**CENTRE FOR NANO AND SOFT MATTER SCIENCES**

**Prof. U.R. Rao Road, Jalahalli, BENGALURU 560 013.**

*Autonomous Institution under the Dept. of Science & Technology, Govt. of India*

**TENDER NOTIFICATION**



 13th March 2017 CeNS/2016-17/PKS/F13

The Centre invites Tender bid for the following item detailed below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SL No | ENQUIRY NO & DATE | Description of Item | Catalogue No/Product Code |  Qty |
| 1) | CeNS/2016-17/PKS/F13 & 13/03/2017  | " Glove Box "Note: Detailed Specification in Annexure.  |  | 1 No |

**NOTE:**

1. The Tender sealed bid containing **two separate sealed envelopes**, clearly marked as “Techno-Commercial Bid and “Price Bid along with Compliance Statement should be submitted on or before 22nd March 2017 by 5.00PM through Speed Post / Courier / Registered Post**.**

( b) The Tender bid may be addressed to the Director, Centre for Nano and Soft Matter Sciences PB No: 1329, Prof. U.R Rao Road, Jalahalli, Bangalore-560013. The bid should be accompanied with and Earnest Money Deposit of Rs.50,000/- in the form of a Demand Draft of Nationalized bank drawn in favor of “The Director, Centre for Nano and Soft Matter Sciences”, payable at Bengaluru. The EMD will be refunded to unsuccessful bidders without any interest thereon.

1. The cost of Packing, Freight & Insurance (CIF Bangalore) should be indicated separately. A brochure giving technical details of the product should be enclosed.
2. Discount if any should be clearly mentioned.
3. Delivery schedule, warranty details must be clearly indicated.
4. Taxes & duties should be separately shown.
5. Tender bid(s) should be valid for a minimum period of **3 months** from the date of issue.
6. **Terms of payment:**

**i) For Imported Equipment:**

1) 90% through Letter of Credit with usance period of 30 days on proof of dispatch of consignment. The balance 10% payment will be released after expiry of the applicable Warranty period or on submission of Performance Bank Guarantee for an equivalent amount (10% of the Invoice value), having validity up to three months from the date of expiry of the applicable Warranty period.

 OR

2) 50% by wire transfer on proof of dispatch of consignment and balance 50% after delivery and installation of equipment. PBG equal to 10% of invoice value to be submitted before release of the final 50% payment.

**ii) For Indigenous Equipment:** the payment in INR shall be made through NEFT/RTGS after successful installation and against submission of performance Bank Guarantee equal to 10% value of the equipment, valid for the period of warranty. Complete details such as the bank account number/IFSC/SWIFT/Bank Address, etc. should be provided along with the price bid.

1. **Opening of bids**: The firm shall be at liberty to authorize a representative to be present at the opening of the tender at the time and date which will be informed by E-mail. A proper letter of authority be produced before the meeting.
2. Any firm representing the actual supplier should submit authorized dealership certificate in original from the principal company.
3. **Banking charges:** All banking charges applicable outside India will be on suppliers account.
4. **Guarantee and replacement:** The Supplier shall guarantee that the Items/Equipment supplied shall comply fully with the specifications laid down, for material workmanship and performance. The Guarantee should be as mentioned in the specification.
5. The Centre reserves the right to accept or reject any quotation or part thereof without assigning

 any reasons.

1. Sealed envelopes containing the Separate tender bid(s) should be superscribed with " Tender for

 CeNS/2016-17/PKS/F13”

1. Tender bid(s) received after the due date shall not be considered.
2. The Centre is exempt from paying Central Excise of Customs duty on purchase under the Govt. of India

 Notification No. 11/280/1993-TU-V dated 29 April 2016.

 Yours sincerely

 Sd/-

Administrative Officer



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**ANNEXURE**

ENQUIRY NO : CeNS/2016-17/PKS/F13

**Technical Specifications for L- shaped glove box with provision for connecting evaporator**

 **(400 mm x 400 mm)**

1. Material and Dimension:
	1. Steel Glove box with US304L.Supplier has to provide chamber material test certificate.
	2. L/H/D 2500 x 900 x 725 mm (a schematic design is mentioned in the end of the specifications)
2. Side panels
	1. Dismountable
	2. Tightness of the side panel imperatively secured through gaskets (e.g. Viton) or similar (no silicone glue)
	3. Should have possibilities to dismount a side panel to connect a second module of glove box for expansion
	4. Glovebox must have adaptations and adequate blanked pipings for connection of purification unit to the additional glove box module
3. Stands in SS with rolls and jacks

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1. Front panel
	1. Saphir coated polycarbonate
	2. 5 glove ports of approx. ~ 200 mm diameter
	3. Butyl glove approx. 0.6 mm thickness and one extra pair
2. Anti chamber
	1. Leak rate <0.0006 %Vol/h
	2. Vacuum anti chamber diameter 400 mm, length 500/600 mm with 3 way valve; two doors with external lifting mechanism
	3. Additional mini anti chamber diameter 150 mm, length 300 mm
	4. Each vacuum chamber should have individual vacuum gauge
	5. Location of vacuum chamber can be left sided or right sided
3. Vacuum pump
	1. Dual stage vacuum pump
	2. Flow rate not less than 15 m3/h
4. Purification Unit
	1. < 1ppm oxygen and water with minimal capacity of 20 L oxygen and 960 g of water
5. Control through touch panel
6. All piping and components must be in stainless steel (US304L)
7. A trap between the circulation system and glove box
8. Recirculation blower
	1. Type: brushless motor mounted inside a stainless steel housing with minimal flow 30 m3/h
9. Regeneration process
	1. Automatic
	2. Inlet and outlet regeneration gas through EM valves
10. Heating of reactor
	1. Integrated temperature regulation controlled through automatic and temperature cut out
	2. Leak rate <0.0006 %Vol/h
	3. Regenerating gas: 95 % (N2/Ar) and 5 % H2
	4. No water chiller admitted

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1. Sensors
	1. O2 analyzer, electrochemical sensor type, must be multiscale, ranges in ppm: (0-100/1-1000/0-10000), Ranges in %: (0-1/0-10/0-25) with possible air calibration procedure.
	2. H2O analyzer : capacitive sensor type, Measuring Range: 0 – 23000 ppm & -100/+20 ºC (Dew Point), delivered with calibration certificate – Technology requiring no maintenance with phosphoric acid or similar.

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1. One leaklight electrical feed through Bi + T 220V and at least 8 blanked leaktight feedthroughs on the back side.
2. Height adjustable mounting rack (3 nos) to be fitted inside the glove box
3. One pressure safety release valve
4. Quartz glass (diameter ~ 150 mm) is necessary to be mounted on top or bottom of the fume hood.

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1. Glove box controlled through PLC – Display on colour touch screen.Continuous control, graphic seeing of data (H2O, O2, Pressure, Temperature) and automatic recording each 2 minutes. Historical period 1 month, adjustable alarms for oxygen and moisture concentrations.
2. Glove box flushing mode available from touchscreen with adjustable time and automatic stop at the end of elapsed time. Warning display in case of recirculation blower stop.
3. Lightning of the working area of the glove box through Led light spots from the ceiling of the glove box for improved brightness.
4. Atleast 10 satisfied glove boxes installations in India with details to be provided.
5. Importance will be given to companies having Indian local structured technical and sales organization, for safe communication sharing, high quality technical advice, reactive direct technical service and maintenance for non-stop high glove box performing.



Schematic design of the glove box

Any queries related to technical specifications can be asked to

Dr. Pralay K. Santra

psantra@cens.res.in

Centre for Nano and Soft Matter Science, Bengaluru 560013