



GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
URANIUM EXTRACTION DIVISION

Ref: UED/ PL.13/20/120286

Dated: 20.11.2020.

Tender No.: BARC/UED/SM/20075

Due date: 2/12/2020

Sub: Fabrication, supply, installation and commissioning of 10 L glass reactor system

Dear Sir,

Quotations are invited on behalf of Head, UED in sealed envelopes for above-mentioned subject as per following description.

1) Scope of Work:

Fabrication, supply, installation and commissioning of 10 L glass reactor system as per attached annexure I and table below:

Sr. No.	Description of the Item	MOC	Quantity	Reference
1	8 neck 10 L thick glass reactor with disc top and bottom head and 25 mm flash bottom valve. Tank diameter 150 mm and height 600 mm. thickness of the glass 5 mm for reactor and collar will be 12 mm thick	Glass	1 No	Annexure I
2	45° pitched 6 bladed downward turbine type impeller	PTFE	3 set	Annexure I
3	6 bladed Disc type impeller	PTFE	3 set	Annexure I
4	Hydro foil type impeller, Impeller Diameter=0.4 of the tank diameter	PTFE	3 set	
5	Removable inter connected 4 baffle, width 12.5mm and height 500 mm	PTFE	2 set	Annexure I
6	Gas Spurger	SS316L	1 No	Annexure I
7	20 mm Shaft of the impeller. Special care should be taken to avoid eccentric and lateral movement of the long shaft.	SS316L	1 No	Annexure I
8	Motor of suitable hp (minimum 1/8 hp) with	Suitable	1 Set	Annexure I

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	Variable Frequency Drive (VFD) with high precision variation from 100 rpm to 1000 rpm. Motor should be Remi Make or equivalent reputed. Proper structural support is to be provided for the motor. VFD must have digital display			
9	Electrical Heater (more than 1000 Watt) (with SS 304L cover) with on off control and digital indication. It must be removable type.	SS304L	1 set	-
10	Support of the reactor	MS with nitric acid resistive coating	1 Set	Annexure I

- Motor should be automatically tripped in case of overloading.
- Impeller and shaft will be designed such a way that impellers can be easily removed and replaced with another type of impeller and distance between two impellers can be changed.
- Special care should be taken to avoid eccentric and lateral movement of the long shaft.
- Vendor should strictly follow dimension.
- Electric heater must have on off control to maintain fixed temperature during operation. Vendor has to install heater in the reactor. Heater must be removable type.
- After getting work order vendor has to submit fabrication drawing and vendor has to fabricate the set up as per BARC approved drawing.
- Vendor has to do commissioning of total system with slurry of specific gravity 1.25 and solid content 15%.
- Vendor has to submit technical specification of individual equipments along with warrantee/ guarantee certificate (specially for Hater, motor)

2) **Free Issue Material (FIM):** No free issue material

3) **Inspection & Testing:** Dimensional and performance (with slurry of specific gravity 1.25 and solid content 15%) of the reactor system will be checked at vendor site before delivery and at the BARC site after delivery.

4) **Prices:**

One complete set. Vendor may ask 5% GST as the equipment will be used for R&D purpose. Required certificate will be provided to vendor.

5) **Work completion period:**

Within 45 days after confirmation of order. Any delay which is attributable to the contractor is liable for penalty @ ½% per week (max. 5%) to be imposed on the contractor

6) **Guarantee:**

The work shall be guarantee for its quality and workmanship for the period of one year from the date of completion of work.

7) **Facilities would be made available by BARC**

- Suitable site for fabrication.
- Free electricity and water supply for the specific work at site and wherever available.

8) **Tools and Tackles**

Party should bring all the necessary tools tackles and machine. BARC will not provide any tools and tackles for the same.

Dr. (Signature) (Initials)

9) Payment

By ECS approximately within 3 – 4 weeks after satisfactory completion of works and submission of Original bills with advanced stamped receipt

Vendor shall provide bank details as required for ECS payment, along with the bill. Please mention your PAN No., GST No. in the all the documents submitted for payment.

10) Deduction Taxes & surcharge

Income Tax @ 2 % and GST TDS @2% (or as applicable) shall be deducted from your bill.

11) Confidentiality clause:

Confidentiality

No party shall disclose any information to any third party concerning the matter under this contract.

Restricted information

Categories under section 18 of the Atomic Energy Act, 1962 and "Official Secrets" under section 5 of the official Secret Act, 1923 - Any contravention of the above-mentioned provisions by any contractor, sub- contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC'S name without permission for publicity purpose

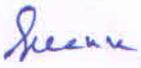
The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC'S name for any publicity purpose through any public media like press, Radio, TV, or Internet without the prior written approval of BARC.

(1) Note:

- (a) Party should follow all the safety procedure while working inside BARC. Safety and labor related all issues & any dispute are the responsibility of the vendor's only. The vendor should understand the job thoroughly along with all general requirements before accepting work order.
- (b) Party should write clearly **the Tender No. and due date** on the top of sealed envelope containing offer and to be addressed to, **Head, UED, BARC, Trombay, Mumbai-85.**
- (c) All quotation should be superscripted (i) The subject (ii) Tender no.(iii) Due date on the top of the envelope positively. Quotation will be accepted by INDIA POST only. Quotation sent by FAX/E-Mail/or any other form/means will not be considered.
- (d) Party should write clearly **their PAN No., GST No** in their quotation. Offer without PAN No, GST No. is not valid offers and will not be considered.

Thanking you.

Yours faithfully,


Dr. S. Manna 19/11/20
SO/F, UED

022-25594547

(For and on behalf of President of India)





