



**TATA INSTITUTE OF FUNDAMENTAL RESEARCH**  
**INDEX**

**Ref. No. TIFR/PD/IC22-46/PUB**

<b>Sr. No.</b>	<b>Description</b>	<b>Pages</b>
1	Index	1-1
2	Notice Inviting Tender	2
3	Instruction to bidders	3-6
4	General Conditions of Contract (GCC)	7-18
5	Special Conditions of Contract (SCC)	19-20
6	Annexures (1 to 9)	21-36
7	Price Bid format	37-41
8	Technical Specifications	42-44



# TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Homi Bhabha Road, Colaba, Mumbai 400 005.  
Autonomous Institution of the Department of Atomic Energy, Government of India  
(A Deemed University)

Tel : 022-22782887/2595/2886/2890  
Fax : 022-22782885

Email : [rohini.pawar@tifr.res.in](mailto:rohini.pawar@tifr.res.in)  
: [triveni@tifr.res.in](mailto:triveni@tifr.res.in)  
: [vishakha@tifr.res.in](mailto:vishakha@tifr.res.in)  
: [deepak.baghele@tifr.res.in](mailto:deepak.baghele@tifr.res.in)  
Website : [www.tifr.res.in](http://www.tifr.res.in)

## TENDER NOTICE

### BID DOCUMENT [Two bid system]

13<sup>th</sup> September, 2022

On behalf of the Director, TIFR, Mumbai, INDIA, bids are invited under two bid system from reputed manufacturers or their authorized agents for the supply / installation/ commissioning of the following item(s):

-

Sr No.	Item Description	Enquiry Ref. No.	Estimate cost of Tender	Tender Fees	EMD
01	Cryostat (Qty – 01 No.) (Specifications Attached)	TIFR/PD/IC22-46/PUB	Rs. 447 Lakhs	Rs. 00	Rs. 8,94,000
				\$ 00	\$ 11300

Last date & Time for submission of bids : 03.10.2022 17.30 hours  
Date/Time for opening of Technical bid : 04.10.2022 14.00 hours

The cost of tender documents and EMD to be submitted as stated in General Conditions of Contract (GCC) at clause No. 6.1 and 6.2.

Director, TIFR reserves the right to accept/ reject any or all tenders either in part or in full without assigning any reasons there for.

Director  
(TIFR, Mumbai)

#### Note:

- All the bidders are requested to please note that all future amendments/corrigendum will be published on TIFR website and no separate advertisement will be released for the same. Bidders are therefore requested to regularly visit our website for any such updates.

# **INSTRUCTION TO BIDDERS (ITB)**

## **INTRODUCTION**

### **1. Eligibility Criteria:**

- 1.1 This invitation for bids is open to Original Manufactures (OEM) /Authorized Dealers/Authorized Distributors/Subsidiary Indian Company of the OEM /Indian Agent on behalf of the Foreign Manufacturer or Principals of the tendered equipment. The bidder must be legal entity having a Permanent Account Number (PAN), Certificate of Incorporation, and Valid GST Registration Certificate is to be submitted.
- 1.2 **The preference to Class “1” and Class “2” Suppliers as prescribed in “Public Procurement (Preference to Make in India) order 2017 of GOI, Dept of DIPP” (OM No. P-45021/2/2017-PP(BE-II) dated 04<sup>th</sup> June, 2020 shall be extended to the local suppliers. Necessary certification for local content must be submitted by the prospective bidders strictly as per the Annexure-4 attached with the tender document.**
- 1.3 When a firm sends quotation for an item manufactured by some different company, the firm is also required to attach in its quotation, the manufacturer’s authorization certificate.
- 1.4 Indian Agent cannot represent two different foreign principals for the same item in one tender.
- 1.5 Such equipment’s must be of the most recent series/models incorporating the latest improvements in design.
- 1.6 That the Bidder will assume total responsibility for the fault-free operation of equipment, application software, if any, and maintenance during the warranty period and provide necessary maintenance services for one years after end of warranty period if required.
- 1.7 Bidders who meet the criteria given above are subject to be disqualified, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have a record of poor performance, not properly completing the contract, inordinate delays in completion or financial failure, etc.
- 1.8 Any additional bid participation criteria / eligibility conditions etc. mentioned in the Technical Specifications sheet will also form part of the Qualification Requirements along with those mentioned in this chapter.
- 1.9 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.

### **2. Cost of Bidding**

- 2.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and “the Purchaser”, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

## **THE BIDDING DOCUMENTS**

### **3. Cost of Bid Document**

- 3.1 As mentioned on NIT.

#### **4. Contents of Bid Document**

- 4.1 The Bidder is expected to examine all instructions, forms, terms (ITB/GCC/SCC etc.), and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive shall result in rejection of the bid.

#### **5. Amendment to Bid Document**

- 5.1 The prospective bidders are **required** to keep a watch on the CPPP/TIFR website w.r.t. any amendment to the tender document or to clarification to the queries raised by the bidders up to seven days prior to the opening of the tender. The Purchaser reserves the right to reject the bids if the bids are submitted without taking into account these amendments/clarifications. In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.

### **PREPARATION OF BIDS**

#### **6. Documents Comprising the Bid**

- 6.1 Part "A" (Technical Bid) consisting of Technical Bid with Commercial Terms and Part "B" (Financial Bid) consisting of only Price shall be submitted in separate sealed envelopes duly superscribed with the tender enquiry number of the item and the due date in Bold letters, addressed to the purchase Officer, Tata Institute of Fundamental Research, Homi Bhabha Road, Colaba, Mumbai – 400 005. The envelopes should be clearly marked on top as either Part "A" or Part "B"
- The two sealed covers should be submitted for each item separately duly superscribed with the Tender Enquiry No., Due date in bold letters, addressed to the Purchase Officer, Tata Institute of Fundamental Research, Homi Bhabha Road, Colaba, Mumbai – 400 005. The sealed envelope has to be delivered by hand/Courier at the security Gate Officer of TIFR on or before due date.
- 6.2 In case the PART 'A' and Part 'B' bids are not sealed in separate envelopes the tender will be rejected.
- 6.3 The Techno-Commercial Unpriced Bid prepared by the bidder shall include the following without indicating the price in the Bid form.
- (i) Submit Proof of Bid Security Declaration.
  - (ii) Certificate for Local Content (as per Annexure –4).
  - (iii) T & C Deviation Statement Form.
  - (iv) Technical Specification Compliance Form.
  - (v) Performance Statement Form
  - (vi) Manufacture's Authorization Form.
  - (vii) Certificate of availability of spares.
  - (viii) Certificate of Registration (as per Annexure -5)
  - (ix) Documentary evidence establishing that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted as per qualification requirements/criteria.
  - (x) Bid Form

- (xi) The Comprehensive Annual Maintenance Contract (CAMC) terms & conditions detailing the exclusions, if any and the estimated life of the equipment offered.
- (xii) If the demonstration of the goods/equipment is deemed essential as per the technical requirements then confirmation reflecting willingness to arrange demonstration of the equipment offered free of charge at TIFR or any other location on a mutually agreeable date, prior to opening of priced bid to ascertain conformity with the tendered specifications.
- (xiii) Service Support Details Form

6.4 The Financial/Price Bid shall comprise of the Techno Commercial Bid with price indicated in the bid form. Also, Price must be quoted strictly as per the attached Price Bid Format.

