

INTER - UNIVERSITY ACCELERATOR CENTRE

(An Autonomous Centre of UGC)
Aruna Asaf Ali Marg, New Delhi - 110067

NOTICE INVITING E - TENDER

Tender Number : IUAC/NIT/73/SK/2019-2020

Dated : 13/03/2020

Inter - University Accelerator Centre (IUAC) invites online bids through e-procurement Portal under two bid system, viz., Technical and Financial bids, from eligible / experienced parties for the work/supply of " **Supply of Vacuum components as per Annexure A** ".

Tender Documents may be downloaded from Central Public Procurement (CPP) Portal <https://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement portal should enroll / register before participating through the website <https://eprocure.gov.in/eprocure/app>. Bids should be submitted online only at website: <https://eprocure.gov.in/eprocure/app>. Tenderers / Contractors / Bidders are advised to follow the instructions provided in the e-procurement portal. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned documents.

Only bids received through e-procurement portal will be considered for opening. Bids not covering full scope of work/supply of the products/goods will be rejected and only complete bids will be considered. IUAC reserves the right to accept / reject any / all tenders in part / full without assigning any reasons whatsoever, and the decision of IUAC in this regard will be binding on all the bidders.

Bidders have to select the payment option as "**offline**" to pay the tender fee and EMD as applicable. The Earnest Money Deposit (EMD) and tender cost shall be in the form of demand draft issued in favour of "**Inter University Accelerator Centre, New Delhi**" and it should be deposited at IUAC before the bid opening. Bidders registered with MSME / NSIC and foreign bidders quoting directly are exempted from payments of EMD and tender fee. Copy of valid registration certificate should be uploaded in the website <https://eprocure.gov.in/eprocure/app>.

Bidders are advised to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard .XLS BOQ Format with the tender document, then the same is to be downloaded and to be filled and submitted online without modifying the format. **If the BOQ file is found to be modified by the bidder, the bid will be rejected.**

Any Corrigendum / Amendments in respect of above tender shall be issued on website <https://eprocure.gov.in> only. Bidders should take into account any corrigendum published on the tender document before submitting their bids.

Prequalification of the bidder

Only Original Equipment Manufacturer (OEM) or their authorized (sales and service) representatives are eligible to quote. The authorized representatives shall have to submit the certificate of authorization from the OEM along with the BID.

E - TENDER DOCUMENT

Name of Work / Supply	" Supply of Vacuum components as per Annexure A ".
Tender Number	IUAC/NIT/73/SK/2019-20
Tender Value / Estimate only	Rs. 30,00,000/- (Thirty lakhs)
Earnest Money Deposit	Rs. 60,000/- (Sixty thousand)
Tender Document Fee	Rs. 500/- (Five hundred)
Bid Submission End Date and Time (Part - A and Part - B)	07/04/2020 at 03:00 P.M.
Technical Bid Opening Date (Part - A)	08/04/2020 at 03:30 P.M.
Price Bid Opening Date (Part - B)	To be intimated later on to the technically qualified bidders
Contact Person	Administrative Officer (S&P) E-mail: joseph@iuac.res.in e-mai: skkedia87@gmail.com Phone: 011-24126018, 24126022.

General Terms and Conditions of the Tender :

1 Submission of Tender :

Tenders should be uploaded on CPP Portal in two parts, i.e., Technical Bid (Part - A) and Price Bid / BOQ (Part - B).

1) Technical Bid (Part - A) :

In this bid, the bidder should upload the following documents. No deviations in respect of NIT conditions are acceptable.

- a) The bidders are required to upload Tender Acceptance Letter (written on company letter head, duly signed and stamped.) as per format provide in **Annexure - B**, as a token of acceptance of the NIT conditions, with this bid.
- a) Only Original Equipment Manufacturer (OEM) or their authorized (sales and service) representatives are eligible to quote.
 - 1) The authorized representatives shall have to submit the certificate of authorization from the OEM along with the BID.
 1. The quoted item should be a standard catalogue product, displayed prominently in product catalogue / OEM website.
 2. Drawings/ test results/catalogues/other technical specifications of the products indicating It's ability to meet the technical specifications.
- a) Copies of successfully executed similar (items similar in size, specification and quality) work orders for reputed laboratories / institutes in India / abroad during the last three years:-
 - a. One purchase order of value not less than Rs. 22 lakhs.
 - b. Two purchase order, each order value not less than Rs. 17 lakhs.
 - c. Three purchase order, each order value not less than Rs. 12 lakhs

Technical bids which are not confirming to the technical specifications will be disqualified.

