



CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY (C-MET)

(Scientific Society, Ministry of Electronics and Information Technology (MeitY), Govt. of India)

IDA PHASE – III, CHERLAPALLY, HCL (PO), HYDERABAD – 500 051

Phone: +91-40-27265587, 27267006 Fax: +91-40-27261658

No. HD/PUR/SP-32/GFMF/86/2018-19/10769

Date: 07.03.2019

Centre for Materials for Electronics Technology (C-MET), Hyderabad invites Tenders against Tender No. HD/PUR/SP-32/GFMF/86/2018-19/10769 dated 07.03.2019. Closing Date/Time **28.03.2019 at 12:30 Hrs.** Bidders will be able to submit their original/revised bids upto closing date and time only.

2. ITEM: GAS FIRED MELTING FURNACE)

Supply, Installation and Commissioning of Gas Fired Melting Furnace and Post Warranty Annual Maintenance Contract for the Item.

Tender Type: **OPEN TENDER**

Closing time: **28.03.2019 at 12:30 Hrs.**

Earnest Money Deposit (EMD) **Rs. 33,000.00**

Note: Bidders who downloaded tender documents from our web site shall send an email to venkatesan@cmet.gov.in as well as to lakshmi@cmet.gov.in immediately giving the tender reference number, date of downloading, your full address and contact details. This will help us post any corrigendum or addendum to the tender taken place after the bidder downloaded it. Addendum/corrigendum will be posted in our website as well as in CPP portal only. It will also be sent to bidder who had informed after downloading of the document from our website.

NOTE:

- (i) **The Technical bid & Financial bid should be in separate sealed covers**
- (ii) **The quotation should be submitted in the enclosed format only.**
- (iii) **The Enquiry Letter No. & date should be clearly indicated in the quotation, otherwise quotation will be rejected.**
- (iv) Firms or their authorized representatives are requested to attend the opening of **Technical bids 29.03.2019 at 1030 hours.** If there is any delay in opening of technical bids will be intimated to the bidder.
- (v) These details are also available in our website: <http://www.cmet.gov.in> & **CPP Portal**
- (vi) The offer should be valid for a period of **90 days** from the date of opening of Tender.
- (vii) C-MET is registered under Department of Scientific and Industrial Research (DSIR) and eligible for concessional GST rates @ 5% for Research Institutions as per Notification No 45/2017-Central Tax (Rate) dated 14.11.2017 and Notification No. 10/2018-Integrated tax (Rate) dated 25.01.2018. The requisite certificate for availing concessional GST Rate along with documents will be provided.

3. Earnest Money Deposit (EMD)

Bidders from Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department or Startups as recognized by Department of Industrial Policy & Promotion (DIPP) are exempted from payment of EMD @ Rs. 33,000/- as per this tender document.

FOR OTHERS IT IS Rs.33000/- (Rs Thirty three thousand only)

E.M.D or Bid Security should be deposited by the bidders, in any one of the following forms, along with the Technical bid:-

- (a) Call Deposit Receipt duly endorsed in favour of C-MET or Pay Order or Demand Draft in favour of C-MET, Hyderabad.
- (b) Fixed Deposit Receipt issued by Nationalized banks endorsed in favour of C-MET Hyderabad.
- (c) Bank Guarantee from a Nationalized Bank in favour of C-MET - irrevocable and operative till the expiry of forty days after the validity of offer.

In case the vendor/supplier/contractor would like to submit EMD by Bank guarantee(BG), then the original BG shall be routed through the banker to C-MET Hyderabad by registered post with acknowledgment due. In case the BG is handed over to the vendor/supplier/contractor by the bank for any genuine reasons, the BG issuing branch shall immediately send an unstamped duplicate copy of the BG directly to C-MET Hyderabad by registered post with acknowledgment due with the covering letter to verify the BG issued by us and confirm that it is in order. The vendor/supplier/contractor shall comply this provision meticulously.

- (d) The EMD shall be put in a separate envelope super- scribing tender reference no. as such on it and put in the envelope containing technical bid. In the absence of EMD the Bid will not be accepted.
- (e) The Earnest Money Deposit will be returned along with necessary endorsement for payment to the bidder (without interest) whose offers are not acceptable to C-MET after placing the final order.
- (f) The EMD shall also be forfeited:
 - (i) if a Bidder withdraws its bid or increases rates during the period of Bid validity specified by the Bidder on the Bid Form ;
 - (ii) or in case of a successful Bidder, if the Bidder fails:
 - (a) to accept the Purchase Order or refusal to execute the tender after it has been awarded or obligations under the same are not fulfilled; or
 - (b) to furnish the performance security deposit in accordance Purchase order.

4. SUBMISSION OF BIDS

(i) Sealing and Marking of Bids

- (i) The Bidders shall seal the two envelopes in separate inner envelopes, duly marking the envelopes as Technical Bid and Commercial Bid. Tender

Reference No. and name and address of the Bidder should be marked on each of Technical Bid Envelope and Commercial Bid Envelope. These two envelopes should be placed inside an outer envelope. The outer envelope shall be sealed and indicate Tender Reference No. and name and the name and address of the bidder.