## 7. Bid Prices

7.1 The Bidder shall indicate the unit prices and total bid prices of the goods it proposes to supply under the order and enclose it with the priced bid.

7.2 Prices indicated shall be entered separately in the following manner **(For Indigenous Items):**

- (i) The price of the goods, quoted (ex-works, ex-factory, ex-showroom, ex-warehouse, or off-the-shelf, as applicable), including all duties and sales and other taxes already paid or payable
- (ii) **Taxes:** TIFR is exempted from paying of Custom Duty under the notification No. 51/96 dated 23.071996, for all procurement/supply meant exclusively for Educational, Scientific and research purpose, Whenever the exemption certificate not honored by the authorities, the applicable duty will have to be paid. Hence Custom duties, if any, should be shown separately. **(Full custom duty rate to be quoted in price bid)**
- (iii) Rates should be quoted F.O.R. at site at TIFR, Mumbai inclusive of packing, forwarding, loading & unloading, shifting up to the site of installation at TIFR, installation and commissioning charges etc. If ex-works prices are quoted then packing, forwarding, documentation, freight and insurance charges must be clearly mentioned separately and clearly. Vague terms like packing, forwarding, transportation etc. without mentioning the specific amount/ percentage of these charges will not be accepted. Such offers shall be treated as incomplete and rejected. Where there is no mention of packing, forwarding, freight, insurance charges, such offers shall be assumed as all-inclusive of above charges.

7.3 Prices indicated shall be entered separately in the following manner **(For Imported Items, quote the DDP price all-inclusive of all charges as given below):**

- (i) Preferably the price of the goods quoted shall be inclusive of export packing, forwarding, inland freight, airfreight, Insurance, custom clearance charges, customs duty, loading & unloading, delivery, shifting if required up to the site/laboratory at TIFR, installation and commissioning, training and insurance from warehouse to warehouse (up to site of installation of TIFR). And other local costs incidental to delivery of the goods up to the site of installation at TIFR. However, the Institute will provide Original Duty Exemption Certificate, copy of DSIR Registration certificate etc. if required by the vendor.

- 7.4 Prices quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. A bid submitted with an adjustable price the bid will be treated as non - responsive and rejected.

## **8. Bid Currencies**

- 8.1 Prices shall be quoted in Indian Rupees or in freely convertible foreign currency preferably in **USD (\$), Euro (€), Yen (¥), GBP (£), SGD & AUS (\$)** wherever possible for correct evaluation during comparison.

## **9. Documents Establishing Bidder's Eligibility and Qualifications**

- 9.1 Pursuant to TIFR, the bidder shall furnish, as part of the bid, documents establishing the bidders' eligibility to bid and qualification to perform the contract if the bid is accepted.
- 9.2 That the bidder meets the qualification criteria listed in Bid Document.

## **10. Documents Establishing Goods 'Eligibility and Conformity to Bid Document**

The documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.

- 10.1 Specifications are basic essence of the product. It must be ensured that the offers are strictly as per specifications. At the same time, it must also be kept in mind that merely copying our specifications in the bid shall not make firms eligible for consideration. The documentary evidence of conformity of the goods and services to the Bid Document may be in the form of literature, drawings, data, and shall consist of:
- (i) A detailed description of the essential technical and performance characteristics of the goods as per specifications;
  - (ii) A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of two years, following commencement of the use of the goods by the Purchaser; and
  - (iii) An item-by-item commentary on the Purchaser's technical specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the technical specifications.

## **11. Period of Validity of Bids**

Bids shall remain valid for 180 days from the date of opening the bid prescribed by the Purchaser. A bid valid for a shorter period may be rejected by the Purchaser as non- responsive.

# **GENERAL CONDITIONS OF CONTRACT (GCC)**

## **1. Definitions**

- (i) In this Contract, the following terms shall be interpreted as indicated:
- (i) "The Order" means the Purchase Order placed by the Purchaser including all the attachments and appendices thereto and all documents incorporated by reference therein;
  - (ii) "The Contract Price" means the price payable to the Supplier under the Order for the full and proper performance of its contractual obligations;
  - (iii) "The Goods" means all the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Purchaser under the Contract;
  - (iv) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the Contract
  - (v) "GCC" mean the General Conditions of Contract contained in this section.
  - (vi) "SCC" means the Special Conditions of Contract.**
  - (vii) "The Purchaser" as specified in Special Conditions of Contract.
  - (viii) "The Purchaser's country" is "India".
  - (ix) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.
  - (x) "Day" means calendar day.
  - (xi) TIFR/Director/Purchaser represents same entity.

## **2. Application**

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

## **3. Standards**

3.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications. When no applicable standard is mentioned, the authoritative standard appropriate to the Goods' country of origin shall apply. Such standards shall be the latest issued, by the concerned institution.

## **4. Use of Contract Documents and Information**

4.1 The bidder shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

## 5. Patent Rights

- 5.1 The bidder shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

## 6. Submission of the bids, EMD & Tender Fees:

- 6.1 A Money (EMD) for **Rs. 8,94,000(for Indian Supplier)** and **USD 11300(for Foreign Supplier)** has to be deposited in the form of Demand Draft, Fixed Deposit Receipt, Bankerscheque or through online transfer through bank (Bank details to be provided on demand) in favour of Registrar, Tata Institute of Fundamental Research, Mumbai to be enclosed along with the Technical Bid (Part – A).

**The bidder has to submit the “Bid Securing Declaration” form as per the attached format.** The declaration also should be submitted on the company letter head duly signed by officer authorized to submit the bid. EMD shall be interest free and it will be refunded to the unsuccessful bidder without any interest. EMD will be forfeited if the bidder withdraws or amend impairs or derogates from the tender in any respect.

- 6.2 A **Tender fee of Rs. 00 (for Indian Supplier)** and **USD 00 (For foreign supplier)** (Nonrefundable) has to be deposited in the form of Demand Draft, Bankers cheque or through online transfer through bank (Bank details to be provided on demand) in Favour of Registrar, Tata Institute of Fundamental Research, Mumbai to be enclosed along with the Technical Bid (Part – A).

### 6.3 Micro and Small Enterprises (MSEs):

- 6.3.1 Micro and Small Enterprises (MSE) must, along with their offer, provide proof of their being registered as MSE (indicating the terminal validity date of their registration) for the item tendered, with any agency mentioned in the notification of the Ministry of Micro, Small and Medium Enterprises (Ministry of MSME)
- 6.3.2 The MSEs are exempted from payment of earnest money and tender fees subject to furnishing of relevant valid certificate for claiming exemption as per privilege rules of Government of India.
- 6.3.3 The bidder submits registration of Udyog Adhar Memorandum (UAM) by Ministry of Micro Small and Medium Enterprises (MSME) vendors on Central Public Procurement Portal (CPPP). The bidders who fail to submit UAM number shall not be able to avail the benefits available to MSEs as contained in Public Procurement Policy for MSEs Order 2012 issued by MSME.

