

Government of India
Bhabha Atomic Research Centre
Cryo-Technology Division

MRG., CFB, Trombay,
Mumbai. 400085

Ref: - BARC/CrTD/AJ/2021/OPA/117357

Date: **08/09/2021**

Tender No.: BARC/CrTD/AJ/2021/OPA/117357
Tender Due Date: 10:00 hrs, 28 September, 2021

Sub: Invitation of quotation for

"Fabrication of aerodynamic bearings and associated components as per specifications and drawings/figures.

Dear Sir,

1. Quotations are invited for minor fabrication/ ~~repairs~~ jobs as per the enclosed Technical specifications and General Terms and conditions as per the annexure.
2. Bidder shall quote for :- Fabrication of aerodynamic bearings and associated components as per specifications and drawings/figures. (Drawings/Figures will only be send by e-mail to the party after discussion with indenting officer, Ph:022-25596829, email id: ankitj@barc.gov.in).
3. Taxes should be quoted separately.
4. The quotation should be in two different envelopes named "Technical quotation" and "Commercial quotation" written on it.
5. The "Technical quotation" should contain:
 1. Sample piece as described in specification
 2. Material details
 3. Heat treatment procedures (wherever applicable)
6. The "Commercial quotation" should contain the price details of the components.
5. The Quotation must reach Head, Cryo-Technology Division by 10:00 hrs, **28 September 2021** and must be sent in the sealed envelope super scribed with the above reference number and the due date given above. Also the name of the work should be displayed on the envelope.
6. The address on the envelope should read: -

Attn: Head Cryo-Technology Division
278-H, CrTD Office, 2nd Floor, CFB,
Bhabha Atomic Research Centre,
Mumbai - 400 085
7. The bidder shall have to take an insurance policy against any material issued to him by the purchaser.
8. The Fabrication / ~~Repair~~ work shall be subjected to inspection by our Engineer at CFB, BARC and/or party's place.
9. The bidder shall deliver finished components after approval of our Engineer within 120 days from the date the firm purchase order is placed with the bidder. The finished components/equipments and the scrap from free issue material shall be delivered by the bidder at CFB, Cryo Technology Division, Bhabha Atomic Research Centre, Trombay, Mumbai 400 085.
10. Head, Cryo-Technology Division, BARC reserves the right to accept or reject any or all the quotations without assigning any reason.


Ankit Jain(SO-D)
BARC, Trombay

Annexure-I
TECHNICAL SPECIFICATION FABRICATION

FABRICATION OF AERODYNAMIC BEARINGS AND ASSOCIATED COMPONENTS
AS PER SPECIFICATIONS AND DRAWINGS/FIGURES.

Job Title:

Fabrication of aerodynamic bearings and associated components as per specifications and drawings/figures.

Job description:

- Precision Machining of aerodynamic bearings and associated components as per specifications and drawings/figures
- The process mainly involves precision grinding.
- Material- As per drawings

Required drawings/Figures:-

S. No.	Component	Drawing No.
1	Upper thrust plate	A3/CRTD/TEX16/SHA/FxPTB/001
2	Lower thrust plate	A3/CRTD/TEX16/SHA/FxPTB/002
3	Thrust pad	A3/CRTD/TEX16/SHA/FxPTB/003
4	Journal pad	A3/CRTD/TEX16/SHA/TPJB/001
5	Pad holder	A3/CRTD/TEX16/SHA/TPJB/006

Important Note: The dimensions given in the drawings may be revised slightly at the time of final order without changing the main scope of work.

Job Site- At Party Workshop.

Technical Notes- The contractor shall be responsible for any damage of any equipment and / or material at the site due to their unsafe and negligence of work.

Materials- Material of components should be as mentioned in the drawings/Figures. Party has to submit a **material chemical composition test certificate** by the NABL approved laboratory for the material.

Facilities required:

Precision grinding, jig boring, EDM and metrology to check the specified geometric tolerances.

The supplier should have experience of machining of leaded tin bronze with 2 microns tolerance and should have fabricated similar components earlier.

Deliverables:

Following items have to be supplied to the purchaser's site:

S. No.	Component	Quantity
1.	Upper thrust plate	2
2.	Lower thrust plate	2
3.	Thrust pad ($\alpha=0.05^\circ \pm 0.01^\circ$)	18

Again

4.	Thrust pad ($\alpha=0.10^\circ \pm 0.01^\circ$)	18
5.	Journal Pad	10
6.	Pad holder	3
7.	M1.4x0.3x3mm csk screws	100

Inspection Report and Test Certificate:

All the machined components are to be inspected on CMM and an inspection report is to be submitted indicating the measured values of the machined components in comparison to the drawings provided by BARC.

Approvals:

- (1) Party has to submit the written **detailed fabrication procedure** and take the approval from purchaser before starting the fabrication.
- (2) Party has to submit the written **detailed quality assurance procedure** before starting the fabrication.
- (3) **Pre-dispatch inspection by purchaser** of all the items shall be done after completion and before delivery.

Vendor Qualification:

The party should submit a sample of phosphorous bronze having a flat surface of atleast 400 sq. mm with flatness of less than 2 microns for the approval of the purchaser.

For the sample, vendor has to procure the material from the market, this sample can be any phosphorous bronze grade. The inspection criteria of sample, is to find out the machining capability of the vendor, with geometrical tolerance. Any minute deviation in the dimension or in the machining process will lead to rejection of the offer.

Free issue materials – N/A

Charges: Contractor shall quote lump sum for the execution of the complete job. The price quoted shall remain valid at least for three months' time from the date of offer.

Completion period: The party should complete the entire job within four months after the receipt of the work order. Any delay which is attributed to the contractor is liable for penalty @ 1/2% per week (max.5%) to be imposed on the contractor. However, in case any extension in delivery is to be granted to contractor, party's request for extension may be called for before expiry of work Order. The same may be justified by the Division, whether extension granted is with or without levy of liquidated damages.

Terms of payments : No advance payment shall be made. Full payments shall be made only after completion of the job. 3) Payment shall be made through ECS, by Accounts Officer, BARC. The fabricator shall have to submit in advance duly signed and stamped receipt along with the bills, for the immediate payment.

a. Confidentiality : Party shall not disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as "Property" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior consent of the original disclosing party.



This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by the party with equal force.

b. "Restricted information" categories under Section 18 of the Atomic Energy Act, 1962 and "Official Secrets" under Section 5 of the Official Secrets Act, 1923 :-

Any contravention of the above mentioned provisions by any vendor, sub-contractor, consultant, adviser or the employees of a vendor will invite penal consequences under the aforesaid legislation.

Important: Party shall have to get the security clearance / Police verification for the manpower / Persons which will be deployed for the execution of the job. Details of GST no. / PAN No. / Registration etc. are to be provided by the party.



