



# नवोन्मेषी एवं अनुप्रयुक्त जैव - प्रसंस्करण केंद्र (सी. आई. ए. बी.)

सेक्टर-81 (नॉलेज सिटी), एस.ए.एस.नगर, मोहाली-140306, पंजाब (भारत)

**Center of Innovative and Applied Bioprocessing (CIAB)**

Sector-81 (Knowledge City), S.A.S. Nagar, Mohali-140306, Punjab (India)

A National Institute under the Department of Biotechnology (Govt. of India)

CIAB/2(44)/GAP-14/18-19/N-Pur

05 December, 2018

## NOTICE INVITING QUOTATION

Sealed Quotations in two bid **system** are invited from Manufacturers/Authorized Distributor/Authorized Dealer on behalf of Chief Executive Officer CIAB, Mohali for the purchase of following items so as to reach latest by **05 January, 2019** on or before **14.30 Hrs**. The Quotations will be opened on the same day at **15:00 Hrs** in the presence of tenderers, if any:

General	Specifications															
<b>Vessel</b>	<b>Total Volume 35 L and Working Volume: 18 L</b> Horizontal cylindrical shape vessel D/H Ratio 50:50															
<b>Shaft and Impellers</b>	<ol style="list-style-type: none"><li>1. Horizontal shaft with discs impellers minimum 6 discs fit in the shaft.</li><li>2. Discs should be removal after complete fermentation run.</li><li>3. Disc should be rough surface or better.</li><li>4. Shaft and discs should be SS 316 material.</li><li>5. Discs thickness minimum 2 inch.</li><li>6. Distance between two discs (should be as small as possible)</li><li>7. Externally positioned rotating device</li><li>8. Cylindrical through</li><li>9. Hermetically sealing bearing which serves to connect the shaft to an externally positioned</li></ol>															
<b>Material of Construction</b>	<ol style="list-style-type: none"><li>1. All parts in contact with the culture SS 316 L</li><li>2. Jacket with Spiral SS 304</li><li>3. 'O' rings EPDM, silicone</li></ol>															
<b>Surface Treatment</b>	<ol style="list-style-type: none"><li>1. Internal <math>\leq 0.6- 0.8 Ra</math></li><li>2. External <math>\leq 1.2 Ra</math></li></ol>															
<b>Design Parameters</b>	<table><thead><tr><th></th><th>Vessel</th><th>Jacket</th></tr></thead><tbody><tr><td>Max. Working Temperature (°C)</td><td>130</td><td>140</td></tr><tr><td>Working pressure (Bar)</td><td>2.0</td><td>3.0</td></tr><tr><td>Design Temperature (°C)</td><td>150</td><td>150</td></tr><tr><td>Design pressure (Bar)</td><td>3.0</td><td>4.0</td></tr></tbody></table>		Vessel	Jacket	Max. Working Temperature (°C)	130	140	Working pressure (Bar)	2.0	3.0	Design Temperature (°C)	150	150	Design pressure (Bar)	3.0	4.0
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<b>Measurement &amp; Control Station</b>	The control panel houses the PLC controllers, transmitters and other accessories															