### 6.4 Requirement of Registration of Bidders

- 6.4.1 Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority as per order issued by the Government of India (Order No. F.No.6/18/2019-PPD) dated 23<sup>rd</sup> July, 2020.
- 6.4.2 “Bidder” means any person or firm or company, including any member of a consortium or joint venture(that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- 6.4.3 Necessary certificate/Undertaking to be submitted as per the Annexure attached.



## 6.5 Purchase Preference Policies.

- 6.5.1 The TIFR intends to give product reservation/purchase preference/price preference to local suppliers in line with current procurement policies of Govt. of India.
- 6.5.2 For the above purpose, local supplier means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed in “Public Procurement (Preference to Make in India) order 2017 of GOI, Dept of DIPP” (OM No. P-45021/2/2017-PP(BE-II) dated 04<sup>th</sup> June, 2020. Necessary certification for local content must be submitted by the prospective bidders strictly as per the Annexure-A attached with the tender document.
- 6.5.3 Local content means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

## 7. Inspections and Tests

- 7.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser.

## 8. Packing

- 8.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 8.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.
- 8.3 Packing Instructions: Each package will be marked on three sides with proper paint/indelible ink, the following:
- (i) Item Nomenclature
  - (ii) Order/Contract No.
  - (iii) Country of Origin of Goods
  - (iv) Supplier's Name and
  - (v) Packing list reference number

## 9. Delivery and Documents

- (i) Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the order within the period as indicated in the **9.2**. The details of shipping and/or other documents to be furnished by the supplier are specified in **9.2**.
- (ii) Delivery period (**As stated in technical specifications**). The delivery is to be strictly made as per the delivery schedule stated in the Purchase Order. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of

the shipment including contract number, railway receipt number/ AWB etc. and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

- (i) Three copies of the Supplier invoice showing contract number, goods' description, quantity, unit price, total amount;
  - (ii) Acknowledgment of receipt of goods from the consignee(s) by the transporter;
  - (iii) Insurance Certificate if applicable;
  - (iv) Manufacturer's/Supplier's warranty certificate;
  - (v) Inspection Certificate issued by the nominated inspection agency, if any, and the Supplier's factory inspection report; and
  - (vi) Certificate of Origin.
  - (vii) Two copies of the packing list identifying the contents of each package.
- (iii) The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

## 10. Insurance

10.1 The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.

10.2 For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse"(final destinations) on "All Risks" The insurance shall be valid for a period of not less than three months after installation and commissioning. *However, in case of orders placed on EX-WORKS/FOB/FCA basis, the purchaser shall arrange Insurance.*

## 11. Transportation

11.1 Where the bidder is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, transport to such destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.

## 12. Spare Parts

12.1 As specified in the SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (i) Such spare parts as the Purchaser may elect to purchase from the Supplier, provided this selection shall not relieve the Supplier of any warranty obligations under the Contract;
- 12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.
- 12.3 The supplier should ensure availability of spares for the complete life of the product. A certificate/undertaking to that effect to be submitted as a part of the technical bids as per annexure provided in bid document.
- 12.4 Furnishing of one set of detailed operations & maintenance manual.

### 13. Warranty

- 13.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from manufacturing, design, materials or workmanship (except when the design and/or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. **The warranty should be comprehensive and on site.**
- 13.2 This warranty shall remain valid (**As stated in technical specifications**) after the Goods or any portion thereof as the case may be, have been delivered, installed & commissioned and accepted at the final destination indicated in the Contract.
- 13.3 Warranty period shall be (**As stated in technical specifications**) from date of successful installation of equipment. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier's discretion shall apply making such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at supplier own cost and expense and to carry out further performance tests. **The warranty should be comprehensive on site.**
- 13.4 **If during the period of warranty any component or spare part is needed to be imported, all associated cost for replacement shall be borne by the supplier including the cost of customs duty, customs clearance charges etc.**

### 14. Payment

#### 14.1 In case of Import, the payment terms are as under:

- i) **Net 30 Days:** The Payment will be released within net 30 days after the receipt, installation, commissioning and acceptance of the equipment against submission of "**Performance Bank Guarantee**" or "**Standby Letter of Credit**" for an amount equivalent to **3%** of the Purchase Order Value. The PBG or "**Standby Letter of Credit**" shall be valid for a period of **60 days** beyond the date of warranty period.
- ii) **Letter of Credit:** In case of payment through Letter of Credit, 80% payment shall be made through irrevocable L/C on presentation of complete and clear shipping documents and balance 20% of the amount shall be released after the receipt, installation, commissioning and acceptance of the equipment and on submission of "**Performance Bank Guarantee**" or "**Standby Letter of Credit**" for an amount equivalent to **3%** of the Purchase Order Value. The PBG or "**Standby Letter of Credit**" shall be valid for a period of **60 days** beyond the date of warranty period.

Bank Guarantee (BG) will not be accepted directly from Supplier, it should be received through the banker of supplier.

In exception case, BG will be accepted directly from the party/supplier provided a covering letter with Xerox copy of BG is received directly from banker of supplier. Without the receipt of BG along with the letter from Bank, the payment will not be released.

- 14.2 **In case of Local Supply**, the Payment Term Will be net 30 days against submission of "**Performance Bank Guarantee**" or "**Standby Letter of Credit**" for an amount equivalent to **3%** of the Purchase Order Value. The PBG or "**Standby Letter of Credit**" shall be valid for a period of **60 days** beyond the date of warranty period.

14.3 Agency commission, if any shall be paid after satisfactory installation & commissioning of the goods.

## **15. Prices**

15.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in the bid.

15.2 The Price quoted for Import item must be on following basis:

- a) Ex-Work/Factory duly packed airworthy /Seaworthy and of international standard.
- b) FOB/FCA
- c) CIF Indian Port (all-inclusive i.e. Cost of Goods, Packing, Insurance, Inland transportation, freight etc.)
- d) DDP TIFR (All-inclusive price)

For local item/supply, offer should be on FOR basis (i.e. total landed cost for delivery at TIFR, Mumbai)

The dimension of the item (viz. H, W, L, Weight etc.) shall be specifically stated and also mention whether the mode of shipping the item is Airworthiness/Seaworthiness or both. Accordingly, the mode of shipment will be decided by TIFR.

Price must be quoted strictly as per the Price Bid Format attached herewith.

## **16. Subcontracts**

16.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

16.2 Sub-contract shall be only for bought-out items and sub-assemblies.

## **17. Delays in the Supplier's Performance**

17.1 Since time is the essence of the contract, delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Contract.

## **18. Penalty**

18.1 If the Supplier fails to deliver any or all of the Goods or to perform services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to 0.5% per week and the maximum deduction is 10% of the contract price.

