INDIAN INSTITUTE OF TECHNOLOGY - KANPUR DEPARTMENT OF BIOLOGICAL SCIENCES & BIOENGINEERING

Enquiry Number: IITK/BSBE/NC/2016-17/01, dated: 23-02-2017

SUB.: Enquiry for Acrylic Chamber and 4 stage corrosion resistant pump for lyophilizer

Opening date: February 23rd, 2017 at 10:00 AM

Closing date: March 01st, 2017 at 05:00 PM

Extended date to submit quotations: March 07th, 2017 upto 12:00 noon.

Sealed quotes (technical bid and price bid separately sealed) are invited for the above mentioned laboratory product as per the specifications given in the next page.

Your quote should mention/include the following:

- Maximum discount, if any, should be offered and mentioned.
- Quoted price should include the cost for installation, warranty and required accessories.
- Validity of the quote should be at least for 90 days.
- FOB (indicating port of shipment) and CIF (New Delhi) values should be quoted separately if import is required. For quotes in INR, the price quote should be for delivery at Kanpur.
- The quote should cover insurance for transport up to Kanpur.
- Terms and conditions for the payment, including the banker's name of the principal and the account number, if any, for electronic transfer.
- Include proprietary item certificate, if applicable.
- Technical literature to support your product (in technical bid).
- Users' list with contact address in technical bid.

Please provide bid for the following equipments.

1. 4 stage corrosion resistant pump for lyophilizer

Should be corrosion resistant with 2 stage rotary vane and 2 stage diaphragm) with the capacity to handle both aqueous and organic solvents for lyophilisation.

Pump should be suitable for pumping chemical gases and vapours and have corrosion resistant contact parts.

The pump should have following Technical specification as mentioned below.

1. Number of stages	2+2 (rotary vane + diaphragm)
2. Max. pumping speed @ 50 Hz ISO 21360	5 to 6 m ³ /hr
3. Ultimate Partial vacuum (abs)	3x10 ⁻⁴ to 4x10 ⁻⁴ mbar
4. Ultimate vacuum (abs) without GB	2x10 ⁻³ mbar
5. Ultimate vacuum (abs) with GB	1x10 ⁻² mbar
6. Water vapour Tolerance with GB	30 to 50 mbar
7. Inlet Connection	small Flange KF DN 16

8. Degree of Protection	IP 40	
9. Rated Motor Speed 50-60Hz	1500 – 2000 rpm	
10. Approximate Weight	20 – 25 kg	
11. Sound ISO 2151 and ISO 3744	40 – 60 dBA	
12. Diaphragm	PTFE	
13. Valves (inlet, outlet)	FFKM	
14. O-rings	FPM	

2. Acrylic Chamber for lyophilizer (Christ alpha 1 -2 D)

- 1. Diameter- 240 mm
- 2. Height -295 mm
- 3. Should have connection for rubber valves (minimum 6 nos)

Note: The envelope should be marked as "Quote for Acrylic Chamber and 4 stage corrosion resistant pump for lyophilizer".

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