



सेन्टर फॉर मेटिरियल्स फॉर इलेक्ट्रॉनिक्स टेक्नोलॉजी (सी-मेट)
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 Web: www.cmet.gov.in

No. HD/PUR/TS-002/IC/01/2020-21/12691

Date: 24.06.2021

On behalf of Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, Centre for Materials for Electronics Technology (C-MET), Hyderabad invites Tenders against Tender No. HD/PUR/TS-002/IC/01/2020-21/12691 dated 24.06.2021 Closing Date/Time **22.07.2021 at 17:00 Hrs.** Bidders will be able to submit their original/revised bids upto closing date and time only.

2. ITEM: INCONEL CONDENSER

Design, Fabrication, Inspection, Supply and Erection of Inconel Condenser.

Tender Type : **OPEN TENDER**
Closing time : **22.07.2021 at 17:00 Hrs.**

Note: Bidders who downloaded tender documents from our web site shall send an email to arbind@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 by e-mail 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) Conditional tenders shall not be accepted
- (iv) The envelope super-scribed with [a] Enquiry Letter No. & date [b] Due Date & [c] Description of the Item should be clearly indicated, otherwise quotation will be rejected.
- (v) Firms or their authorized representatives will not be allowed to attend the opening of Technical bids on 23.07.2021 at 11:00 hours due to existing COVID-19 pandemic situation. If there is any delay in opening of technical bids will be intimated to the bidder.
- (vi) Requests for the postponement shall not normally be entertained. In rare cases however, if the response to a notice is poor, a decision to postpone the opening date of the tender by a minimum 15 days shall be taken by the competent authority. The time extension so granted shall be intimated to all concerned so that adequate response is received
- (vii) The tender details are also available in our website: <http://www.cmet.gov.in> & CPP Portal
- (viii) The offer should be valid for a period of 120 days from the date of opening of Tender.

- (ix) 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. Bid Security Declaration: The bidder has to sign a Bid Security declaration accepting that if the bidder withdraws or modify its bid during the period of validity i. e., not less than 120 (one hundred twenty) days from the bid due date or if the bidder is awarded the contract and fail to sign the contract or to submit a performance security before the deadline defined in the request for bid documents, the bidder will be suspended for participation in the tendering process for the tenders of C-MET, Hyderabad for a period of one year from the bid due date of this tender. The bid security declaration shall be submitted as per format (Format for Bid Security Declaration).

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 of the item and the name and address of the bidder.
- (ii) The inner and outer envelopes shall be addressed to the Administrative Officer (A), 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 clarifications of its bid. The request for clarifications and the responses 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 **17:00 Hrs. on 22.07.2021**. 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.

CLARIFICATION ON BIDDING DOCUMENTS

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

Administrative Officer (A)
C-MET
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

The equipment should be supplied within four (4) months from the date of issue of Purchase Order.

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.

The Liquidated Damages, if any recovered from the vendors will be transferred to VSSC, Thiruvananthapuram.

**9. PERFORMANCE SECURITY DEPOSIT (PSD)
{PERFORMANCE BANK GUARANTEE}**

- Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish Performance Security (PS) [also known as Bank Guarantee (BG)] in the amount specified in the purchase order in favour of VSSC, Thiruvananthapuram. It is an option to the Purchaser either to submit single Bank Guarantee/FD etc as detailed to cover both supply, installation and commissioning (as indicated in PO/WO) and warranty/extended warranty period or two BGs one each to cover supply and warranty/extended warranty separately. The validity shall be as stipulated in PO plus 60 days.
- 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.
- 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 or in equivalent Indian Rupees in case the Performance Security is submitted by the Indian Agent.
- The Performance security shall be in one of the following forms: (a) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized/ Scheduled bank located in India or a foreign bank with preferably its operating branch in India in the form provided in the bidding documents. Or (b) A Banker's cheque or Account Payee demand draft in favour of the purchaser. Or, (c) A Fixed Deposit Receipt pledged in favour of the Purchaser.
- 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/extended warranty obligations, unless specified otherwise, without levy of any interest.
- 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.
- The performance security must be received within 21 days. However, the Purchaser has the powers to extend the time frame for submission of Performance Security (PS). Even after extension of time, if the PS is not received, the contract is liable to be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the

next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.

- Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

10. SECURITY DEPOSIT

Within 21 days of receipt of notification of award of Purchase Order/Contract from C-MET, the bidder shall furnish a Security Deposit equivalent to 10% of the order/contract value or as per Govt. of India guidelines issued from time to time in the form of CDR or BG or FDR in favour of VSSC, Thiruvananthapuram.

11. PAYMENT TERMS

Our standard payment term is 100% payment within 30 days against receipt, installation, commissioning, training and acceptance of material in good condition by NEFT/RTGS subject to submission of BG for 10% of basic cost covering warranty period including extended warranty period, if any. **The firm should submit bill/invoice with GST No. 32AAAGV0026J1ZL of VSSC, Trivandrum.**

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.

12. STATUTORY VARIATION CLAUSE:

S. No.	Description
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 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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13. Standard Governing Conditions

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

14. CONDITIONS FOR ELIGIBILITY OF TENDERER

S. No.	Description	Confirmation Required
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 three (3) years from date of tender opening may be considered as responsive to C-MET requirements for placement of regular order.	YES

15. (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.

16. ELEMENT OF FREIGHT FOR INDIGENOUS PURCHASE

- a) In case where the consignees are more (say more than 4 or so), Tenderers 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, Tenderers 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 Liquidated damages for the delay:

S. No.	Description	Confirmation Required
1	Inconel Condenser Technical Specifications is to be read before quoting	YES

18. 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 for 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.	

19. SUBMISSION OF BID

1	Technical Bid	Documents should be serially arranged as per CHECK LIST WITH PAGE NUMBERING. This will be opened on 23.07.2021 at 11:00 hours
2	Commercial Bid (Price Bid)	Should contain only Price Bid as per CHECK LIST WITH PAGE NUMBERING. Date of opening of Price bid will be informed to the technically qualified bidders only.

PRE-DESPATCH INSPECTION: C-MET will nominate a person to visit the suppliers site for pre-despatch inspection and clearance for dispatching the Inconel Condenser. 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

In case of inadequate response to Tender Notice OR if the Prices quoted are substantially high & negotiations with the Tenderer's have not resulted in any positive response, C-MET may Re-tender.

In case cartel 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-MET will reject the proposal for award of contract, 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**. *Addendum/corrigendum will be posted in our website as well as in CPP portal only.*

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.

20. 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 ignored. [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 supplier's site	
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	

21. 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 & HSN Code 2. Tenderer's should ensure that they are GST compliant and their quoted tax structure/rates are as per GST law. 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. TDS-GST @ 2% is applicable for all the contracts, if the contract/PO value exceeds Rs.2.50 lakhs. 4. While submitting offer, it shall be the responsibility of 	

	<p>the bidder to ensure that they quote correct GST rate and HSN Code.</p> <p>5. Wherever the successful bidder invoices the goods at GST rate or HSN Code 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.</p> <p>6. Any amendment to GST rate or HSN Code in the contract shall be as per the contractual conditions and statutory amendments in the quoted GST rate and HSN Code.</p> <p>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.</p>	
2	Bidders are requested to refer Special Conditions of Contract while submitting their offers	

22. DOCUMENTS ATTACHED WITH TENDER

S. No.	Document Name	Document Description
1	Technical Specifications	Inconel Condenser

23. 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.

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

Technical Specification for Inconel Condenser

Bigger condenser (internal working volume approx.200 Ltr) is required for condensation and storage of Hf chloride vapors coming out of the Kroll reduction process. The specification of the system is as follows (**Enclosed drawing**).

Size:600mm dia X 850mm height vertical cylindrical shell with conical bottom370 mm(at 60°from horizontal) with bottom nozzle 150mm dia & bottom flange (at 100 mm below the end of the conical part),Including Inconel partition plate and top flange. The condenser should have two side ports (ID 50 mm& 200 mm length) on the opposite side of the partition plate at a depth of 100 mm from top collar to connect to our existing reduction system with the help of SS316 braided bellows (6 nos. of 1m length each to be supplied by the party as part of the system). The pipes where ever not mentioned should be schedule 40 pipes. MS supporting structure should be provided for the condenser for making it self-supporting. The shell thickness of the condenser should be 6mm while top flange and collar should be minimum 10 mm thick. The bottom collar & flange should be minimum 8mm thick. A SS316 ball valve should be provided connecting the bottom flange.