## **19. Termination for Default**

19.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- (i) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser.

- (ii) If the Supplier fails to perform any other obligation(s) under the Contract.
  - (iii) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- 19.2 For the purpose of this Clause:
- (i) “Corrupt practice” means the offering, giving, receiving or soliciting of gratification to influence the action of a public official(s) in the procurement process or in contract execution.
  - (ii) “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the purchaser, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the purchaser of the benefits of free and open competition;”

## **20. Force Majeure**

- 20.1 The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it’s delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 20.2 For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, act of God and freight embargoes.

## **21. Resolution of Disputes**

- 21.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 21.2 If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a contractual dispute, either party may require that the dispute be referred for resolution to the formal mechanisms. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and national or international arbitration.
- 21.3 In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director TIFR and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
- (i) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause
    - (a) Above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

## 22. Taxes and Duties

22.1 Suppliers shall be entirely responsible for all taxes, duties, license fees, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, GST in respect of the transaction between the Purchaser and the Supplier shall be payable as agreed, if so stipulated in the order.

## 23. Inspection and Tests:

Inspection and tests prior to shipment of Goods and at final acceptance are as follows:

23.1 Whenever site inspection is specified in the work order, after the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier's premises during such site inspection and testing by purchaser. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance.

23.2 The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.

23.3 In the event of the ordered item failing to pass the acceptance test, a period not exceeding one week will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.

23.4 Successful conduct and conclusion of the acceptance test for the installed goods and equipments shall also be the responsibility and at the cost of the Supplier.

## 24. Manuals and Drawings

24.1 Before the goods are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications.

24.2 The Manuals shall be in English in such form and numbers as stated in the contract.

24.3 Unless and otherwise agreed, the goods/ equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.

25. **Applicable Law:** The place of jurisdiction would be Mumbai, INDIA.

26. **Notices:** For the purpose of all notices, the following shall be the address of the Purchaser and Supplier.

## OPENING AND EVALUATION OF BIDS

### 27. Opening of Bids by the Purchaser

27.1 The Purchaser will open all Techno Commercial Un-Priced Bids, as per the schedule given in

invitation to bids.

- 27.2 In the event of the specified date of Bid opening being declared a holiday for the Purchaser, the Bids shall be opened on the next working day.
- 27.3 The Financial/price bid of technically qualified bidders only will be opened at the date and time to be informed to the qualified bidders.

## **28. Clarification of Bids**

- 28.1 To assist in the examination, evaluation and comparison of bids, the Purchaser may, at its discretion ask the bidder for any clarification(s) of its bid. The request for clarification and the response shall be in writing and no change in the price substance of the bid shall be sought, offered or permitted. However, no post Bid clarifications at the initiative of the Bidder shall be entertained.

## **29. Preliminary Examination**

- 29.1 The Purchaser will examine the bids to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bid from suppliers, without proper Authorization from the manufacturers and from Indian agents without DGS&D Registration Certificate in case the items fall under the restricted list of the current EXIM/Foreign.
- 29.2 The Purchaser may waive any minor informality, non-conformity, or irregularity in a bid, which does not constitute a material deviation, provided such a waiver, does not prejudice or affect the relative ranking of any Bidder.
- 29.3 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each bid to the Bid Document. For purposes of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the Bid Document without material deviations.
- 29.4 On downloading from the website, the language of standard clauses etc. mentioned in this 'Bid Document' should not be tampered with/ changed/modified in any manner whatsoever. If any such modification etc. is noticed the purchaser at any stage, the bid shall be rejected immediately and EMD shall stand forfeited.

## **30. Conversion to Single Currency**

- 30.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers/banks 'website on the date of Price/Financial Bid opening.

## **31. Evaluation & Comparison of Bids**

- 31.1 For the bids qualifying for the technical evaluation which have been found to be responsive the evaluation & comparison shall be made as under:
- (i) **Indigenous Offers**  
The final landed cost of purchase after all discounts, freight, forwarding, insurance (warehouse to warehouse), custom clearing charges taxes etc. shall be the basis of evaluation.
  - (ii) **Imported Offers**  
The CIP price shall be the basis of evaluation (warehouse to ware house basis)

(iii) **Imported Vs. Indigenous Offers**

The final landed cost (ware house to ware house) of purchase taking into account, freight, forwarding, insurance, taxes etc. (CIF/CIP with customs duty, customs clearance charges, Bank/LC charges, transportation, delivery upto the site of installation at TIFR, Mumbai as per available records with TIFR for imported goods) shall be the basis of evaluation.

- 31.2 Conditional tenders/discounts etc. shall not be accepted. Rates quoted without attached conditions (viz. Discount shaving linkages to quantity, payment terms etc.) will only be considered for evaluation purpose. Thus conditional discounted rates linked to quantities and prompt/advance payment etc., will be ignored for determining *inter-se* position. The Purchaser however reserves the right to use the discounted rate/rates considered workable and appropriate for counter offer to the successful tenderers.

**32. Contacting the Purchaser**

- 32.1 Any attempt by any Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the bid.

**33. Purchaser's Right to Vary Quantities at Time of Award**

- 33.1 The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions upto  $\pm 25\%$ .

**34. Purchaser's Right to Accept Any Bid and to Reject Any or All Bids**

- 34.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract without there by incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.
- 34.2 Evidence regarding credibility of stable performance and maintenance service capability must be provided. The purchaser reserves the right to make judgment on this score and reject bids that, in the purchaser's view, do not carry sufficient credibility for performance and/or service.

**35. Notification of Award**

- 35.1 Prior to expiry of the period of bid validity, the purchaser will notify the successful bidder in writing by Purchase Order.
- 35.2 Upon the successful Bidder's furnishing of performance security, the purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security.

**36. Order Acceptance**

- 36.1 The successful bidder should submit acceptance of the Purchase Order immediately but not later than 21 days in any case from the date of issue of the Purchase Order failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited

**37. Performance Security**

- 37.1 **The successful Bidder shall furnish the performance security equivalent to 3% of the cost of equipment, in the form of Bank Guarantee from any Nationalized Bank only after installation/ commissioning of the equipment(s).**
- 37.2 Bank Guarantee (BG) will not be accepted directly from supplier, it should be received through the banker of Supplier.



37.3 In exception case, BG will be accepted directly from the party/supplier provided a covering letter with Xerox copy of BG is received directly from banker of supplier.

37.4 Without the receipt of BG along with the letter from Bank, the payment will not be released.

### **38. Buy Back Items**

38.1 If the goods are to be quoted on 'Buy Back' basis, then bidders must offer a separate buy back price for the old item. The Purchaser makes the right to place the order with or without 'buy back' option. If required, the condition of old buy back goods may be examined by the bidder before submission of its bid.