- (ii) The inner and outer envelopes shall be addressed to the Administrative Officer, Centre for Materials for Electronics Technology, IDA Phase-III, Cherlapally, HCL (Post), Hyderabad-500 051, Telangana State, INDIA.
- (iii) The inner envelope shall also indicate the name and address of the Bidder to be returned unopened in case it is declared "LATE".
- (iv) If the outer envelope is not sealed and marked as specified, C-MET will assume no responsibility for Bid's misplacement of premature opening.
- (v) E-mail, FAX bids will be rejected.

(ii) CLARIFICATION OF BIDS

During evaluation of bids, C-MET, at its discretion, may ask the Bidder for a clarification of its bid. The request for a 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 post bid clarification at the initiative of the bidder shall be entertained.

5. Deadline for Submission of Bids

- (i) Bids must be received by C-MET at its address mentioned above not later than **1230 Hrs. on 28.03.2019**. Bids may be sent through courier/speed post or dropped in the Tender Box available in the Laboratory. In the event of the specified date for the submission of Bids being declared as a Holiday for C-MET, the bids will be received upto the appointed time on the next working day.
- (ii) C-MET may, at its discretion, extend this deadline for submission of bids by amending the tender document, in which case all rights and obligations C-MET and Bidders will thereafter be subject to the deadline as extended.

6. Late Bids

Any bid inadvertently received by C-MET after the deadline for submission of bids prescribed by C-MET, will not be considered and returned unopened to the Bidder.

7. Contacting C-MET

No Bidder shall contact C-MET, Hyderabad on any matter relating to its bid, from the time of the bid opening to the time of contract is awarded. If he wishes to bring additional information to the notice of C-MET, it should do so in writing. C-MET reserves its right as to whether such additional information should be considered or otherwise.

Any effort by a Bidder to influence C-MET in its decision on bid evaluation, bid comparison or contract award shall result in disqualification of the Bidders Bid and also forfeiture of his EMD amount.

IN CASE OF ANY LEGAL DISPUTE THE JURISDICTION WILL BE HYDERABAD (INDIA) ONLY.

CLARIFICATION ON BIDDING DOCUMENTS

A prospective Bidder requiring any clarification of the bidding documents may notify to

Administrative Officer
IDA Phase-III
Cherlapally, HCL (Post),
Hyderabad-500 051
TELANGANA STATE, INDIA
Tel No.:+91-40 27265587 / 27267006
Fax: +91-40-27261658

8. TERMS AND CONDITIONS

F.O.R : C-MET, HYDERABAD

Delivery Period

8 (Eight) Weeks after placing Purchase Order PLUS 10 WORKING DAYS as grace period for submission of PSD etc

LIQUIDATED DAMAGES: – The delivery period quoted should be realistic. The delivery period so quoted and mentioned in the order is the essence of the order/contract. In case of delay in delivery of material as per the delivery schedule, Liquidated Damage @ 0.5% per week or part thereof on the undelivered portion subject to a maximum of 10% of the contract value shall be levied. Wherever, installation and commissioning is also involved, the supply will be deemed to have been completed only when the entire stores is supplied, installed and accepted.

9. PERFORMANCE SECURITY DEPOSIT (PSD)

Within 10 working days of the receipt of notification of award of purchase order / contract from C-MET, the Bidder shall furnish a Performance Security Deposit equivalent to 10% of the contract value in anyone of the forms as given below:

- (a) Call Deposit Receipt duly endorsed in favour of C-MET or Pay Order or Demand Draft in favour of C-MET.
- (b) Bank Guarantee from a Nationalized Bank in favour of C-MET - irrevocable and operative for the entire period starting from acceptance of the contract ending 60 days after completion of the warranty period or 30 months, whichever is longer.
- (c) In case the vendor/supplier/contractor would like to submit security performance security Deposit by Bank guarantee (BG), then the original BG shall be routed through the banker to C-MET Hyderabad directly by registered post with acknowledgment due. In case the BG is handed over to the vendor/supplier/contractor by the bank for any genuine reasons, the BG issuing branch shall immediately send an unstamped duplicate copy of

the BG directly to C-MET Hyderabad by registered post with acknowledgment due with the covering letter to verify the BG issued by us and confirm that it is in order. The vendor/supplier/contractor shall comply this provision meticulously.

(d) Fixed Deposit Receipt issued by Nationalized banks endorsed in favour of C-MET Hyderabad.

(e) The Performance Security Deposit is required towards fulfillment of the Purchase order / Contract obligations. This Security Deposit will be forfeited in case the successful Bidder fails to execute the Purchase order/ Contract.

10. PAYMENT TERMS

Our standard payment term is 100% payment within 30 days against receipt, inspection and acceptance of material in good condition by NEFT/RTGS. However, in deserving cases it will be considered as per Rule 172 (1) of GFR-2017 by the competent authority.