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<b>Temperature Control System for sterilization and cultivation</b>	<ol style="list-style-type: none"> <li>1. Temperature Probe PT100</li> <li>2. Temperature Transmitter with temperature Range: 0-150°C</li> <li>3. Output: 4 – 20mA, Accuracy: +or – 0.1°C</li> <li>4. Control valves to control fermentation temperature / sterilization sequence</li> <li>5. Set point through PLC</li> <li>6. Recording through SCADA</li> </ol>
<b>Agitation</b>	<ol style="list-style-type: none"> <li>1. Speed rang (5-100 rpm)</li> <li>2. Digital Indicator for Speed (in RPM)</li> <li>3. Control of agitation speed through DO</li> <li>4. Set point through PLC</li> <li>5. Recording through SCADA</li> </ol>
<b>Aeration</b>	Provision for mixing minimum two gases (air & O <sub>2</sub> ) necessary valves, gas mix station, TMFC (thermal mass flow controller) for measurement and control of gas flow; air sparger and sterilizable air filter.
<b>pH controlling devise</b>	<ol style="list-style-type: none"> <li>1. Gel filled pH probe, 12 mm dia</li> <li>2. pH Transmitter, Range: 0-14, Output: 4 –20mA</li> <li>3. Silicone tubing, Disposable Disc Filter o Set point through PLC</li> <li>4. Recording through SCADA</li> </ol>
<b>DO measurement system (Optional)</b>	<ol style="list-style-type: none"> <li>1. 25mm Polorographic DO probe with cable</li> <li>2. DO Transmitter, Range 0 – 100%, Output: 4 – 20mA</li> <li>3. Cascade control of DO through speed of agitation and air flow through MFC (Also explained under air flow measurement &amp; control)</li> <li>4. Set point through PLC</li> <li>5. Recording through SCADA</li> </ol>
<b>Foam control system (Optional)</b>	Foam/Level sensor with cable attached to the vessel to activate the peristaltic pump.
<b>Pressure Measurement &amp; control</b>	<ol style="list-style-type: none"> <li>1. Flush SS 316 Diaphragm Pressure Transmitter &amp; transducer with 1" TC</li> <li>2. Range: 1 – 3 Bar</li> <li>3. Linear Pressure Control Valve to regulate exhaust flow and thereby vessel pressure. Set point through PLC</li> <li>4. Recording through SCADA</li> </ol>
<b>Exhaust System</b>	Exhaust Filter Unit: In situ-Sterilisable absolute filter element with Full draining stainless steel housing with steam connection, housed in Exhaust Condenser SS 316 coil with shell Diaphragm valves to control flow Linear Pressure Control Valve



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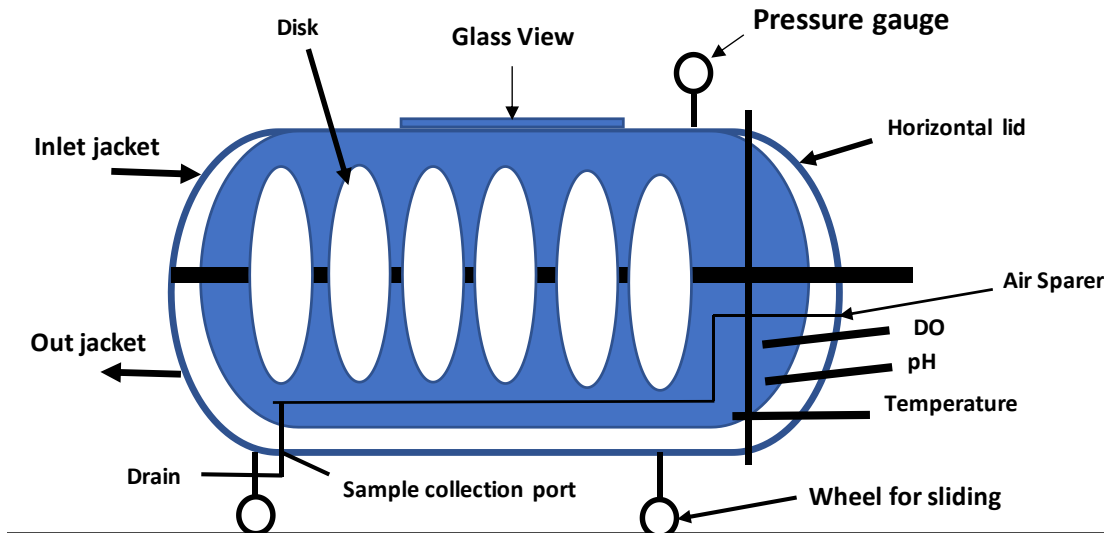
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<b>Software</b>	Software (SCADA) for monitoring and control various parameters with security
<b>Computer</b>	A suitable computer (branded: Dell/HP): with core i7-5 generation processor, 19" TFT monitor, 6 GB Graphics, 1 TB H.DD, RAM 16 GB, printer (hp laser jet) must be provided
<b>Warranty</b>	Twelve months from the date of sterility run. Excluded from Warranty are consumables like "O" rings, gaskets etc. Also excluded all probes, which have definite lifetime.