Scope of work : As per the technical specifications and other details given in Annexure A.

2) Price Bid / BOQ (Part - B) :

In this bid, the bidder is required to quote unconditional rates in appropriate currency in the .XLS BOQ format provided with this tender.

The Indigenous suppliers quoting in INR should quote the rates all inclusive upto IUAC and excluding GST. IUAC is exempted from Customs Duty and GST and necessarily certificates shall be issued by IUAC.

The BOQ file must not be modified.

3) Earnest Money Deposit:

An earnest money of Rs 30,000/- (Rupees thirty thousand only) has to be submitted at IUAC before opening the bids. The EMD shall be only in the form of bank draft payable to Inter - University Accelerator Centre payable at New Delhi. Tender without EMD will be rejected. **Bidders registered with MSME / NSIC and foreign bidders quoting directly are exempted from payments of EMD and tender fee.** Copy of valid registration certificate should be uploaded.

EMD of technically disqualified bidders will be returned within 15 days from the date of evaluation of the technical bids. The refund of EMD to the unsuccessful bidders shall also be returned within 15 days from the date of opening of price bid. The EMD of the successful bidder (L1) shall be held back as security deposit and will be released only after successful completion of the works/supply.

4) Validity of Tender:

Tender shall be valid for our acceptance without any change in the rates and NIT conditions for a period of 90 days from the date of opening the price bid. No escalation of cost will be acceptable in any condition after opening of tender.

5) Escalation / Deviation : No escalation or deviation shall be allowed till execution of order / contract.

6) Terms of Payment :

90% payment will be released through Letter of Credit against the complete shipping documents and remaining 10% payment will be released against a Performance Bank Guarantee of equal amount valid for a period of 12 months.

For Indigenous Supply: 90 % payment will be released after delivery of material at IUAC and remaining 10% payment will be released against a Performance Bank Guarantee of equal amount valid for a period of 12 months.

7) Guarantee/Defect liability period:

The supplied material should guarantee for the manufacturing / engineering defect and bad material/workmanship for a minimum period of 1 (one) year from the date of acceptance of the goods by IUAC. During this period if any replacement of item, repairs/rectification etc. is needed, the supplier shall do the same free of cost to IUAC.

8) **Delivery Period:**

The material should be supplied within 150 days from the date of issue of LOI/Purchase order. Any delay in completion of the work/supply due to reasons attributable to the vendor / manufacturer is liable to liquidated damages as per clause 9 of this NIT. However, under the force-majeure conditions as per clause 12 of NIT, IUAC may grant suitable time extension for which vendor has to request along with the justification / reasons well in advance to the Director, IUAC for approval without any prejudice or price escalation.

9) **Liquidated damages:**

In case the delivery of the listed items is delayed beyond the specified delivery period for reasons attributable to the supplier, deductions on account of liquidated damages @ 1% per week subject to maximum of 10 % of the total order value will be deducted.

10) **Force Majeure:**

IUAC may grant an extension of time limit set for the supply items in case it is delayed by force majeure beyond the supplier's control. Force majeure is defined an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, tsunami etc.), the direct and indirect consequences of wars (declared or undeclared), national emergencies, civil commotions and strikes (only those which exceeds a duration of ten continuous days) at successful Tenderer's factory. Apart from the extension of the time limit, force majeure does not entitle the successful tenderer to any relaxation or to any compensation of damage or loss suffered. The decision of the Director, IUAC will be final and binding for the bidder.

11) **Correspondence :**

All the correspondence in respect of tender / contractual obligation shall be made to The Administrative Officer (S&P), Inter University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi - 110067. E-mail : joseph@iuac.res.in, Phone : +91-11-24126018, 24126022.