Special Condition: The stipulated delivery date for completion of all activities to be performed by the supplier under contractual obligations i.e., supply of equipment/machinery and erecting & commissioning including all the civil, electrical works, if any under the contract.

S.No.	Description
1	The tenderer shall quote the rate by taking into account all the existing statutory duties/taxes up to the date of opening of tender and provide details in respect of this break up at the time of tendering. Any New Import or revision in the duties, taxes during the original currency of the contract will be to the purchasers account subject to production of Govt. notification and documentary evidence. This will also be applicable for the relevant quantity supplied during the extended delivery period, if such extension is on purchase's account. However, if the extension of delivery period is on account of failure of supplier, no compensation shall be made towards upward revision or imposition of any new taxes. Any benefit on account of downward revision of duty either in original Delivery Period or during extended Delivery Period shall be passed on by the supplier to C-MET.

11. STATUTORY VARIATION CLAUSE:

3.1	Statutory Variation in taxes and duties, or fresh imposition of taxes and duties by State/Central Governments in respect of the items stipulated in the contract (and not the raw materials thereof), within the original delivery period stipulated in the contract, or last unconditionally extended delivery period shall be to C-MET's account. Only such variation shall be admissible after the submission which takes place after the submission of bid. No claim on account of statutory variation in respect of existing tax/duty will be accepted unless the tenderer has clearly indicated in his offer the rate of tax/duty considered in his quoted rate. No claim on account of statutory variation shall be admissible on account of misclassification by the supplier/contractor
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12. Standard Governing Conditions

S.No.	Description
1	Tenderer's must accept the C-MET conditions of contract, Instructions to the Tenderer's, General Conditions and Special conditions of contract

13. CONDITIONS FOR ELIGIBILITY OF TENDERER

S.No.	Description	Confirmation Required
5.1	The tenderer must have supplied the same or similar items/Equipments to other organizations and documentary evidence must be furnished alongwith their offer evidencing the execution of such Purchase Orders. Tenderer's with past performance of satisfactory execution of contracts before the date of tender opening as mentioned above for the supply of the subject or similar items in last five years from date of tender opening may be considered as responsive to C-MET requirements for placement of regular order.	YES

14. (i) The Tenderer shall furnish along with his offer the details of past performance of the machines, same or similar to those offered in the tender in the following proforma during the last 3 years:

S.No.	Name of Machine	Name of customer	Purchase Order No. & Dt.	Delivery due date as per PO	Actual date of delivery	Whether customer's certificate in respect of past performance of the machine is enclosed
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(ii) Certificates from the customers to whom such machines have been supplied in the past, regarding performance of the machines shall be enclosed with the above information failing which the offer shall not be considered. Certificates from Central/State Govt. Departments & Public Sector Undertaking only shall be accepted, and performance from at least two such customers should be submitted. Same/Similar refers to function and capacity within reasonable range.

(iii) If the tenderer is not a manufacturer, but only an agent/trader, a certificate from the manufacturer authorizing him as agent shall be attached with the offer failing which the offer shall not be considered.

(iv) The tenderer shall submit with his offer particulars plant and machinery installed at his works as well as equipment for ensuring quality control and inspection. Details like make, capacity, quality, horse power of all plant and machinery shall be given. In case of an agent/dealer, the above details of their principal manufacturer shall be given.

(v) The tenderer shall submit with his offer details of man-power available with him showing the designation, no. of men, qualification & experience separately for each section like management, shop floor, inspection and quality control etc.,

(vi) C-MET has the option to verify the above information by physical inspection or otherwise by any authorized representative of C-MET at any time.

15. ELEMENT OF FREIGHT FOR INDIGENOUS PURCHASE

- a) In case where the consignees are more (say more than 4 or so), Tenderer's are required to quota for the FOR station of dispatch prices with an average freight for all consignees, which will be added to FOR station for dispatch price to get FOR destination prices.
- b) In case where the consignees are 4 or less, Tenderer's are required to quota FOR station of dispatch price with an actual freight for each individual consignee, which will be added to FOR station for dispatch price to get FOR destination prices for each individual consignee.

16. TIMELY COMMISSIONING:

In the event of contractors failure to have commissioned by the time or times respectively specified in the letter of acceptance or contract, purchaser shall levy Liquated damages for the delay:

S.No.	Description	Confirmation Required
1	GAS FIRED MELTING FURNACE Technical Specifications is to be read before quoting	YES

17. COMPLIANCE CONDITIONS

Commercial-Compliance

S.No.	Description	Confirmation Required
1	Please enter the percentage of local content in the material being offered. Please enter 0 or fully imported item, and 100 for fully indigenous items. The definition and calculation of local content shall be in accordance with the Make in India policy as incorporated in the tender conditions	

18. SUBMISSION OF BID

1	Technical Bid	Documents should be serially arranged as per CHECK LIST WITH PAGE NUMBERING. This will be opened on 29.03.2019 at 1030 hours
2	Commercial Bid (Price Bid)	Should contain only Price Bid. There are two formats viz (a) Main system (Furnace) and (b) Optional accessories. Date of opening of Price bid will be informed to those whose bid technically qualified.

