deliver continuous theta burst trains of 1800 pulses in quick succession (~5min) without overheating.) | 2 Nos. | |
| 6 | Mandatory accessory: Figure-of-eight non-cooled coils compatible with the supplied stimulator device | 2 Nos. | |
| 7 | Mandatory accessory: Coil holder for holding the TMS coil | 1 No. | |
| 8 | Mandatory accessory: Ag/AgCl sintered ring electrodes for EMG | 20 Nos. | |
| 9 | Mandatory accessory: State-of-the-art laptop computer system with 14-16 inch monitor to host the trigger and EMG software (Signal) with Intel i6 processor, 8GB RAM, 1TB storage and Wi-Fi / Bluetooth connectivity | 1 No. | |
| 10 | Signal (CED, UK) software (version 7 or latest) and hardware interface (Micro 1401) to trigger the TMS device and receive signals from the TMS device (stimulation artefacts) and electromyography unit, as well as perform analysis of the EMG data | 1 No. | |
| 11 | Quotation for comprehensive maintenance care after 5 years of warranty | 1 No. | |
| 12 | Quotation for annual maintenance care after 5 years of warranty | 1 No. | |