



GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
Technical Physics Division
Mumbai – 400 085, INDIA

Ref: TPD/CTS/AKS/408/2022/35825

04th April, 2022

Sub: Invitation of Quotation for Design and Fabrication of Spare Parts for Czochralski Puller and Ion Implanter

Dear Sir,

Quotation are hereby invited for and on behalf of president of India for **Design and Fabrication of Spare parts for the Czochralski Crystal Puller System and Ion Implanter for the growth and device fabrication of High Temperature Oxide and high purity Semiconductor as per “Annexure A” and scope of work in “Annexure B”** at Mod lab, TPD/BARC.

(Due Date: 15/04/2022)

Dear Sir,

Quotation in sealed envelope is invited for and on behalf of The President of India for the above-mentioned job as per the attached Annexure-A and B. You are hereby required to quote as per the following guidelines:

1. The quotations in duplicate must reach to the **Head, Technical Physics Division on or before 15/04/2022 in a sealed envelope, super scribed “Design and Fabrication of Spare parts for the Czochralski Crystal Puller System and Ion Implanter for the growth and device fabrication of High Temperature Oxide and high purity Semiconductor as per “Annexure A” and scope of work in “Annexure B”” with the reference number and due date given above by registered post/speed post only.**
2. The quotations are to be sent only in **printed letter head/quotation format, which should consists of GST, Sales Tax Registration Number registered with local ST authority/ PAN Number of the firm, Service Tax Registration Number etc.** Quotations that are received in computer generated form are to be constructed as invalid and rejected.
3. Taxes and duties etc. shall be quoted separately.
4. The address for posting the quotation is:
(Kind Attn: **Dr. Awadh Singh**)

**The Head,
Technical Physics Division
Bhabha Atomic Research Centre
Trombay, Mumbai 400085.**

5. Good quality material from reputed supplier to be used for the job.
6. Head, TPD, BARC, reserves the right to accept/reject any or all quotations without assigning any reason.
7. Terms and conditions are mentioned in Annexure 'C'.
8. The **offer should be inclusive of all the charges**. The price and charges will be fixed and **no escalation** will be applicable. **Any charges written as Extra / on Actual etc. will not be considered and the quotation will be treated as invalid.**
9. Police Verification Certificate is must for entry inside the BARC.
10. Security rules and transport rules at BARC, Trombay premises shall be strictly followed
11. Laborers below 18 years of age shall be not allowed to work at site.
12. All the safety precautions must be taken while working on site.
13. All safety equipment's/gadgets required at site for carrying out the job shall be under scope of the vendor except fire extinguisher which will be made available by BARC.
14. Bidder should provide a Xerox copy of PAN CARD, PVC of proprietor or company is to be attached with quotation along with providing GST No. etc

(Awadh Kishore Singh 04.04.2022)
Dr. Awadh Kishore Singh, TO (E)
Officer initiating the proposal


4/4/2022.
डॉ. (श्रीमती) शाश्वती सेन येरम
Dr. (Smt.) Shashwati Sen Yeram
अध्यक्ष / Head
क्रिस्टल प्रौद्योगिकी अनुभाग / Crystal Technology Section
तकनीकी भौतिकी प्रभाग / Technical Physics Division
भाभा परमाणु अनुसंधान केंद्र / Bhabha Atomic Research Centre
ट्रॉम्बे, मुंबई-४०० ०८५ / Trombay, Mumbai - 400 085.

Encl: 1) Annexure - A
2) Annexure - B
3) Annexure - C

Design and Fabrication of Spare parts for the Czochralski Crystal Puller System and Ion Implanter for the growth and device fabrication of High Temperature Oxide and high purity Semiconductor as per "Annexure A" and scope of work in "Annexure B"