PRE-DESPATCH INSPECTION OF FURNACE: C-MET will nominate a person to visit the suppliers site for pre-despatch inspection and clearance for dispatching the furnace. Any suggestion/modification suggested during the inspection should be incorporated before its dispatch.

CRITERIA FOR PRE-QUALIFICATION OF TENDER AND NEGOTIATIONS

Specifications conforming to the requirement or better than that, Past Performance, Financial Soundness, Technical Competence, Total Cost and Organizational Capability of the Tenderer to provide installation, commissioning, after sale service and spare parts supply shall be some of the crucial parameters for pre-qualification of Tenderer's.

RE-TENDERING

On finding inadequate response to Tender Notice or if the Prices quoted are substantially high and negotiations with the Tenderer's have not resulted in any positive response C-MET may accept or order Re-tendering.

In case a ring is suspected, re-tendering will normally be resorted to.

CORRUPT OR FRAUDULENT PRACTICES

C-MET requires that the bidders/suppliers/contractors under this tender, observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, the following is defined for the purposes of this provision, the terms set forth as follows:

- a) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of the public official in the procurement process or in contract execution and
- b) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or an execution of a contract to the detriment of C-MET, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive C-MET of the benefits of the free and open competition;

- c) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

C-MET will declare a firm ineligible, either indefinitely or for a stated period of time to be awarded a contract if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

INTERPRETATION OF THE CLAUSES IN THE TENDER DOCUMENT

In case of any ambiguity in the interpretation of any of the clauses in Tender Document , the interpretation of the Director, C-MET shall be final and binding on all parties.

IN CASE OF ANY LEGAL DISPUTE THE JURISDICTION WILL BE HYDERABAD (INDIA) ONLY.

C-MET shall have the right to issue addenda to tender documents to clarify, amend, modify, supplement or delete any of the conditions, clauses or delete any of the conditions clauses or items stated therein. Each addendum so issued shall form part of **ORIGINAL INVITATION TO THE TENDER.**

FORCE MAJEURE

The Supplier shall not be liable for forfeiture of its performance security, penalty 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.

For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify C-MET in writing of such conditions and the cause thereof. Unless otherwise directed by C-MET in writing, the Supplier shall continue to perform its obligations under the Supply as far as it is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure.

CANCELLATION OF ORDER

C-MET reserves the right to cancel the order without any liability in case the stores/goods/equipments is not supplied within the stipulated period and for non-fulfillment of specifications.

ARBITRATION

Any dispute between the parties on the purchase would be settled by arbitration. The Place of arbitration proceedings shall be at the place decided by C-MET. Applicable laws shall be laws of Union of India.

(in the company letter head)

CHECK LIST

Documents to be submitted along with the bids

(TECHNICAL BID)

S No	Description	Yes/No	Page No
1	Covering/introduction letter from the Firm referring to C-MET's tender enquiry No and date towards participation in the tender.		
2	Details of EMD (attach relevant documents in both cases)		
3	Acceptance of terms & conditions of tender enquiry		
4	Signed copy of tender enquiry		
5	Price Reasonability Certificate		
6	Bid form and Price schedule with commercial terms WITHOUT PRICE		
7	Previous experience details alongwith documents like POWO etc. (not more than 3 years old)		
8	Undertaking and declaration		
9	Technical compliance statement with/without deviation		
10	Technical brochure of the Product offered or drawings		
11	GST Registration certificate or No		
12	Bank details for NEFT/RTGS		
13	Warranty		

Documents to be submitted alongwith Commercial bids

(PRICE BID)

(Separate sealed cover)

S No	Description	Page No
1	Bid form and Price schedule with commercial terms WITH PRICE	

(in the company letter head)

BIDDER'S DETAILS

1	Name of the supplied/party/firm	
2	Name of the authorized representative	
3	Communication address	
4	Telephone Nos.	
5	Mobile Nos.	
6	Fax and e-mail address	
7	Web address	
8	Bank details for payment through NEFT/RTGS	
9	Name of Bank	
	Branch	
	Account No	
	IFSC No	
	MICR No	
	Cancelled cheque for verification of above details	

Signature of Tenderer_____

Name_____

Business Address_____

Seal of the Tenderer_____

(in the company letter head)

**PREVIOUS EXPERIENCE DETAILS
(LAST 3 YEARS)**

S.No.	Name of Machine	Name of customer	Purchase Order No. & Dt.	Delivery date as per PO	Actual date of delivery
(1)	(2)	(3)	(4)	(5)	(6)

Signature of Tenderer _____

Name _____

Seal of the tenderer _____

(in the company letter head)

PRICE REASONABILITY CERTIFICATE

It is certified that the rates quoted _____ are not more than as charged to other Govt. /PSU's for similar supplies made in recent past. Copies of the supply orders received from other Govt/PSU's are enclosed alongwith the technical bid.

