

INVITATION FOR TENDER FOR SUPPLY OF EQUIPMENT

Sealed tender offers are invited in two separate sealed covers (Technical and Commercial offers) from eligible manufacturers/suppliers or their direct Indian agents for the supply of the following equipment.

Active vibration isolation optical table

Please send offers, ALONG WITH DESCRIPTIVE CATALOGUE/ BROCHURE. The validity of the bid should be at least four months (120 days) or more from the date of the opening of this tender. Please ensure that your quotation reaches not later than **21.09.2017 at 12:00** at the following address:

Dr. Sajal Dhara

**Assistant Professor, Department of Physics, Indian Institute of Technology
Kharagpur – 721 302, West Bengal, India**

Earnest money of **18,000/-** is to be deposited in the form of Account payee Demand Draft in favour of IIT Kharagpur, payable at Kharagpur, India. Any bid which is not accompanied with an EMD shall be summarily rejected. Earnest money deposited will be forfeited if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. No interest will be paid on the earnest money of the unsuccessful bidders.

Tender Reference	IIT/SRIC/PHY/PSL/MOT/SD/2017-2018/EQ/5,Dated: 30.08.2017
Price of Tender Document	NIL
Last Date and Time for submitting the tender document	21.09.2017 at 12:00 hrs (Indian time)
Time and Date of Opening of Technical Bids	21.09.2017 at 15:00 hrs (Indian time)
Place of Opening Tender	Dept. of Physics, Indian Institute of Technology Kharagpur – 721 302, West Bengal, India
Address of Communication	As stated above
Contact Telephone Numbers	+91- 3222 - 304856
E-mail	sajaldhara@phy.iitkgp.ernet.in

DETAILED TECHNICAL SPECIFICATIONS FOR

Active vibration isolation optical table

Vibrational isolation optical table with actively damped with IQ Damping Technology

- Width 1200 mm
 - Length 2400 mm
 - Thickness 305 mm
 - Mounting Holes M6
 - Surface Flatness ± 0.1 mm over 600 mm square
- Bandwidth monitoring vibration: 10-820 Hz and structural damping: 80-550 Hz
Broadband Damping Constrained layer core, damped working surface and composite edge finish
- Tuned Damping 2 IQ active dampers
 - Mounting Hole Pattern 25 mm grid
 - Mounting Hole Borders 12.5 mm
 - Grid Markings: Standard grid markings on the table for easy and repeatable component placement
 - Working Surface 400 series ferromagnetic stainless steel
Top and Bottom Skins 4.8 mm thick with integrated damping layer
 - Core Design Trussed Honeycomb, Vertically Bonded Closed Cell
Construction, 0.010 in. Steel sheet materials, 0.030 in. triple core
Interface, Hole Sealing Type Easy clean conical cup, 19 mm deep, non- corrosive high impact reinforced
composite material.
 - Maximum Dynamic Deflection Coefficient 0.4×10^{-3}
 - Maximum Relative Motion Value $<3.0 \times 10^{-9}$ in.
 - Deflection Under Load $<1.3 \times 10^{-3}$ mm
 - Crated Weight 519 kg
 - Computer Interface USB
 - Power Requirements 100-240 VAC; 1.5A, 50/60Hz
I/O BNC output with sensitivity of 30V/(mm/s); Frequency range of
18-820V, Measurement range of 0-0.16mm/s
 - Maximum Amplification at Lowest Resonance <20

- Minimum Frequency Response >210 Hz
- Improve settling time, stability and throughput
Table allows users to monitor tabletop vibrations through built in vibration sensors that provide real time feedback on the vibration state of the table
- Side Panel Highly Damped, composite wood to help eliminate

Accessories:

1) Mounting bracket for use with 10in diameter legs only

2) Pneumatic Vibration Isolators with Automatic Re-Leveling, (option for height Isolator can be of 16 in. (406.4 mm), 19.5 in. (495.3 mm), 22 in. (558.8 mm), 23.5 in. (596.9 mm), 28 in. (711.2 mm)).

With following specifications:

- Vertical Isolation type: Pneumatic suspension system
 - Construction: Lower magnetic permeability Aluminum casting
 - Number of Isolators: 4
 - Height Adjustment [in. (mm)] : 1.3 (33)
 - Load per Isolator [lb (kg)]: 2000 (900)
 - Total Load Capacity of Isolators:3600 kgs
 - Vertical Isolation at 5Hz: 94%
 - Horizontal Isolation at 5Hz: 85%
 - Vertical Isolation at 10Hz: 98%
 - Horizontal Isolation at 10Hz: 95%
 - Vertical Isolation Resonance: 1 Hz
 - Horizontal Isolation Resonance: 1.5 Hz
- Levelling Of table: Active Leveling (Includes all accessories to float table like: Levelling valve, tubes, connectors, mounting clamps etc.)
- Includes Levelling Indicator
 - Re-leveling Accuracy [in. (mm)]: ± 0.010 ($\pm .250$)
 - Max. Air Pressure [psi (kg/cm²)] : 20–85 (1.4-6.0)
 - Amplification at Resonance:
Vert (dB) 10, Horz (dB) 9

