

**NOTICE INVITING TENDER**

UGC-DAE Consortium for Scientific Research, Mumbai Centre invites Bids in Two Part (Part A-Technical and Part B-Financial) in sealed cover, from eligible bidders for supply of the undermentioned:

Tender No.	Description of Item	Quantity	Due date for Submission of Bid
NIT No. <b>07/2020-21</b> dated <b>27.01.2021</b>	Heavy Duty Compact Package Water Chiller of 5TR cooling capacity capable of operating 24 X 7 mode round the clock throughout the year and as per the specifications in tender document.	2 (Two)	<b>18.02.2021</b>

Details of the tender document i.e. Technical Specification and Commercial terms & conditions are mentioned at Annexure-I and Annexure-II respectively.

**Annexure-I (Technical Specification)**

**Specifications of 5TR compact package Water Chiller**

Two 5TR re-circulating water chillers (compact package chiller) are required to cool scientific instruments. It should consist of cooling, circulating water with appropriate water tank in a compact package unit. The chiller should meet the following requirements. **Makes of major parts of chiller (like Compressor, pump, condenser coil, evaporator, controller, electrical parts should be explicitly specified)**

- **Application:** Cooling of (low temperature and high magnetic field - PPMS) cryogenic facility.
- **User list: List of users of chillers for above mentioned application must be enclosed**
- **Essential Requirement: 24x7 round the clock throughout the year – unattended operation** (except for any short duration maintenance in between)
- Chiller will be kept outdoor under tin shed roof on Terrace. It should drive chilled water to the load kept one floor below and through approximately 15 – 20 meter insulated water pipes (SS ¾ inch or 1 inch) with approximated 7 L-bends in each line forward and return. *Chilled water plumbing lines (Insulated with 38 Nitrile rubber insulation and SS Pipes) between Chiller location and load already in place.*
- A suitable remote panel control panel should be provided.
- Chiller Refrigeration Capacity: **5TR @ 15°C**
- Chilled water set point temperature range: **8°C - 30°C**
- Ambient Temperature range: **10°C - 45°C**
- Water flow rate: **5 lit/min to 20 lit/min @ 5 bar, flow rate and pressure should be adjustable within this range**
- Chilled water tank capacity: **125 liters**
- Electrical Supply: **Three Phase 415V, 50 Hz** with 10% variation in voltage
- Versatile and Rugged System for **continuous, round the clock and unattended (24x7) operation**

## Other specifications

**Compressor:** Hermetically sealed scroll compressor of *reputed make (Danfoss/ Emerson/Copeland)* of appropriated refrigerating capacity, pre-charged with appropriate CFC free refrigerant. It should be properly mounted on rubber grommets (or similar type) to reduce vibrations and noise. It should have all standard protections such as internal high temperature protection, over current relay etc.

**Condenser coils:** constructed with internally grooved seamless copper tubes and enhanced Aluminum fins properly bonded and air-cooled with appropriate sized heavy duty, axial flow fan of *reputed make*. Advanced heat exchangers brazed plate type may be offered.

**Air Exhaust: TOP Throw** - The Air intake for condenser coils should be from sides and the **hot air exhaust should be on the top side**. Hot air exhaust on sideways, like conventional chilling units, will not be accepted.

**Water Tank:** Should be properly insulated and shall be made of 16 gauge or higher thickness of SS304/SS316. The storage capacity of the water tank should be around **125 liters**.

**Control Panel and Safety Features:** The unit should have Control panel along with standard safety controls, MCBs, digital temperature indicator, provision for adjusting water temperature setting (*temperature controller of reputed make*) and as well as differential adjustment system. Standard safety provision such as high pressure (HP) and Low Pressure (LP) safety switch, antifreeze sensor, water level sensor, flow sensor, etc. should be incorporated.

**Pump** Centrifugal, multistage SS constructed self-priming pump of *reputed make (Grundfoss/Fivebro/Sumo)* capable of discharging max 30 lit/min.