Signature of Tenderer_____

Name_____

Business Address_____

Seal of the Tenderer_____

(TO BE SUBMITTED ALONG WITH TECHNICAL BID)

(in the company letter head)

UNDERTAKING/ DECLARATION

I/We having our office at
declare that I/we have never been blacklisted by any State Government/Central Government or any State/Central PSU.

2. I/We, hereby declare that the particulars furnished by me/us in this offer are true to the best of my/our knowledge and I/We understand and accept that, if at any stage the information furnished by me/us are found to be incorrect or false, I/We am/are liable for disqualification from this tender and also liable for any penal action that may arise due to the above, besides being black listed.

3. I/We _____ hereby accept to provide warranty/ guarantee and Free Service for a period of minimum one year from the date of supply/ installation of the materials.

4. I/We of hereby agree on the acceptance of this tender by Director, C-MET to _____, in accordance with the terms and conditions of contract and at the rates or price specified in financial bid (BOQ).

5. This is also certified that the rates quoted in the financial bid are not more than the rates charged from any other Institution/Department/ Organization in the last six months. No Other charges would be payable by the Institute.

6. I/We _____ have gone through the terms and conditions and will abide by them as laid down above. I hereby undertake that the information provided above and elsewhere in the tender is true and the tender is liable to rejection if the same is found to be false or the information is found to have been suppressed by me.

Name & Signature of the Supplier/Contractor/
Authorized signatory with Official stamp/seal

(TO BE SUBMITTED ALONG WITH TECHNICAL BID)
(in the company letter head)

To,

Date:

The Administrative Officer
C-MET, IDA Phase III
Cherlapally,
Hyderabad 500 051

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No. ----- dated

Name of the Tender/Work: - Internal Partition Work

Sir/Madam,

I/We have downloaded/obtained the tender document(s) for the above mentioned 'Tender/Work' for the web site(s) namely:

as per your advertisement, given in the mentioned website(s)/enquiry letter.

2. I/we hereby certify that I/we have read the entire terms & conditions of the tender documents from Page No. _____ to _____ (including all documents like Annexure(s), schedules(s), etc.) which form part of the contract agreement and I/We shall abide hereby by the terms/conditions/clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/organization too have all been taken into consideration, while submitting this acceptance letter.
4. I/We hereby unconditionally accept the tender conditions of above mentioned tender document (s)/Corrigendum(s) in its totally/entirely.
5. In case any provisos of this tender are found violated, then your Department/Organizations shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours faithfully,

Name & Signature of the Supplier/Contractor/
Authorized signatory with Official stamp/seal

**CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY (C-MET)
HYDERABAD**

Technical Specifications of Gas Fired Melting Furnace

A Gas Fired Tilting Furnace is required for laboratory research and development applications essentially to carry out remelting of black copper to cast anodes for electrorefining, fire refining of copper for removing reactive metals and melting of alloys and casting.

A. Detailed specifications:

Furnace Construction	<p>Robust construction to take care of the high temperature and tilting stress.</p> <p>Outer shell should be rolled out of MS sheet (\geq 4mm thick), reinforced with rolled angle frame which is to be mounted on a strong channel frame to accommodate the Reduction gear box and motor (\geq 1HP capacity)(party should quote exact specs of the sizes and thickness in the bid)</p> <p>An additional platform should be provided for loading and unloading of material with suitable working height to match with the operation of furnace (withstanding 500kg load)</p>
Mounting	<p>The entire setup of this furnace should be mounted on top of the channel frame to ensure proper alignment and smooth lifting arrangement during tilting of the furnace, Reduction gear and motor shall be mounted such a way to ensure smooth lifting of the furnace during tilting. The mounting should be strong enough to take care of the furnace load, crucible, material weight, gas purging stresses as well as the tilting stresses.</p>
Door	<p>The top door should be provided with lift and turn mechanism. It should have the provision for adding materials, additives, exhaust pipe for flue gas and one gas inlet for purging of gas, view port. The opening in the door should be large enough (\sim 200mm) to enable the stirring of the contents of the crucible with an iron rod at operating temperature.</p>
Lining	<p>The furnace should be lined with one layer of high temperature insulation bricks cumilac 32 to with stand a temperature of 1450 °C continuous and should be backed with HFI bricks.</p> <p>The furnace should be designed to accommodate the silicon carbide crucible with spout for proper placement and providing necessary support to ensure the crucible firmness during tilting.</p> <p>The door should be lined with ceramic module from inside to ensure minimum heat loss.</p>

