



राजीव गाँधी पेट्रोलियम प्रौद्योगिकी संस्थान
(संसद के अधिनियम के अधीन स्थापित राष्ट्रीय महत्व का एक संस्थान)
Rajiv Gandhi Institute of Petroleum Technology
(An Institution of National Importance established under an Act of Parliament)
Jais, Amethi-229304, UP, India. Website: www.rgipt.ac.in

QUOTATION ENQUIRY

Ref. No.: RGIPT/JAIS/R&D/TG/INS/2025-2026/01

Dated: 18.11.2025

Subject: Quotation enquiry for the supply and installation of a **programmable uniaxial vacuum induction hot press**

Dear Sir/Madam,

Please submit your lowest quotation for the supply and installation of the undermentioned item. The quotation must be sent to us duly signed and stamped in **sealed envelopes** with the word **“QUOTATION for “programmable uniaxial vacuum induction hot press”** and addressed to the Office of the **Department of Energy and Human Sciences, 5th Floor, AB-2, RGIPT, Jais, UP-229304**. Our reference number, as given above, should be clearly marked over it.

Details of the item are as follows:

Item Name: **Programmable uniaxial vacuum induction hot press**

Quantity: **01 No.**

Technical specifications for ‘Programmable uniaxial vacuum induction hot press’

Sl. No.	Specifications
1.	System requirements: A state-of-the-art equipment for the densification of powdered samples into pellets by hot-pressing is required. The equipment must be supplied with all the necessary components for a smooth routine operation, e.g., the vacuum chamber, vacuum pump, hydraulic press, induction power supply, water chiller, temperature controllers, and any other components necessary for a day-to-day operation. The equipment is targeted for the densification of powdered samples of Chalcogenide-based semiconductors for thermoelectric applications.
2.	Technical specifications and performance requirements: a. The vacuum chamber: i. The vacuum chamber should be made out of stainless steel materials. ii. The dimension of the chamber should have dimension 350 mm x 400 mm or larger. iii. The vacuum chamber should be continuously cooled down using external water-cooling facility during operation



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	iv. The vacuum chamber should be equipped with induction coil port, vacuum port, pyrometer port, thermocouple port, bottom hydraulic jack port, top preloading ram port and gas IN/OUT port v. The chamber should have a view port and locking system b. Vacuum pump: i. A suitable (350 LPM or higher) rotary vacuum pump should be supplied for the vacuum chamber. ii. The vacuum inside the chamber should reach a level of 2×10^{-3} mbar or less at room temperature. iii. Suitable digital Pirani gauge, valves, and fitting should be supplied. c. Induction furnace power supply: i. A 3-phase 10 KV and 25 KHz power supply should be provided for the induction furnace. ii. The induction power supply should work both in manual mode for the variation of temperature as well as in auto mode through PID-based temperature control. iii. The system should have an emergency stop switch d. Temperature controller: i. The system should be suitable for operation in the temperature range of 0 – 1000 C ii. A suitable Eurotherm PID controller having the capability to store 10 different profiles with 24 segments should be provided. iii. K-type thermocouple for temperature measurement should be provided iv. The accuracy should be $\pm 2^\circ\text{C}$ or better v. Program controller device (Desktop) – Intel Core i5, 13th Gen or latest, 16GB RAM, 500 GB SSD, 24 inch display monitor. e. Hydraulic system: i. A 4-pillar manually operated hydraulic press with 15 ton capacity should be supplied with the system. ii. Ram dia: 50 mm; Stroke length: 150 mm iii. The system should have digital indicator and analogue gauge f. Water chiller: i. A suitable 2TR low noise water chiller with IN/OUT manifolds connected to vacuum chamber, hydraulic ram and power supply should be provided.
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	ii. The water flow rate should be maintained at 50 LPM (min) and water pressure should be 1 kg/cm³ (min). g. The vendor should provide on-site installation and demonstration. Moreover, on-site training for operation and maintenance should be provided h. Warranty: 12 months from date of installation i. The vendor should provide 5 set of K-type thermocouples, 10 set of 10 mm internal diameter graphite die-punchers, graphite sheet and any required tool kit. j. In addition to compliance statement against each technical specification, the vendor must give detailed specifications (not simple 'yes' or 'no'). All the technical details should be supported by documentary evidence in the form of technical brochures.
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Terms and Conditions:

1. The vendor should provide a technical compliance statement on their company letterhead against each of the mentioned technical specifications above.
2. The quoted rate should be inclusive of all charges (packing, freight, installation, and commissioning), including the appropriate GST %.
3. Please mention your GST registration number and PAN in the quotation. Also, clearly mention your E-mail ID and Mobile number.
4. Clearly mention the date of validity of the offer. The quoted rate should be valid for a period of 2 months from the last date of submission of the quotation.
5. **Delivery Location:** Rajiv Gandhi Institute of Petroleum Technology (RGPT), Jais – 229304, Amethi (U.P.).
6. **Delivery Period:** Within 6-8 weeks from the date of issue of Purchase Order. Once delivered onsite, the installation, commissioning, and acceptance period will be within two weeks from the date of delivery of equipment.
7. **Payment Terms:** 80% payment will be released against supply of equipment at site i.e. Rajiv Gandhi Institute of Petroleum Technology, Jais, Amethi, and the balance of 20% after installation of the equipment.
8. **Liquidated damages:** In case of any damages and delay in supply and installation of material, liquidated damages at the rate of 0.5% of the order value per week of delay or part thereof, subject to a maximum of 5% of the order value, shall be recovered from the vendor's bill/invoice.
9. The vendor must enclose a list of clients in premier Indian academic and research institutes like IISc/IIT/IISER's etc. with contact details where similar equipment has been delivered in the past 3 years.
10. The Institute reserves the right to accept/reject all or any part of the offer without assigning any reason thereof.
11. In case of any disputes, the decision of the Director, RGPT shall be final and binding to all.
12. The quotation completed in all respects should be sent by post/by hand to to the Office of the **Department of Energy and Human Sciences, 5th Floor, AB-2, RGPT, Jais, UP-229304. Last date and time for the**



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quote: 02.12.2025 till 17:00 hours in the Office of the Department of Energy & Human Sciences, 5th Floor, AB-2, RGPT, Jais, UP-229304.

Dr. Tanmoy Ghosh
Assistant Professor
Department of Energy and Human Sciences,
RGPT, Jais-229304, UP, India