- **Water flow rate** should be adjustable from **5 lit/min to 30 lit/min** by a suitable bypass mechanism.
- 1 inch BSP water inlet and outlet with SS ball valves should be provided. Internal piping should be rigid and crimped. GI/MS piping should not be used.

## **Further specifications**

- **Chiller:** Along with water tank, compressor for cooling and water circulating pump should comprise proper electric control panel consisting Fuses/MCB, On-Off control switches, water level switch, over load protection, water level indicator and temperature controller with indicators, Safety alarms against water temperature and water flow etc. and all relevant ancillaries like rodent protection etc. *Unit should be mounted on heavy duty wheels along with anti-vibration mounting pads and must be as compact as possible.*
- All units, exteriors & interiors should be made of preferably CRCA panel and should be powder coated. Frame and panels should be suitably designed and constructed to provide reasonable access to all panels for any maintenance/repair/adjusting the settings.
- **Dimensions:** Units should be **as compact as possible**. Physical dimensions should not exceed 120 cm (Length) x 120 cm (Width) and 180cm (Height). Larger dimensions cannot be accepted as the space available is limited.
- The chiller should be installed at site by the supplier.
- **One set of critical/essential spares/components for smooth operation of the chiller can be quoted separately.**
- The product should be offered for inspection before dispatch.
- The product should be provided with onsite guaranty/warranty for at-least one year from date of successful installation.
- **Future Servicing:** Also specify whether you have a servicing branch/personnel in Mumbai or nearby places.

**Note: (i) The Supplier should submit a list of users (along with email IDs, if available) to whom a similar (type & capacity) system was supplied.**

**(ii) The supplier may also quote for extended warranty /AMC for 2<sup>nd</sup> and 3<sup>rd</sup> years as an option.**

## **ANNEXURE-II**

<b>Sl. No.</b>	<b>General Terms and Conditions</b>	<b>Remarks</b>
1.	<ul style="list-style-type: none"> <li>• The bidder must have GST Registration Number,</li> <li>• Self – undertaking on the firm’s letter head that the firm will not enter into any sub-contract with any other firm.</li> <li>• Income tax returns for the latest three (03) assessment years.</li> <li>• Copy of Trade License essential for carrying out the activities under the contract.</li> <li>• Copies of Sale Tax Return, if applicable.</li> <li>• Copy of PAN CARD of the Proprietor/ Partner/Company.</li> <li>• Details of experience with documentary evidence. List of existing users and performance certificate is to be provided.</li> </ul> <p>Note: Necessary <i>proof of documents shall be submitted along with the <b>Technical Bid - (Part-A)</b>.</i></p>	--
2	The Bidder should be the manufacturer/authorized dealer. Letter of Authorization from Original Equipment Manufacturer (OEM) specific to the tender should be enclosed.	--
3	An undertaking from OEM is required stating that they would facilitate the tenderer on a regular basis with technology / product updates & extend support for the warranty as well.	--
4	Non-compliance of tender terms, non-submission of required documents, and lack of clarity of the specification, contradiction between tenderer specification agent on behalf of the Principal /OEM or Principal / OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.	--
5	Bidder should have registered office and/or authorized Service Centre and/or authorized dealer in India.	--
6	Tender document shall be available at <a href="http://www.csr.res.in">www.csr.res.in</a> . The Cost of the Tender Document <b>Rs. 200/- (Two Hundred Only) (Non-refundable)</b> , to be paid by means of Demand Draft payable at Mumbai in favour of <u>UGC-DAE CSR – Non-Plan along with the bid.</u>	--
7	<p>a. Bidders registered with the Central Purchase Organisation (DGS&amp;D) or National Small Industries Organization (NSIC), have to attach a copy of the registration Certificate in technical bid. All firms who are not specifically registered with NSIC or DGS&amp;D are required to deposit EARNEST money equivalent to the amount as mentioned in the Tender Schedule, failing which their offer will be summarily rejected. Earnest Money Deposit (EMD) of <b>Rs.5000/- (Rupees Five Thousand only)</b> shall be submitted by means of Demand Draft payable at Mumbai in favour of <b>UGC-DAE CSR – Non-Plan</b> along with the bid.</p> <p>b. The EMD will stand forfeited if the successful bidder withdraws or on notifying the rates, refused to accept the tender or violate any other terms and conditions of the tender.</p> <p>c. The bid security of the unsuccessful bidder will be discharged /returned to the bidder at the earliest after evaluation of the bid and latest on or before the 30th day after the award of the contract.</p>	--
8	The Tendered should furnish Brochure detailing technical specification and performance as well as the users list where similar equipment has been supplied recently	--