S. No	Specifications	Quantity
1.	<p>Adápter for weight Sensor, rotation motor and pull rod holder for HPGe crystal puller</p> <p>Specifications:</p> <ul style="list-style-type: none"> a) Material: SS 304 b) The adapters for weight sensor should be capable of handling a load of 15 kg c) The adapters and holder are coupled with each other. d) The adapters and holder should match the dimension of existing weight Sensor, rotation motor and pull rod extensions. e) All the adapters should be critically aligned so that pull rod must be kept in centre with respect to the crystal growth chamber. f) The adapter should be properly fixed with the existing set up in CTL lab. g) All the electrical cables for weight Sensor, rotation motor should be routed properly and proper fixing arrangement of wire should be available. h) The supplier should install all the parts in HPGe crystal puller at CTL/BARC. i) The whole assembly should be vibration or jerk free during operation. 	1
2.	Pull Rod adapter for High Pure Semiconductor Crystal growth	2
3.	Adapter for Vacuum Pump for CZ Puller	4
4.	HPGe crystal dipstick cryostat mount for pseudo-planar 50 mm diameter 40 mm thickness crystal with spring loaded pressure contact scheme.	1
5.	PTFE etch holder for Pseudo-planar 50 mm diameter 40 mm thickness crystal with masking arrangement for protection of contact areas	1
6.	PTFE tanks (with drainage valve and tubings) having smooth, machined planarized 4 inch bottom, 150 mm height and 5 mm wall thickness.	1
7.	Crystal holder for Ion implanter having rotation and tilting provision and integration with existing ion implanter target chamber	1
8.	Sputtering and Thermal evaporation holder jigs for Pseudo-planar 50 mm diameter, 40 mm thickness Germanium crystal	1
9.	Pneumatic Pressure Safety valve for Crystal Puller Chamber	4

Amul Kishor Ssl
24th March 2022

Scope of Work:

1. The drawing and designing of required utilities will be in suppliers scope. Quotations must accompany the detailed design proposal and machining process following all standard protocols failing which the quotation will be summarily rejected.
2. The vendor has to also design and fabricate and supply the spares as per specification and dimensions for which the site visit will be required.
3. Any layout/drawing required to be done will be in the scope of the supplier after visiting the site and the discussion with the user.
4. Supplier will be required to test the fabricated material for the Vacuum leak test.

Aruna Kishu Singh
24th March 2022

Annexure-C
General Terms and
Conditions

Qualification Criteria:

The bidder must have a previous work experience of the similar nature, i.e. Fabrication, Supply, Installation, Inspection, Warranty & delivery of accessory as per annexure- 1.

Warranty:

The supplier should provide warranty of 1 year for the installation work and items above mentioned in Annexure-I.

Work Period:

Duration of the work is **60 working days** from the date of issuance of work order.

Price: Inclusive of free and safe delivery at our site. Price once quoted & accepted shall remain final.

Taxes: GST as applicable may be specified separately.

: Income Tax @ 2% as applicable at the time of payment will be deducted from your bill.

: For payment above Rs.2, 00,000=00, work contract tax @2% or as applicable shall also be deducted.

Excise Duty: Nil, *Excise duty is not payable by the Purchaser. Exemption certificate will be provided.

Octroi Duty: Nil. Exemption certificate will be provided for the end product on specific request as applicable.

Delivery : The work should be start as soon as work order issued.

Payment : Payment will be made only after satisfactory completion of work and on submission of printed Delivery Challan, Bill cum Invoice in Triplicate and an Advanced Stamped Receipt for the amount of the bill. Payment exceeding Rs 20,000/- are subject to Income Tax Deduction at source, Surcharge, Education Cess on Income tax etc as applicable under Income Tax Act will be deducted from your bill.

Penalty Clause: Any delay which is attributed to the contractor is liable for penalty @ ½ % per week (max. 5%) to be imposed on the contractor.

Extension clause:

In case any extension is required due to unavoidable reason, please send a request before expiry of work order justifying the delay. However, granting extension is sole discretion of Head, TPD.

Note : 1. Quotations, challans, invoice, receipt etc should be in printed form only. These should consist of GST Registration Number registered with local ST authority / CST authority, PAN Number of the firm, Service Tax Registration Number, etc.

Quality Surveillance, Inspection and Inspection report: All work covered by the specifications shall be subject to quality surveillance by the purchaser or his authorized representatives for which purpose the fabricator shall allow access at all reasonable times during manufacture to :

1. The premises in which work is being carried out.
2. The drawings and/or tooling involved.
3. Gauges, instruments etc. required for inspecting the work.

Inspection and tests shall be carried out by the fabricator as per the requirements detailed in the drawings and these specifications. Components found unsatisfactory as to workmanship or material shall be removed by fabricator and replaced by components, which are satisfactory.

The finished components shall not be dispatched prior to our approval.

Confidentiality: No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as “Proprietary” in nature shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

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

“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 contractor, sub-contractor, consultant, adviser or the employees of the contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC’s name without permission for publicity purposes:

The contractor, 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, T.V., and Internet without the written approval of BARC