

**HAFFKINE BIO PHARMACEUTICAL CORPORATION LIMITED****Procurement Cell****(A Government of Maharashtra Undertaking)****Regd. Office : Acharya Donde Marg, Parel, Mumbai 400 012 (INDIA)**

Phone No: 022- 24129320-23	Website : http://www.vaccinehaffkine.com
Managing Director :022-24150628	E-mail: procurementcell@vaccinehaffkine.com
General Manager (Procurement Cell) :022-24100478	No.: 603 /Haffkine/Procurement Cell/E-1996/Isokinetic System for hip knee ankle wrist elbow and shoulder joint/2021-22.
प्रशासकीय मंजूर निधी - ८०,००,०००/- (राज्य योजना/२०१९-२०)	Date: 29-12-21

To,**M/s. Volant Technologies**

6/27B Maharam Mohalla Shahdara

Delhi - 110032.

E-Mail: vinay@volantindia.com**Subject : Supply Order for Tender No. E-1996/Isokinetic System for hip knee ankle wrist elbow and shoulder joint.****Reference: 1. Tender No. E-1996/HBPCL/PC/Isokinetic System for hip knee ankle wrist elbow and shoulder joint/2019-20.****2. शा. नि. क्र. : जीसीएन-२०१९/प्र.क्र. २२३/प्रशा-१ दि. १३ सप्टेंबर, २०१९.****3. Sanction of Tender Approval Committee Meeting No. 132 Dated 02.12.2021.**

With reference to the tender cited under reference no 1, you are requested to supply the following goods as per details mentioned below to consignee list enclosed with this order.

Sr. No.	Name of the item	Specification of item	Quantity / Unit (DMER)	Unit Rate inclusive of GST(Rs.)	Total Amount Rs.
1.	Isokinetic System for hip knee ankle wrist elbow and shoulder joint Make & Model : Humac Norm Manufactured by M/s. Computer Sports Medicine, Inc. USA	As per Annexure X	01	69,66,000/-	69,66,000/-
Total amount in words: Rupees Sixty Nine Lakhs Sixty Six Thousand Only.					
Factory Location: Computer Sports Medicine Inc.101 Tosca Drive, Stoughton, MA 02072 USA info@csmisolutions.com					

- 1 Forwarding:** Forwarding Free on Road Destination. I.e. door delivery basis.
- 2 Delivery Period:** 12 weeks from the date of receipt of order by the supplier to the consignee attached.
- 3 Pre-Dispatch Inspection:** Supplier shall make necessary arrangement / facilitate to carry out Pre-Dispatch inspection as per Tender Terms & condition and submit the Inspection report to this office. The Pre-Dispatch inspection cost will be borne by supplier. Machine should be dispatched only after satisfactory Pre-Dispatch Inspection.

- 4 **Risk purchase clause:** If the bidder fails to supply the stores within the stipulated delivery period, the order will stand cancelled. Undersigned shall be entitled to purchase such stores from any other source at such price which ordinarily should not be more than 10% of the tender price. The extra expenditure in such cases shall be recovered by Managing Director, Haffkine Bio Pharmaceutical Corporation Ltd. (Procurement Cell), Mumbai from the Supplier.
- 5 **Payment Terms:** Payment of 100% of the contract value will be made within 8 weeks on delivery and successful installation and satisfactory commissioning and operation of the machinery.
- 6 **Acceptance & Receipt:** It should be submitted in Appropriate Format to the purchasing authority.
- 7 **Delivery Challan** - Should be sent in the name of consignee in duplicate. It should specify Name of Equipment / Mfg. by / packing & quantity.
- 8 **Invoice Copy** - Should be sent in triplicate on the Name of Managing Director, Haffkine Bio Pharmaceutical Corporation Ltd.(Procurement Cell), Mumbai. Along with Bill of Entry and Country of Origin Certificate of the consignment.
- 9 **Other Terms :**
 - 1) **Warranty:** The warranty period shall be for 2 years from the date of commissioning of all equipment supplied as certified by the consignee. After completion of 2 years warranty period Manufacturer/Supplier should give commitment to ensure services and supply of spare part for further 8 years. The successful tenderer must ensure 95% uptime during warranty period. In case of downtime, warranty period will be extended for period of downtime. If the equipment is not attended within 24 hours for Mumbai and 48 hours for other places the supplier will be liable to pay a penalty of 0.07% of purchase cost for every day of delay. Such penalty will be recovered from the amount of security deposit. Certificate of such uptime / downtime issued by the end user will be binding for the supplier Replacement of spares parts thereof due to manufacturing defects during warranty period will be entirely at the supplier's cost.
 - 2) The user institution will enter to the Comprehensive Maintenance Contract with supplier agency @ 5% of the order value (excluding taxes) of the equipment per year for 8 years after completion of warranty period. In case of non-compliance of CMC the supplier will be liable to pay penalty or for appropriate action. Payment of CMC on yearly basis will be made by the user's institution, at the end of the year after satisfactory performance report from the end user.
- 10 **Contract Agreement:** Bidder should submit a tripartite (Importer, Manufacturer and Haffkine Bio Pharmaceutical Corporation Ltd.) Contract Agreement on non-judicial stamp paper of requisite value.

