



जवाहरलाल नेहरू उन्नत वैज्ञानिक अनुसंधान केंद्र
(विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार की स्वायत्त - मान्यता प्राप्त विश्वविद्यालय)

JAWAHARLAL NEHRU CENTRE FOR ADVANCED SCIENTIFIC RESEARCH

(An Autonomous Institution under Department of Science & Technology, Govt. of India - A Deemed University)

जक्कूर पोस्ट, बेंगलूरु 560 064, कर्नाटका, भारत / Jakkur P.O., Bengaluru - 560 064, Karnataka, INDIA

JNC/PUR/ICMS/PI2-415/21-22/38/E

October 26, 2021

NOTICE INVITING TENDER

Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur invites sealed tenders in two bids (Technical & Commercial) from qualified and experienced Vendors for **1 No. of Uniaxial Vacuum Induction Hot Press Unit** as per the terms and conditions below and as broad specifications shown in **ANNEXURE-I**

TERMS & CONDITIONS:

1. Any item not specifically mentioned in the technical specification but essential for successful implementation of the system (in the opinion of the bidder) must be brought to our notice and quoted accordingly.
2. At the time of installation, if it is found that some additional items are required to meet the operational requirement of the configuration, but not included in the bidder's original list of deliverables, the bidder shall supply such items to ensure completeness of the configuration at no extra cost.
3. Delivery period should be 4 weeks from the date of Purchase Order. Once delivered to onsite, the installation, commissioning and acceptance period will be within two weeks from the date of delivery of equipment.
4. The successful bidder immediately after the award of the Purchase Order shall prepare a detailed plan of installation as proposed to be followed by placement of the equipment, etc.
5. System Installation and integration of all supplied equipment and software shall be done by the successful bidder. Subcontracting in any form is not allowed.
6. Bidders should clearly specify after sales/service/application support/AMC capabilities. Bid validity should be 60 days.
7. Warranty and support: All supplied Equipment with Accessories – 3 years.
8. Provide all information as regards pre-installation requirements (i.e. room, environment) for system installation.
9. Detailed list of users of the system in India with contact details to be furnished.
10. Bid Security Declaration should be submitted in your Company Letter Head.
11. Performance Security: The successful bidder has to provide 3% Performance Security in the form of Bank Guarantee within 15 days after receiving Purchase Order. Letter of Credit will be established only after receipt of mandatory 3% Performance Security in advance.


के. भास्करा राव / K. BHASKARA RAO
वरीष्ठ भंडार एवं क्रय अधिकारी / SR. STORES & PURCHASE OFFICER
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12. Performance Bank Guarantee: Successful bidder has to submit 10% PBG valid for three years.
13. Payment terms: 100% Irrevocable Letter of Credit. 90% payment will be affected against documents through bank, balance 10% after installation & acceptance, commissioning and submission of Performance Bank Guarantee for 10% of Purchase Order value valid for three years from the date of installation/commissioning. For local supplies, payment terms are 30 days from the date of supply / acceptance and submission of Performance Bank Guarantee for 10% of Purchase Order value valid for three years from the date of installation/commissioning.
14. Late & delayed quotations will not be considered.
15. As time is the essence of the contract, delivery period mentioned in the Purchase Order should be strictly adhered to. Otherwise the successful bidder will forfeit Security Deposit. If the supplier fails to supply, install and commission the system as per specifications mentioned in the Purchase Order within the due date, the supplier is liable to pay liquidated damage of 0.5% of Purchase Order value per every week of delay subject to a maximum of ten percent beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier. JNCASR reserves the right to cancel the Purchase Order in case the delay is more than ten weeks. Penalties, if any, will be deducted from the Security Deposit. The maximum amount of penalty shall be ten percent. Liquidated damages shall be levied on the Purchase Order value, freight, insurance and duties.
16. The place of Applicable Law / Jurisdiction is Bengaluru, Karnataka, India.
17. Decision of the President, JNCASR will be final.
18. **Shipping Terms:** Price quoted should be on FCA basis for imported items.
19. **Goods & Service Tax:** Please note that JNCASR is eligible for GST Concession under 45/2017 notification and IGST under 47/2017 notification, will issue a certificate to this effect. The prices can be quoted either in foreign denominations or in INR. Exchange rates as on the date of price bid opening will be taken into account for comparison purpose.
20. **Custom Duty:** Please note that JNCASR is eligible for customs duty exemption under 51/96 notification and will issue a certificate to this effect. C.D. Nil at present.
21. **Formats for price-bid:** Corresponding to each part in the technical bid there should be a pricing referring to the Part name in the technical bid and mentioning quantity, unit price and total price. If there are any other charges, they should be also added at the end. All pages have to be serially numbered. References if any to technical bid should be provided along with the exact location (page number, etc). You are required to use the price bid format given by us only for commercial tender.
22. **Warranty Replacements:** Any replacement of defective items during Warranty period is the responsibility of the successful bidder. The expenditure involved like freight charges, customs duty, insurance charges, clearance charges etc. are to be borne by the successful bidder.