12) **Tender Rejection :**

- (a) IUAC reserves the right to accept/reject any/all tenders in part/full without assigning any reason whatsoever and the decision of the IUAC in this regard will be binding on all the bidders.
- (b) Bids received by means other than e - procurement portal will be rejected.
- (c) Only complete bids will be considered and incomplete bids will be rejected.
- (d) If BOQ file is found to be modified by the bidder, the bid will be rejected.
- (e) Tenders not complying with any of the provisions stated in this tender document are liable to be rejected.
- (f) If the General Terms and conditions are not accepted and not signed by the bidders, then the tender will be rejected.

13) **The contract shall be governed by the Indian Laws. Any dispute arising out of this contract will be subjected to jurisdiction of New Delhi / Delhi.**

Accepted
(Signature of Bidder)

Annexure – A

Scope of Work: Supply of following Vacuum components

Item No	Description	Qty (Nos.)
1	Turbo molecular Pump as per specification for the IUAC DN-200 Pumping system with splinter shield and 2m electrical supply cable (No Plug)	2
2	Dry Pump as per specification for the IUAC DN-200 Pumping system including exhaust silencer and 2m electrical supply cable (No Plug)	2
3	Pirani Gauges as per specification for particle accelerator application ISO KF25	4
4	Pirani Gauges as per specification for particle accelerator application DN 16 CF-F / DN40CF-F	4
5	HOT cathode gauges as per specification for particle accelerator application DN 40CF-F.	4
6	6 channels rack mount controller with RS232 interface, Operating voltage 230-240 Vac, 50Hz as per specification for particle accelerator application.	2
7	Pneumatically operated KF -40 type right angle valves as per specification for the IUAC DN-200 Pumping system	4
8	Bellow sealed Manual gate Valve 2.75” – CF-F type	2
9	Manual gate Valve KF 25 type.	4
10	Packing & forwarding charges , if any	1

Technical Specifications

1. Turbo molecular Pump Specification for the IUAC DN-200 Pumping system

1.1	Pumping Speed (N ₂)	≥ 1600 lps
1.2	Inlet Connection	DN200- CF-F type
1.3	Out let connection	DN ISO- KF type
1.4	Cooling method	Water cooling
1.5	Mounting position	Any orientation.
1.6	Power input	230-240 V, AC @ 50Hz, Single Phase
1.7	Ultimate Vacuum/ pressure	1.0 x 10 ⁻⁸ mbar or better
1.8	Electronics and other accessories	Integrated on-board controller, necessary connecting cable and Display unit.
1.9	Interfaces	RS232/RS485/remote
1.10	Type of Bearing	Magnetically levitated
1.11	Noise level	≤ 50dB

2. Dry Pump Specification

2.1	Types of pump	Scroll
2.2	Peak Pumping Speed	≥ 35 m ³ / h
2.3	Inlet Connection	KF-40
2.4	Out let connection	ISO- KF
2.5	Power input	230-240 V, AC @ 50Hz,

		Single Phase
2.6	Ultimate Vacuum	1×10^{-2} mbar or better
2.7	Gas Ballast and silencer	required
2.8	Maximum Water vapour pumping capacity with gas ballast	240 g/h or better
2.9	Noise level @ 50 Hz	≤ 57 dB
2.10	Electronics and controls	Inverter driven
2.11	Other requirements	Vacuum region inside pump should be free from grease and lubricants. Bearing should be outside the vacuum region. Gas Ballast option should be adjustable with no leak.
2.12	Accessories Required	Exhaust Silencer, Tip Seal Kit

3. Specifications for Pirani Gauges (HV)

3.1	Type of Gauge	Pirani (with integral electronics and replaceable tube)
3.2	Connection inlet	ISO KF25
3.3	Measurement range	1 Atmosphere to 1×10^{-3} mbar
3.4	Accuracy	$\pm 15\%$ over the nominal value over entire range
3.5	Output signal	Linear, 1 Volt / decade
3.6	Operating temperature	Up to 40°C or better

4. Specifications for Pirani Gauges (UHV)

4.1	Type of Gauge	Pirani (with integral electronics and replaceable tube)
4.2	Connection inlet	DN 16 CF-F / DN40CF-F
4.3	Measurement range	1 Atmosphere to 1×10^{-3} mbar
4.4	Accuracy	$\pm 15\%$ over the nominal value over entire range
4.5	Output signal	Linear, 1 Volt / decade
4.6	Leak rate sealing joint	$< 1 \times 10^{-10}$ mbar.ls ⁻¹
4.7	Operating temperature	Up to 40°C or better