9	Offer should be accompanied with product catalogue, brochure and relevant pamphlets etc.	--
10	It may be noted that UGC-DAE CSR is registered with <i>Ministry of Science and Technology, Dept. of Scientific and Industrial Research F. No. F. No. 11/375/1999-TU-V dated 18/03/2019, Government of India &amp; eligible for Concessional GST</i> . Necessary certificate will be issued as per requirement & on request of the successful bidder.	--
11	Payment shall be made only after receiving complete articles in good and satisfactory condition after installation, testing, commissioning at site along with invoice in Duplicate and successful installation report. Necessary Bank particulars of the seller to be provided.	--
12	No advance payment in part or full shall be made.	--
13	UGC-DAE CSR, Mumbai Centre shall not be liable for any postal delay.	--
14	Offer without meeting the technical and commercial criteria & requirements may bear the risk of not being considered.	--
15	UGC-DAE CSR reserves the right to reject any or all the tenders fully or partially without assigning any reason whatsoever, and the decision of the Centre Director, Mumbai Centre in this regard will be binding on all the bidders. Tenders not complying with any of the provision stated in the tender document are liable to be rejected.	--
16	Rate(s) quoted shall Prices should be quoted in <b>INR ( ₹ )</b> only and of all inclusive i.e. inclusive of materials, loading, unloading, packing, unpacking, delivery, transportation, supply, installation, testing, commissioning, labour, toll, parking, incidental & any other charges and should be in Indian Rupees. However, all the pricing components to be shown separately in the Offer. Charges of GST shall be shown separately. Quoted Rate shall be fixed and price escalation shall not be accepted under any circumstances.	--
17	<b><u>GUARANTEE / WARRANTY</u></b> : Except as otherwise provided in the invitation to the tender, the contractor hereby declares that the goods, stores, articles sold/supplied to the purchaser under this contract shall be of the best quality and workmanship and new in all respects and shall be strictly in accordance with the specifications and particulars contained / mentioned in the contract. The contractor hereby guarantees that the said goods /stores/ articles would continue to conform to the description and quality aforesaid for a period of <b>twelve months</b> from the date of installation,	--
18	In case of Dispute or difference arising out of or in connection with the tender, the same shall be settled amicably by mutual consultation. If such resolution is not possible then the unresolved disputes or differences shall be referred to Arbitration as per the Indian Arbitration and conciliation Act, 1996. It shall be subject to Mumbai Jurisdiction only.	--
19	All technical and commercial terms, conditions, declarations, documents should be enclosed in <b>Technical Bid</b> in a separate sealed envelope and super-scribed as <b>PART -A</b> .	--
20	Only Rate shall be quoted in <b>Financial Bid</b> in separate sealed envelope super-scribed as <b>PART- B</b> .	--
21	Both the envelope i.e. PART-A & PART-B shall be Sealed within a cover envelope and Super-scribed as 'Offer against NIT No. and Due Date.' The Offer should be sent by <b>Speed/Register Post only (No private/local couriers are permitted)</b> to the following address latest by <b>18<sup>th</sup> February, 2021:-</b>  <b>To</b> <b>The Administrative Officer,</b> <b>UGC-DAE CSR, Mumbai Centre, CFB,</b> <b>246-C, 2<sup>nd</sup> Floor, BARC,</b> <b>Trombay, Mumbai – 400085</b>	--