- Valve: Standard Leveling Valve including Pressure Gauge to provide repeatability of ± 0.010 in. (0.25 mm)

- Self Centering: Yes (patented design)
- Floating height indicator: Yes
- Settling Time: 1.5 sec. (typical)
- Damping Element Airflow: Normal
- Trifilar Pendulum Design Horz. Damping: oil

3) Low Noise Air Compressor, 3.5 Liter Capacity, 220 VAC Super-precise vertical adjustment down to better than ± 0.010 in. (0.25 mm). With following specification:

- Compressor: with 220V
- Operating Sound Level (1ft) (dB) : 30 (Quiet operation)
- Release Value Sound Level (dB): 62
- Flow Rate (20–80 psi) [CFM(dm³/mm)]: 0.68 (19.3) - 0.80 (22.7)
- Tank Capacity (liters) :3.5
- Regulator Filter: Yes
- Air Intake Filter: Yes
- Automatic Turn Off Switch: Yes
- Max. Air Pressure [psi (kg/cm²)] 116 (8.15)
- Clean, compressed air
- Weight (kg):37 (17)

3a) Overhead Table Shelf, For 8 ft. Table Length

- Type Overhead Shelf
- Length 8 ft.
- Distributed Load Capacity 135 kg
- Easily adjustable

3b) India Compatible Power Strip

QUALITY ASSURANCE

Manufacturer should be ISO and ANSI certified for manufacturing vibration control tables.

GENERAL TERMS & CONDITIONS

PLEASE SPECIFICALLY INDICATE THE FOLLOWING POINTS IN YOUR QUOTATIONS AND COMPLY THE TERMS AS MENTIONED HEREUNDER:-

1. TENDER ARE INVITED COMPLYING THE REQUIREMENT FOR TENDER AS DETAILED IN THE TENDER SPECIFICATION TO BE SUBMITTED IN THE COMPANY'S / FIRM'S LETTERHEAD NEATLY PRINTED / TYPED DULY SIGNED BY AUTHORIZED PERSON WITH THE SEAL OF THE BIDDERS. ALL ENVELOPS CONTAINING THE TENDER SHOULD BE PROPERLY SEALED. SEPARATE ENVELOPS SHOULD BE USED FOR TECHNICAL AND PRICE BID AND INDICATION TO THEIR EFFECT MAY PLEASE BE SUPERSCRIBED ON THE ENVELOP.

THE FOLLOWING DOCUMENTS ARE REQUIRED FROM THE INDIAN AGENTS OF FOREIGN FIRMS:

- 1.1 FOREIGN PRINCIPAL'S PROFORMA INVOICE INDICATING THE COMMISSION PAYABLE TO THE INDIAN AGENT AND NATURE OF AFTER SALES SERVICE TO BE RENDERED BY THE INDIAN AGENT.
- 1.2 COPY OF THE AGENCY AGREEMENT WITH THE FOREIGN PRINCIPAL INDICATING THE NATURE OF AFTER SALES SERVICES, PRECISE RELATIONSHIP BETWEEN THEM AND THEIR MUTUAL INTEREST IN THE BUSINESS.
- 1.3 PLEASE ENCLOSE THE DOCUMENT(S) RELATED TO THE ENLISTMENT OF THE INDIAN AGENT WITH DIRECTOR GENERAL OF SUPPLIES & DISPOSALS (DGS & R) UNDER THE COMPULSORY REGISTRATION SCHEME OF MINISTRY OF FINANCE.
2. TECHNICAL CATALOGUE/LEAFLET SHOULD BE ENCLOSED WITHOUT FAIL. PROVIDE COMPLIANCE STATEMENT WITH RESPECT TO THE TECHNICAL SPECIFICATIONS MENTIONED ABOVE.
3. PLEASE CONFIRM WHETHER YOU ARE AUTHORISED TO QUOTE ON BEHALF OF YOUR PRINCIPALS AND IF SO, PLEASE ENCLOSE A COPY OF SUCH AUTHORISATION WITH YOUR QUOTATION.
4. **PRICE BIDS FOR FOREIGN FIRMS:** PRICES ARE TO BE QUOTED ON 'EX-WORKS' DULY PACKED OR ON "FCA/FOB" INTERNATIONAL PORT" BASIS AND ALSO INCLUDING AGENCY COMMISSION PAYABLE TO YOUR INDIAN AGENTS, IF ANY SHOWING CLEARLY THE FOLLOWING BREAK UP:-
 - I) EX-WORKS PRICE
 - II) PACKING & FORWARDING
 - III) FREIGHT
 - IV) ANY OTHER RELEVANT EXPENSES.
 - V) TAXES PAYABLE BY THE INSTITUTE

INSURANCE WILL BE PAID BY OUR INSTITUTE SEPARATELY AND SHOULD NOT FORM PART OF THE QUOTED PRICE.