5. Specifications for HOT cathode Gauges

5.1	Type of Gauge	UHV compatible hot filament Ionization gauge. The gauge should have a degas facility, (with integral electronics and replaceable tube)
5.2	Connection inlet	DN 40 CF-F
5.3	Measurement range	8.0×10^{-2} mbar to 5.0×10^{-10} mbar (Combined gauge covering from 1000 mbar to 5.0×10^{-10} mbar not acceptable)
5.4	Accuracy	$\pm 15\%$ over the nominal value over entire range
5.5	Output signal	Linear, 1 Volt / decade

5.6	Leak rate sealing joint	$< 1 \times 10^{-10}$ mbar.l/s ⁻¹
5.7	Operating temperature	Up to 40 °C or better

6. Vacuum gauge controller to be use for item no 3,4,5

Type Gauge Controller	6 channels rack mount controller with RS232 interface, Operating voltage 230-240 V, AC 50Hz. All channel should be independent of gauge type and all vacuum reading should display simultaneously Controller should have adjustable set point output with potential free contact for all channel.
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7. Specification for Pneumatically operated KF -40 right angle valves-

7.1	KF- 40 right angled valve	Single acting spring close, pneumatically operated right-angled isolation valves with position indicator switch.
7.2	Connection Type	KF 40
7.3	Pressure range	1000 mbar- 1.0×10^{-9} mbar
7.4	Valve Body	Aluminum
7.5	O-ring	Fluro-elastomer / Viton
7.6	Molecular conductance	40 l/s or better
7.7	Seal movement	Formed/ welded bellow type
7.8	Leak rate	1.0×10^{-9} mbar.l/s
7.9	Closing time	200 ms or better
7.10	Bellows reliability: MTTF	100 000 cycles or more
7.11	Electrical indicator :	Micro switch

8. Specification for Bellow seald Manual gate Valve 2.75” – CF-F type .

8.1	Gate Valve	Manually operated
8.2	Connection Type	DN40- CF-F type
8.3	Pressure range	1000 mbar – 1.0×10^{-9} mbar
8.4	Material : Valve Body Flange	SS 304 grade , 316L
8.5	Seal : bonnet / gate	Metal / Fluro-elastomer (Viton)
8.6	Bellow material	SS 316L
8.7	Mounting Position	any
8.8	Width of the valve	≤ 55 mm
8.9	Molecular conductance	130 l/s or better
8.10	Leak rate : body / valve seat	$\leq 1.0 \times 10^{-9}$ mbar.l/s

9. Specification for KF-25 Manual Valve-

9.1	Angle valve	Manually operated
9.2	Connection Type	DN25 ISO-KF
9.3	Pressure range	1000 mbar – 1.0×10^{-7} mbar
9.4	Valve Body	Aluminum / Stainless steel

9.5	Molecular flow conductance	10 l/s OR better
9.6	O-ring	Viton
9.7	Seal movement	O'ring Shaft seal / bellow type
9.8	Mounting Position	any
9.9	Leak rate : body / valve seat	$< 1 \times 10^{-9}$ mbar l/s

NOTE

1. After Sales Service : In case of break down, complete repair of pump viz-bearing replacement, motor part replacement, complete cleaning of turbo pump should be possible at site and vendor should demonstrate the same at site. In case of servicing at places other than IUAC Delhi, it is vendor's responsibility to make necessary arrangements to pick up the pump from IUAC within 15 days and deliver the repaired pump at IUAC within 45 days
2. The supplier will be required to test all supplied items at IUAC to demonstrate the ultimate vacuum of the each Turbo molecular pump, as well as backing pumps prior to acceptance by IUAC. All the mentioned items, as well as accessories required for the specified requirement shall be included in the quotation. In the case of partial order, IUAC can arrange backing pump, calibrated gauges and other standard items for the testing purpose.

ANNEXURE B

TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:

To,
A.O. (Sales & Purchase)
IUAC, New Delhi-67

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: IUAC/NIT/73/SK/2019-2020

Name of Tender / Work: - **Supply of Vacuum components as per Annexure A "**

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned Tender /Work' from the web site(s) namely:

as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from **Page No. 1 to 13** (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
6. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely

Yours Faithfully,

(Signature of the Bidder, with Official Seal)