#### Schedule of Ports:

Horizontal side lid	Size	Qty.
pH	25 mm Standard Port	1
DO	25 mm Standard Port	1
Temperature	Standard Port	1
Insitu sterilizable Sampling Port	To suit standard sampling valve	1
<b>Bottom Dish</b>		
Drain Valve/sample collection valve	Insitu sterilizable flush bottom valve	1
<b>JACKET</b>		
Steam/Water Entry	Standard	2
Jacket drain	Standard	1

#### Rotary Disc Reactor Layout:





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**General Conditions :-**

1. The complete system (hardware and software) with accessories, consumables necessary for start-up must be quoted. Maintenance kit, if any, should be quoted. Any other absolutely essential accessories for the proper functioning / Operation of the equipment which is not mentioned above should be quoted along with the equipment.
2. Free installation and training must be conducted.
3. Bidder should give compliance statement point wise showing/highlighting items part no/serial number as quoted in their quotation for comprehensive technical comparison. Proof of compliance should be mentioned point wise in the catalogue.
4. Failing in compliance and proof of compliance will cause cancellation of the bid without any further notice/information..
5. The bidder should have supplied at least three equipments (quoted equipment) to any Central Govt./State Govt./PSUs/Autonomous bodies in the past five years. The details should be incorporated in the performance statement form along with documentary evidence.
6. Item wise rate should be provided in the price bid.
7. The bidder is also requested to quote for the AMC (Annexure "A") and CMC/Extended Warranty (Annexure "B") of five years after the completion of warranty from the date of installation. (optional)
8. Those firms who are quoting the rates in foreign currency should clear the items from the New Delhi Airport and hand over the same to CIAB, Mohali. CIAB will provide the necessary custom duty exemption certificate along with the concessional customs duty as per actuals. DO charges and IAAI charges will be given to the firm as per the actual receipts (No demurrages). All other charges such as customs clearance charges, Inland transportation, loading and unloading charges etc. should be inclusive of the quoted prices. (No deviation)

**BEFORE QUOTING, PLEASE READ THE INSTRUCTIONS OVERLEAF CAREFULLY**

You are therefore requested to please send your offer in two **bid system** indicating the maximum discount offered, installation charges along with a copy of authorization certificate issued by the principals/OEM. **The prices and taxes should be quoted separately in the price bid.** The quotations must accompany a Demand Draft amounting to **Rs. 14000/- being EMD** in the name of the Chief Executive Officer, Center of Innovative and Applied Bioprocessing, Mohali must be sent in a sealed envelope duly super-scribed on top of envelope as "Quotation for Rotary Disc Fermenter " so as reach to the CIAB latest at **14:30Hrs 05 January, 2019** and the same will be opened on same day at **15:00Hrs.**

Yours faithfully,  
-sd-  
(S. Krishnan)  
Stores and Purchase Officer



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## TERMS AND CONDITIONS

1. Inquiry will be sent by UPC/Courier/Speed Post/E-mail and CIAB will not be liable for any kind of Postal delay.
2. The Quotation Should be addressed to the Chief Executive Officer, CIAB Mohali invariably giving on the envelop Reference No. with due date and time.
3. The tender document is available on eprocure.gov.in and can also be downloaded free of cost from our CIAB Website: [www.ciab.res.in](http://www.ciab.res.in)
4. Every tender shall be accompanied with the required Earnest Money Deposit in the form of Demand Draft drawn in favour of "Center of Innovative and Applied Bioprocessing" payable at Mohali. Any tender not accompanied by such earnest money will be rejected straight way.
5. The rates quoted in the tender shall remain valid for a period of 90 days from the date of opening of the tender document. No tenderer can withdraw or revokes the tender or revises or alters or modifies the tender for any items or condition within the period mentioned in the tender notice, his/her earnest money shall stand forfeited. Notwithstanding foregoing, the institute reserves the right to take other actions as deemed appropriate. In case the successful tenderer after award of acceptance of works fails to perform as per purchase order or violates any condition of tender, the security deposit/performance security will be forfeited/encashed.
6. In case of **two bid system** the tenders should be submitted containing (a) Technical Bid consisting of all technical details along with commercial terms and conditions and (b) Financial Bid indicating item wise price for the items mentioned in technical bid. The technical and financial bid should be sealed by the bidder in separate covers duly super-scribed and both these covers must be put in a bigger cover which should also be sealed and duly super-scribed. CIAB will not pay any expense whatsoever incurred by tenderer for the preparation and submission of tenders.
7. The Notice inviting tender, will form part of the contract agreement/Purchase order to be executed by the successful tenderer with the CIAB.
8. All the correspondence on the tender shall be addressed to Chief Executive Officer, Center of Innovative and Applied Bioprocessing, Mohali and any communication addressed to anyone else shall not in any manner to be binding upon the CIAB, Mohali
9. The tenderer shall submit a copy of PAN/GST numbers allotted to them. The agency should not have been blacklisted by any government organisation/PSU in the past. **The certificate in this regard should be signed by the bidder as per the format enclosed in Annexure "A"**
10. The successful tenderer shall be required to deposit an amount equal to 10% of the tender value as performance security within 10 days from the date of the issue of letter of acceptance if the payment is made through 100% LC. If the payment is made through credit, the supplier should provide the Performance Bank Guarantee after the successful installation of items. The EMD will be released to the firm after the receipt of Performance Bank Guarantee. Performance security may be deposited in the form of Demand Draft or Bank Guarantee from any scheduled bank which shall be valid till completion of warranty period of quoted/ordered items. In case of violation of any condition of Tender, the security Deposit/BG will be forfeited or revoked.
11. The Quantity mentioned in this inquiry and shall be deemed to be only approximate and will not in any manner be binding on the Institute.
12. The quotation should be enclosed in a sealed envelope.