PRICE BIDS FOR INDIAN FIRMS: PRICES ARE TO BE QUOTED ON F.O.R., IIT KHARAGPUR, ON DOOR DELIVERY BASIS CLEARLY SHOWING THE BREAK UP.

5. **PERIOD OF VALIDITY:** BIDS SHALL REMAIN VALID FOR ACCEPTANCE FOR A PERIOD OF 120 DAYS FROM THE DATE OF OPENING.
6. INDIAN AGENTS ADDRESS AND PERCENTAGE OF AGENCY COMMISSION INCLUDED IN ABOVE F.O.B./EX-WORKS PRICE. (THIS WILL BE PAID TO THE INDIAN AGENTS IN INDIAN RUPEES ONLY AND NOT IN **FE**). PLEASE ENCLOSE COPY OF AGENCY AGREEMENT ENTERED INTO WITH YOUR PRINCIPALS INDICATING THE NATURE OF AFTER SALES SERVICES OF INDIAN AGENTS, PRECISE RELATIONSHIP & MUTUAL INTEREST IN THE BUSINESS.
7. **MEASUREMENTS/WEIGHT:** NETT/GROSS OF THE CONSIGNMENT. IN CASE OF AN ORDER, YOU SHALL USE AIR WORTHY PACKAGE (AS APPLICABLE) DULY CERTIFIED WITH DOCUMENTS – PLYTO – SANITARY CERTIFICATE (AS PER QUARANTINE ORDER 2003).
8. **SCOPE OF SUPPLY:** SHOULD INCLUDE FREE INSTALLATION AND COMMISSIONING
9. **PAYMENT TERMS FOR FOREIGN FIRMS**

The offer will be made on a single currency and only one PO will be issued for the entire scope of the supply.

- A) 90% PAYMENT THROUGH SIGHTDRAFT/FORIGN DEMAND DRAFT/LC (EXCEPTIONAL CASES)/SWIFT TELE TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER AND CONDITION AND 10% AFTER SUCCESSFUL INSTALLATION & COMMISSIONING.
- B) BANK CHARGES ON LC/SD (WITHIN INDIA APPLICANT ACCOUNT AND OUTSIDE INDIA TO BENEFICIARY ACCOUNT).

PAYMENT TERMS FOR INDIAN FIRMS

- A) 100% PAYMENT THROUGH CROSSED ACCOUNT PAYEE CHEQUE / ELECTRONIC TRANSFER AFTER RECEIPT OF STORE IN GOOD ORDER & CONDITION AND SUCCESSFUL INSTALLATION & COMMISSIONING.
- B) ENSURE MENTIONING
 - i) BANK DETAILS OF THE BENEFICIARY, GST NO. AND PAN NUMBER
 - ii) FULL NAME AND ADDRESS OF THE BENEFICIARY ON WHOM ORDER HAS TO BE PLACED

10. WHETHER ANY EXPORT LICENCE IS REQUIRED FROM YOUR GOVERNMENT, IF SO, PLEASE CONFIRM WITH DETAILS.
11. COUNTRY OF ORIGIN OF THE GOODS IS TO BE MENTIONED.
12. THE INSTITUTE SHALL PROVIDE THE CONCESSIONAL CUSTOMS DUTY AND EXCISE DUTY EXEMPTION CERTIFICATE AS PER GOVT. NOTIFICATION NO. 51/96 CUSTOMS DATED: 23.07.1996 AND CENTRAL EXCISE DUTY EXCEMPTION IN TERMS OF GOVT. NOTOFICATION NO. 10/97 – CENTRAL EXCISE DATED: 01.03.1997 AS AMENDED FROM TIME TO TIME.
13. **LIQUIDATED DAMAGES:** THE STORES SHOULD BE DELIVERED / DISPATCHED TO DESTINATION AND READY FOR OPERATION NOT LATER THAN THE DELIVERY DATE SPECIFIED. IT THE SUPPLIER FAILS TO DELIVER ANY OR ALL THE STORES OR PERFORM THE SERVICE BY THE SPECIFIED DATE, LIQUIDATED DAMAGES AT 1% PER MONTH OR PART THEREOF IN RESPECT OF THE VALUE OF

STORES WILL BE DEDUCTED FROM THE CONTRACT PRICE SUBJECT TO A MAXIMUM OF 5%. ALTERNATIVELY, THE ORDER WILL BE CANCELLED AND THE UNDELIVERED STORES PURCHASED FROM ELSEWHERE AT THE RISK AND EXPENSE OF SUPPLIER.