Fall Clause

It is a condition of the contract that all through the currency thereof, the price at which you will the supply stores should not exceed the lowest price charged by you to any customer during the currency of the contract and that in the event of the prices going down below the rate contract prices you shall promptly furnish such information to us to enable to amend the contract rates for subsequent supplies.

- 11 The Bidder should submit (within 7 days) amount of 1.5% i.e. **Rs. 1,04,490/-** of order value to meet other incidental expenditure and 3% i.e. **Rs. 2,08,980/-** as Security Deposit in form of Bank Guarantee. The Bank Guarantee valid for 2 months after the expiry of date of warranty issued by any Nationalized / Scheduled Bank.

Amount to be deposited to Following Account:

Name of Account	Haffkine B P C L (Procurement Cell), CESS Account
Name of the Bank & Branch	Bank of Maharashtra, Branch- Mumbai Parel
Account No.	60381379835
IFSC Code	MAHB0000079

Consignee: As per list enclosed

या. व्यवस्थापकीय संचालक यांच्या मान्यतेने व करिता


General Manager

**Haffkine Bio Pharmaceutical Corporation Ltd.
(Procurement Cell), Mumbai.**

Copy to:

- 1) Commissioner Health Services, Mumbai.
- 2) Director, Medical Education & Research, Mumbai-400 001.
- 3) Account Manager, Haffkine Bio Pharmaceutical Corporation Ltd. (Procurement Cell), Mumbai.
- 4) Office File.

Copy to Consignee: Dean, Government Medical College, Nagpur.: As per Tender Condition No.17 The user Institution should get the Comprehensive Maintenance Contract done with supplier agency @ 5% of the Order value (excluding taxes) of equipment per year for Eight years after Completion of warranty period.

Copy Submitted to: 1) Secretary, Medical Education & Drug Department, Mantralaya, Mumbai.

Annexure-X

Specification of Isokinetic System for hip knee ankle wrist elbow and shoulder joint

The unit must have following feature

Isolated Joint Measurement and Training Device for shoulder, elbow, wrist, hip, knee and ankle

The System should at least meet or exceed the following specifications-

Operation Modes:

Continuous passive

Isometric

Isokinetic mode must have following testing parameters- Concentric-Concentric, Concentric-Eccentric, Eccentric-Concentric & Eccentric-Eccentric

Isotonic

Dynamometer speed and torque specifications:

Isokinetic Concentric Speed from 1/16 to 500 deg/sec

Isokinetic Eccentric Speed from 1/16 to 500 deg/sec

CPM from 1/16 to 500 deg/sec

Single attachment for bilateral evaluation of upper & lower extremities (all joints). Avoiding need to change or reset attachments when changing sides.

Should have mechanical ROM stops to match subject's exact range of motion for safety

The System's software must include (list) the following measurement and training patterns:

Shoulder

- Abduction/Adduction, Horizontal Abduction/Adduction
- Extension/Flexion
- Internal/External Rotation in Neutral Seated and standing position?
- Internal/External Rotation in 90° of Flexion

Elbow

- Extension/Flexion FOREARM WRIST

Wrist

- Pronation/Supination
- Radial/Ulnar Deviation
- Extension/Flexion

Hip

- Abduction/Adduction
- Extension/Flexion
- Internal/External Rotation

Knee

- Extension/Flexion Seated & Prone
- Tibia Internal/External Rotation ANKLE

Ankle

- Plantar flexion/ Dorsiflexion Prone & Supine
- Inversion/Eversion

PNF D1

- Flexion – Adduction/Extension – Abduction

PNF D2

- Flexion – Adduction/Extension – Abduction

The system's reports must include the following measured parameters defined as shown. Reports must include option to print result in US or Metric Units and as Best Repetition or Average:

Peak Torque: The maximum torque production during a movement.