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13. Firms will quote separately for each article.
14. In case of Ex-godown terms the amount of packaging forwarding freight etc. should clearly be indicated by percentage or lump sum amount. For imports, the institute has exempted from paying full Customs and Excise Duty and the GST will be exempted as per the present GOI norms. **For Indigenous Supplies, GST shall be paid @ 5% as per GOI Notification Nos 45/2017 & 47/2017 dated 14<sup>th</sup> Nov' 2017. The exemption certificate shall be provided at the time of placing Supply Orders.**
15. The delivery period should be specifically stated. EX-Stock and earlier delivery may be preferred.
16. **The firms are requested to give detailed description and specifications together with the detailed drawings if any, printed leaflets and literature of the Article quoted. The name of the manufacturers and country of manufacture should also invariably be stated and in the absence of these particulars the quotation is liable for rejection. The firm should fill the details in the compliance statement along with supporting documents as per the format mentioned in the Annexure "B"**
17. **Price Reasonability Certificate**  
Please quote best minimum prices applicable for a premier Research Institution, **leaving no scope for any further negotiations on prices.**  
**The quoting party should give a certificate to the effect that** the quoted prices are the minimum and they have not quoted the same item on lesser rates than those being offered to CIAB to any other customer nor they will do so till the validity of offer or execution of the purchase order, which ever is later.  
  
**The Price Reasonability Certificate shall be attached only with the price bid as per the format mentioned in the Annexure "C"**
18. The rates quoted should be in Nos and otherwise your quotations is liable to be ignored.
19. Late or delayed quotation will not be accepted.
20. The Executive Director has the right to reject to your quotations and does not bind itself to accept the lowest or split up the requirements or relay any or all the above conditions without assigning any reason is reserved.

Yours faithful

-sd-

(S. Krishnan)

Stores and Purchase Officer

***Note: Failing in complying the above terms and conditions and submission of documentary proof as requested by CIAB will cause cancellation of the bid/quote without any further notice/information.***



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Ref No: **CIAB/2(44)/18-19/N-PUR**

**ANNEXURE 'A'**

### **CERTIFICATE**

- i) I/ we have gone through and understood the requirements given in the CIAB -Tender Notice no. **CIAB/2(44)/18-19/N-PUR dated 01.08.2018** and rates have been quoted accordingly.
- ii) /We have gone through the terms and conditions stipulated in the tender documents and confirm to abide by the same.
- iii) That the information furnished by me /us is true and correct.
- iv) We hereby inform you that we have not been blacklisted by any Government organization/ department/Central Government/State Government funded autonomous bodies/Central/State Universities.

**Seal and the Authorized Signature of the tenderer**



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ANNEXURE "B"

**FORMAT OF COMPLIANCE STATEMENT OF SPECIFICATIONS**

Sr. No	Name of specifications/part / Accessories of tender enquiry	Specifications of quoted Model/ Item	Compliance Whether "YES" or "NO"	Deviation, if any, to be indicated in unambiguous terms
1	2	3	4	5

Seal and Signature of the tenderer





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ANNEXURE "C"

**PRICE REASONABILITY CERTIFICATE**

This is to certify that we have offered the maximum possible discount to you in our Quotation No. \_\_\_\_\_ dated \_\_\_\_\_ for (Currency/Value)\_\_\_\_\_.

We would like to certify that the quoted price are the minimum and we have not quoted the same item on lesser rates than those being offered to CIAB to any other customer nor they will do so till the validity of offer or execution of purchase order, whichever is later.

Seal and Signature of the tenderer