14. **PATENT RIGHTS:** THE SUPPLIER SHALL INDEMNIFY THE PURCHASE AGAINST ALL THIRD PARTY CLAIMS OF INFRINGEMENT OF PATENT, TRADEMARK OR INDUSTRIAL DESIGN RIGHTS ARISING FROM USE OF THE GOODS OR ANY PART THEREOF IN INDIA.
15. ONLY THOSE BIDDERS WHO'S BIDS HAVE BEEN TECHNICALLY FOUND ACCEPTABLE WILL ONLY BE INVITED FOR PARTICIPATION IN THE PRICE BID.
16. THOSE BIDDERS WHO DO NOT RECEIVE ANY COMMUNICATION FOR PARTICIPATION IN PRICE BID OPENING MEETING MAY PRESUME THAT THEIR BID HAS NOT BEEN ACCEPTED BY THE INSTITUTE.
17. CONDITIONAL OFFER WILL NOT BE ACCEPTED.
18. LATE TENDERS I.E. TENDER RECEIVED AFTER THE DUE DATE AND TIME OF SUBMISSION AS MENTIONED ABOVE SHALL NOT BE ACCEPTED.
19. BIDDERS TO ENCLOSE THE FOLLOWING DOCUMENTS:-
 - A) CURRENT INCOME TAX AND SALES TAX CLEARANCE CERTIFICATES (GST No.), AND PAN NO.
 - B) BANKER'S SOLVENCY CERTIFICATE
 - C) SUMMARY OF AUDITED STATEMENT OF ACCOUNTS FOR THE LAST THREE YEARS TO BE ENCLOSED AND FINANCIAL HIGHLIGHTS AND THE KEY PERFORMANCE DURING THE LAST THREE QUARTERS TO BE ENCLOSED AS PER FORMAT:-

COMPANY'S KEY PERFORMANCE

DESCRIPTION	JAN. TO MARCH	APRIL TO JUNE	JULY TO SEPT.
GROSS REVENUE			
PROFIT BEFORE TAX			
PROFIT AFTER TAX			
RETURN ON INVESTED			
CAPITAL (ROIC)			

- D) CUSTOMER SATISFACTION CERTIFICATE FROM ONE SUCH ORGANIZATION IS TO BE ATTACHED WITH THE TECHNICAL BID AND PRICE BID.
- E) NAME AND ADDRESS OF MINIMUM THREE CLIENTS TO WHOM SUCH EQUIPMENT HAVE BEEN SUPPLIED SHOULD BE MENTIONED.
20. **WARRANTY / GUARANTEE:** THIS COMPREHENSIVE WARRANTY / GUARANTEE SHALL REMAIN VALID FOR **12 MONTHS** AFTER THE GOODS (OR ANY PORTION THEREOF AS THE CASE MAY BE) HAVE BEEN DELIVERED AND COMMISSIONED TO THE FINAL DESTINATION.
21. THE INSTITUTE DOES NOT BIND ITSELF TO OFFER ANY EXPLANATION TO THOSE BIDDERS WHO'S TECHNICAL BID HAS NOT BEEN FOUND ACCEPTABLE BY THE EVALUATION COMMITTEE OF THE INSTITUTE.

22. ALL TENDERS (UNLESS OTHERWISE SPECIFIED) ARE TO BE SUBMITTED / HANDED OVER TO **DR. SAJAL DHARA, DEPARTMENT OF PHYSICS, INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR - 721 302** AND ACKNOWLEDGEMENT TO BE OBTAINED.

IMPORTANT

1. IIT Kharagpur authority may accept or reject any or all the bids in part or in full without assigning any reason and does not bind itself to accept the lowest bid. The Institute at its discretion may change the quantity / upgrade the criteria / drop any item or part thereof at any time before placing the Purchase Order.
2. Promptly make arrangements for repair and / or replacement of any damaged item (s) irrespective of settlement of claim.
3. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.
4. For any query pertaining to this bid document correspondence may be addressed to **Dr. Sajal Dhara**, at the address mentioned above.

LAST DATE FOR SUBMISSION OF SEALED BIDS: 21.09.2017

- 1) Please Note that the Institute remains closed during Saturdays & Sundays and all specified government holidays.
 - 2) Fax, e-mail Tender will not be accepted.
 - 3) The General Terms and Conditions as stated above relate to supply of stores / equipment /assets etc. and for specific service other terms and conditions of the Institute will apply.
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