<p>Tilting Arrangement</p>	<p>The tilting arrangement with the Reduction gear and motor which in turn controlled by a VFD for a smooth movement by using soft start and soft stop arrangement. (Capacities of motor should be quoted) To ensure smooth lifting a provision shall be made for normal movement of lifting by using On/off controller, and also inching facility should be provided for step by step tilting and the limit switch should be provided for maximum lift and rest position to ensure very less shock or vibration. Tilting angle – during firing and horizontal during pouring (0-115°)</p>
<p>Temperature Control</p>	<p>Digital temperature controller calibrated to Pt-Pt-Rh type thermocouple with ceramic sheathing to sense temperature from ambient to 1450 deg C. safety controller to be parallelly connected to ensure over temperature cut-off . Additional temperature indicator to measure the melt temperature. Temperature accuracy, $\pm 10^{\circ}\text{C}$., controller accuracy $\pm 1^{\circ}\text{C}$</p>
<p>Crucible</p>	<p>Silicon carbide crucible, 30 litres capacity, with spout for pouring during tilting. The furnace shall be designed for melting 50 Kg of copper or equivalent material. (make: Morgan or equivalent)</p>
<p>Burner</p>	<p>Make: Wesman or Riello or equivalent make gas fired high temperature burner Fuel: LPG or Natural gas. Temperature: firing upto 1450°C with the blower/ air-oxygen Capacity: 220 kw max. Suitable to accommodate the required air flow and pressure for the burner. Sequence controller, solenoid valve with On/Off controller, air pressure switch, ignition transformer and flame sensing device for safety. A secondary pressure regulating system should be provided along with burner consisting of LPG gas filter, low pressure secondary pre regulator to operate from 0-100 millibar and pressure indicators to indicate the input gas flow up to 8 bar pressure and output which will be up to 150 millibar. The burner shall be mounted on one side on a separate frame for retractable facility to move out when tilting is done</p>
<p>Control Panel</p>	<p>A stand-alone floor mounted panel (IP 55 standard) for operation of the furnace such as tilting, automatic controlling of burner during heating. Housing of VFD and other switch gear items with all</p>

	necessary indicators, controllers, switches etc of reputed make.
Electrical	Control switch mains on/off, output main on/off indicating lights, and all necessary electrical items required for the furnace with all subsystems such as blower, should be quoted. System should be complete with all necessary thermocouples, thermocouple cables internal wiring etc.
Other specifications	<ul style="list-style-type: none"> • Party should quote with detailed specifications, capacities, make and model of the bought of items. Reduction gear box, motor, switches, VFD, crucible, burner etc should be of standard and reputed make • Schematic sketch should be provided along with technical bid • Party should quote the system with full specifications, for comparison; provide a technical compliance sheet along with the quote. • The system should have all the sensors required for the equipment safety and environmental safety as well as for the requisite process variables. Party should provide all the details along with the bid • The system should follow all the safety precautions prescribed in the standard guidelines. • The basic system should be quoted inclusive of all essential accessories to run the equipment such as Servo stabilizer, cables, gas panels, compressor gas lines, if required etc.

18. GENERAL INSTRUCTIONS

S.No.	Description	Confirmation Required
1	All conditions shall be as per tender document	
2	The bidder confirms that Rates and other financial terms quoted in relevant columns of financial bid will only be ruling terms for acceptance, and such terms quoted anywhere else should be ignore.[Denial of this condition not recommended]	
3	The bidder agrees to supply the tendered stores at the rates quoted by him in accordance with C-MET conditions of Contract and [OR] Special Conditions and [OR] other Conditions specified/attached with the tender	
4	Pre-despatch Inspection - By nominated C-MET official at Destination	
5	In case the date of bid opening falls on a gazette holiday or is subsequently declared	

	as such, the bids will be opened on the next working date at the appointed time	
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19. SPECIAL CONDITIONS

S.No.	Description	Confirmation Required
1	<p>Taxes/Duties</p> <ol style="list-style-type: none"> 1. Tenderer should clearly indicate Basic rate and applicable rate of GST 2. Tenderer's should ensure that they are GST compliant and their quoted tax structure/rates are as per GST law. Tenderer should clearly indicate Basic rate and applicable rate of GST. 3. In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, C-MET shall deduct the applicable GST from his/their bills under reverse charge mechanism [RCM] and deposit the same to the concerned tax authority 4. While submitting offer, it shall be the responsibility of the bidder to ensure that they quote correct GST rate and HSN number. 5. Wherever the successful bidder invoices the goods at GST rate or HSN number which is different from that incorporated in the Purchase Order, payment shall be made as per GST rate which is lower of GST rate incorporated in the Purchase Order or billed. 6. Any amendment to GST rate or HSN number in the contract shall be as per the contractual conditions and statutory amendments in the quoted GST rate and HSN number. 7. Vendor is informed that he/she would be required to adjust his/her basic price to the extent required by higher tax billed as per invoice to match the all inclusive price as mentioned in the Purchase Order. 	
2	<p>Quantity Variation Clause: The Purchaser reserves the right to vary the quantity mentioned in the schedule of requirements by Plus 30%. The Purchaser also reserves the right to increase the contract quantity by a</p>	

	maximum of 30% after the placement of order within a year from the date of placement of order keeping the overall quantity increase within 30% of the bid quantity.	
3	Bidders are requested to refer Special Conditions of Contract while submitting their offers	

20. DOCUMENTS ATTACHED WITH TENDER

S.No.	Document Name	Document Description
1	Technical Specifications	Gas Fired Melting Furnace

21. RESPONSIVENESS

S.No.	Description
1	Validity of the Offer: No deviation from the offer validity period stipulated in the tender is permitted
2	Payment Terms: No deviation from the Payment Terms stipulated in the tender is permitted.