### **39. Progress of Supply**

39.1 Supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:

- (i) Quantity offered for inspection and date;
- (ii) Quantity accepted/rejected by inspecting agency and date;
- (iii) Quantity dispatched/delivered to consignees and date;
- (iv) Incidental services have been satisfactorily completed with date;
- (v) Number of rectifications/repairs/replacements effected/completed on receipt of any communication from consignee/Purchaser with date;
- (vi) Date of completion of entire Contract including incidental services, if any; and
- (vii) Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).

### **40. Right to Use Defective Goods**

40.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

### **41. Supplier Integrity**

- 41.1 The Supplier and Buyer are responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
- 41.2 Integrity Pact as provided at Annexure – 9 to be signed by the supplier and buyer in due compliance with the terms of the contract. Any violation of the integrity pact will result into action against the defaulting party as provided under the pact.

### **42. Training**

- 42.1 The Supplier is required to train designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.
- 42.2 The training shall be initially carried out during installation & commissioning for operating and maintaining the system. The specific training on application shall also to be imparted by the supplier. The duration of such training need to be finalized with the end user of the equipment.
- 42.3 In case any supplier is not willing to impart such training, the bid shall be treated as non-responsive.

**I Purchaser:**

**Director,  
Tata Institute of Fundamental Research,  
Homi bhabha Road, Navy Nagar,  
Colaba, Mumbai – 400 005.**

**I Supplier:**

(To be filled in by the supplier)

.....  
.....  
.....

## **SPECIAL CONDITIONS OF CONTRACT (SCC)**

In addition to the General Conditions of contracts contained in above, the following special conditions shall apply to contract for supply of plant/machinery/manufactured equipment. These special conditions where they differ from the general conditions in part I shall override the latter.

**1. FINAL TEST:**

The final test as to performance and guarantee shall commence immediately after completion of installation.

**2. REJECTION OF DEFECTIVE CONSIGNMENT:**

If the completed instrument or any portion thereof before it is finally accepted is found to be defective or fails to fulfill the requirements of the contract, the purchaser shall give supplier notice setting forth the details of such defects or failure and the supplier shall forthwith rectify the defective instrument to be replaced in place of plant or alter the same to make it comply with the requirements of the contract. Should the supplier fail to do so within a reasonable time the Purchaser may reject and replace at the cost of the supplier, whole or any portion of the plant as the case may be, which is defective or fails to fulfill the requirements of the contract. Such replacement shall be carried out by the purchaser with a reasonable time and the reasonable price and where reasonably possible to the same specifications and under competitive conditions. The supplier shall be liable to pay to the Purchaser the extra cost if any of such replacement delivery and or/or erected as provided for in the contract, such extra cost being the difference between the price paid by the purchaser, under the provisions above mentioned for such replacement and the contract price for them. Supplier shall refund to Purchaser any sum paid by the Purchaser to the supplier in respect of such defective instrument to be replaced in place of instrument.

**3. WARRANTY:**

The supplier has to provide warranty for a period as specified in the technical specifications after the instrument has been put into operation. The supplier shall be responsible for any defects that may develop under conditions provided for by the contract and under proper use, arising from faulty materials, designs or workmanship in the plant or from faulty erection of the instrument by the supplier, but not otherwise and shall rectify such defects at his own cost when called upon to do so by the purchaser who shall inform in writing such defects.

If it becomes necessary for the supplier to replace or renew any defective portions of the instrument for the purpose of rectification under the clause, the provisions of this clause shall apply to the portions of the plant of replaced or renewed till the end of the above mentioned period. If any defects be not rectified within reasonable time, the, purchaser may proceed to get the work done at supplier's risk and expenses but without prejudice to any other rights which the Purchaser may have against the supplier in respect of such defect.

**4. AVAILABILITY FOR SPARE PARTS & SERVICE SUPPORT:**

The supplier shall undertake that before going out of production of the spare parts he will give adequate advance notice to the Purchaser so that the latter may order his requirement of spares in one lot if how so desires.

The supplier shall further guarantee that if he goes out of production of spare parts, then he will make available blue-prints, drawings of spare parts and specifications of material at no cost to the Purchaser, if and when required in connection with the equipment to enable Purchaser to fabricate or procure spare parts from other sources.

The provision of the clause shall remain effective and binding upon the supplier even after the completion or expiration of the contract and till the instruments supplied under the contract is in use by the Purchaser. Details of service support facilities that would be provided after the warranty period should be submitted in the Service Support Details Form.

That, in the case of a Bidder not doing business in India, the Bidder is/or will be (if successful) represented by an Agent in India who shall be equipped and able to carry out the Supplier's maintenance, repairs and spare parts, stocking obligations prescribed by the conditions of the contract.

**5. TRAINING:**

The supplier has to provide complete training at site for operation (including trouble shooting) of the instrument.

**BID FORM**

To,  
The Director,  
Tata Institute of Fundamental Research,  
HomiBhabha Road, Navy Nagar, Colaba,  
Mumbai – 400 005.

Dear Sir,

Having examined the bidding document, the receipt of which is hereby duly acknowledged, we the undersigned offer to supply and deliver \_\_\_\_\_(Description of Goods) in conformity with the said bidding documents for a sum or such other sums as may be ascertained from the bid.

We undertake if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified.

If our bid is accepted we will obtain the guarantee of the bank as specified in SCC for the due performance of the contract, in the form prescribed.

We agree to abide by this bid for requisite period as fixed for bid opening as per the instructions to the bidders. Further it shall remain binding upon us and accepted at any time before the expiry of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding contract between us.

Commission and gratuities, if any, paid or to be paid by us to the agents relating to this bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agent (if none, state "none")	Amount in Rupees	Purpose of Commission
---	------------------	-----------------------

We understand that you are not bound to accept the lowest or any bid you may receive. Dated

this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

Signature \_\_\_\_\_ In the  
capacity of \_\_\_\_\_

Duly authorized to sign the bid for and on behalf of \_\_\_\_\_

**MANUFACTURERS' AUTHORIZATION FORM**

No. \_\_\_\_\_

Date: \_\_\_\_\_

**Director,  
Tata Institute of Fundamental Research,  
HomiBhabha Road, Navy Nagar,  
Colaba, Mumbai – 400 005.**

Dear Sir:

We \_\_\_\_\_ who are established and reputable manufacturers of having factories/works at \_\_\_\_\_ (*address*) do hereby authorize M/s \_\_\_\_\_ (*Name and address of Agent*) to submit a bid, negotiate and receive the order from you against your tender enquiry mentioned on front page.

No company or firm or individual other than M/s \_\_\_\_\_ is authorized to bid, and conclude the contract in regard to tender.

We hereby extend our full guarantee and warranty as per Clause 10.2 (iv) of the General Conditions of Contract and Clause of the Special Conditions of Contract for the goods and services offered by the above firm.

Yours faithfully,

(Name)

(Name of manufacturers)

**Note:** This letter of authority should be on the **letterhead of the manufacturer** and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial un priced bid.