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23. **Submission of Proposal:** The proposal should be submitted in a sealed two bid system. One containing sealed technical bid and the other one a sealed price bid. The bidder name, the nature of the envelope (either technical bid or price bid) must be clearly mentioned on top of each of the envelope. The sealed proposals must be addressed to Senior Stores & Purchase Officer, JNCASR. The proposals should be submitted at the Stores & Purchase Department, JNCASR.
24. **Evaluation of bids:** Technical bids will be evaluated by JNCASR. Price bids of technically qualified bidders only will be opened on date and time that will be decided by the JNCASR.
25. Public Procurement (preference to “**Make in India**”) order 2017 will be considered as per order No. P-45021/2/2017-PP (BE-II), dated 28.05.2018.

IMPORTANT DATES	
Last date for submission of bids (Two-bid system)	November 12, 2021 up to 3.00 PM
(a) Technical Cover : Technical Specs. Commercial Terms and Conditions, Brochures, Compliance statement EMD & Bill of quantities without Price Information.	
(b) Price bid cover: With complete specs & item wise Rates to be indicated.	
Opening of technical bids ;	November 12, 2021 at 4.00 PM
Opening of commercial bids :	Will be informed later

(K. Bhaskara Rao)

Sr. Stores & Purchase Office

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Vacuum Induction Hot Press Unit

Vacuum Induction hot press with 10 tonnes or higher is required to synthesise metals, metal oxide/chalcogenides/phosphates at higher temperatures (up to 1600 °C or higher) and pressures (100 MPa or higher) under different environments.

Vacuum chamber should be made of stainless steel (water cooled) with powder coating and it should be corrosion resistive. It should have front loading.

Low noise chiller (2TR capacity) to cool the vacuum chamber, hydraulic ram and power supply

Front door dimension: 350 x 400 mm ($\pm 10\%$)

The vacuum chamber should consist of induction coil, vacuum port, pyrometer, thermocouple, hydraulic jack at bottom, pre-loading ram port at top, and gas inlets/outlets. The chamber should have 10^{-4} mbar throughout the load operation and it should withstand a pressure of 10^{-6} mbar. The chamber should have external water cooling (or equivalent) system and front view port.

Rotary vacuum pump should be connected to vacuum chamber. It should have a minimum of 300 LPM capacity. It should consist required vacuum gauge, vacuum pipeline and KF-25 valve.

Hydraulic system should provide a pressure of 10 tonnes or higher. The load cell should withstand a minimum pressure of 10 tonnes. The pressure of load cell should be measured with digital indicator and analogue gauge. Piston stroke should be 100 mm. Bottom ram should be suspended and top ram must be down stroking.

Operating Temperature: The furnace should be designed for operating temperature from RT to 1600°C or higher. Optical pyrometer should be provided to measure the temperature in two different ranges from RT to 1300°C and 600 to 1600°C

Heating rate: 0 to 10° C/min or higher; programmable

Temperature Uniformity: $\pm 10^\circ\text{C}$ or better

Heating Elements: High-Density Graphite

Two high-density graphite dies of 10 and 12 mm internal diameter (30 mm fixed outer diameter) and 50 mm height. Additionally, one die made of titanium (10 mm internal dia and 30 mm fixed outer diameter) should be provided.

System design and operating manual should be provided along with the instrument.

Pre-installation requirements should be given along with bids.

Installation and training should be provided for JNC personnel.

All other necessary spares should be quoted as optional items in the bid.

The vendor should provide a warranty of three years for instrument.

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