



सत्यमेव जयते

Government of India
Department of Atomic Energy
Bhabha Atomic Research Centre
Beam Technology Development Group
Pulsed Power & Electro-Magnetics Division
Visakhapatnam



Dr. Archana Sharma
Head, PP&EMD, BARC,

Ref. No.: BARC(V)/ PP&EMD/2021-22/R&D- 44/WO/SKM/68

Dated:02.03.2022

Subject: - Fabrication, testing, safe door delivery and installation of water cooled chiller system as per annexure-1

Dear Sir/Madam,

Sealed Quotations are invited for and on behalf of President of India for the "Fabrication, testing, safe door delivery and installation of water cooled chiller system." The detail specifications are attached in annexure-1.

The Sealed envelope for the quotation with the reference number of this enquiry shall be super scribed with "**Fabrication, testing, safe door delivery and installation of water cooled chiller system as per annexure-1**" and should reach on or before 14/03/2022 to

Dr. Archana Sharma (Contact Person: Sukanta Kumar Mishra Ph: 0891-2832027)
Head, PP&EMD, BARC,
PEB-1, BARCF, Gandivanipalem Village,
Dossuru Panchayat,
Atchutapuram Mandal,
Visakhapatnam – 531011

Archana
03-3-2022

Dr. Archana Sharma
Head, PP&EMD,
BARC, Visakhapatnam.

डॉ. (श्रीमती) अर्चना शर्मा / ARCHANA SHARMA

निदेशक / Director

किरणपुंज प्रौद्योगिकी विकास वर्ग

Beam Technology Development Group

Government of India,

भा.प.अ. केंद्र / B. A. R.C.

दॉ. अर्चना शर्मा / Director, Mumbai - 400 085.

Enclosure: General terms and conditions and Annexure-1

CC. Assistant Accounts Officer, BARC, Visakhapatnam.

General Specification

1. Quality surveillance, inspection and inspection report

- 1.0 All work covered by the inspections shall be subjected 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
 - 1.1 The premises in which the work is being carried out.
 - 1.2 The drawings and or tooling involved.
 - 1.3 Gauges, instruments etc. required for inspecting the work.
 - 1.4 Inspection and tests shall be carried out by the fabricator as per the requirements detailed in the drawings and these specifications.
 - 1.5 The fabricator shall submit inspection reports to the purchaser for approval.
 - 1.6 Components found unsatisfactory as to workmanship or material shall be removed by the fabricator and replaced by the components which is satisfactory.
 - 1.7 The finished components shall not be dispatched prior to approval by our Engineer.

2. Raw Material

- 2.0 Raw Material for all the components and hardware will be provided by the supplier if not specified.

3. Delivery

- 3.0 The bidder shall deliver the finished components after approval by our Engineer within **4 weeks from the date of work order.**
- 3.1 In case any extension in delivery is to be granted to the contractor, party shall make a written request for extension justifying the reasons.

4. Sub Contract

- 4.0 The fabricator shall not sub-contract any or all the work without written consent from the purchaser. The fabricator shall be responsible to the purchaser for the entire sub contractor of the fabricator, if at all allowed by the purchaser.

5. Taxes

- 5.0 **Since the goods are to be supplied against the work order meant for research purpose of a research organization under DAE, the necessary GST will be exempted to the party.**
- 5.1 **Please note that BARC being an R&D institution, GST @ 5.0% applicable against undertaking from the supplier.**
GST exemption certificate shall be issued to the supplier
(This is as per office order No. BARC/GST/12/2017 dt.27.12.2017)

6. Payment

- 6.0 **Payment will be made only after satisfactory completion of work and on production of invoice with details of location of supply, separate tax components along with PAN & GSTN, advance stamped receipt, 4 nos. Guarantee/ Warranty Certificates, Bank details & receipt and issue of material from store.**
- 6.1 **Advance / Part payment or against delivery cannot be made.**
- 6.2 **It may be noted that Income Tax at 2% will be deducted from the bill.**
- 6.3 **TDS is to be deducted at the rate of 2 percent on payments made to the supplier of taxable goods and/or services, where the total value of such supply, under an individual contract, exceeds two lakh fifty thousand rupees.**
- 6.4 **Any delay which is attributable to the contractor is liable for penalty @ 1/2% per week (max 5%) to be imposed on the contractor.**

7. Confidentiality:

7.0 No party shall disclose any information to third party concerning the matters under this contract generally. In particular, any information identified as "PROPRIETARY" 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 written consent of the original disclosing party.

7.1 "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, advisor or the any employees of a contractor will invite penal consequences under the aforesaid legislation.

7.2 Prohibition against use of BARC's name without permission for publicity purpose:-

The contractor or sub-contractor, consultant, advisor or the employees engaged by the contractor shall not use BARC's name for publicity through any public media like press, radio, T.V., or internet without the prior written approval from BARC

(vide circular ref: 2/Misc-9/Lg1/2001/92 dated April 30, 2001)

Annexure-1

Specification for Water chiller system, Quantity required: 1 No.

1. Chiller

- a) Cooling capacity: 1.5 TR
- b) Media temperature 15 to 20°C to be maintained
- c) Ambient Temperature: 40 to 50°C
- d) Temperature stability: $\pm 2^\circ\text{C}$
- e) Re-circulating Media: soft water
- f) Chilled water flow: 20 LPM
- g) Chilled water pressure: 2 Bar

2. Refrigeration

- a) Compressor: Hermitically sealed compressor
- b) Condenser: Reputed make with forced air cooled fan
- c) Evaporator: Reputed make compact Brazed Plate Heat Exchanger type
- d) Refrigerant: R407C

3. Pump

- a) Type: Reputed make, Monoblock type,
- b) Construction: complete SS
- c) Process flow rate & pressure: 20 LPM @ 2 bar

4. Electrical

- a) Reputed make MCB & contactor for compressor pump, fan should be provided.
- b) Main Switch On/Off, Microprocessor based Controller, Anti-Freeze Switch should be provided.

5. In built reservoir

- a) Volume: 70 liters (cubical type)
- b) Material of Construction: complete SS 304
- c) It will have connections for two water inlet, two outlet, make up, drain and over flow.
- d) Insulation reputed make nitride rubber

6. Hydraulic piping

- a) Material: SS
- b) Pressure gauge; reputed make
- c) Inlet out let connection: 1/2" BSP

7. Structure

- a) Material: CRCA (Cold Rolled Close Annealed)
- b) Powder coated

8. Power

- a) Power supply: 1 Ph, 230 V, 50Hz, AC
- b) Power: 3.7 kW
- c) Electric Penal Board: Should have MCB's, Switches & light indicator.

d) Temperature Controller: Settable microprocessor based controller with digital display of set and actual temperature (resolution: 1°C). Controller must have over temperature & under temperature alarm & protection.

9. Safety Features: High pressure trip, low refrigerant trip, water level low trip, over load relay trip, high/low temperature trip, anti-freeze trip should be provided.

Note to the supplier: Supplier has to give the floor dimension for the complete system during quotation and should have single 1-phase power line connection. Complete chiller unit with wheels and locking arrangements is preferable.