**Certificate of Availability of Spares**  
**(to be submitted on OEM's letter head)**

No. \_\_\_\_\_

Date: \_\_\_\_\_

**Director,  
Tata Institute of Fundamental Research,  
HomiBhabha Road, Navy Nagar,  
Colaba, Mumbai – 400 005.**

Dear Sir:

We \_\_\_\_\_ who are established and reputable manufacturers of having factories/works at \_\_\_\_\_ (*address*) do hereby authorize M/s \_\_\_\_\_ (*Name and address of Agent*) to submit a bid, negotiate and receive the order from you against your tender enquiry mentioned on front page.

We hereby extend our full support for the supply spares parts including service support as per Clause 12.3 of the General Conditions of Contract for the entire life of the product quoted by us. The life of the product is estimated to be \_\_\_\_\_ years.

Yours faithfully,

(Name)

(Name of manufacturers)

**Note:** This Certificate/Undertaking should be on the **letterhead of the manufacturer** and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial un priced bid.

**Certificate for Local Content**

\*We [name of manufacturer] hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', we are eligible for Purchase Preference under 'Make in India' Policy vide Gol Order No.P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

OR

\*We [name of manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under 'Class-II Local Supplier' Category.

The details of the location (s) at which the local value addition made is /are as under:

- 1.....
- 2.....
- 3.....

\*Strike out whichever is not applicable

Date:

Seal & Signature of the Bidder

**NOTE:**

- Self-certification that the item offered meets the minimum local content (as above) giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable.
- In cases of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India policy, if applicable.



**Certificate of Registration**

No. \_\_\_\_\_

Date: \_\_\_\_\_

**Director,  
Tata Institute of Fundamental Research,  
HomiBhabha Road, Navy Nagar,  
Colaba, Mumbai – 400 005.**

Dear Sir:

I/We \_\_\_\_\_ who are established and reputed manufacturers/bidders of \_\_\_\_\_ having factories/works at\_(address) do hereby declare that “I/We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India as per tender clause 6.4 of GCC. I/We hereby certify that we the undersign Bidder are not from such a country or, if from such a country, has been registered with the Competent Authority. I/We hereby certify that we fulfill all requirements in this regard and is eligible to be considered. [where applicable, evidence of valid registration by the Competent Authority shall be attached]

Yours faithfully,

(Name)

(Name of manufacturers/ Bidder)

**Note:** This Certificate/Undertaking should be on the **letterhead of the manufacturer/Bidder** and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its techno-commercial un priced bid.

**Bid Securing Declaration**  
**(to be submitted on company's letter head)**

I/We the undersigned hereby declare that if we withdraw or modify the bids during the period of its validity, or if we are awarded the contract and fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document or fail to execute the contract, we will be suspended for the period of time specified in the request for bids document from being eligible to submit bids for contracts with the entity that invited the bids.

Name and Signature  
of Authorized Signatory  
and Company Seal

**PERFORMANCE BANK GUARANTEE**

In consideration of the TATA INSTITUTE OF FUNDAMENTAL RESEARCH (hereinafter called “The TIFR”) having agreed under the terms and conditions of Purchase Order No..... dated..... made between. TIFR...and M/s\_\_\_\_\_. (hereinafter called “the said Contractor{s} “). for the Purchase Order ..... (hereinafter called “the said Purchase Order”) having agreed to production of an irrevocable bank Guarantee for Rs. .... (Rupees .....only), as a security / guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said Purchase Order, we .....(Indicate the name of the Bank) (hereinafter referred to as “the Bank”) hereby undertake to pay to the TIFR an amount not exceeding Rs. (Rs..... only) on demand by the TIFR.

2. We ..... (indicate the name of Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the TIFR stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs..... (Rupees. ....only).

3. We, the said bank, further undertake to pay to the TIFR any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We..... (indicate the name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Purchase Order and that it shall continue to be enforceable till all the dues of the TIFR under or by virtue of the Purchase order have been fully paid and its claims satisfied or discharged or Purchase Officer on behalf of the TIFR certifies that the terms and conditions of the said Purchase Order have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We ..... (indicate the name of Bank) further agree with the TIFR that the TIFR shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Purchase Order or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the TIFR against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Purchase Order and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the TIFR or any indulgence by the TIFR to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We,.....(indicate the name of Bank) lastly undertake not to revoke this guarantee except with the previous consent of the TIFR in writing.

8. This guarantee shall be valid up to ....., unless extended on demand by TIFR. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees ..... only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

**Signed and sealed**

Dated the ..... day of ..... for ..... (indicated the name of Bank)

**TECHNICAL COMPLIANCE STATEMENT FORM**

An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.

<b>ITEM NAME</b>			
<b>Sr. No.</b>	<b>Tender Specifications</b>	<b>Bidder's Specifications</b>	<b>Remarks/Deviation If any</b>

(Technical literature/brochures/manuals should be attached along with this format)

**Please note:**

1. Compliance/Deviation statement comparing the specifications of the quoted model to the required specifications. This statement should also give the page number(s) of the technical literature where the relevant specification is mentioned.
2. Bids must have supporting documents (technical literature or copies of relevant pages from the service manual or factory test data) for all the points noted above, failure regarding which may result in rejection of bid.

**Director**

(to be printed on Supplier's letterhead)

**INTEGRITY PACT**

General

General This pre-bid pre-contract Agreement hereinafter called the Integrity Pact is made on ..... day of the month of ....., between, on one hand, Registrar, Tata Institute of Fundamental Research, Mumbai hereinafter called the “BUYER” of the First Part and M/s ..... represented by Shri. ...., Director /Chief Executive Officer/ General Manager hereinafter called the “BIDDER/Seller” of the Second Part.

WHEREAS the BUYER proposes to procure.....  
(Name of the Stores/Equipment/Item) and the BIDDER/Seller is willing to offer/has offered the stores and WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is an Autonomous Body under Department of the Atomic Energy, Government of India.

NOW, THEREFORE, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to :-Enabling the BUYER to obtain the desired said stores / equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures. The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

**1. Commitments of the BUYER**

- 1.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bidevaluation, contracting or implementation process related to the Contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the Buyer will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official (s) is reported by the BIDDER to the BUYER, with full and verifiable facts and the same is prima facie found to be

correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

### **3. Commitments of BIDDERS:**

3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:
  - 3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, consideration, gift, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.
  - 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or for bearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government.
  - 3.3 BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
  - 3.4 BIDDERS shall disclose the payments to be made by them to agents / brokers or any other intermediary, in connection with this bid/contract.
  - 3.5 The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/ integrator/ authorized government sponsored export entity of the defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER, or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
  - 3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
  - 3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
  - 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

- 3.9 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender. The term relative for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

#### **4. Previous Transgression**

- 4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
- 4.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

#### **5. SECURITY DEPOSIT /PERFORMANCE GUARANTEE:**

- 5.1 Performance Guarantee Bond is mandatory.
- 5.2 Successful tenderer/ bidder should submit performance guarantee as prescribed above to be sent to Registrar, TIFR, Mumbai on or before 15 days from the due date of issue of order acknowledgement. The PBG to be furnished in the form of bank guarantee as per proforma or annexure of the tender documents, for an amount covering 3 % of the purchase order value.
- 5.3 The Performance Guarantee should be established in favour of "The Registrar, TIFR, Mumbai".
- 5.4 PBG to be established through any of the National Banks (whether situated at Mumbai or outstation) with a clause to enforce the same on their local branch of Mumbai or any scheduled bank (other than national bank) situated at Mumbai. Bonds issued by cooperative banks will not be accepted.
- 5.5 Performance Guarantee Bond shall be for the due and faithfully performance of the contract and shall remain binding, notwithstanding such variations, alterations for extensions of time as may be made, given, conceded or agreed to between the successful tenderer and the purchaser under the terms & conditions of acceptance to the tender.