(in the company letter head)

BID FORM AND PRICE SCHEDULE

Tender Reference No. : ENQ. NO.: HD/PUR/SP-32/GFMF/2018-19/10769
Date: 07.03.2019

Name of the Stores/
Goods/Equipment : SUPPLY, INSTALLATION AND COMMISSIONING OF
GAS FIRED MELTING FURNACE

Sl. No.	Description	HSN/ SN CODE	Qty.	Amount/ Rs
1	SUPPLY, INSTALLATION AND COMMISSIONING OF GAS FIRED MELTING FURNACE		1 No.	
	Freight charges			
	Insurance			
	Installation charges			
	Taxable value			
	GST			
	GRAND TOTAL			

1. Payment Terms:
2. Bid Validity:
3. Delivery Schedule:
4. Place of delivery: C-MET, HYDERABAD
5. Warranty, if applicable:
6. GST Registration No.
7. Any other relevant information:

Signature of Tenderer _____

Name _____

Seal of the Tenderer _____

(in the company letter head)

BID FORM AND PRICE SCHEDULE

Tender Reference No. : ENQ. NO.: HD/PUR/SP-32/GFMF/86/2018-19/10769
Date: 07.03.2019

Name of the Stores/
Goods/Equipment : SUPPLY, INSTALLATION AND COMMISSINING OF
**GAS FIRED MELTING FURNACE - OTHER
OPTIONAL ACCESSORIES**

Sl. No.	Description	HSN/ SN CODE	Qty.	Amount / Rs
	OTHER OPTIONAL ACCESSORIES			
	Other essential accessories/ spares			
	Freight charges			
	Insurance			
	Taxable value			
	GST			
	GRAND TOTAL			

Signature of Tenderer _____

Name _____

Seal of the Tenderer _____

(TO BE SUBMITTED ALONG WITH TECHNICAL BID)

(in the company letter head)

Technical compliance statement in r/o GAS FIRED MELTING FURNACE

Make:

Model :

Technical Requirement	Technical Specification	Specifications offered by the firm (YES/NO NOT ACCEPTED)
Furnace Construction	Robust construction to take care of the high temperature and tilting stress. Outer shell should be rolled out of MS sheet (≥ 4 mm thick), reinforced with rolled angle frame which is to be mounted on a strong channel frame to accommodate the Reduction gear box and motor (≥ 1 HP capacity)(party should quote exact specs of the sizes and thickness in the bid) An additional platform should be provided for loading and unloading of material with suitable working height to match with the operation of furnace (withstanding 500kg load)	
Mounting	The entire setup of this furnace should be mounted on top of the channel frame to ensure proper alignment and smooth lifting arrangement during tilting of the furnace, Reduction gear and motor shall be mounted such a way to ensure smooth lifting of the furnace during tilting. The mounting should be strong enough to take care of the furnace load, crucible, material weight, gas purging stresses as well as the tilting stresses.	
Door	The top door should be provided with lift and turn mechanism. It should have the provision for	

	<p>adding materials, additives, exhaust pipe for flue gas and one gas inlet for purging of gas, view port. The opening in the door should be large enough (~ 200mm) to enable the stirring of the contents of the crucible with an iron rod at operating temperature.</p>	
Lining	<p>The furnace should be lined with one layer of high temperature insulation bricks cumilac 32 to withstand a temperature of 1450 °C continuous and should be backed with HFI bricks.</p> <p>The furnace should be designed to accommodate the silicon carbide crucible with spout for proper placement and providing necessary support to ensure the crucible firmness during tilting.</p> <p>The door should be lined with ceramic module from inside to ensure minimum heat loss.</p>	
Tilting Arrangement	<p>The tilting arrangement with the Reduction gear and motor which in turn controlled by a VFD for a smooth movement by using soft start and soft stop arrangement. (Capacities of motor should be quoted)</p> <p>To ensure smooth lifting a provision shall be made for normal movement of lifting by using On/off controller, and also inching facility should be provided for step by step tilting and the limit switch should be provided for maximum lift and rest position to ensure very less shock or vibration. Tilting angle – during firing and horizontal during pouring (0-115°)</p>	
Temperature Control	<p>Digital temperature controller calibrated to Pt-Pt-Rh type thermocouple with ceramic sheathing to sense temperature from ambient to 1450 deg C.</p> <p>safety controller to be parallelly</p>	