Initial Peak Torque: The average of the Peak Torque values for the first three repetition of an

Average Torque: Average Torque during Isometric contraction (Isometric)

Peak Torque Slope: Slope of Torque Curve until Peak Torque is reached (Isometric)

Time to Half Peak Torque: Time from start of torque to ½ Pak Torque (Isometric)

Time to Peak Force: Time from start of torque to Peak Force (Isometric)

Final Peak Torque: The average of the peak torque (or work) values for the last three repetitions in an endurance test. This parameter does not appear on the final report but is used in the calculation

Fatigue Index: The percentage peak torque (or work) declined during the endurance test.

Computed

As the percent change from the Initial Peak Torque (or work) and the Final Peak Torque (or work).

Work per Repetition: Calculated as the sum of the Torque (ft-lbs) * Change in Angle (radians) at each

Total Work Done: The total work performed over an entire set.

Average Power per Repetition: Power is defined as Work per unit time. Given the Work per Repetition in foot-pounds and the Time per Repetition in seconds, Power (Watts) is computed as:

$$\text{Power} = \text{Work (ft-ibs)} / \text{Time (sec)} * 0.7376 \text{ (watts(ft-ibs/sec))}$$

Joint Angle at Peak Torque: The point in the range of motion where peak torque first occurs.

Range of Motion: The maximum limb excursion during extension (flexion).

Time to Peak Torque: The time from the beginning of torque development until the point where peak torque is first developed.

Time to Peak Torque Held: The time during which peak torque is maintained.

Force Decay Time: The time from the end of peak torque production to the end of the motion.

Reciprocal Delay: The time required to reverse the limb direction.

Delay time: The time from the beginning of a motion until the beginning of torque development.

Reported Statistics

Comparisons: The system should report % Body-Weight, Co-efficient of Variation, and Deficit Comparisons for measured parameters where appropriate.

- Should have Isokinetic Zero Gravity Mode which actively subtracts the weight of the limb during
- Must have research mode where researcher has all the control of the dynamometer without any
- Must be capable to generate normative data over a user defined group

Visual Feedback: Software must include real-time visual feedback to

- Line Graph representing torque output over time and/or position
- Bar Graph representing Torque, Work, or Power as one or per repetitions
- Isotonic and Isometric Interactive displays to performs the following
- Trace a user defined position or force based line
- Stay in a user defined position or force based path
- Reaction Time (dot in circle)
- Proprioception
- Breakout Game based on position or force

Should be supplied with free retractable cable system for assessment of velocity and position to quantify any exercise right from free weight, sand bags to weight stack machines

Power Requirements: Input Voltage: 220 VAC, Input Frequency: 50Hz, Independent 20 amp dedicated circuit required

Should meet International Safety & Quality standards in accordance with EU Medical Devices Should be US FDA approved

Optional:

Should provide Anti-Shear Dual Pad Accessory with adjustable fulcrum allows the clinician to select the correct amount of counterforce necessary to control anterior shear during knee extension. To prevent excessive stress on repairs, healing, or chronically lax ligaments should provide Work Simulation Package to simulate unlimited number of real-life and occupational

The work Simulation attachments should include an assortment of handles and knobs, steering device, gripping device, and push/pull device

Trunk Module-

Should allow trunk testing and rehabilitation in a fully functional, standing position.

Should have motorized footplate to ensures accurate patient positioning

Hardware Requirement for Branded Laptop or PC

Operating System: 32 or 64-bit version of Windows & MS Office 2007 or Higher

CPU Type: Core i3 or Higher

System RAM: 4GB or better

Hard Disc: 500 GB or Higher

Consignee Details

M/s. Volant Technologies		
Isokinetic System for hip knee ankle wrist elbow and shoulder joint Make & Model : Humac Norm Manufactured by M/s. Computer Sports Medicine, Inc. USA		
Delivery Period	12 weeks	
PO Ref. No.	No.: 6013 /Haffkine/Procurement Cell/E-1996/Isokinetic System for hip knee ankle wrist elbow and shoulder joint/2021-22. Date: 29-12-21	
प्रशासकीय मंजूर निधी - ८०,००,०००/- (राज्य योजना/२०१९-२०)		
Sr. No.	Name & Address of the Consignee	Oty. (DMER)
1.	Government Medical College, Nagpur.	01.

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29/12/21

General Manager
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