

NOTICE INVITING QUOTATION

Date: 27-02-2013

Due date: 14-03-2013

NIQ Ref. No.: IITD/PHY/2013-14/CVD-Tubular-Furnace

General description: A **CVD Tubular Furnace** for the deposition of thin films and nanostructures of semiconductor oxides and for annealing purposes.

THE DETAIL TECHNICAL SPECIFICATIONS OF THE SYSTEM ARE AS FOLLOWS:

1.	Input Power	220 - 240V, 50 Hz, < 2 kW
2.	Temperature	Maximum-1200 °C Heating rate ≥ 10 °C/min
3.	Processing Tube	The dimensions of the processing tube should be $\leq 55\text{mm} \times 45\text{mm} \times 550\text{mm}$ (OD \times ID \times L)
4.	Heating Zone and Heating Element	Total heating zone should be ≥ 200 mm, and constant heating zone should be ≥ 50 mm (with ± 1 °C).
5.	Temperature Controller	PID temperature control with minimum of 20 steps programmable. Control accuracy: ± 1 °C.
6.	Accessories included	The following accessories should be included with the system: i) Vane rotary vacuum pump with pumping capacity of 200L/min or higher. Voltage of the vacuum pump should be the same as that for furnace. ii) A two channel gas station including two floating flow-meters with flow rate range from ≤ 20 to 100 mL/min and three mechanical pressure gauge (mixing tank). iii) All the required Vacuum flanges and fittings required to achieve a vacuum of $\leq 5 \times 10^{-2}$ torr should be included with the CVD system. iv) A Pirani gauge to measure the vacuum in the tubular furnace should also be included with the system.

7.	Overall dimension of the system	The overall dimension of the furnace should be $\leq 350 \text{ mm} \times 350 \text{ mm} \times 450 \text{ mm}$ (L×W×H).
9.	Warranty	Minimum one year warranty should be provided, and the company be CE certified.

TERMS and CONDITIONS:

1. The quotation, in sealed envelop marked as “Ref: **IITD/PHY/2013-14/ CVD-Tubular-Furnace**” should reach the undersigned on or before **5 pm on 14-03-2013**.
2. The vendor should quote **C.I.F. Delhi price of the item**.
3. **Technical and financial bids should be enclosed in separate sealed envelopes and clearly marked.**
4. Institute reserves the right to accept/ reject all/ any quotation without assigning any reason thereof.
5. The delivery period should be clearly indicated in the quotation.
6. Submitted quotations should clearly mention the validity period, preferably for a minimum of **3 months**.
7. The mode of payment should be clearly indicated. The preferred mode of payment is through irrevocable LC.
8. In case the quotation is being submitted by authorized agent of the principal manufacturing company, the AUTHORISED SALES AGENCYSHIP certificate from the PRINCIPALS should be furnished along with the quotation. Quotations without this authorization certificate will be rejected.
9. A compliance chart may preferably be provided along with the technical bid.
10. The quotation should include comprehensive **warranty for at least 1 year**.
11. Special discount/rebate wherever admissible keeping in view that items are being procured for educational purpose in respect of Public Institution of national importance may please be indicated.
12. Vendors may attach the relevant brochure/leaflet for the models/options quoted.
13. Installation and training for operation of the equipment should be provided by the vendor.

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