	<p>connected to ensure over temperature cut-off . Additional temperature indicator to measure the melt temperature. Temperature accuracy, + 10°C., controller accuracy + 1°C</p>	
Crucible	<p>Silicon carbide crucible, 30 litres capacity, with spout for pouring during tilting. The furnace shall be designed for melting 50 Kg of copper or equivalent material. (make: Morgan or equivalent)</p>	
Burner	<p>Make: Wesman or Riello or equivalent make gas fired high temperature burner Fuel: LPG or Natural gas. Temperature: firing upto 1450°C with the blower/ air-oxygen Capacity: 220 kw max. Suitable to accommodate the required air flow and pressure for the burner. Sequence controller, solenoid valve with On/Off controller, air pressure switch, ignition transformer and flame sensing device for safety. A secondary pressure regulating system should be provided along with burner consisting of LPG gas filter, low pressure secondary pre regulator to operate from 0-100 millibar and pressure indicators to indicate the input gas flow up to 8 bar pressure and output which will be up to 150 millibar. The burner shall be mounted on one side on a separate frame for retractable facility to move out when tilting is done</p>	
Control Panel	<p>A stand-alone floor mounted panel (IP 55 standard) for operation of the furnace such as tilting, automatic controlling of burner during heating. Housing of VFD and other switch gear items with all necessary indicators,</p>	

	controllers, switches etc of reputed make.	
Electrical	Control switch mains on/off, output main on/off indicating lights, and all necessary electrical items required for the furnace with all subsystems such as blower, should be quoted. System should be complete with all necessary thermocouples, thermocouple cables internal wiring etc.	
Other specifications	<ul style="list-style-type: none"> • Party should quote with detailed specifications, capacities, make and model of the bought of items. Reduction gear box, motor, switches, VFD, crucible, burner etc should be of standard and reputed make • Schematic sketch should be provided along with technical bid • Party should quote the system with full specifications, for comparison; provide a technical compliance sheet along with the quote. • The system should have all the sensors required for the equipment safety and environmental safety as well as for the requisite process variables. Party should provide all the details along with the bid • The system should follow all the safety precautions prescribed in the standard guidelines. • The basic system should be quoted inclusive of all essential accessories to run the equipment such as Servo stabilizer, cables, gas panels, compressor gas lines, if required etc. 	

<p>Other specifications</p>	<ul style="list-style-type: none"> • Full descriptive manuals including complete electronic circuitry/ component layout diagrams for all the main systems / sub systems must be supplied at the time of the delivery of the main equipment for trouble shooting after completion of warranty period. • The equipment and other accessories should be coated completely with rust proof paints; high temperature paints etc wherever required. • The vendors should have adequate after sales service facilities in India Preferably in Hyderabad, to provide fast & efficient after sales service. The vendor shall provide a list of service centers in India. • The equipment shall be guaranteed for trouble free operation for a period of 24 months from date of commissioning • Party should ensure that they quote the latest model so that spares of the system should be available for at least next 10 years • Fabrication drawings should be provided along with supply 	
<p>Inspection, Installation and Training</p>	<ul style="list-style-type: none"> • Party has to arrange a pre delivery inspection before dispatching the items. Party has to inform well in advance to C-MET so that scientists shall visit the fabrication unit and inspect the system and on completion of inspection and satisfaction of demonstration trial, give clearance of the delivery. • Party should install system the pilot plant facility at Hyderabad. Party should convey well in advance the 	

	<p>installation requirements such as foundation, electrical supply etc.</p> <ul style="list-style-type: none">• Training on operation and maintenance refurbishing has to be given to C-MET scientists. Party has to demonstrate the capability of the systems such as temperature, Thermal efficiency, tilting, pouring operations etc. for acceptance under load and temperature specified	
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BANK GUARANTEE FORM FOR BID SECURITY/EMD

Whereas _____ (hereinafter called the "Tenderer") has submitted its quotation dated _____ for the supply of

_____ (hereinafter called the "tender") against the purchaser's tender enquiry No. _____ Know all persons by these presents that we _____ of _____ (Hereinafter called the "Bank") having our registered office at _____ are bound unto _____

(hereinafter called the "Purchaser) in the sum of _____ for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 20____. The conditions of this obligation are:

- (1) If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.

- (2) If the Tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-
 - a) fails or refuses to furnish the performance security for the due performance of the contract.
or
 - b) fails or refuses to accept/execute the contract.
or
 - c) if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition(s).

This guarantee will remain in force for a period of forty-five days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)
Name and designation of the officer
Seal, name & address of the Bank and address of the Branch

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY DEPOSIT

To

The Administrative Officer
C-MET, IDA Phase-III
Cherlapally, HCL Post
Hyderabad – 500 051
TELANGANA STATE
INDIA

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of contract no _____ dated _____ to supply (description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of _____ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to (In words) months from the date of Notification of Award i.e up to ----- (indicate date)

.....
(Signature with date of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch