

Tender For

"Supply, Installation, Testing &

Commissioning of CNC Horizontal

Boring & Milling Machine with

Travelling Spindle of Dia 130mm

with RAM"

(Revised Technical specifications

after Pre-Bid Conference)

By

Central Manufacturing Technology Institute
Tumkur Road, Bengaluru-560022



SL.NO.	Contents	Page No.
	INVITATION FOR BIDS	3-4
1.	INSTRUCTIONS TOBIDDER	5-18
2.	GENERAL CONDITION OF CONTRACT (GCC)	19-34
3.	SCHEDULE OF REQUIREMENTS	35
	PART-A	
4.	TECHNICAL SPECIFICATIONS	37-51
	PART-B	
5.	QUALIFYING CRITERIA	52-53
6.	ACCEPTANCE CRITERIA	54-56
PART-C		
7.	CONTRACT FORM	57-58
8.	INTEGRITY PACT	59-64

#### CMTI - CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE

Tumkur Road, Bengaluru - 560022, Karnataka, INDIA

#### **INVITATION FOR BIDS**

Tender No. CMTI/PUR/0501/2024-25/HBS/CMF

1. CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India, invites sealed Bids from Wholly-Owned Subsidiary of OEM in India or OEM's own Branch/Sales Office in India, for purchase of items listed below.

SI. No.	Tender No.	Description of items	Qty	Two Bid	Bid Security (EMD) (Rs.)
1	CMTI/PUR/0501/2024- 25/HBS/CMF	Supply, Installation, Testing & Commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM	01 No.	Two Bid System [Techno - Commercial)	Rs.8,00,000.00

- 2. Interested Bidders may obtain further information from the office of the Group Head, Purchase & Stores, CMTI Central Manufacturing Technology Institute, Tumkur Road, Bengaluru 560022, Karnataka, India, mail: purchase@cmti.res.in
- 3. The Bidding Documents can be downloaded at <a href="https://cmti.res.in/GeM Portal.">https://cmti.res.in/GeM Portal.</a>
- 4. The Director, CMTI- Bengaluru, reserves the right to accept any or all tenders either in part or in full or to split the order without assigning any reasons therefore.
- 5. Please note that, as per GoI notification, EMD exemption will be conceded for (a) Micro and small Enterprises if registered with any government bodies specified by Ministry of Micro, Small & Medium Enterprises (M/o MSME) with valid certificate duly issued by GOI are exempted for submitting the tender fee and earnest money deposit (EMD). It will be applicable for those bidders who shall produce their own goods or provide their own services, and not applicable for trading purpose. No entrepreneur or memorandum of application form is acceptable. Kindly provide the valid Udyam MSME Certificate in order to avail EMD Exception otherwise you have to pay the EMD Money.

Date: 22.01.2024

# Supply, Installation, Testing & Commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM

BID REFERENCE	CMTI/PUR/0501/2024-25/HBS/CMF	
PRE-BID CONFERENCE WAS HELD ON	03-01-2025 11.00 hrs	
DEADLINE FOR RECEIPT OF BIDS	12-02-2025 – (As per GeM Potal)	
DATE AND TIME OF OPENING OF BIDS (TECHNICAL		
BID ONLY)	12-02-2025 – (As per GeM Potal)	
DATE AND TIME OF OPENING OF PRICE BIDS	Will be intimated to Technically	
BATTER WAS TIME OF OF ENTING OF THREE SIDS	Qualified Bidders only through GeM	
VENUE FOR BID OPENING	As Per GeM Bid document	
	Group Head, (Purchase & Stores)	
	Central Manufacturing Technology	
ADDRESS FOR COMMUNICATION	Institute, Tumkur Road, Bengaluru-560022,	
	Karnataka, India	
	Email ID: purchase@cmti.res.in	

#### N.B.:

- 1. All the pages of the Bidding Document should be signed, stamped with company seal and submitted with the offer.
- 2. This Bidding Document is non-transferable.
- 3. Bidding Document can be downloaded free of cost from our website <a href="https://cmti.res.in/GeM">https://cmti.res.in/GeM</a> Portal.

## **CHAPTER - 1**

## **INSTRUCTIONS TO BIDDER**

## **Table of Contents**

Sl.No.	Contents
1.1	Eligible Bidders
1.2	Cost of Bidding
1.3	Fraud and Corruption
1.4	Cost of Bidding Documents
1.5	Content of Bidding Documents
1.6	Clarification of Bidding Documents
1.7	Amendment of Bidding Documents
1.8	Language of Bid
1.9	Documents Comprising the Bid
1.10	Bid form and price schedule
1.11	Bid Prices
1.12	Bid Currencies
1.13	Documents establishing Bidder's eligibility and qualifications.
1.14	Documents establishing Goods' eligibility and conformity to Bidding
	documents
1.15	Bid Security [BS] / Earnest Money Deposit[EMD]
1.16	Period of Validity of Bids
1.17	Format and Signing of Bid
1.18	Submission, Sealing and Marking of Bids
1.19	Opening of Bids by the Purchaser
1.20	Confidentiality
1.21	Clarification of Bids
1.22	Preliminary Examination
1.23	Responsiveness of Bids
1.24	Non- Conformity, Error and Omission
1.25	Examination of Terms & Conditions, Technical Evaluation
1.26	Conversion to Single Currency
1.27	Evaluation and Comparison of Bids
1.28	Comparison of Bids
1.29	Contacting the Purchaser
1.30	Post qualification
1.31	Negotiations
1.32	Award Criteria
1.33	Purchaser's right to Vary Quantities at Time of award
1.34	Purchaser's right to accept any Bid and to reject any or all Bids
1.35	Notification of Award
1.36	Signing of Contract
1.37	Order Acknowledgement
1.38	Performance Security

#### **A-Introduction**

#### 1.1 Eligible Bidders

- 1.1.1 (a) Vendor shall be Wholly-Owned Subsidiary of OEM in India or OEM's own Branch/Sales Office in India or Authorized representatives of the OEM, (b) vendor shall have service center with trained service engineers in India preferably in Bangalore (c) vendor shall have supplied and installed CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAMof similar specification in Govt. institutes/research organization/PSU in India, who fulfill the eligibility criteria mentioned in the Chapter-4.
- 1.1.2 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 For Bids.

#### 1.2 Cost of Bidding

1.2.1 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.

#### 1.3 Fraud and corruption

- 1.3.1 The Purchaser requires that the Bidders, Suppliers and Contractors observe the highest standard of ethics during the procurement process and execution of such contracts. In pursuit of this policy, the following are defined:
  - "Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement processor in contract execution;
  - **"Fraudulent practice"** means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
  - "Collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Purchaser, designed to establish bid prices at artificial, non-competitive levels; and
  - "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- 1.3.2 The Purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

## **B - The Bidding Documents**

#### 1.4 Cost of Bidding Documents

1.4.1 The Bidding Documents can be downloaded from Purchaser's website as indicate in the Invitation for Bids [IFB] free of cost.

#### 1.5 Content of Bidding Documents

1.5.1 The Goods required, bidding procedures and contract terms are prescribed in the Bidding Documents which should be read in conjunction. The Bidding Documents, apart from the Invitation For Bids have been divided into 8 chapters asunder:

Chapter 1: Instructions to Bidder (ITB)

Chapter2: General Conditions of Contract (GCC) and Special Conditions of

Contract (SCC)

Chapter3: Schedule of Requirements

Chapter 4: Specifications and Allied Technical Details

PART A: Technical Specifications
PART B: Acceptance Criteria

Chapter 5 Price Schedule Forms

Chapter 6 Contract Form

Chapter 7: Other Standard Forms comprising:

(a) Integrity Pact;

(b) Bidder Information Form;

(c) Bid Security Form;

(d) Performance Statement Form;

- (e) Deviation Statement Form;
- (f) Service Support details Form;
- (g) Bid Form;
- (h) Performance Security Form;
- (i) Acceptance Certificate Form;
- (j) Eligibility Certificate Form;
- (k) Non-Black-Listed Self Certification Form
- 1.5.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

#### 1.6 Clarification of Bidding Documents

1.6.1 AprospectiveBidderrequiringanyclarificationoftheBiddingDocumentsshallcontactthePurchasering writing at the Purchaser's address specified in the Special Conditions of Contract (SCC). The Purchaser will respond inwriting to request for clarification, provided that such request is received not later than ten (10) days prior to the deadline for submission of Bids. The Purchaser shall forward copies of its response to all those who have acquired the Bidding Documents directly from it, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under clause relating to amendment of Bidding Documents and Clause relating to Deadline for Submission of Bids. The clarifications and

amendments issue d would also be hosted on the website of the Purchaser for the benefit of the other prospective Bidders.

#### 1.7 Amendment of Bidding Documents

- 1.7.1 At any time prior to the deadline for submission of Bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by an amendment.
- 1.7.2 All prospective Bidders who have received the Bidding Documents will be notified of the amendment in writing or by cable or by fax, or by e mail and the said amendment will be binding on them. The same would also be hosted on the website of the Purchaser and all prospective Bidders are expected to surf the website before submitting their Bids to take cognizance of the amendments.
- 1.7.3 In order to allow prospective Bidders reasonable time to take the amendment into account, while preparing their Bids, the Purchaser, at its discretion, may extend the deadline for the submission of Bids and host the changes on the website of the Purchaser.

#### **C** - Preparation of Bids

#### 1.8 Language of Bid

1.8.1 The Bidder shall bear all costs of translation, if any, to the English language and all risks of the accuracy of such translation, for documents provided by the Bidder.

#### 1.9 Documents Comprising the Bid

- 1.9.1 The Offer is to be submitted in two parts. One part will be the Un-Priced Techno-Commercial Bid and the other shall be the Priced Bid in the manner described at ITB Clause 1.18.
- 1.9.2 TheUn-Priced Techno-Commercial Bid prepared by the Bidder shall include, among other Documents [like Technical Literature, brochures, drawings, all relevant commercial terms, data sheets etc.] the following:
  - (a) Bidder Information Form;
  - (b) Bid Security as specified in the Invitation for Bids;
  - (c) Service support details form;
  - (d) Deviation Statement Form;
  - (e) Performance Statement Form;
  - (f) Documentary evidence establishing that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
  - (g) Documents establishing good eligibility and conformity to Bidding Documents;
  - (h) Current solvency certificate
  - (i) Eligibility Certificate
  - (j) Non-Blacklisted self-certificate
- 1.9.3 The Price Bid prepared by the Bidder shall include, among other Documents the following:
  - (a) Bid form.
  - (b) Applicable Price Schedule Form (these forms shall be mandatorily be uploaded in the price bid)

#### 1.10 Bid Form and Price Schedule Form

1.10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule Form furnished in the Bidding Documents. These forms must be completed without any alterations to its format

and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

#### 1.11 Bid Prices

- 1.11.1 The Bidder shall indicate on the appropriate Price Schedule Form, the unit prices and total bid prices of the Goods it proposes to supply under the contract.
- 1.11.2 Prices indicated on the Price Schedule Form shall be entered separately in the following manner:

#### (a) For Goods manufactured with-in India

- (i) The price of the Goods quoted ex works including taxes already paid.
- (ii) GST and other taxes & duties which will be payable on the Goods if the contract is awarded.
- (iii) The charges for inland transportation, insurance and other local Services required for delivering the Goods at the desired destination.
- (iv) The installation, commissioning and training charges including any incidental Services, if any.

#### (b) For Goods manufactured abroad

- (i) The price of the Goods, quoted on EXW/ FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the Price Schedule Form.
- (ii) The charges for insurance and transportation of the Goods to the port/place of destination. The agency commission charges, if any.
- (iii) The installation, commissioning and training charges including any incidental Services, if any
- 1.11.3 The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the INCOTERMS published-by the International Chambers of Commerce, Paris.
- 1.11.4 Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offer shall be rejected as incomplete.
- 1.11.5 The price quoted shall remain fixed during the contract period and shall not vary on any account.
- 1.11.6 All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.
- 1.11.7 The purchases made by the Purchaser for scientific purpose are exempt from Customs Duty at a concessional rate is livable [Government of India Notification No. 51/96 Customs dated 22/07/1996].
- 1.11.8 The Purchaser shall not issue Exemption Certificates [Customs Duty Exemption Certificate / GST Exemption Certificate] for any raw materials / intermediary products that go into the manufacture of the Goods offered by Bidder.

#### **1.12 Bid Currencies**

1.12.1 Prices shall be quoted in **Indian Rupees** for offers received for supply within India and in freely convertible foreign currency in case of offers received for supply from foreign countries.

#### 1.13 **Documents Establishing Bidder's Eligibility and Qualifications**

- 1.13.1 The Bidder shall furnish as part of its bid, documents establishing the Bidder's eligibility to bid and its qualification to perform the contract if its bid is accepted.
- 1.13.2 The documentary evidence of the Bidder's qualification to perform the contract if the bid is accepted shall establish to the Purchaser's satisfaction that; Bidder meets the qualification/eligibility Criteria listed in Bidding Documents, if any.
- 1.13.3 Conditional tenders shall not be accepted.

#### 1.14 **Documents Establishing Goods Eligibility and Conformity to Bidding Documents**

- 1.14.1 To establish the Goods eligibility, 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 issued by a local chamber of commerce at the time of shipment.
- 1.14.2 To establish the conformity of the Goods and Services to the specifications and schedule of requirements of the Bidding Documents, the documentary evidence of conformity of the Goods and Services to the Bidding Documents may be in the form of literature, drawings and data, and shall consist of:
  - (a) A detailed description of the essential technical and performance characteristics of the Goods;
  - (b) 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 following commencement of the use of the Goods by the Purchaser in the Priced - bid; and
  - (c) 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.
- 1.14.3 For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standard workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only not restrictive The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the Substitutions ensure substantial equivalence to those designated in the Technical Specifications.

#### 1.15 Bid Security (BS) / Earnest Money Deposit (EMD)

- 1.15.1 The Bidder shall furnish, as part of its bid, a Bid Security (BS) / Earnest Money Deposit [EMD] for an amount as specified in the Invitation for Bids.
- 1.15.2 The Bid Security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture.
- 1.15.3 The Bid Security shall be in Indian Rupees for offers received for supply within India and denominated in the currency of the bid or in any freely convertible foreign exchange in the case of offers received for supplies from foreign countries in equivalent Indian Rupees. The Bid Security shall be in one of the following forms at the Bidder's option:
  - (a) A Bank Guarantee [BG] issued by a Nationalized/Scheduled bank in the form provided in the Bidding Documents and valid for 45 days beyond the validity of the bid. In case a Bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by

- a Nationalized/Scheduled Indian bank, with all confirmation charges to Bidder's account. Purchaser reserves the right to verify the authenticity of the Bank Guarantees from the issuing/confirming/controlling bank; or
- (b) Fixed Deposit Receipt pledged in favour of the Purchaser; or
- (c) Online payment in favour of the Purchaser.
- 1.15.4 The Bid Security shall be payable promptly upon written demand by the Purchaser in case the conditions listed in the ITB Sub-Clause 1.15.8 are invoked.
- 1.15.5 The Bid Security should be submitted in its original form. Copies shall not be accepted.
- 1.15.6 The Bid Security of unsuccessful Bidder will be discharged / returned as promptly as possible positively within a period of 30 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.
- 1.15.7 The successful Bidder's Bid Security will be discharged upon the Bidder furnishing the Performance Security, without any interest. Alternatively, the BS could also be adjusted against PS, if it is paid through DD/BC.
- 1.15.8 The Bid Security may be forfeited:
  - (a) If a Bidder withdraws or amends or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
  - (b) In case of a successful Bidder, if the Bidder fails to furnish Order Acknowledgement within 15 days of the order or fails to sign the contract and/or fails to furnish Performance Security within 21 days from the date of contract/ order.

#### 1.16 Period of Validity of Bids

- 1.16.1 Bids shall remain valid for a minimum period of 180 days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
- 1.16.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable, telex, fax or e- mail). The Bid Security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request will not be required nor permitted to modify its bid.
- 1.16.3 Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

#### 1.17 Format and Signing of Bid

1.17.1 Bids are invited on two-bid system, the Bidder shall submit the Bids in two separate parts. One part will be the Un-Priced Techno - Commercial Bid and the other shall be the Price Bid.

#### **D- Submission of Bids**

#### 1.18 Submission of Bids

1.18.1 The Bidders may submit their Bids in Tender Wizard portal as two separate bids.

#### **E - Opening and Evaluation of Bids**

#### 1.19 Opening of Bids by the Purchaser

1.19.1 The Purchaser will open all Bids at a time in Tender portal. The Price Bid shall be opened only after technical evaluation.

#### 1.20 Confidentiality

- 1.20.1 Information relating to the examination, evaluation, comparison, and post qualification of Bids, and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until publication of the Contract Award.
- 1.20.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the Bids or contract award decisions may result in the rejection of its Bid.

#### 1.21 Clarification of Bids

1.21.1 To assist in the examination, evaluation, comparison and post qualification of the Bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest Bidder, at the discretion of the Purchaser. Any clarification submitted by a Bidder in respect to its bid which is not in response to a request by the Purchaser shall not be considered.

#### 1.22 Preliminary Examination

- 1.22.1 The Purchaser shall examine the Bids to confirm that all documents and technical documentation requested in ITB Clause 1.9 have been provided, and to determine the completeness of each document submitted.
- 1.22.2 The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.
  - (a) Bid Form and Price Schedule Form, in accordance with ITB Clause 1.10. This condition pertains to opening of Price Bid only;
  - (b) All the Bids received will first be scrutinized to see whether the Bids meet the basic requirements as incorporated in the Invitation for Bids [IFB]. The Bids, which do not meet the basic requirements, are to be treated as unresponsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
    - (i) The Bid is unsigned.
    - (ii) Bid Security/ Earnest Money Deposit has not been furnished
    - (iii) The Bidder is not eligible.
    - (iv) The Bid validity is shorter than the required period.
    - (v) The Bidder has quoted for Goods manufactured by a different firm without the required authority letter from the proposed Manufacturer.
    - (vi) Bidder has not agreed to give the required Performance Security.
    - (vii) The Goods quoted are sub-standard, not meeting the required specification etc.
    - (viii) Against the schedule of Requirement (incorporated in the tender enquiry), the Bidder has not quoted for the entire requirement as specified in that schedule.
    - (ix) The Bidder has not agreed to some essential condition (s) in corporate in the tender enquiry.
    - (x) Bidder has not mentioned charges related to packing, forwarding, freight, insurance

charges, taxes etc. as required under Instructions to Bidders Clause 1.11 thus rendering such offers as in complete.

#### 1.23 Responsiveness of Bids

- 1.23.1 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each bid to the Bidding Documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the Bidding Documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:
  - (a) Affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
  - (b) Limits in any substantial way, inconsistent with the bidding documents, the purchase's rights or the bidder's obligations under the contract; or
  - (c) If rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.
- 1.23.2 The purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 1.23.3 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission.

#### 1.24 Non-Conformity, Error and Omission

- 1.24.1 Provided that a Bid is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Bid that do not constitute a material deviation.
- 1.24.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 1.24.3 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:
  - (a) If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
  - (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
  - (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 1.24.4 Provided that a bid is substantially responsive, the Purchaser may request that a Bidder may confirm the correctness of arithmetic errors as done by the Purchaser within a target date. In ca se, no reply is received then the bid submitted shall be ignored and its Bid Security may be forfeited.

#### 1.25 Examination of Terms & Conditions, Technical Evaluation

- 1.25.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.
- 1.25.2 The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with ITB Clause 1.14, to confirm that all requirements specified in Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.
- 1.25.3 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 1.23, it shall reject the Bid.

#### 1.26 Conversion to Single Currency

1.26.1 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 on the date of bid opening in the case of single part bidding and the rates prevalent on the date of opening of the Price Bids in the case of two - part bidding. For this purpose, exchange rate notified in www.xe.com or www.rbi.orq or any other website could also be used by the Purchaser.

#### 1.27 Evaluation and comparison of Bids

- 1.27.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.
- 1.27.2 To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined below. No other criteria or methodology shall be permitted.
- 1.27.3 The Bids shall be evaluated on the basis of final landing cost which shall be arrived as under: For Goods manufactured in India.
  - a. The price of the Goods quoted ex -works including all taxes already paid.
  - b. GST and other taxes & duties like excise duty etc. which will be payable on the Goods if the contract is awarded.
  - c. Charges for inland transportation, insurance and other local Services required for delivering the Goods the desired destination.
  - d. The installation, commissioning and training charges including incidental Services, if any.

#### For Goods manufactured abroad

- a. The price of the Goods, quoted on EXW [duly packed] / FCA (named place of delivery abroad) or FOB (named port of shipment), as specified in the Bidding Documents.
- b. The charges for insurance and transportation of the Goods to the port/place of destination.
- c. The agency commission etc., if any.
- d. The installation, commissioning and training charges including incidental Services, if any.
- 1.27.4 The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF/ CIP basis respectively. However, the CIF/CIP prices quoted by any foreign Bidder shall be loaded further as under:

- a. Towards customs duty and other statutory levies as per applicable rates.
- b. Towards custom clearance, inland transportation etc.

**Note:** Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offers shall be rejected as incomplete.

- 1.27.5 In the case of Purchase of many items against one tender, which are not inter-dependent or, where compatibility is not a problem, normally the comparison would be made on ex works, (in case of indigenous items) and on FOB / FCA (in the case of imports) prices quoted by the firms for identifying the lowest quoting firm for each item.
- 1.27.6 Orders for imported stores need not necessarily be on FOB/FCA basis. Rather it can be on the basis of any of the INCOTERMS specified in ICC INCOTERMS 2020 as may be amended from time to time by the ICC
- 1.27.7 Wherever the price quoted on FOB/FCA and CIF/CIP basis are the same, the Contract would be made on CIF / CIP basis only.
- 1.27.8 The GCC and the SCC shall specify the mode of transport i.e. whether by air/road/rail.
- 1.27.9 In case optional items are specified in the tendered specifications, the Purchaser reserves the right to buy or not to buy the optional items. In case the option is exercised to buy the optional items after Bid opening, then the cost of optional items would be included to ascertain the Lowest Evaluated Responsive Bid. In case, the option is exercised not to buy the optional items, then the cost of the optional items would not be included in ascertaining the Lowest Evaluated Responsive Bid.

NOTE: Bidders not quoting the optional items entail the risk of their offer being summarily ignored in the event of the Purchaser deciding to buy the optional items after Bid opening.

#### 1.28 Comparison of Bids

1.28.1 The Purchaser shall compare all substantially responsive Bids to determine the lowest-evaluated responsive bid, in accordance with ITB Clause 1.27.

#### 1.29 Contacting the Purchaser

- 1.29.1 Subject to ITB Clause 1.21, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- 1.29.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

#### 1.30 Post qualification

- 1.30.1 In the absence of pre qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 1.13.
- 1.30.2 The determination will take into account the eligibility criteria listed in the Bidding Documents and will be based up on Examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.30.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the bidder's bid.

#### F- Award of Contract

#### 1.31 Negotiations

1.31.1 There shall not be any negotiation normally. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the lowest evaluated responsive Bidder. Counter offers tantamount to negotiations and shall be treated at par with negotiations in the case of one-time purchases.

#### 1.32 Award Criteria

1.32.1 Subject to ITB Clause 1.34 the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

#### 1.33 Purchaser's right to vary Quantities at Time of Award

1.33.1 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. Further, at the discretion of the Purchaser, the quantities in the contract may be enhanced by 30% within the delivery period.

#### 1.34 Purchaser's right to accept any Bid and to reject any or All Bids

1.34.1 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 thereby incurring any liability to the affected Bidder or Bidders.

#### 1.35 Notification of Award

- 1.35.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the successful Bidder in writing by registered letter or by cable or telex or fax or e-mail that the bid has been accepted and a separate Purchase Order shall follow through post.
- 1.35.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding contract.
- 1.35.3 Upon the successful bidder's furnishing of the signed contract form and performance security pursuant to ITB clause 1.38, the purchaser will promptly notify each unsuccessful bidder and will discharge its bid security

#### 1.36 **Signing of Contract**

- 1.36.1 Promptly after notification, the Purchaser shall send the successful Bidder the Agreement/Purchase Order.
- 1.36.2 Within twenty one (21) days of date of the Agreement / Purchase Order, the successful Bidder shall sign, date, and return it to the Purchaser.

#### 1.37 Order Acknowledgement

- 1.37.1 The successful Bidder should submit Order Acknowledgement within 15 days from the date of issue of the Purchase Order / Contract, failing which it shall be presumed that the Supplier is not interested and his Bid Security is liable to be forfeited pursuant to clause 1.15.11 of ITB.
- 1.37.2 The Order Acknowledgement must be received within 15 days. However, the Purchaser has the powers to extend the time frame for submission of Order Acknowledgement and

submission of Performance Security (PS). Even after extension of time, if the Order Acknowledgement /PS are not received, the contract shall be cancelled and limited tenders irrespective of the value shall be invited from the responding firms after forfeiting the Bid Security of the defaulting firm, where applicable, provided there is no change in specifications. In such cases the defaulting firm shall not be considered again for re-tendering in the particular case.

#### 1.38 Performance Security

- 1.38.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish Performance Security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the BS should be kept valid till such time the PS is submitted.
- 1.38.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 1.38.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.
- 1.38.4 In the case of imports, the PS may be submitted either by the Principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the Manufacturer or their authorized dealer/Bidder.
- 1.38.5 The Performance Security shall be in one of the following forms:
  - a. A Bank Guarantee [BG] or Stand- by Letter of Credit [SLC] issued by a Nationalized/Scheduled bank located in India or a Foreign bank [i.e. a bank located outside India] with preferably its operating branch in India. The BG shall be issued in the form provided with the Bidding Documents. In case of Performance Security being furnished in the shape of Bank Guarantee or Stand by Letter of Credit issued by any foreign bank, the said BG/SLC shall have to be confirmed. All confirmation and other bank charges in this respect shall be borne by the Supplier. Purchaser shall independently verify the authenticity of the BGs from the issuing / confirming / controlling banks. Or;
  - b. Online payment in favour of the purchaser, or;
  - c. A Fixed Deposit Receipt pledged in favour of the Purchaser.
- 1.38.6 The Performance Security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.
- 1.38.7 In the event of any contract amendment, the Supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 1.38.8 The Order Acknowledgement should be received within 15 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of

Order Acknowledgement and submission of Performance Security (PS). Even after extension of time, if the Order Acknowledgement /PS are not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the Bid Security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for retendering in the particular case.

## **CHAPTER - 2**

## **CONDITIONS OF CONTRACT**

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

## **Table of Contents**

Sl. No.	Clause
2.1.	Definitions
2.2.	Contract Documents
2.3.	Fraud and Corruption
2.4.	Joint Venture, Consortium or Association
2.5.	Scope of Supply
2.6.	Supplier's Responsibilities
2.7.	Contract price
2.8.	Copyright
2.9.	Application
2.10.	Standards
2.11.	Use of Contract Documents and Information
2.12.	Patent Indemnity
2.13.	Performance Security
2.14.	Inspections and Tests
2.15.	Packing
2.16.	Delivery and Documents
2.17.	Insurance
2.18.	Transportation
2.19.	Incidental Services
2.20.	Spare Parts
2.21.	Warranty
2.22.	Terms of Payment
2.23.	Change Orders and Contract Amendments
2.24.	Assignment
2.25.	Subcontracts
2.26.	Extension of time
2.27.	Penalty Clause
2.28.	Termination for default
2.29.	Force Majeure
2.30.	Termination for insolvency
2.31.	Termination for Convenience
2.32.	Settlements of Disputes
2.33.	Governing language
2.34.	Applicable law
2.35.	Notice
2.36.	Taxes and Duties
2.37.	Right to use Defective Goods
2.38.	Protection against Damage
2.39.	Integrity Pact

#### 2.1. Definitions

- 2.1.1. The following words and expressions shall have the meanings hereby assigned to them:
  - (a) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
  - (b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
  - (c) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments
  - (d) "Day Means" calendar day
  - (e) "Completion" means the fulfillment of the related services by the Supplier in accordance with the terms and conditions set forth in the Contract.
  - (f) "GCC" means the General Conditions of Contract
  - (g) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
  - (h) "Related Service", means the services incidental to the supply of the Goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
  - (i) "SCC" means the Special Conditions of Contract.
  - (j) "Subcontractor" means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
  - (k) "Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
  - (l) The "Institute" means CMTI, Central Manufacturing Technology Institute registered under the Societies Registration Act, 1860 of Govt. Of India having its registered office at Tumkur Road, Bengaluru 560022, Karnataka, India and the "Purchaser" also means the above Institute situated at the above address in India as specified in SCC.
  - (m) "Final Destination", where applicable, means the place named in the SCC.

#### 2.2. Contract Documents

Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

#### 2.3. Fraud and Corruption

- 2.3.1. The Purchaser requires that Bidders, Suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,
  - (a) The terms set forth below are defined as follows:
    - "Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;

- (ii) **"Fraudulent practice"** means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
- (iii) "Collusive practice" Means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, noncompetitive levels; and
- (iv) "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their Property to influence their participation in the procurement process or affect the execution of a contract;
- (b) The Purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

#### 2.4. Joint Venture, Consortium or Association

2.4.1. If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

#### 2.5. Scope of Supply

2.5.1. The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

#### 2.6. Suppliers' Responsibility

2.6.1. The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.

#### 2.7. Contract price

2.7.1. Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

#### 2.8. Copyright

2.8.1. The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including Suppliers of materials, the copyright in such materials shall remain vested in such third party

#### 2.9. Application

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

### 2.10. Standard

2.10.1. The Goods supplied and Services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of requirements, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Good's country of origin and such standards shall be the latest issued by the

concerned institution.

#### 2.11. Use of Contract Documents and Information

- 2.11.1. The Supplier 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.
- 2.11.2. The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3. Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract, if so required by the Purchaser.

#### 2.12. Patent Indemnity

- 2.12.1. The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.12.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses. damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
  - (a) The installation of the Goods by the Supplier or the use of the Goods in India; and
  - (b) The sale in any country of the products produced by the Goods.
- 2.12.2. If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may as its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

#### 2.13. Performance Security

- 2.13.1. Within 21 days of receipt of the notification of award/ PO, the Supplier shall furnish Performance Security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the BS should be kept valid till such time the PS is submitted.
- 2.13.2. The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 2.13.3. The Performance Security shall be denominated in Indian Rupees for the offers received

- for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.
- 2.13.4. In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the Manufacturer or their authorized dealer/Bidder.
- 2.13.5. The Performance Security shall be in one of the following forms:
  - (a) A Bank Guarantee [BG] or Stand by Letter of Credit [SLC] issued by a Nationalized/Scheduled bank located in India or a Foreign bank with preferably its operating branch in India. The BG shall be issued in the form provided with the Bidding Documents. In case of Performance Security being furnished in the shape of Bank Guarantee or Stand by Letter of Credit issued by any foreign bank, the said BG/SLC shall have to be confirmed by any nationalized bank of India. All confirmation and other bank charges in this respect shall be borne by the Supplier. Purchaser shall independently verify the authenticity of the BGs from the issuing / confirming / controlling banks. Or;
  - (b) Online payment in favour of the Purchaser. Or;
  - (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.
- 2.13.6. The Performance Security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.
- 2.13.7. In the event of any contract amendment, the Supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 2.13.8. The order confirmation should be received within 15 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order confirmation /PS are not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the Bid Security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for re-tendering in the particular case.

#### 2.14. Inspections and Tests

- 2.14.1. The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC or as discussed and agreed to during the course of finalization of contract.
- 2.14.2. 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. The Technical Specifications and SCC shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.

- 2.14.3. The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data shall be furnished to the inspectors at no charge to the Purchaser.
- 2.14.4. Whenever the Supplier is ready to carry out any such test and inspection, it shall give reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or Manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 2.14.5. Should any inspected or tested Goods fail to conform to the specifications, the Purchase or may reject the Goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 2.14.6. The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.
- 2.14.7. The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 2.14.8. With a view to ensure that claims on insurance companies, if any, are lodged in time, the Bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the Bidder/ Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the Purchaser on the event of the delay.

#### 2.15. Packing

- 2.15.1. 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.
- 2.15.2. 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.

#### 2.16. **Delivery and Documents**

2.16.1. Delivery of the Goods and completion and related Services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of

- shipping and/ or other documents to be furnished by the Supplier are specified in SCC.
- 2.16.2. The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the INCOTERMS published by the International Chambers of Commerce, Paris.
- 2.16.3. The mode of transportation shall be as specified in SCC.

#### 2.17. Insurance

- 2.17.1. Should the Purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, Storage and delivery in the manner specified in SCC.
- 2.17.2. Where delivery of the Goods is required by the Purchaser on CIF or CIP basis the Supplier shall arrange and pay for Cargo Insurance, naming the Purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- 2.17.3. Where delivery is on FOB or FCA basis, insurance would be the responsibility of the Purchaser.
- 2.17.4. With a view to ensure that claims on insurance companies, if any, are lodged in time, the Bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the Bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the Purchaser on the event of the delay.

#### 2.18. Transportation

- 2.18.1. Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the supplier, and the cost thereof shall be included in the Contract price.
- 2.18.2. Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.18.3. In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.

#### 2.19. <u>Incidental Services</u>

2.19.1. The Supplier may be required to provide any or all of the Services, if any, specified in SCC.

#### 2.20. Spare Parts

- 2.20.1. The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
  - (a) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
  - (b) In the event of termination of production of the spare parts:
    - (i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
    - (ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.
  - (c) In case of OEM Supplier companies merges, amalgamation, take over or bifurcation etc., it is the responsibility of the Original Supplier to maintain the spare parts requirements for 10 years with the new Entity.

#### 2.21. Warranty

- 2.21.1. The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 2.21.2. The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- 2.21.3. Unless otherwise specified in the SCC or technical specifications, the warranty shall remain valid as specified in the contract.
- 2.21.4. The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 2.21.5. Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 2.21.6. If having been notified, the Supplier fails to remedy the defect within the reasonable period of time, the Purchaser expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 2.21.7. Goods requiring warranty replacements must be replaced on free of cost basis to the Purchaser at Purchaser site.

#### 2.22. Terms of Payment

- 2.22.1. The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.22.2. The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the

- Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfillment of other obligations stipulated in the contract.
- 2.22.3. Payments shall be made promptly by the Purchaser within a reasonable time after submission of the invoice or claim by the Supplier.
- 2.22.4. Payment shall be made in currency as indicated in the contract.

#### 2.23. Change Orders and Contract Amendments.

- 2.23.1. The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:
  - (a) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
  - (b) The method of shipping or packing;
  - (c) The place of delivery; and/or
  - (d) The Services to be provided by the Supplier.
  - (e) The delivery schedule.
- 2.23.2. If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.
- 2.23.3. No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

#### 2.24. Assignment

2.24.1. The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

#### 2.25. Sub contracts

2.25.1. 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 the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract.

#### 2.26. Extension of time

- 2.26.1. 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.
- 2.26.2. If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may, at its discretion, extend the suppliers time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 2.26.3. Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery Obligations shall render the Supplier liable to the

imposition of penalty pursuant to Penalty Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

#### 2.27. Penalty clause

2.27.1. Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the 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 the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable.

#### 2.28. Termination for Default

- 2.28.1. 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
  - (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; or
  - (b) If the Supplier fails to perform any other obligation(s) under the Contract; or
  - (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in GCC Clause on Fraud or Corruption in competing for or in executing the Contract.
- 2.28.2. In the event the Purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
  - (a) The Performance Security is to be forfeited;
  - (b) The Purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the Supplier shall be liable for all available actions against it in terms of the contract.
  - (c) However, the Supplier shall continue to perform the contract to the extent not terminated.

#### 2.29. Force Majeure

- 2.29.1. Notwithstanding the provisions of GCC Clauses relating to extension of time, penalty and Termination for Default the Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 2.29.2. For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.29.3. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in

- writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 2.29.4. If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

#### 2.30. Termination for Insolvency

2.30.1. The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

#### 2.31. Termination for Convenience

- 2.31.1. The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- 2.31.2. The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
  - (a) To have any portion completed and delivered at the Contract terms and prices
  - (b) To cancel the remainder and pay to the Supplier an agreed a mount for partially completed Goods and for materials and parts previously procured by the Supplier.

#### 2.32. Settlement of Disputes

- 2.32.1. 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.
- 2.32.2. If, after twenty one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as herein after provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 2.32.3. The dispute settlement mechanism/arbitration proceedings shall be concluded as under:
  - (a) 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 reenactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director, Central Manufacturing Technology Institute 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.

- (b) 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.
- 2.32.4. The venue of the arbitration shall be the place from where the purchase order or contract is issued.
- 2.32.5. Notwithstanding any reference to arbitration herein,
  - (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
  - (b) The Purchaser shall pay the Supplier any monies due the Supplier.

#### 2.33. **Governing Language**

2.33.1. The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

#### 2.34. Applicable Law

2.34.1. The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

#### 2.35. Notices

- 2.35.1. Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or and confirmed in writing to the other party's address specified in the SCC.
- 2.35.2. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

#### 2.36. Taxes and Duties

- 2.36.1. For Goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.
- 2.36.2. For Goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.
- 2.36.3. If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

#### 2.37. Right to use Defective Goods

2.37.1. 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.

#### 2.38. Protection against Damage

- 2.38.1. The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:
  - a) Voltage 230 -V Single phase
  - b) Frequency 50 Hz.

#### 2.39. Integrity Pact

As per directive of CVC all organizations have to adopt an Integrity Pact (IP) to ensure transparency, equity and competitiveness in major Public procurement activities. The integrity Pact envisages an agreement between the prospective Bidders/Vendors with the buyer committing the persons/officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. Only these Bidders/Vendors who are willing to enter into such an Integrity Pact with the buyer i.e, CMTI would be competent to participate in the bidding.

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

The following Special Conditions of Contract (SCC) shall supplement and/or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

The Purchaseris: CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru -		
560022, Karnataka, India		
The Final Destination is: CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India,		
Inspection and Acceptance Tests at Final Destination:		
The Inspection and Acceptance Tests at Buyer's site (Final Destination) are as follows:		
The acceptance test will be conducted after the equipment/system is installed at Purchaser's site by Supplier's representatives to check conformity with the technical specifications and acceptance criteria. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment/system 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. In the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserves the right to get the equipment /system replaced by the Supplier at no extra cost to the Purchaser. Successful conduct and conclusion of the acceptance test for the installed Goods and equipment /system shall also be the responsibility and at the cost of the Supplier. Before the Goods and equipment /system are taken over by the Purchaser, the Supplier shall supply operation and maintenance Manuals together with Drawings of the Goods and equipment /system built. These shall be in such details as will enable the Purchase to operate, maintain, adjust and repair all parts of the works as stated in the specifications. The Manuals and Drawings shall be in the ruling language (English) and in such form and numbers as stated in the Contract. Unless and otherwise agreed, the Goods and equipment /system shall not be considered to be completed for the purposes of taking over until such Manuals and Drawing have been supplied to the Purchaser. On successful completion of acceptability test, receipt of deliverables, etc. and after the Purchaser is satisfied with the working of the equipment /system, the acceptance certificate signed by the Supplier and the representative of the Purchaser will be issued. The da		
Packing		
The marking and documentation within and outside the packages shall be:		
Each package should have a packing list within it detailing the part No.(s), description, quantity,		
etc.  Outside each package, the contract No., the name and address of the Purchaser and the final		
destination should be indicated on all sides and top.		
Each package should be marked as $1/x$ , $2/x$ , $3/x$ x/x, where "x" is the total no of packages		
contained in the consignment.		
All the sides and top of each package should carry an appropriate indication / label / stickers indicating the precautions to be taken while handling / storage		

#### Shipping/Dispatch documents

Details of Shipping and other Documents to be furnished by the Supplier are

#### A. For Goods manufactured within India

Within 24 hours of dispatch, the Supplier shall notify the Purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/ E-mail.

- (a) Two copies of Supplier's Invoice indicating, inter alia description and specification of the Goods, quantity, unit price, total value;
- (b) Packing list;
- (c) Certificate of country of origin;
- (d) Insurance certificate, if required under the contract;
- (e) Railway receipt/Consignment note;
- (f) Manufacturer's guarantee certificate and in-house inspection certificate;
- (g) Inspection Certificate issued by Purchaser's inspector, if any and
- (h) Any other document(s) as and when required in terms of the contract.

Note: 1. The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. Should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s)

GCC 2.16.1

Note: 2. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses

#### [B] For Goods manufactured abroad

Within 24 hours of dispatch, the Supplier shall notify the Purchaser the complete details of dispatch and also supply following documents by Registered Post/courier and copies thereof by FAX.

- (a) Two copies of Supplier's Invoice giving full details of the Goods including quantity, value, etc.:
- (b) Packing list;
- (c) Certificate of country of origin issued by a local chamber of commerce;
- (d) Manufacturer's guarantee and Inspection Certificate;
- (e) Inspection certificate issued by the Purchaser's Inspector, if any;
- (f) Insurance Certificate, if required under the contract;
- (g) Name of the Vessel/Carrier
- (h) Port of Loading;
- (i) Date of Shipment;
- (j) Port of Discharge & expected date of arrival of Goods and
- (k) Any other document(s) as and when required in terms of the contract

Note: 1. The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s)

Note: 2. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses

CCC	Transportation / Dispatch
GCC	Transportation/ Dispatch
2.16.3	In case of supplies from within India, the mode of transportation shall be by Air/Rail/Road. In case of supplies from abroad, the mode of transportation shall be by Air. For supplies from abroad, Supplier shall ensure that the Goods are transported through the authorized freight forwarder of Purchaser, whose name and other contact details shall be made available to Purchaser.
	Purchaser shall not accept dispatch / transportation of Goods through any other forwarder.  Payment by L/C shall only be released against presentation of the House Air Way Bill issued by the authorized freight for warder of Purchaser.
	Insurance
GCC 2.17.1	The Insurance shall be for an amount equal to the 110% of the CIF or CIP value of the contract from within "warehouse to warehouse (final destination)" on "ALL- RISKS basis including strikes, riots and civil commotion"
	Incidental Services
GCC	The Incidental Services to be provided are:  1. Pre-dispatch Equipment Audit.  2. Installation and Commissioning of Goods/ Equipment.  3. Training on use/application.
2.19.1	4. Warranty Support [to be effective from the date of final acceptance at site, [CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru, Karnataka, India-560022] The Cost of the above incidental services shall be included in the Contract Price and a Price Break-up shall also be given
	Warranty
GCC 2.21.3	The period of validity of Warranty shall be effective from the date of acceptance of the Goods to the entire satisfaction of the Purchaser. The Warranty shall be Comprehensive in nature. The warranty period shall be for the period as stipulated in the Technical Specifications
	Payment
GCC 2.22.1	The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:  Payment for Goods and Services supplied: 100% of the Contract Value shall be paid to the Supplier After delivery, Inspection and Acceptance
	Liquidated Damages
GCC 2.27.1	<ul> <li>(i) The penalty shall be: [0.5%] Percent per week or part of a week towards late delivery and towards delay in installation and commissioning.</li> <li>(ii) The maximum amount of liquidated damages shall be: [10%] TEN Percent. The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value.</li> </ul>
GCC 2.34.1	The place of jurisdiction is BENGALURU [KARNATAKA]
	For notices, the Purchaser's address is:
GCC	Attention: Group Head(Purchase & Stores)
2.35.1	CMTI–Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India
	Email: purchase@cmti.res.in

## CHAPTER - 3

## SCHEDULE OF REQUIREMENTS

#### TO BE FILLED BY BIDDER AND ENCLOSED WITH THE TECHNO- COMMERCIAL BID

Brief Description of Goods and Services	Quantity		
Supply, Installation & Commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM[Technical Specifications and Other Details as per Chapter 4 of this Bidding Documents]	As per Bill of quantity		
Final Destination	CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru - 560022, Karnataka, India		
Period of Delivery shall count from	< TO BE FILLED BY BIDDER>		
Time period by which the goods shall be ready at manufacturer's site for pre-dispatch Equipment Audit	< TO BE FILLED BY BIDDER>		
Delivery Period [Goods to be delivered in one lot at final destination CMTI - Central Manufacturing Technology Institute, Tumkur Road, Bengaluru, Karnataka,India-560022]	< TO BE FILLED BY BIDDER>		
Time frame required for conducting installation, commissioning of the Goods etc. after arrival of the Goods at Final destination	< TO BE FILLED BY BIDDER>		

NOTE: The party has to offer their product /equipment strictly based on the specifications asked in the Bidding Documents.

#### CHAPTER - 4

## **Part-A: Technical Specifications**

## Supply, Installation & Commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM

Important Note: Merely stating, "comply" does not constitute sufficient information. Exact numerical values are to be specified wherever applicable. Specified technical data should be supported by product catalogues, manuals, test procedures and test plots etc. and demonstrated at site. In case of insufficient technical data, the quote will be summarily rejected without seeking any clarifications.

## Annexure 1: Technical Specifications of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM

Application: This machine is intended to cut materials like Manganese alloys, Nickel Alloys, Stainless Steel, Steel & Cast Iron Castings			
SL. NO.	SL. NO. ESSENTIAL SPECIFICATION SPECIFICATION VENDOR		
	Machine: Make & Model	Essential	Vendor to specify & compliance
1	Table :		
1.1	Table size	1800X 2200 mm or Higher	Vendor to specify Size & compliance
1.2	T Slots Size	22H8 or more	Vendor to specify Size & compliance
1.3	Table loading capacity	Min. 10 Ton.	Vendor to specify capacity & compliance
1.4	Central slot tolerance H7and to be parallel to X axis	Vendor to specify	compliance
1.5	Size of table center bore  Bore tolerance at the center(H7); concentric	Vendor to specify size	Vendor to specify size & Compliance
1.6	to rotation axis	Vendor to specify	compliance
2	Traverses :		
2.1	X Axis	3000 mm or more	Vendor to specify Stroke & compliance
2.2	Y Axis	2000 mm or more	Vendor to specify Stroke & compliance
2.3	Z Axis (Traversing column/Table)	1200 mm (or more)	Vendor to specify Stroke & compliance
2.4	V Axis (RAM)	700mm or more	Vendor to specify Stroke & compliance
2.5	W Axis (Traversing Spindle -Quill)	630 mm or more	Vendor to specify Stroke & compliance
2.6	B axis (Rotary Continuous)	360 deg	Vendor to specify Stroke & compliance
		1	
3	No. of Simultaneous Interpolation axes : 4	4 (Simultaneous interpolation Axes) (X,Y,Z/V & B Axes)	Essential
3.1	Linear axes	3 (X, Y & Z)	Vendor to specify & compliance
3.2	Additional Linear Axes	2 (V & W)	Vendor to specify & compliance
3.3	Rotary axes	1 (B)	Vendor to specify & compliance

4.1	Spindle :		
4.1.1	Boring Spindle Diameter	130mm	Essential
4.1.2	Spindle motor AC variable	37 KW (100%) or more	Essential
	Torque (100%)	Torque 1600 Nm or More	
4.1.3	Spindle speed (step-less)	5 - 3000 RPM or more	Essential
4.1.4	Spindle taper	ISO 50	Essential
4.1.5	Spindle runout	0.003 mm or less at Spindle Nose	Vendor to specify value & compliance
4.1.6	spindle cleaning	by Air or other means	Vendor to specify & compliance
4.1.7	Spindle bearing type & arrangement	Specify	Vendor to specify & compliance  Vendor to specify &
4.1.8	Spindle Cooling	Essential	compliance
4.1.9	Counter Balancing for Spindle Head  Details regarding mechanism for counter	Essential	Vendor to specify & compliance  Vendor to specify &
4.1.10	balancing to be submitted	Essential	compliance
4.2	Ram:		
4.2.1	Ram Size	Min 300 x 300 mm	Vendor to specify & compliance
4.2.2	Ram Stroke	700 mm(min.) or more	Essential
4.2.3	Ram Guide ways	LM Roller Guideways	Vendor to specify & compliance
4.2.4	Ram Drive Mechanism  Ram Feedback mechanism- Linear scale	Vendor to provide details	Vendor to specify & compliance  Vendor to specify &
4.2.5	with Absolute encoder of Heidenhain Make  Ram to be equipped with droop	Essential	compliance  Vendor to specify &
4.2.6	compensation.  Details regarding mechanism for the	Essential	compliance
4.2.7	compensation to be submitted (Preferably Electro-Mechanical)	Required	Vendor to specify & compliance
4.3	Thermal Error Compensation feature	Essential	Vendor to specify & compliance
5	Feed drive (AC Servo digital)		
5.1	Programmable feed rates :		
5.1.1	X Axis	4000 mm/min or more	Vendor to specify & compliance
5.1.2	Y Axis	4000 mm/min or more	Vendor to specify & compliance  Vendor to specify &
5.1.3	Z Axis	4000 mm/min or more	compliance  Vendor to specify &
5.1.4	V Axis	4000 mm/min or more	compliance  Vendor to specify &
5.1.5	W Axis	4000 mm/min or more	compliance
5.1.6	B Axis	0.003-2 RPM	Vendor to specify &

				compliance
5.2	Rapid traverse :			1
5.2.1	X, Y, Z, V & W Axes	8000 mm/mi	n or more	Vendor to specify & compliance
5.2.2	B Axes	2 RPM or m	ore	Vendor to specify & compliance
6	Accuracy Test(as per ISO 230-2-2014) :			Essential
	POSITIONING & REPEATABILITY ACCURA	CIES		Essential
6.1	POSITIONING & REPEATABILITY ACCURACIES EQUIVALENT AS PER ISO: 230-2-2014 TEST PROCEDURES USING LASER INTERFEROMETER.			
6.1.1	Bidirectional Positioning accuracy for entire travel of X axis	≤0.015 mm		Vendor to specify & compliance
6.1.2	Bidirectional Positioning accuracy for entire travel of Y axis	≤0.012 mm		Vendor to specify & compliance
6.1.3	Bidirectional Positioning accuracy for entire travel of table/column moving axis Z axis	≤0.01 mm		Vendor to specify & compliance
6.1.4	Bidirectional Positioning accuracy for entire travel of RAM V axis	≤0.01 mm		Vendor to specify & compliance
6.1.5	Bidirectional Positioning accuracy for entire travel of W axis  Bidirectional Positioning accuracy for B-	≤0.01 mm		Vendor to specify & compliance Vendor to specify &
6.1.6	axis	≤5 Arc sec		compliance
6.1.7	Repeatability for linear axis – X,Y & Z	≤0.008 mm		Vendor to specify & compliance
6.1.8	Repeatability for linear axis - W & V	≤0.008 mm		Vendor to specify & compliance  Vendor to specify &
6.1.9	Repeatability for B-axis	≤3 Arc sec		compliance
	GEOMETRICAL ACCURACIES:			T
6.2	GEOMETRICAL ACCORAGIES.			Essential
	Geometrical Accuracy Tests Procedures s		ordance with I	SO 3070-2-2007 standard.
		In the YX- plane	≤0.010 mm/1000	
	Straightness of the spindle head	In the YZ- plane	mm Max.0.020 mm for full stroke	Vendor to specify & compliance
6.2.1	movement (Y-axis)	spindle head (Y-axis) In the YX-		
		plane In the YZ- plane	≤0.020 mm/1000 mm	Vendor to specify & compliance
		Lengthwise Crosswise	≤0.010 mm/1000	Vendor to specify &
6.2.2	Table surface level during rotation	Along the	mm ≤0.012	compliance Vendor to specify &
6.2.3	Table surface flatness (flat to concave)	clamping	mm/1000	compliance

		slots	mm	
		Across the	-	
		clamping		
		slots		
		Spindle out 2D	≤0.005 mm	Vendor to specify & compliance
	Courses of the haring original	Spindle out		Vendor to specify &
	Squareness of the boring spindle movement (W-axis) to the spindle head	4D Spindle out	≤0.010 mm	compliance Vendor to specify &
5.2.4	movement (Y-axis)	5D	≤0.030 mm	compliance
		In the XZ-	≤0.010	
	Parallelism of the boring spindle axis (W-	plane	mm/300	Vendor to specify &
.2.5	axis) to the column movement (Z-axis)	(horizontal)	mm	compliance
		To the	<0.040	
	Squareness of spindle head movement (Y-	table movement	≤0.012 mm/500	Vendor to specify &
.2.6	axis)	(X-axis)	mm	compliance
.2.0	unio	To the		compliance
		table		
		movement		
		(X-axis)	]	
		To the		
		spindle	1	
		head	≤0.015	
0.7		movement	mm/500	Vendor to specify &
.2.7	Squareness of the ram movement (V-axis)	(Y-axis)	mm	compliance
			≤0.010	
_	Squareness of the column movement (Z-		mm/500	Vendor to specify &
5.2.8	axis) to the table movement (X-axis)		mm	compliance
		To the		
		transverse		
		movement- 0 Deg		
		To the	-	
	Middle "T" slot parallel alignment	transverse	≤0.010	
	accuracy (locked of the rotary table (00,	movement-	mm/1000	Vendor to specify &
5.2.9	900 , 1800 , 2700 )	180 Deg	mm	compliance
	·		≤0.010	
	Spindle axis perpendicularity to vertical		mm/500	Vendor to specify &
5.2.10	movement	_	mm	compliance
		Spindle	40.000	Vendor to specify &
		retracted	≤0.006 mm	compliance
5.2.11	Spindle radial run-out	Checkpoint at 300 mm	≤0.012 mm	Vendor to specify & compliance
.2.11		at 300 mm	20.012 11111	Compliance
	Axial run-out of hollow spindle			Vendor to specify &
5.2.12	Radial run-out of hollow spindle		≤0.010 mm	compliance
2 1 2	Rotary table bushing radial run-out		<0.040	Vendor to specify &
5.2.13	-		≤0.010 mm ≤0.03	compliance
			≥0.03 mm/R,	
			R=1000	Vendor to specify &
5.2.14	Rotary table surface axial run-out		mm	compliance
	BALL BAR TEST			Essential
.3	·			
5.3				
5.3	Bi-directional circular deviation using Ball E	Bar test:		_
5.3	Bi-directional circular deviation using Ball E Diameter of nominal path:600 Feed Speed:1000 mm/min	Bar test:		

	Bi-directional circular deviation	<b>≤0.025 mm</b>	Vendor to specify &
6.3.1	Di directional circular deviation	20.020 11111	compliance
	Geometrical Accuracy for Part Proving at V	endor Site & at after	
6.4	Installation at Site as per ISO 10791-7	_	Essential
6.4.1	Interpolation	Essential	Geometric Accuracy of
6.4.2	Positioning Interpolation	Essential	Listed form will be checked as per Test piece
6.4.3	Linear Interpolation	Essential	in ISO 10791-7,M1_160
6.4.4	Helical Interpolation	Essential	on Alloy Steel Material after Heat Treatment
6.4.5	Involute Interpolation	Essential	Hardness-30-36 HRc
6.4.6	Polar Co-ordinate	Essential	(Supplier has to arrange
6.4.7	Cylindrical Interpolation	Essential	required Test Part)
7.0	Resolution :		
7.1	Linear axes (X, Y, Z, V & W)	0.001 mm or Better	Essential
7.2	Rotary axes ( B )	0.001 deg or Better	Essential
	Trotally axed (D)	cioo i dog oi botto.	Locomia
	Position measuring system & Feed back		Vendor to specify &
8.0	device	Electro Optical Scales	compliance
		Linear scale with Absolute encoder of	
8.1	For Linear Axes:	Heidenhain Make	Essential
		Angular Absolute encoder	
8.2	For Rotary Axes:	of Heidenhain Make	Essential
		1	
9.0	Control System : Latest Version	Latest Version of Siemens,	Essential
9.1	Preferred Requirements :		
	Microprocessor based CNC continuous path		Variation and Co.
9.1.1	control compatible of interfacing with the host computer	Specify	Vendor to specify & compliance
0.1.1	Computer	Оробну	Vendor to specify &
9.1.2	No. of simultaneous interpolated axes	4 (3 linear & 1 rotary)	compliance
9.1.3	Integrated programmable controller	Poquired	Vendor to specify &
9.1.3	Display of all machine and control functions	Required	compliance Vendor to specify &
9.1.4	on TFT screen in English	Essential	compliance
	Display of all messages and solutions on TFT		Vendor to specify &
9.1.5	screen in English	Essential	compliance Vendor to specify &
9.1.6	Graphic simulation of program on TFT	Essential	compliance
			Vendor to specify &
9.1.7	Storage of all data in non-volatile memory	Essential	compliance
9.1.8	Compensation for tool length and diameter	Essential	Vendor to specify & compliance
			Vendor to specify &
9.1.9	Contour compensation(3D Comp)	Essential	compliance Vendor to specify &
9.1.10	Backlash compensation	Essential	compliance
			Vendor to specify &
9.1.11	Pitch error compensation	Essential	compliance
9.1.12	Number of Tool offsets	99 or more	Vendor to specify & compliance
			Vendor to specify &
9.1.13	Feed override	0-120%	compliance

ı		tii kaivi	1,, , , , ,
9.1.14	Spindle speed override	0-120%	Vendor to specify & compliance
3.1.14	Spiriale speed override	0-12070	Vendor to specify &
9.1.15	Rapid rate override	0-120%	compliance
0	Continuous and incremental jog with pulse	0 12070	Vendor to specify &
9.1.16	generator	Essential	compliance
	3		Vendor to specify &
9.1.17	Axis calibration	Essential	compliance
			Vendor to specify &
9.1.18	Dry-run	Essential	compliance
			Vendor to specify &
9.1.19	Spindle power monitoring	Essential	compliance
9.2	Programming :		
			Vendor to specify &
9.2.1	Canned cycles	Essential	compliance
	·		Vendor to specify &
9.2.2	Circular pocket milling cycle	Essential	compliance
			Vendor to specify &
9.2.3	Rectangular pocket milling cycle	Essential	compliance
			Vendor to specify &
9.2.4	Contour milling cycle	Essential	compliance
			Vendor to specify &
9.2.5	Slot milling cycle	Essential	compliance
			Vendor to specify &
9.2.6	Drilling cycle	Essential	compliance
			Vendor to specify &
9.2.7	Boring cycle	Essential	compliance
			Vendor to specify &
9.2.8	Reaming cycle	Essential	compliance
			Vendor to specify &
9.2.9	Rigid tapping cycle	Essential	compliance
			Vendor to specify &
9.2.10	Pattern cycle	Essential	compliance
			Vendor to specify &
9.2.11	Inspection cycle	Essential	compliance
			Vendor to specify &
9.2.12	Helical interpolation	Essential	compliance
			Vendor to specify &
9.2.13	Programming in polar coordinates	Essential	compliance
			Vendor to specify &
9.2.14	Radius programming	Essential	compliance
0.045	Dragger and last tree abits	Feeestiel	Vendor to specify &
9.2.15	Programmable datum shift	Essential	compliance
0.0.40	Coordinate evet	Feeestiel	Vendor to specify &
9.2.16	Coordinate system rotation	Essential	compliance
0 2 47	Custom moores	Focontial	Vendor to specify &
9.2.17	Custom macros	Essential	compliance
0 2 40	Parametria programmina	Ecconticl	Vendor to specify &
9.2.18	Parametric programming	Essential	compliance
0.2.40	Zoro datum shifts	Focontiel	Vendor to specify &
9.2.19	Zero datum shifts	Essential	compliance Vendor to specify &
9.2.20	Work Offeets	minimum 6	compliance
J.Z.ZU	Work Offsets	IIIIIIIIIIIIIIIII	
0.2.24	Direct PPM programming	Ecconticl	Vendor to specify &
9.2.21	Direct RPM programming	Essential	compliance
9.2.22	Direct feed rate programming in mm/min	Essential	Vendor to specify & compliance
J.L.ZZ	Direct reed rate programming in min/min	ESSEIIIIdi	Vendor to specify &
0 2 22	Absolute and Ingramental programming	Eccential	compliance
9.2.23	Absolute and Incremental programming	Essential	compliance

11.1.1	X Axis	Specify	Vendor to specify & compliance
11.1	Make & Model	Specify	
11	Feed motor torque (Nm)	T	T
10.5	(operator's guidance)	Essential	compliance
10.4	Work offset probing Operator interactive machine programming	Renishaw preferred	compliance Vendor to specify &
	Tool offset measuring-Non-Contact Type	Renishaw/marposs/blum)	Vendor to specify &
10.3		Essential (specify	Vendor to specify &
10.2	Interface hardware & software for touch probe	Essential	Vendor to specify & compliance
10.1	Job measurement system using touch probe	and software essential	Vandar ta anacifi. 9
10	Measuring Probes	Essential Job measuring cycles	Vendor to specify & compliance
9.2.44	messages are displayed on Screen	Essential	compliance
9.2.43	Self diagnostic function, Alarm & fault	Essential	compliance Vendor to specify &
9.2.42	Diagnostics	Essential	compliance Vendor to specify &
	-	Facential	Vendor to specify &
0.2.41	Auto & Single block operation	Essential	compliance
0.2.40	Technology calculations	Essential	compliance Vendor to specify &
).2.39	Calculator functions	Essential	compliance Vendor to specify &
2 20	·	Esceptial	Vendor to specify &
9.2.38	on IBM PC compatibles	Essential	compliance
9.2.37	Programming away from machine	Essential	compliance Vendor to specify &
	•		Vendor to specify &
9.2.36	Play back mode	Essential	Vendor to specify & compliance
9.2.35	Manual/incremental jog for axes	Essential	compliance
9.2.34	Rounding & beveling of corners	Essential	compliance Vendor to specify &
			Vendor to specify &
9.2.33	Teach in mode	Essential	Vendor to specify & compliance
9.2.32	Block delete/addition	Essential	compliance
9.2.31	Sequence number/Block search	Essential	compliance Vendor to specify &
2 24	Coguenos number/Disek secret	Facential	Vendor to specify &
9.2.30	Background editing facility	Essential	compliance
9.2.29	Parallel programming	Essential	compliance Vendor to specify &
			Vendor to specify &
9.2.28	Word address	Essential	Vendor to specify & compliance
9.2.27	Programmable dwell	Essential	compliance
9.2.26	Programmable mirror image	Essential	compliance Vendor to specify &
0 0 00	Description of the second of t	Facantial	Vendor to specify &
9.2.25	Mirror imaging	Essential	compliance
9.2.24	Sub program & nesting of sub programs	Essential	compliance Vendor to specify &

		]	Vendor to specify &
11.1.2	Y Axis	Specify	compliance
			Vendor to specify &
11.1.3	Z Axis	Specify	compliance
			Vendor to specify &
11.1.4	V & W Axis	Specify	compliance
			Vendor to specify &
11.1.5	B Axis	Specify	compliance
11.2	Max. thrust capacity (N)		
			Vendor to specify &
11.2.1	X Axis	Specify	compliance
			Vendor to specify &
11.2.2	Y Axis	Specify	compliance
			Vendor to specify &
11.2.3	Z Axis	Specify	compliance
4404			Vendor to specify &
11.2.4	V & W Axis	Specify	compliance
4405	D Avia	On a sife.	Vendor to specify &
11.2.5	B Axis	Specify	compliance
11.3	Arrangement of connecting Ball screw to	Direct coupled preferred	Vendor to specify &
11.3	feed motor	Direct coupled preferred  Make:	compliance
	Backlach from Dro Loaded Hordened 9	Make:   THK/Tsubaki/NSK/KSK/	Vandor to aposify 9
11.3.1	Backlash-free, Pre-Loaded, Hardened & Ground Ball Screw		Vendor to specify & compliance
11.J. l	Class: C3 or Better Class & Size(Diameter)	Steinmeyer Specify	Vendor to specify &
11.3.2	need to specify	Specify	compliance
11.3.2	Machine Column, Bed & Table should be	Ореспу	Compliance
	of Heavy duty stress relieved High Quality		Vendor to specify &
11.4	Cast Iron structure	Essential	compliance
		Losential	Compliance
11.5	Guideways	T	T
	Integral Hardened & Ground Box type		
	Guideways.		
	Telescopic Cover-The Guide ways, Driving		
	Mechanism & Bearings etc to be covered &		Vandarta anaif. 8
11 E 1	protected from Dust Particle & Workshop	Charity	Vendor to specify &
11.5.1	environment	Specify	compliance Vendor to specify &
116	Manual ing food rate	Specify	compliance
11.6	Manual jog feed rate	Specify	Vendor to specify &
11.7	Dry run feed rate	Specify	compliance
11.7	Dry full leed fale	Гореспу	Compliance
			Vendor to specify &
12	Hydraulic System	Required	compliance
			Vendor to specify &
12.1	Hydraulic pump capacity (flow/pressure)	Specify	compliance
40.0	Complete hydraulic systems should be	Vendor to specify &	Vendor to specify &
12.2	designed to avoid any leakage or spillage	compliance	compliance
		Centralized & Automatic	
		along with Feedback	Vendor to specify &
13	Lubrication system-	System	compliance
	Lubrication system for		
	Labilitation system for		Vendor to specify &
13.1	a) Machine axes	Essential	compliance
	a) Machine axes	Looning	Vendor to specify &
40.0	b) Gear Box	Essential	compliance
13ツ		Looutillal	Journaline
13.2	b) Geal Box		
13.2	D) Geal Box		
13.2	Chip disposal system with Bin	Essential	Vendor to specify & compliance

15	Other requirements :		
			Vendor to specify &
15.1.1	Integrated Coolant system	Essential	compliance
			Vendor to specify &
15.1.2	Programmable coolant system	Required	compliance
			Vendor to specify &
15.1.3	Coolant tank capacity	Specify	compliance
	0 1 15	0 1/	Vendor to specify &
15.1.4	Coolant Pump capacity	Specify	compliance
45 4 5	Coolant Dumm Drassure	Consitu	Vendor to specify &
15.1.5	Coolant Pump Pressure	Specify	compliance
15.1.6	Fluching evetem	Coloob lot 9 Coroy gun	Vendor to specify &
13.1.0	Flushing system	Splash Jet & Spray gun	compliance Vendor to specify &
15.1.7	Machine lamp	Required	compliance
13.1.1	waciiile iamp	Required	Vendor to specify &
15.1.8	Panel cooler (built-in A/C)	Essential	compliance
10.1.0	Transi coolor (bullt-lit 7/0)	Location	Johnphande
		T	1,, , , , ,
4504	Overta Karaka and	Facantial	Vendor to specify &
15.2.1	Querty Key board	Essential	compliance
45.00	TET :: 40!!	Facantial	Vendor to specify &
15.2.2	TFT size - 19"	Essential	compliance
15 2 2	TET colour	Cocontial	Vendor to specify &
15.2.3	TFT colour	Essential	compliance Vendor to specify &
15.2.4	Hour run meter	Required	compliance
13.2.4	Hour full fileter	Required	Vendor to specify &
15.2.5	Load meter	Essential	compliance
10.2.0	Load Meter	Loseittai	Vendor to specify &
15.2.6	Electronic hand wheels for axes (MPG)	Essential	compliance
10.2.0	Electronic fland wheels for dives (Wil C)	Essertial	Vendor to specify &
15.2.7	Mode selector (manual/single/auto)	Essential	compliance
10.2	mede colocier (mandayenigie/adice)	Locomiai	Vendor to specify &
15.2.8	Mid program restart	Essential	compliance
	- The program recome		Vendor to specify &
15.2.9	Programming help system	Essential	compliance
	<u> </u>		Vendor to specify &
15.2.10	Program storage capacity	10 GB or more	compliance
			Vendor to specify &
15.2.11	Communication Ports	Required	compliance
15.2.11			Vendor to specify &
а	a) USB Port for Pendrive Option	Required	compliance
15.2.11			Vendor to specify &
b	b) Through Bluetooth Enabled Device	Essential	compliance
			Vendor to specify &
15.2.11c	c) Network ready with LAN/Ethernet option	Required	compliance
45040			Vendor to specify &
15.2.12	Number of stored programs	unlimited	compliance
45040	RS-232-c port with full input/output	Farancial	Vendor to specify &
15.2.13	capabilities	Essential	compliance
15.2.13	for magazing proba	Facantial	Vendor to specify &
a 45 2 42	-for measuring probe	Essential	compliance
15.2.13	for DNC link	Facentic!	Vendor to specify &
b	-for DNC link	Essential	compliance
15.2.14	Ethernet Ports for Monitoring of parameters	Essential	Vendor to specify &
10.Z.14	Ethernet Ports for Monitoring of parameters	Essential	compliance
			Vendor to specify &

	OPCUA/Equivalent license enabled for		Vendor to specify &
5.2.16	connectivity	Essential	compliance
15.2	Craphica		
15.3	Graphics :	1	Vendor to specify &
15.3.1	Programming with graphic support	Essential	compliance
10.0.1	Trogramming with grapmic capport	Locomiai	Vendor to specify &
15.3.2	Graphic simulation of toolpath	Essential	compliance
	Workpiece representation in solid model 3-D		Vendor to specify &
15.3.3	view	Essential	compliance
	Workpiece representation in a plan view with		•
	different shades of depth & in three planes		Vendor to specify &
15.3.4	(as in the workpiece drawing)	Essential	compliance
			Vendor to specify &
15.3.5	Realtime graphics of workpiece machining	Essential	compliance
	Protection to the system & logic circuits		
	against all interference (electronic, magnetic		Vendor to specify &
15.4.1	etc)	Specify	compliance
	Save routines after tool breakage or power		Vendor to specify &
15.4.2	failure	Required	compliance
			Vendor to specify &
15.5.1	Weight of machine	Specify	compliance
			Vendor to specify &
15.5.2	Machine Height	Specify	compliance
4550	Florida de la companya de la company	0	Vendor to specify &
15.5.3	Floor space required	Specify	compliance
1551	Total connected newer	Specific	Vendor to specify &
15.5.4	Total connected power	Specify	compliance
	Т		
15.6	Smart Features		
			Vendor to specify &
	IOT Enabled	Essential	compliance
			Vendor to specify &
15.6.1	Real Time Machine Health Monitoring	Essential	compliance
	D 17' 0D 10'		Vendor to specify &
15.6.2	Real Time & Remote Diagnostics	Essential	compliance
	_		compliance Vendor to specify &
	Real Time & Remote Diagnostics  Tool Breakage Detection system	Essential Essential	vendor to specify & compliance
15.6.3	Tool Breakage Detection system	Essential	vendor to specify & compliance Vendor to specify & Vendor to specify &
15.6.3	_		compliance Vendor to specify & compliance Vendor to specify & compliance
15.6.3 15.6.4	Tool Breakage Detection system  Power Monitoring	Essential Essential	compliance Vendor to specify & compliance Vendor to specify & compliance Vendor to specify &
15.6.3 15.6.4	Tool Breakage Detection system	Essential	compliance Vendor to specify & compliance Vendor to specify & compliance Vendor to specify & compliance
15.6.3 15.6.4 15.6.5	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring	Essential Essential	compliance Vendor to specify & vendor to specify & compliance
15.6.3 15.6.4 15.6.5	Tool Breakage Detection system  Power Monitoring	Essential Essential	compliance  Vendor to specify & compliance
5.6.3 5.6.4 5.6.5 5.6.6	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring	Essential Essential Essential	compliance  Vendor to specify & compliance
5.6.3 5.6.4 5.6.5 5.6.6	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring	Essential Essential	compliance  Vendor to specify & compliance
15.6.3 15.6.4 15.6.5 15.6.6	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring  Pneumatic System Monitoring	Essential Essential Essential	compliance  Vendor to specify & compliance
15.6.3 15.6.4 15.6.5 15.6.6	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring	Essential Essential Essential	compliance  Vendor to specify & compliance
15.6.2 15.6.3 15.6.4 15.6.5 15.6.6 15.6.7 16	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring  Pneumatic System Monitoring  Electrical	Essential Essential Essential Essential	compliance  Vendor to specify & compliance
15.6.3 15.6.4 15.6.5 15.6.6	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring  Pneumatic System Monitoring	Essential Essential Essential	compliance  Vendor to specify & compliance
15.6.3 15.6.4 15.6.5 15.6.6 15.6.7	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring  Pneumatic System Monitoring  Electrical	Essential Essential Essential Essential	compliance  Vendor to specify & compliance
15.6.3 15.6.4 15.6.5 15.6.6 15.6.7	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring  Pneumatic System Monitoring  Electrical  415V, 3 phase, 50 Hz, 4 wire supply	Essential Essential Essential Essential Essential	compliance  Vendor to specify & compliance
5.6.3   5.6.4   5.6.5   5.6.6   5.6.7	Tool Breakage Detection system  Power Monitoring  coolant System Monitoring  Hydraulic & Lubrication System Monitoring  Pneumatic System Monitoring  Electrical  415V, 3 phase, 50 Hz, 4 wire supply	Essential Essential Essential Essential Essential	compliance  Vendor to specify & compliance

		th RAM	
17	Safety features :		
	All safety features to protect machine, control	Essential	Vendor to specify &
17.1	and operator		compliance
		Essential	Vendor to specify &
17.2	Travel limits		compliance
		Essential	Vendor to specify &
17.3	System lock		compliance
		Essential	Vendor to specify &
17.4	Panel lock		compliance
17 E	Emergency step	Essential	Vendor to specify &
17.5	Emergency stop	Essential	compliance Vendor to specify &
17.6	Overload protection for all axes	LSSerillai	compliance
17.0	evenous protection for all axes		Compilation
18	Tools for Erection	Doguirod	Vendor to specify &
10	Tools for Erection  Tools and Equipment required for erection of	Required	compliance Vendor to specify &
18.1	the machine shall be brought by the vendor	Essential	compliance
10.1	Test Mandrel for checking Spindle run-out &	Losermai	Compilance
	alignment should be supplied with protection		Vendor to specify &
18.2	boxes	Essential	compliance
19	LEVELING & ANCHORING SYSTEM		<u> </u>
	Complete set of anchoring materials		
	including foundation bolts, nuts, washers, fixators, leveling shoes etc. to fix the machine		
	to the foundation should be supplied. Details		Vendor to specify &
19.1	to be submitted.	Essential	compliance
	Standard Spares for 2 years of running the	1	Vendor to specify &
20	Machine during Warranty	Essential	compliance
20	ISO-50 Tool holders and accessories as below	Essertial	compliance
	a. Pull Studs – 20 No's (Compatible with		
	machine head)		
	b. Arbor type Tool Holder (Size 22, 27, 32 &		
	40mm) – 1 No each.		
	c. ER40 Collet Tool Holder– 4 No's		
	d. Side Clamping Tool Holder (Size 20, 25 &		
	32) – 1 No each.		\(\frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2
20.4	e. MT Tool Holder (from MT3, MT4 & MT5) –	Dogwirod	Vendor to specify & compliance
20.1	2 No's each.	Required	Vendor to specify &
20.2	Hydraulic, Lubrication & Coolant Oil	Essential-First Fill of Oil	compliance
20.2	riyaraano, Eustroanor a Goolarii Gir	2000miar riot riii or on	Compilario
04	December 1 0 Manuals 0 and a 1 District 1 Occ	0.0.0.0	
	Documents & Manuals-2 sets of Printed Copy	& Soft Copy	
	Documents & Manuals-2 sets of Printed Copy Machine Manuals	& Soft Copy	
21.1	Machine Manuals		Vendor to specify &
21.1		& Soft Copy  Essential	compliance
<b>21.1</b> 21.1.1	Machine Manuals  Essential documents all in English, each	Essential	compliance Vendor to specify &
<b>21.1</b> 21.1.1	Machine Manuals  Essential documents all in English, each  Machine tool : Operating manual		compliance Vendor to specify & compliance
<b>21.1</b> 21.1.1 21.1.2	Machine Manuals  Essential documents all in English, each  Machine tool: Operating manual  Torque-speed characteristics of spindle	Essential  Essential	vendor to specify & compliance Vendor to specify &
<b>21.1</b> 21.1.1 21.1.2	Machine Manuals  Essential documents all in English, each  Machine tool : Operating manual	Essential	compliance Vendor to specify & compliance Vendor to specify & compliance
21.1 21.1.1 21.1.2 21.1.3	Machine Manuals  Essential documents all in English, each  Machine tool: Operating manual  Torque-speed characteristics of spindle motor and Table Motor	Essential Essential	compliance Vendor to specify & compliance Vendor to specify & compliance Vendor to specify &
21.1 21.1.1 21.1.2 21.1.3	Machine Manuals  Essential documents all in English, each  Machine tool: Operating manual  Torque-speed characteristics of spindle motor and Table Motor  Test chart with measured values	Essential  Essential	compliance  Vendor to specify & compliance  Vendor to specify & compliance  Vendor to specify & compliance
21.1.1 21.1.2 21.1.3 21.1.4	Machine Manuals  Essential documents all in English, each  Machine tool: Operating manual  Torque-speed characteristics of spindle motor and Table Motor  Test chart with measured values  Foundation plan and details (To be supplied	Essential Essential Essential Essential	compliance Vendor to specify &
21.1.1 21.1.1 21.1.2 21.1.3 21.1.4 21.1.5	Machine Manuals  Essential documents all in English, each  Machine tool: Operating manual  Torque-speed characteristics of spindle motor and Table Motor  Test chart with measured values	Essential Essential	compliance  Vendor to specify & compliance  Vendor to specify & compliance  Vendor to specify & compliance

		th RAM	
21.1.7	Service & maintenance manuals	Essential	Vendor to specify & compliance
	Pneumatic connection details & conditions of		Vendor to specify &
21.1.8	air supply	Essential	compliance
	,		Vendor to specify &
21.1.9	Vibration isolation details	Essential	compliance
	Any other special requirements to be		Vendor to specify &
21.1.10	specified	Specify	compliance
21.2	Control Manuals		
			Vendor to specify &
21.2.1	Operating manuals	Essential	compliance
			Vendor to specify &
21.2.2	Programming manuals	Essential	compliance
	Description of the control interface, circuit		Vendor to specify &
21.2.3	diagram of CNC, PLC drive control etc.	Essential	compliance
04.0.4	Manuals of bought out items incorporated in	Facantial	Vendor to specify &
21.2.4	the system	Essential	compliance
24.2.5	Spare parts list with source of supply and	Econtial	Vendor to specify &
21.2.5	prices	Essential	compliance
21.2.6	Installation & Commissioning Manual	Essential	Vendor to specify & compliance
<u> </u>	motaliation a Commissioning Manual	Loociiiai	Vendor to specify &
21.2.7	PLC Application programme listing	Essential	compliance
21.2.1	T LO Application programme listing	Loseittai	Vendor to specify &
21.2.8	Machine Data Backup-USB Drive-2 No's	Essential	compliance
	Machine Bata Backap GOD BING 2 NG G	Locomia	Compilation
21.3	Drives :		
			Vendor to specify &
21.3.1	Drive Installation Manual	Essential	compliance
			Vendor to specify &
21.3.2	Drive Maintenance Manual	Essential	compliance
	I =	1	
	The supplier should ensure		
	availability of spares and service		Vandarta anasiti. 9
22	throughout the useful life of the machine	Econtial	Vendor to specify &
22		Essential	Vendor to specify & compliance
22	throughout the useful life of the machine	Essential	compliance
	throughout the useful life of the machine (min. 10 years).		Vendor to specify &
	throughout the useful life of the machine	Essential  Essential	compliance
	throughout the useful life of the machine (min. 10 years).	Essential	Vendor to specify &
	throughout the useful life of the machine (min. 10 years).		Vendor to specify &
	throughout the useful life of the machine (min. 10 years).	Essential  (Essential) a. For PDI-8 Months	Vendor to specify &
	throughout the useful life of the machine (min. 10 years).	Essential (Essential)	Vendor to specify &
	throughout the useful life of the machine (min. 10 years).	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9	Vendor to specify &
	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months	Vendor to specify &
23	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation &	Vendor to specify & compliance
23	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation & Commissioning- 10	Vendor to specify & compliance  Vendor to specify & Vendor to specify &
23	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase Order Released)  Warranty:	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation & Commissioning- 10	Vendor to specify & compliance  Vendor to specify & compliance
23	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase Order Released)	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation & Commissioning- 10	Vendor to specify & compliance  Vendor to specify & Vendor to specify &
24	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase Order Released)  Warranty:  24 months from the date of acceptance of the machine at CMTI	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation & Commissioning- 10 Months	Vendor to specify & compliance  Vendor to specify & comply  Vendor to specify & comply
23 24 25	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase Order Released)  Warranty: 24 months from the date of acceptance of the machine at CMTI Response Time	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation & Commissioning- 10 Months  Required	Vendor to specify & compliance  Vendor to specify & comply  Vendor to specify & comply
22 23 24 25 25.1	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase Order Released)  Warranty:  24 months from the date of acceptance of the machine at CMTI	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation & Commissioning- 10 Months  Required Within 12 Hrs Within 48 Hrs	Vendor to specify & compliance  Vendor to specify & comply  Vendor to specify & comply
23 24 25	throughout the useful life of the machine (min. 10 years).  Packing & Forwarding  Delivery Period (Date from the Purchase Order Released)  Warranty: 24 months from the date of acceptance of the machine at CMTI Response Time	Essential  (Essential) a. For PDI-8 Months b. Delivery at CMTI- 9 Months c. For Installation & Commissioning- 10 Months  Required Within 12 Hrs	Vendor to specify & compliance  Vendor to specify & comply  Vendor to specify & comply

20.4	Training for operation, maintenance and		Vendor to specify &
26.1	programming at manufacturers site	Required	compliance
	Operation of machine & CNC		Vandanta anasif. 0
26 1 1	programming, machine maintenance &	Econtial	Vendor to specify &
26.1.1	troubleshooting  QAP adopted by supplier in	Essential	compliance
	manufacturing & assembly of machine		
	inclusive of visit to manufacturing &		Vandar to specify 8
26.1.2	assembly facility of vendor.	Desirable	Vendor to specify & compliance
20.1.2	assembly facility of verticor.	Desirable	Vendor to specify &
26.1.3	Safety aspects		compliance
-0.1.0	During their stay, CMTI team will also		Compliance
26.2	carry out		
	Pre- dispatch inspection of the machine		
	during their stay at vendor's works for the		Vendor to specify &
26.2.1	training.	Essential	compliance
	Verification of all documentation		,
	including operation &maintenance		
	manual, as-built technical drawings, QA,		Vendor to specify &
26.2.2	etc.	Essential	compliance
		to be done at CMTI @	Vendor to specify &
27	Commissioning & Acceptance Criteria	with-out additional Cost	compliance
	Commissioning a Acceptance Official	with out additional oost	Johnphario
27.1	Commissioning		
	Vendor to take full responsibility for carrying		
	out the erection, start up, testing of machine,		
	it's control system & all types of other		
	supplied equipment, machining of test dieces		
	supplied equipment, machining of test pieces etc. Service requirement like power, air &		Vendor to specify &
27.1.1	etc. Service requirement like power, air & water shall be provided by CMTI.	Essential	Vendor to specify & compliance
27.1.1	etc. Service requirement like power, air &	Essential	
27.1.1	etc. Service requirement like power, air & water shall be provided by CMTI.		compliance
	etc. Service requirement like power, air &		compliance
	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria :The Following Paran CMTI		compliance
	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria :The Following Paran CMTI  Typically the Machine should serve both as a		nstrated during PDI & a
28	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria :The Following Paran CMTI		compliance
28	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time	neters should be Demo	restrated during PDI & a  Vendor to specify & compliance
<b>28</b> 28. 1	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the	neters should be Demo	nstrated during PDI & a  Vendor to specify &
27.1.1 28 28. 1 28. 2	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification	neters should be Demo	vendor to specify & compliance Vendor to specify & compliance Vendor to specify &
2 <b>8</b> 28. 1	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid	neters should be Demo	vendor to specify & compliance Vendor to specify & compliance Vendor to specify &
28. 1 28. 2	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy	neters should be Demo	vendor to specify & compliance Vendor to specify & compliance Vendor to specify & compliance
28. 1 28. 2	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the	neters should be Demo	vendor to specify & compliance
28. 1 28. 2	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as	neters should be Demo	vendor to specify & compliance
28. 1 28. 2 28. 2	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification	neters should be Demo	vendor to specify & compliance
28. 1 28. 2 28. 2	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification	Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed	Essential Essential Essential	vendor to specify & compliance
<b>28</b> 28. 1	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification	Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate	Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification	Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7	Essential Essential Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4 28. 5	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7  Typically following parameters are to be	Essential  Essential  Essential  Essential  Essential  Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4 28. 5	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7	Essential Essential Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4 28. 5 28. 6	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7  Typically following parameters are to be demonstrated upon completion of machining	Essential Essential Essential Essential Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4 28. 5 28. 6	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7  Typically following parameters are to be demonstrated upon completion of machining	Essential  Essential  Essential  Essential  Essential  Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4 28. 5 28. 6 28. 7 28. 7	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7  Typically following parameters are to be demonstrated upon completion of machining  Surface finishes of 0.8 Ra range  Roundness values of 3.0 microns or better in	Essential  Essential  Essential  Essential  Essential  Essential  Essential  Essential  Essential	vendor to specify & compliance  Vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4 28. 5 28. 6 28. 7 28. 7	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7  Typically following parameters are to be demonstrated upon completion of machining	Essential Essential Essential Essential Essential Essential Essential	vendor to specify & compliance
28. 1 28. 2 28. 3 28. 4 28. 5 28. 6	etc. Service requirement like power, air & water shall be provided by CMTI.  Acceptance Criteria: The Following Paran CMTI  Typically the Machine should serve both as a productive and a precision machine at the same time  To conform to All functionality checks as laid out in the Detailed Specification  To conform to All Geometrical Accuracy checks as per ISO-3070-2 as Detailed in the Specification  To conform to Positional Accuracy Checks as per ISO-230-2 as laid out in the Detailed Specification  To conform to Ball Bar Circular test as given in the Detailed Specification  The Machine should be able to demonstrate machining of Test Piece Component as per ISO 10791-7  Typically following parameters are to be demonstrated upon completion of machining  Surface finishes of 0.8 Ra range  Roundness values of 3.0 microns or better in	Essential  Essential  Essential  Essential  Essential  Essential  Essential  Essential  Essential	vendor to specify & compliance  Vendor to specify & compliance

Other Tests		
FULL POWER UTILIZATION TEST at	Facential	Vendor to specify &
vendor Site	Essential	compliance
SPINDLE VIBRATIONS: Test at Vendor		
Site		
		Vendor to specify &
mm/sec <sup>2</sup> ) as per ISO:17243	Essential	compliance
MAYIMIM NOIGE LEVEL		
meter away from the machine with correction		
factor for background noise, if necessary.		
	Ecceptial	Vendor to specify & compliance
Standards (Dily 45055-16 of equivalent 150)	Essential	Compliance
	T	T
Right Angle Manual Milling Head	Essential	Vendor to specify & compliance
Right Angle Mandar Mining Head	Loserida	Vendor to specify &
Max. Milling Head Spindle Speed	3000 RPM or more	compliance
May Dower Transmitted	OFINAL or more	Vendor to specify & compliance
Max. Power Transmitted	Zokvv of more	Vendor to specify &
Spindle Torque	1200Nm or more	compliance
		Vendor to specify &
Transmission Ratio	1:1	compliance
Swelling Ratio	+/- 180 Dea	Vendor to specify & compliance
	., 100 Dog	Vendor to specify &
Machine Head Stock(RAM)	Manual/Automatic	compliance
Head Tilt Angle setting	divided by 1 Deg or Better	
Voltage Stabilizer with Isolation		Vendor to specify &
Transformer (Compatible with machine)	Essential	compliance
Standard Tool Boy-for machine operation		Vendor to specify &
& Maintenance	Essential	compliance
Quote for all Optional Items		
·		Vendor to specify &
Automatic tool changer (Optional)	Quote as Option	compliance Vendor to specify &
ATC Capacity	30 Tools or more	compliance
		Vendor to specify &
Max. tool dia. with adjacent pocket empty	Dia. 225 or more	compliance
Max. tool dia. with adjacent pocket occupied	Dia. 110 or more	Vendor to specify & compliance
		Vendor to specify &
Max. tool weight	Specify	compliance
Max. tool length	Specify	Vendor to specify & compliance
	-1	Vendor to specify &
Tool selection method	random , shortest path	compliance Vendor to specify &
	Vendor Site  SPINDLE VIBRATIONS: Test at Vendor Site  Velocity (0.9 mm/sec.) Acceleration (9.0 mm/sec²) as per ISO:17243  MAXIMUM NOISE LEVEL: Shall be 85 dB (A) at normal load condition, 1 meter away from the machine with correction factor for background noise, if necessary. This will be measured as per international standards (DIN 45635-16 or equivalent ISO)  Right Angle Manual Milling Head  Max. Milling Head Spindle Speed  Max. Power Transmitted  Spindle Torque  Transmission Ratio  Swelling Ratio  Milling Head Fastening method on the Machine Head Stock(RAM)  Head Tilt Angle setting  Voltage Stabilizer with Isolation Transformer (Compatible with machine)  Standard Tool Box-for machine operation & Maintenance  Quote for all Optional Items  Automatic tool changer (Optional)  ATC Capacity  Max. tool dia. with adjacent pocket empty  Max. tool dia. with adjacent pocket occupied	SPINDLE VIBRATIONS: Test at Vendor Site

-	CIT INAIVI	
		Vendor to specify &
Tool breakage detection	Required	compliance
		Vendor to Quote
Pallet Changer (Optional)	Quote as Option	Separately
		Vendor to specify &
Pallet Clamping surface	1800 x 2200 mm	compliance
		Vendor to specify &
Pallet Table loading capacity	10 Ton	compliance
		Vendor to specify &
Size of T-Slots	22H8 or more	compliance
		Vendor to specify &
No. of Pallet in system	2 No's	compliance
		Vendor to specify &
Time of Pallet Change	120 sec or less	compliance
		Vendor to Quote
Angle Plates	Quote as Option	Separately
		Vendor to Quote
Clamping Blocks	Quote as Option	Separately
Splash Guard with Sliding door & other		Vendor to Quote
	Quote as Option	Separately
	· ·	, ,
		Vendor to Quote
Annual Maintenance Contract (AMC)	Quote as Option	Separately
	,	Vendor to specify &
Cost of AMC per year	Specify	compliance
	Pallet Table loading capacity  Size of T-Slots  No. of Pallet in system  Time of Pallet Change  Angle Plates  Clamping Blocks  Splash Guard with Sliding door & other Machine Safety Guards  Annual Maintenance Contract (AMC)	Pallet Changer (Optional)  Pallet Clamping surface  Pallet Table loading capacity  10 Ton  Size of T-Slots  22H8 or more  No. of Pallet in system  Time of Pallet Change  120 sec or less  Angle Plates  Quote as Option  Clamping Blocks  Quote as Option  Splash Guard with Sliding door & other Machine Safety Guards  Annual Maintenance Contract (AMC)  Quote as Option

34	General		
			Vendor to specify &
34.1	List of users	List of users -Specify	compliance

# Annexure II QUALIFYING CRITERIA

Bid Qualification Criteria for Supply of CNC Horizontal Boring & Milling Machine with

Travelling Spindle of Dia 130mm with RAM.

Bidders who are qualifying/meeting following Technical and Financial capabilities are eligible to participate in the bid for supply of **CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM**. Bidder shall furnish all the requirements asked in these criteria with documentary proof and submit along with quotation. Bids of the parties which are not meeting the following criteria will not be considered for evaluation and will be rejected without seeking any further clarifications.

#### **I. Technical Qualification Requirements:**

The bidder should meet the following technical qualifying requirements and shall submit relevant certificates to establish his credentials.

- 1. The bidder should meet all the technical specifications to qualify the bid. The bidder has to furnish the values/units/parameters against each CMTI requirement in the compliance sheet. Offer without this information will be rejected without any further reference.
- 2. The bidder has to submit all necessary technical information documents/data sheets & compliance sheet as per the technical specifications.
- 3. The bidder has to sign and stamp (company seal) on all the pages of technical compliance sheet.
- 4. The bidder should be an organization with experience in having executed contracts for design, engineering, manufacture, supply, testing and commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM.
- 5. The Machine has to be the proven product of Bidder and is not a first-time development. The Machine should be a Catalogue product of the Bidder.
- 6. The same/similar machines should have been supplied by the vendor in past five years (As per Technical specification) of **same or better accuracy**. The firm should have successfully completed Design, Manufacture, Installation, Testing and Commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM.
- 7. The bidder should submit a list of these installations giving the date of supply and contact details along with the quote, so that CMTI engineers may visit these installations and evaluate the system as part of tender evaluation. Offer without this information will be rejected without any further reference. Machines supplied to the educational Institutions or Training Centres will not be considered for qualifying criteria.
- 8. The Bidder should Comply & Demonstrate POSITIONING & REPEATABILITY ACCURACIES EQUIVALENT AS PER ISO: 230-2-2014 USING LASER INTERFEROMETER as per Annexure-6.1, Geometrical Accuracy Tests shall be in accordance with ISO 3070 standard as per Annexure-6.2, Bi-directional circular deviation using Ball Bar test as per Annexure-6.3. Geometrical Accuracy for Part Proving at Vendor Site & at after Installation at Site as per ISO 10791-7 as per Annexure-6.4.
- 9. Bidder to submit Laser Positioning accuracy report, Geometrical test report and Ball bar test report of the same/similar machines.

- 10. The Laser Positioning Tests, Geometrical accuracy tests, Ball bar test &Part Provingare to be conducted in an ambient temperature.
- 11. Bidder shall furnish the details of their factory like manpower, machinery, quality system etc. to assess their capability.
- 12. Merely stating, "comply" does not constitute sufficient information. Exact numerical values are to be specified wherever applicable. Specified technical data should be supported by product catalogues, manuals, test procedures, and test plots etc. In case of insufficient technical data, the quote will be summarily rejected without seeking any clarifications.
- 13. Seaworthy/roadworthy packing of machine and its accessories is under scope of the supplier.
- 14. The supplier shall bear the cost of packing, FOB/forwarding charges, freight charges etc.
- 15. The machine shall have standard warranty for a period of minimum 24 months from the date of machine acceptance at CMTI including controllers, motors, drives and electrical components.
- 16. After sales service shall be provided by the party for a minimum period of 10 years from date of machine acceptance.
- 17. The supplier shall deliver and commission the machine at CMTI site within **10(Ten) months** from the date of release of purchase order.
- 18. Please note that the "BID" without above mentioned documents/information in support of the eligibility criteria will be summarily rejected.

#### II. <u>Bid Selection Procedure and Process of BID Qualification</u>

- Step 1: Short listing based on documents submitted, satisfying the all eligibility criteria given above by the firm or individual along with their Bid / application. (Non- submission of any document as given in above list within stipulated time leads to rejection of Bid)
- Step 2: Subsequently Bidder's competency, their technical achievements will be evaluated suitable for his project. Feedbacks from Bidder's clients will be verified.
- Step 3: If required, Visit will be made to their factory/ firm by technical team (CMTI or third party) for accessing the capability of manufacturer.
- Step 4: Mean while technical Bids will be opened and scrutinized for meeting all technical specification and supply conditions.

CMTI reserves right to verify the information / data furnished by Bidder. If the same is found as fault or with any deviation the bid will be rejected.

Only those Bidders who are found suitable & meeting all the above qualification Criteria/requirements will qualify for opening the Price Bids for evaluation.

### **Annexure III: Acceptance Criteria**

Supply, Installation & Commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM

The machine shall be tested for its functionality and performance at both Vendors premises and at CMTI as per our technical specifications for all the parameters and also detailed specifications given in the supplier data sheets.

1	Should meet all the technical specifications mentioned in Annexure-I.	Essential	Compliance Yes/No	
2	Pre-Dispatch Inspection:	Essential	Compliance Yes/No	
2.1	A pre-dispatch inspection shall be carried out at vendor's premises for a period of <b>Ten working days.</b>	Essential	Compliance Yes/No	
2.2	Three Personnel will be deputed for the pre-shipment inspection from CMTI, Bangalore. All component functions will be tested and proved at supplier's premises prior to delivery.	Essential	Compliance Yes/No	
2.3	All the systems functions will be tested and demonstrated to the satisfaction of CMTI, Bangalore as per the technical specification in the tender document.	Essential	Compliance Yes/No	
2.4	Verification of all documentation including operation & maintenance manual, as built- technical drawings, QA etc.	Essential	Compliance Yes/No	
2.5	All the expenses towards PDI for two personnel to be borne by the supplier. The expenses should include Airfare, Local Travel and Lodging the vendor shall extend all the required assistance and testing facilities. The vendor shall notify the readiness of stores at least 15 days prior to delivery schedule.	Essential	Compliance Yes/No	
2.6	To conform to All functionality checks as laid out in the Detailed Specification.	Essential	Compliance Yes/No	
2.7	To conform to All Geometrical Accuracy checks as ISO 230-2-2014.	Essential	Compliance Yes/No	
2.8	To conform to Positional Accuracy Checks as per ISO-3070-2:2007 as laid out in the Detailed Specification.	Essential	Compliance Yes/No	
2.9	To conform to Ball Bar Circular test as given in the Detailed Specification.	Essential	Compliance Yes/No	
2.10	The Machine should be able to demonstrate Test Piece Component machining and Accuracies mentioned in serial No.6.4 as per ISO 10791-7:2020	Essential	Compliance Yes/No	

3	Installation, Commissioning and	Essential	Compliance Yes/No	
	Acceptance test			
3.1	Installation and commissioning to be	Essential	Compliance Yes/No	
	carried out by the supplier at CMTI			
	site for free of cost.			
3.2	Upon completion of installation &	Essential	Compliance Yes/No	
	commissioning work at the			
	purchaser premise, the supplier has			
	to again test and prove the machine			
	as per the acceptance test			
	requirement. Purchaser will run the			
	machine in presence of supplier's			
	staff to check for the performance of			
	machine as per the scope of supply.			
	The vendor to provide test chart for			
	machine accuracies and same to be			
	demonstrated during the time of			
	commissioning.			
3.3	The Supplier shall arrange all the	Essential	Compliance Yes/No	
	necessary material handling			
	equipments Crane/forklift and			
	manpower for installation of the			
	machine at the designated site at			
	CMTI at no additional cost to CMTI.			
3.4	The foundation work (Civil	Essential	Compliance Yes/No	
	work/electrical power supply) if any,			
	shall be carried out by CMTI as per			
	the drawing provided by the			
	supplier.			
3.5	Any Portable equipment, if not	Essential	Compliance Yes/No	
	available with the customer/ not			
	ordered by the customer, may have			
	to be arranged by the supplier for			
	proving the Acceptance Criteria.			
3.6	To conform to All functionality	Essential	Compliance Yes/No	
	checks as laid out in the Detailed			
2.7	Specification.	Farantial	Compaling a Var /Na	
3.7	To conform to All Geometrical	Essential	Compliance Yes/No	
	Accuracy checks as ISO 230-2-2014for the machine.			
2.0		Essential	Compliance Ves/Ne	
3.8	To conform to Positional Accuracy	cssential	Compliance Yes/No	
	Checks as per ISO-3070-2:2007 as			
3.9	laid out in the Detailed Specification.  To conform to Ball Bar Circular test	Essential	Compliance Ves/No	
3.3	as given in the Detailed Specification.	ESSEIILIdi	Compliance Yes/No	
3.10	The Machine should be able to	Essential	Compliance Yes/No	
3.10	demonstrate Test Piece Component	ESSEIILIdi	Compliance res/NO	
	machining and Accuracies			
	mentioned at CMTI in serial No.6.4			
4	as per ISO 10791-7:2020  Training: Five Working days training	Essential	Compliance Yes/No	
•	at CMTI premises, after	ESSEIILIdi	Compliance res/No	
	commissioning of the machine, will			
	have to be provided by the Engineers			
	mave to be provided by the Engineers		L	

## Supply, Installation & Commissioning of CNC Horizontal Boring & Milling Machine with Travelling Spindle of Dia 130mm with RAM

	of the supplier. Training should include operation, maintenance and programming, safety aspects at free of cost.		
5	Two sets of the following technical d	ocumentation in 'Englisl machine:	n' shall have to be supplied along with the
	<ul> <li>Instruction/ Operational manual</li> </ul>	Essential	Compliance Yes/No
	Spare parts manual	Essential	Compliance Yes/No
	<ul> <li>Maintenance manual for mechanical, electrical/electronic systems.</li> </ul>	Essential	Compliance Yes/No
	Electrical wiring diagrams.	Essential	Compliance Yes/No
	<ul> <li>Preventive maintenance check list, troubleshooting charts and guidelines.</li> </ul>	Essential	Compliance Yes/No

#### Note:

1 The machine will be finally accepted based on the compliance of the machine with the Acceptance Criteria. The final Acceptance Criteria will be based on mutual agreement and will be finalized at the time of placing the order. Hence, the bidder has to go through the Acceptance Criteria and convey their acceptance unambiguously. They may also suggest a suitable method of verification if the proposed method is not acceptable to the bidder.

#### **CHAPTER - 5**

#### **CONTRACT FORM**

Contra	act No			Date:	
THIS C	ONTRACT A	GREEMENT is ma	ide		
the[	] day of[	] month of,[	] year		

#### **BETWEEN**

The Central Manufacturing Technology Institute (CMTI), a registered Government of India Society under the administrative control of the Ministry of Heavy Industry and Public Enterprises, Government of India having its registered office at Tumkur Road, Bengaluru - 560022, Karnataka, India represented by [Insert complete name and address of Purchaser (hereinafter called "the Purchaser"), and

[Insert name of Supplier], a corporation incorporated under the laws of [insert: country of Supplier] and having its principal place of business at [insert: address of Supplier] (herein after called "the Supplier").

WHEREAS the Purchaser invited Bids for certain Goods and ancillary Services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency(ies)](herein after called "the Contract Price").

#### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- 2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
  - (a) This Contract Agreement
  - (b) Special Conditions of Contract
  - (c) General Conditions of Contract
  - (d) Technical Requirements (including Schedule of Requirements and Technical specifications)
  - (e) The Supplier's Bid and original Price Schedules
  - (f) The Purchaser's Notification of Award
  - (g) [Add here any other document(s)]
- 3 This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
- 4 In consideration of the payments to be made by the Purchaser to the Supplier as here in after mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein inconformity in all respects with the provisions of the Contract.
- 5 The Purchaser here by covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other

Bidding Document for Supply, Installation & Commissioning of CNC High Precision Wire Electric Discharge Machine

sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS where of the parties here to have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the Central Manufacturing Technology Institute Signed: [insert signature]
In the capacity of [insert titleor other appropriate designation] in the presence of [insert identification of official witness]

Signed: [insert signature] in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier] in the capacity of [insert title or other appropriate designation] in the presence of [insert identification of official witness]

#### CHAPTER - 6

#### **INTEGRITY PACT**

Tandar	R△f	No.&Date:
renuei	neı.	NU.&Date

1.	This Integrity pact Agreement is made aton thisday of20
	BETWEEN Central Manufacturing Technology Institute(CMTI) represented by itsPurchase
	Officer/ Executive Engineer/ Chief Administrative Officer, Hereinafter referred as the Buyer/
	Owner, which expression shall unless repugnant to the meaning or context hereof include its
	successors and permitted assigns) AND M/s hereinafter referred to as the
	(Details of duly authorized signatory) "Bidder/Contractor" and which expression shall unless
	repugnant to the meaning or context hereof include its successors and permitted assigns)

#### 2. Preamble

#### 3. Commitment of the Buyer/ Owner

- 3.1 The Buyer/ Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - a. No employee of the Buyer/ Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - b. The Buyer/ Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Buyer/ Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
  - c. The Buyer/ Owner shall endeavour to exclude from the Tender process all known prejudiced persons orany person, whose conduct in the past has been of biased nature.
  - 3.2 If the Buyer/ Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or if there be a substantive suspicion in this regard, the Buyer/ Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

#### 4. Commitment of the Bidder(s)/ seller(s)/ Contractor(s)

- 4.1 It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to CMTI all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 4.2 The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution.
  - a. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Buyer/ Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
  - b. The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
  - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act Indian Legislation, Prevention of Corruption Act 1988 as amended from time to time. Further the Bidder(s)/Contract(s) will not use improperly, for the purpose of competition or personal gain, or pass on to others, any information or documents provided by the Buyer/ Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
  - d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign principals/ agents/representatives, if any. Either the Indian agent on behalf of the foreign principalor the foreign principaldirectly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
  - e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
  - f. The Bidder(s)/Contractor(s) have not sold and will not sell the same material/equipment at prices lower than the bid price.
- 4.3 The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4.4 The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice (means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of CMTI's t interests).
- 4.5 The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).
- 4.6 The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in

conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.

- a. The Buyer/ Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- b. The Buyer/ Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Buyer/ Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process

#### 5. Previous Transgression

- a. The Bidder declares that no previous transgressions occurred in the last 3 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process. The date of such transgression, for the purpose of disclosure by bidders in this regard, would be the date on which cognizance of the said transgression was taken by the competent authority. The Transgression(s), for which cognizance was taken even before the said period of three years, but are pending conclusion, shall also be reported by the bidders.
- b. If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Buyer/ Owner.
- c. If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Buyer/ Owner may, at its own discretion, revoke the exclusion prematurely.

#### 6. Consequences of Breach

Without prejudice to any rights that may be available to the Buyer/ Owner under law or the Contract or its established policies and laid down procedures, the Buyer/ Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Buyer/ Owner's absolute right:

- a. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Clause4&Clause 5 above, or in any other form such as to put his reliability or credibility in question, the Buyer/ Ownerafter giving 14 daysnotice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Buyer/ Owner. Such exclusion may be forever or for a limited period as decided by the Buyer/ Owner.
- b. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Buyer/ Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- c. Criminal Liability: If the Buyer/ Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Buyer/

Ownerhassubstantive suspicion in this regard, the Buyer/ Owner will inform the same to law enforcing agencies for further investigation.

#### 7. Compensation for Damages

- a. If the Buyer/ Owner has disqualified the Bidder(s) / Seller(s) from the tender process prior to the award according to Clause 8, the Buyer/ Owner is entitled to demand and recover the damages equivalent to Earnest Money Deposit in case of open tendering.
- b. If the Buyer/ Owner has terminated the contract according to Clause 6, or if the Buyer/ Owner is entitled to terminate the contract according to Clause 6, the Buyer/ Owner shall be entitled to encash the advance bank guarantee and performance bond/ warranty bond, if furnished by the Bidder(s)/Seller(s), in order to recover the payments, already made by the Buyer/ Owner for undelivered Goods and / or Services and / or Works.
- c. The Bidder(s)/Seller(s) shall also be liable to refund to the Buyer/ Owner, the Agency Commission / payments made by the Seller(s) / Bidder(s) along with interest at the rate of 2% per annum above LIBOR (London Inter Bank Offer Rate) (for foreign vendors) and Base Rate of SBI (State Bank of India) plus 2% (for Indian vendors).

#### 8. Independent External Monitor(s)

- a. The Buyer/ Ownerhas appointed Independent External Monitor(s) for this Integrity Pact after approval by the Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- b. For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- c. The IEM is not subject to instructions by the representatives of the parties and performs his/ her functions neutrally and independently. The IEM would be provided access to all documents/ records pertaining to the contract for which a complaint or issue is raised before them, as and when warranted. However, the documents/ records/ information having national Security Implications and those documents which have been classified as Secret/ Top Secret are not to be disclosed. He/ she reports to the Director, CMTI.
- d. If any complaint with regard to violation of the IP is received by the Buyer/ Owner in a procurement case, the Buyer/ Owner shall refer the complaint to the Independent External Monitor(s) for their report. Contact details of IEMs are given in the bid/ tender documents as well as in the website of CMTI https://cmti.res.in
- e. The Bidder(s)/Contractor(s) accepts that the IEM has the right to access without restriction to all Project documentation of the Buyer/ Owner including that provided by the Contractor. The Contractor will also grant the IEM, upon his/her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.
- f. The IEM is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sub-contractor(s) with confidentiality. The IEM has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Director, CMTI and recusehimself / herself from that case.
- g. The Buyer/ Owner will provide to the IEM 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 Buyer/ Owner and the Contractor. The parties offer to the IEM the option to participate in such meetings.

- h. As soon as the IEM notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Buyer/ Owner and request the Management to discontinue or take corrective action, or to take other relevant action. The IEM can in this regard submit non-binding recommendations. Beyond this, the IEM has no right to demand from the parties that they act in a specific manner, retrain from action or tolerate action.
- i. The IEM will submit a written report to the Director, CMTI, within 4 weeks from the date of reference or intimation to him by the Buyer/ Owner and, should the occasion arise, submit proposals for correcting problematic situations
- j. If the IEM has reported to the Director, CMTI, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Director, CMTI has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the IEM may also transmit this information directly to the Central Vigilance Commissioner.
- k. The word 'Monitor' would include both singular and plural.

#### 9. Duration of the Pact

- a. This Pact will be effective from the date of issue of tender (NIT). It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other unsuccessful bidders, within 6 months from date of placement of order / finalization of contract against this tender till the Contract has been awarded.
- b. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Director, CMTI.
- c. Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

#### **10. Other Provisions**

- a. Changes and supplements need to be made in writing. Side agreements have not been made.
- b. After award of work, the IEMs shall look into any issues relating to execution of contract, if specifically raised before them.
- c. The Bidder(s)/Seller(s) signing this IP shall not initiate any Legal action or approach any court of law during the examination of any allegations/complaint by IEM and until the IEM delivers the report.
- d. In the event of any dispute between the management and the Bidder(s)/Seller(s), relating to those contracts where Integrity Pact is applicable, the same will be settled through mediation before the panel of IEMs within 4 weeks. In case the dispute remains unsolved even after mediation by the panel of IEMs, CMTI will take further action as per the terms and conditions of the contract in respect of dispute resolution/ arbitration.
- e. Nothing contained in this Integrity Pact shall be deemed to assure the Bidder(s)/ Seller(s) of any success or otherwise in the tendering process.
- f. If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- g. 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 intensions.

Bidding Document for Supply, Installation & Commissioning of CNC High Precision Wire Electric Discharge Machine

h.	This Integrity pact is subject to Indian Laws, and exclusive Jurisdiction of Courts at Bangalore, India.
i.	The Parties hereby sign this Integrity Pact at on (Bidder(s)/contractor) and at on (Buyer/ Owner)
11. LEC	GAL AND PRIOR RIGHTS
remedi be cum both t	its and remedies of the parties hereto shall be in addition to all the other legal rights and ies belonging to such parties under the Contract and/or law and the same shall be deemed to nulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, he Parties agree that this Integrity Pact will have precedence over the Tender/Contact ents with regard any of the provisions covered under this Integrity Pact.
	NESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date ove mentioned in the presence of following
Witnes	sses:
(For ar	nd on behalf of Buyer/ Owner) (For and on behalf of Bidder/Contractor)
	SSES: 1ure, name and address)
	ure, name and address)
Place:	
Date:	