- 5.6 The successful tenderer is entirely responsible for due performance of the contract in letter and spirit and all other documents referred to in the acceptance of tenders.
- 5.7 The PBG shall be kept valid during the period of contract and shall continue to be enforceable for a period of Two year or up to warranty period whichever is later from the date of order acknowledge. In case PBG needs extensions up to extension period then supplier shall initiate extensions to PBG one month prior to expiry of PBG.
- 5.8 For successful suppliers, if PBG is not submitted within 15 days from the date of Order Acknowledgement, then the Purchase Order will be cancelled with forfeiting of EMD.
- 5.9 No interest shall be payable by the buyer to the Bidder on PBG.

## **6. Sanctions for Violations**

6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-

- i. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- ii. The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
- iii. To immediately cancel the contract, if already signed without giving any compensation to the BIDDER.
- iv. To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- v. To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- vi. To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- vii. To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of two years, which may be further extended at the discretion of the BUYER.
- viii. To recover all sums paid in violation of this pact by the BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- ix. In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.

- x. Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 7.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the independent Monitor(s) appointed for the purposes of this Pact.

## **7. Fall Clause**

- 7.1 The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry / Department of the Government of India or PSU and if it is found at any stage that similar product/system or sub-system was supplied by the BIDDER to any other Ministry/Department of the Government of India or PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded.

## **8. Independent monitors**

- 8.1 The BUYER has appointed Independent Monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission (Chief Vigilance Officer, Indian Institute of Technology Bombay).
- 8.2 The task of the Monitor shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3 The Monitor shall not be subject to instructions by the representatives of the parties and performs their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitor have the right to access all the documents relating to the project/procurement, including minutes of the meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.
- 8.7 The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.

8.8 The Monitor will submit a written report to the designated Authority of BUYER/ Secretary in the Department/within 8 to 10 weeks from the date of reference or intimation to him by the BUYER/ BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

## **9. Facilitation of Investigation**

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information & documents in English and shall extend all possible help for the purpose of such examination.

## **10. Law and Place of Jurisdiction**

This Pact is subject to Indian Law. The place of performance and Jurisdiction is the Seat of the BUYER.

## **11. Other Legal Actions**

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

## **12. Validity**

12.1 The validity of this Integrity Pact shall be from date of its signing and extend up to 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/ Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

12.2 Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

The Parties hereby sign this Integrity Pact.

BUYER

BIDDER

Registrar, TIFR, Mumbai

Signature with seal

Date & Place: Date & Place:

Witness Witness

1. \_\_\_\_\_

(Indenter)

2. \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

# **Price Bid Format**

**PRICE SCHEDULE – A**

**PRICE SCHEDULE FOR GOODS TO BE QUOTED IN FOREIGN CURRENCY**

<b>Item Sr. No.</b>	<b>Brief description of goods (with make and model)</b>	<b>Qty (Nos.)</b>	<b>Rate</b>	<b>Amount</b>
<b>To be filled in Foreign Currency only (Column A to D)</b>				
1.	Cryostat ( <b>strictly as per the technical specification attached in the tender document</b> )	01 No.		
2.	Two Years Extended Warranty			
A	Ex-Works cost (Duly packed Airworthy/Seaworthy of international standard)			
B	FOB /FCA Cost (Name of Airport_____)			
C	Insurance and Freight			
D	Net CIP by Air/Sea at the port of entry (Mumbai Airport/Sea Port)			
<b>To be filled in Indian Rupees (Column E to J)</b>				
E	Custom Duty (basic customs duty + Countervailing duty + additional Customs duty + education cess as applicable.) {basic rate of duty = _____% }			
F	Add: IGST 18% (as applicable)			
G	Custom Clearance & Handling Charges			
H	Loading/Unloading inland transportation, insurance and incidental costs till consignee's site			
I	Local Value Addition			
J	Any Other Local Value Addition			
K	Total Price on DDP basis at consignee's site			
	Foreign Currency (D)			
	Indian Rupees ( E + F+ G+ H+I+J)			

**NOTE:**

1. In DDP shipment the tendered will be fully responsible for the safe arrival of the goods at the consignee site in good condition as per terms of contract.
2. The bidder breaks up of price under various columns is for comparison of price up to delivery of goods at consignee's site for tender evaluation.

- 3. The quoted price should be supported with original proforma invoice. The proforma invoice should indicate the percentage of agency commission included in the FOB prices. Indian Agent to be paid in Indian currency.
  
- 4. All the components of the DDP price will be paid by the tenderer. The purchaser will make the payment of DDP price preferably after receipt of goods at consignee's site in good condition as per payment terms in the contract. The purchaser can place the order on Ex-Works, FOB/FCA, CIP or DDP basis.
  
- 5. The price quoted in foreign currency in column (D) shall be converted in Rupees at the selling rate of exchange applicable on the date of tender opening. The customs duty amount so worked out as percentage of net CIP value in rupees will be taken for evaluation and comparison of tenders.

Place:  
Date:

Name: \_\_\_\_\_  
Business Address: \_\_\_\_\_  
Signature of Tenderer: \_\_\_\_\_  
Seal of Tenderer: \_\_\_\_\_

**PRICE SCHEDULE – B**

**PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN TO BE QUOTED IN INDIAN CURRENCY**

<b>Item Sr. No.</b>	<b>Brief description of goods (with make and model)</b>	<b>Qty (Nos.)</b>	<b>Rate</b>	<b>Amount</b>
1.	Cryostat (strictly as per the technical specification attached in the tender document)	01 No.		
2.	Two Years Extended Warranty			
A	Add: GST (if any)			
B	Add: Transportation, loading/unloading and incidental cost till consignee's site			
C	Add: Incidental services (including installation & commissioning, supervision, demonstration and training) at the consignee's site			
D	Total price (at consignee site) basis			

**Total Tender price in Rupees:** \_\_\_\_\_

**In words:** \_\_\_\_\_

**Note:-**

1. If there is discrepancy between the unit price and total price THE UNIT PRICE shall prevail.

Place:  
Date:

Name: \_\_\_\_\_  
Business Address: \_\_\_\_\_  
Signature of Tenderer: \_\_\_\_\_  
Seal of Tenderer: \_\_\_\_\_



**PRICE SCHEDULE 'C'**

**PRICE SCHEDULE FOR COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD**

1	2	3	4						5
Item Sl. No.	Brief Description of the Goods	Quantity (Nos.)	Comprehensive Maintenance Contract Cost for each Unit year wise*.						Total Comprehensive Maintenance Contract Cost for 5(or as specified) Years [5x (4a+4b+4c+4d+4e)]
			6th	7th	8th	9th	10th		
			A	B	C	D	E		

\* After completion of warranty period

Note: -

1. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/service/operational manual and labour, after satisfactory completion of warranty period may be quoted for next 1(or as specified) years on yearly basis for complete equipment.
2. The cost of CMC may be quoted along with taxes applicable on the date of Tender opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
3. The uptime warranty will be 98% on 24 (hrs) x 7 (days) x 365 (days) basis.
4. The stipulation in technical specification will supersede above provision.
5. The supplier shall keep sufficient stock of spares required during comprehensive maintenance contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

Place: \_\_\_\_\_

Date: \_\_\_\_\_

Business Address \_\_\_\_\_

Signature of Tenderer \_\_\_\_\_

Seal of Tenderer \_\_\_\_\_

## **TECHNICAL SPECIFICATIONS OF CRYOSTAT (QTY – 1 No.)**

- Temperature range: 1.5K to 300K
- Temperature control stability: +/- 0.05 K
- Two stage pulse tube cooler with associated compressor, semi-flexible gas lines (20 m long)
- Cooling Power of PTR: Cryomech 1.5W
- Sample probe cooldown time: 2 hours or less (standard probe)
- Uninterrupted operation of the system with sample at base temperature: 4 weeks and more
- Temperature sensors on PT1, PT2, VTI cryostat and on Magnet for continuous monitoring on temperature
- The VTI cryostat cooling circuit is separate from the gas used for heat exchanging between VTI cryostat and sample probe. This prevents any contamination in the needle valve during sample probe exchange thus providing longer running hours of the VTI at base temperature.
- <sup>4</sup>He gas circulation for cooling from 4.2 K to 1.5 K is driven by a scroll pump, with a recoverable zeolite trap to filter the possible contamination in the loop.
- No liquid N<sub>2</sub> trap should be necessary
- The available sample space diameter is 50 mm.
- The closed-loop cooling circuit is fitted with a pressure gauge on the pumping line, and an automatic needle valve for flow control.
- Remote temperature control is possible over USB, TCP/IP and GBIP IEEE488 interfaces.
- Complete operation of the VTI cryostat cooling and sample cooldown and bringing to room temperature can be without any manual intervention.
- Main System includes a standard probe
  - simple insert with sample mount block on which customized sample holder can be fitted.
  - compatible between 1.5 K to 300 K temperature range
  - 24 DC constantan wires connected near sample block for experimental use
  - Heater and Temperature sensor on the sample mount
- Gas handling system: System is supplied with gas handling system for the closed-loop cooling circuit, including manually (a) operated valves, (b) at least 10 m<sup>3</sup>/ hour oil-free circulation pump, (c) helium gas storage tank with mechanical pressure gauge and (d) trap with integrated heater for regeneration. The operation of the manual valves is required only during initial set-up, for system cool-down and warm-up. System supplied with all thermometry connecting cables.
- VTI Compatible with Oxford instruments 300mK inserts like VT50. During the installation cooldown with an existing VT50 has to be demonstrated.

### **Magnet**

- Filed of Magnet: 3-Axis vector field (6T-1T-1T) superconducting magnet
- |                             |  |
|-----------------------------|--|
| VVR6TMAG                    | 3-Axis vector field (6T-1T-1T) superconducting magnet      |
| Vertical solenoid           | Field in z axis  |
| Central field at 4.2 K      | 6 Tesla  |
| Magnet cold bore            | 90 mm  |
| Operating current (nominal) | <= 120 A   |
| Magnetic field homogeneity  | <= 0.1% total variation over a 10 mm diameter sphere (dsv) |
| Persistent mode switch      | Fitted   |
| Horizontal split pair       | Field in x axis  |
| Central field at 4.2 K      | 1 Tesla  |
| Operating current (nominal) | <= 65 A  |
| Magnetic field homogeneity  | <= 2% total variation over a 10 mm diameter sphere (dsv)   |
| Persistent mode switch      | Not fitted, driven mode only                               |

Horizontal split pair	Field in y axis
Central field at 4.2 K	1 Tesla
Operating current (nominal)	$\leq 65$ A
Magnetic field homogeneity	$\leq 2\%$ total variation over a 10 mm diameter sphere (dsv)
Persistent mode switch	Not Fitted, driven mode only
Vector Field	xyz
Maximum field	1 Tesla vector magnitude in sphere for $360^\circ$ vector rotation
Vector tilting angle	$2.5^\circ$ from vertical (z axis) with a vector magnitude of 6 Tesla

- Magnet Power Supply: Fully bi-polar, 4-quadrant superconducting magnet power supply
- Magnet Power Supply Rack with units for controlling each axis magnet
- Interface using USB, TCP/IP and GBIP IEEE488.
- The magnet power supply monitors the magnet temperature, and the temperature sensors fitted to the PTR cold head.

### Temperature controller

- Can be configured with two temperature PID loops, for independent control of the sample-probes and the VTI-heat-exchanger temperatures
- Supports all standard cryogenic sensors (ruthenium oxide, Cernox, silicon diodes, platinum, RhFe, thermocouples etc.)
- Controls the auto needle valve on the VTI

### Miscellaneous

- Please quote for an appropriate UPS that can be provided by local purchasing
- Baffle stick for variable temperature insert. This should be fitted to the variable temperature insert when the sample probe is unloaded.
- Basic system spares kit.
- India based service engineer
- Provide list of 5 customers in India with contact details
- Give details of service and support in India.

### Options:

#### Please quote separately

#### Measurement Ready Probe

- Can be used in both sample-in-exchange-gas and sample-in-vacuum configurations, which is electrically isolated from the rest of the system to enable separation of the measurement ground and the cryostat protective ground.
- Temperature range of the probe is between 1.5 K to 300 K, fitted with a calibrated Cernox temperature sensor and a heater on the sample mounting block.
- Sensor and heater monitored and controlled by the temperature controller. Diagnostic wiring included those required for thermometry
- Experimental wiring
- 24 twisted pairs of enamelled constantan wire. Terminations at room temperature to be in a fisher connector. Mating connector to be provided.
- 4 off UT47 stainless steel coax cables with SMA connectors
- Sample cell design such that sample carriers can be mounted for measurement both parallel and perpendicular but without option for mechanical rotation.

- Sample cell is such that it may be used for both LCC44 sample carriers and LCC20 sample carriers (in both parallel and perpendicular configurations) and both carriers can be swapped depending on requirement. ESD protection plug should be present on LCC20.
- A sample breakout box with ESD protection for device should be quoted.

**Warranty Period: 01 Year.**

**Delivery Period: Within 09 Months.**