Party should have to submit fabrication drawing for approval before initiating work.

Minor modifications if any should be acceptable to party without any extra cost. All the joints of the system should be subjected to 100 % x-ray radiography. The complete system should be DP tested.

Minor modifications, if any, should be acceptable to party without any extra cost.

Warranty: The party should give 12 months warranty after commissioning or 18 months after supply whichever is earlier

Note:

1. The party should quote along with list of previous Inconel system supplies, drawing of the proposed quoted system, qualified welder and other fabrication and testing facilities, delivery period, etc.
2. The fabricator should have prior experience in fabrication of inconel systems of not less than Rs.5.00 Lakh.
3. Party should submit quality assurance plan along with the quotation.

TECHNICAL SPECIFICATIONS OF MECHANICAL FABRICATED ITEMS FOR HAFNIUM SPONGE PROCESS PLANT-HIGH TEMPERATURE CONDENSOR

1.0 SCOPE

This specification covers design check, engineering, fabrication, inspection; supply including packing and forwarding, transportation, and erection at site C-MET, CHERLAPALLY, HYDERABAD.

2.0 LOCATION AND SITE DATA:

1.2.1	Location	CHERLAPALLY, HYDERABAD		
1.2.2	Ambient conditions	Summer	Monsoon	Winter
A	Dry Bulb Temperature (°C)	40	30	14
B	Wet Bulb Temperature (°C)	25.6	27.2	8.9
C	Relative Humidity (°/o)	28	82	60

3.0 EXTENT OF SUPPLY

Individual equipment as per enclosed Specification Data Sheet/Drawing

4.0 INSPECTION TESTING & APPROVAL:

4.1 GENERAL:

This specification covers the inspection schedule to be followed by the fabricator. Based on the description below, the fabricators should work out the quality assurance plan and submit for our comments & approval.

4.2 PREFABRICATION INSPECTION:

4.2.1 Welder's Qualification

Welder qualification shall be as per ASME Sec. IX and relevant construction codes for position, Base metal, and filler metal and welding process.

4.3 FABRICATION INSPECTION:

4.3.1 Enlisted below are the various stages of inspection common for all types of vessels:

a. Materials identification & Stamp Transfer

All pressure parts, process contact parts, all SS& Inconel components and load bearing parts for items subjected to stress, destructive tests and chemical analysis shall be carried out as per the relevant applicable specification mentioned in individual specification datasheet of equipment. Apart from the above, plate material of thickness 16mm and above shall be ultrasonically tested. Bought out components such

as pipe fittings shall be subjected for lot testing as per relevant specifications

- b.** Material identification and stamp transfer will be carried out at fabricators workshop only
- c.** Tubes shall be inspected at tube manufactures place only.
- d.** S.S & Inconel material will be additionally subjected to microstructure examination.
- e.** Following procedure shall be followed for lot identification.
 - e.1** Plates bearing the same heat numbers shall be considered as 1 lot. Two samples at random shall be selected for testing for identical parameters. The test results should be identical complying to the norms of the relevant material code with variation in values not exceeding 5% between the selected samples. Failure to comply with above & material code value the total shall be rejected.
 - e.2** Plates without heat numbers or with different numbers shall be considered as individual plate and 100% samples should be tested as per relevant material code.
- f.** All S.S& Inconel forged material wherever required shall be solution annealed and supported by certificate
- g.** Testing of the compensation pads, liners, hydrostatic test of the vessel and jacket, vacuum test of the vessel, no load & load trial of agitator and other applicable tests.
- h.** Any other inspection stages and tests required as per code shall be applicable apart from the above points.

4.4 PRESSURE VESSELS (HORIZONTAL, VERTICAL)

- 4.4.1 MATERIAL identification of all pressure and process contact parts.
- 4.4.2 Stamp transferring on all identified material for the individual components of the vessel.
- 4.4.3 Dimensional check & penetrant testing of end closures.
- 4.4.4 Long-steam set up of individual shell course.
- 4.4.5 Penetrant testing of shell to shell and bottom dish to shell joints.
- 4.4.6 Cir-seam set up of shell to shell and bottom dish to shell joints.
- 4.4.7 Penetrant testing of shell cir-seam joints after back chipping.
- 4.4.8 Nozzles setup on top dish/shell in tack weld condition with R.F. pads wherever applicable.
- 4.4.9 Penetrant testing of nozzles to dish/shell after back chipping.
- 4.4.10 Inspection of internal surface finish of shell/top dish & pneumatic testing of R.F. pads of shell/dish nozzles.
- 4.4.11 Cir-seam setup of top dish to shell cir-seam
- 4.4.12 Penetrant testing of top dish to shell cir-seam joint.
- 4.4.13 Interpretation of radiographs (full radiography for Inconel condenser)
- 4.4.14 Supporting bracket/legs setup inspection in tack weld condition
- 4.4.15 Final dimensional check-up of vessels with external and internal touch-ups and finish
- 4.4.16 Leak testing of the vessels
- 4.4.17 Cleaning of the vessels before dispatching to site.
- 4.4.18 Verification of inspection documents

5.0 GENERAL NOTES FOR FABRICATION

- 5.1 All dimensions are in **mm** unless specified otherwise.
- 5.2 Minimum thickness shall be as indicated in drawing. Specified thickness shall be calculated as per relevant standards and vendor shall be responsible for final thickness.
- 5.3 Minimum plate width for any long seam & Cir-seam joint shall be 300 mm.
- 5.4 Where ever possible but welds and nozzle to vessel welds shall be chipped back to sound metal and welded. Welds inaccessible for back chipping shall be full penetration weld with root run by **TIG**.
- 5.5 Un machined carbon steel external surfaces shall be painted with two coats of Zinc Chromite primer.
- 5.6 Machined surfaces to be protested by rust preventive compound. All nozzle flanges shall be blanked before dispatch.
- 5.7 All gasket contact faces for soft gaskets shall be serrated to 0.8 concentric pitch and 0.35 deep or spiral 0.5 to 1 pitch and 0.025 t 0.15 deep approximately.
- 5.8 Nozzles 40 NB and below shall be stiffened by 2 nos. stiffeners at 90° apart.
- 5.9 Nozzles with blind flanges shall be provided with gasket and bolting.
- 5.10 All pads, flange and liners, etc. shall have 1/16" NPT tell-tale holes. These shall be air tested to 1 kg/cm² (g) with soapsuds plugged.
- 5.11 S.S & Inconel Surface shall be descaled and cleaned as per ASTM A 380, Except where surface polishing is required.
- 5.12 Flange thickness of SS (excluding Stub end & liner) as well as C.S vessels will be as per ANSI B16.5, ASA 150#.
- 5.13 Final matching of gasket contact faces of girth flanges/plate flanges shall be only after welding.
- 5.14 All requirements will be provided with earthing boss SS 304 as per standard.
- 5.15 Equipment shall be thoroughly cleaned from inside by vendor before dispatch.
- 5.16 Clips for fixing platforms, ladders handrails and pipe supports shall be supplied by vendor, as required.
- 5.17 Nozzle reinforcement as required by the design code shall be calculated and provided by the vendor.
- 5.18 All C.S. and S.S Plates of thickness more than 16 mm shall be ultrasonically tested as per SA 435 & SA 578. The acceptance level shall be as ASME section-VIII Div.1.
- 5.19 Welding of S.S & Inconel parts of thickness 3 mm and less shall be TIG.
- 5.20 Dish end shall be made by spinning process only and shell pre punching shall be made only hydraulic press. (Pre punching by hammering is not acceptable.)
- 5.21 Plates of specifications SA 516-Gr. 60 & 70 shall be finish No-1 (Normalized and Descalced)
- 5.22 Material shall be tested as per ASTM A-20/20M & shall be subject to chemical analysis, physical test, Micro examination, Charpy V-Notch test and Bend test.

- 5.23 Chemical analysis and other testing for all procured raw materials should be from relevant accredited/approved laboratories.
- 5.24 Solution annealing shall be carried out for the all dishes before welding.
- 5.25 Welding procedure shall confirm to ASME Section IX.
- 5.26 Welding consumables & standards shall be as per ASME Section II C & AWS.
- 5.27 (a) Following welding process shall be followed.
 - C.S TO C.S. – SMAW
 - S.S. TO S.S. – GTAWS
 - C.S. TO S.S. – GTAW
 - Inconel to Inconel- GTAW
 - S.S. to Inconel- GTAW
 - NOTE: Welders shall be qualified for these processes as per ASME SECTION IX.
- 5.28 Recommended filler metal for different materials.
 - 5.28.1 Electrodes C.S to C.S (SMAW Process): E7018, E6013
 - 5.28.2 Filler wire S.S to S.S (GTAW Process): ER 306, ER 316, ER 308L, ER 316L
 - 5.28.3 Filler wire S.S to S.S (GTAW Process) ER 309, ER 309Mo, ER309L, ER 309L Mo

5.29 Generally used material as per standard & recommended electrodes.

MATERIAL SPECIFICATION	ELECTRODES/FILLER WIRES
IS:2062 Gr A/B, SA 283 Gr. A/B/C up to 12 mm thk.	E 6013
IS:2062 Gr A/B, SA 283 Gr. A/B/C up to 12 mm thk.	E 7018
IS 2002/SA516 Gr.70	E 7018/ER 70S21-1
SA516 Gr. 60/SA537 CL1 OR CL2.	E 7018-1/ER70S21
SA 106 Gr.B	E 7018/ER 70S21
SA 333 Gr. 1 to Gr.9	E 7018-1/ER70S21-1
SA 240 Gr.304	ER 308
SA 240 Gr.316	ER 316
SA 240 Gr.316 TI	ER 316 TI
SA 240 Gr.304L	ER 308L
SA 312 TP.304	ER 316L
SA 312 TP.306	ER 308
SA 312 TP.304L	ER 308L
SA 312 TP.316L	ER 316
Gr.430	ER 430
Inconel 600	ER 600

5.30 Approved Electrodes make:

5.30.1 ADOR (AdvaniOerlikon)

5.30.2 ESAB

5.30.3 D & H

5.30.4 Eutectic

5.30.5 Henagar

5.31 Only welding rectifiers shall be used for above welding process. Current rating capacity of welding rectifies shall be 400 to 600 amperes minimum. Machine shall be with ampere and voltage meter & indicators. It shall be single operator fully thyristorised controlled with automatic current stabilizer D.C are welding machine with remote control and hot start facilities with a proper cooling. Should have 100% copper wound fittings.

6.0 GUARANTEE & PENALTY:

A. GUARANTEE:

- A.1. The equipment shall be guaranteed for trouble free operation for a period of 12 months from date of commissioning or 18 months from the date of arrival at site, whichever is earlier.
- A.2. Any defect due to faulty material/bad workmanship shall be replaced/rectified free of cost to the entire satisfaction of the client. The onus of deciding replacement/rectification lies with the client.

- A.3 All guarantees from equipment suppliers will be vested in the client.
- A.4 All guarantees will be full guarantees & will include all overhead, profit, incidental charges and sundries.
- A.5 Where damages caused to any other item by any failure of the item guaranteed then the guarantee shall also include the costs incurred in rectifying that damage.

b. PENALTY CLAUSE: As detailed in the tender notice

7.0 Documentation:

The following documents shall be submitted within 2 weeks from the date of receipt of purchase Order in 4 sets for our concurrence/approval:

- 1.) Fabrication drawings (in Auto CAD & Printout)
- 2.) Quality Assurance plan (QAP)
- 3.) Bar chart

4 sets of drawings are to be submitted at the initial stages of approval. On final approval, vendor shall supply one soft copy on CD and five sets of finally approved drawings. Vendor shall obtain approval on all the drawings before start of the work. Decision of C-MET in the manner of approval shall be binding on the vendor. However, the approval of drawings shall not absolve the vendor from his responsibilities for the correctness and completeness.

Reports of the relevant tests, inspections should be brought to the notice of C-MET and approval has to be obtained prior to the next stage of work. The following documents shall be submitted before start of commissioning activities (in line 4 sets).

- 1. Design calculation
- 2. As Built fabrication drawings
- 3. Inspection reports
- 4. Material test certificates
- 5. Material heat chart
- 6. Radiography sketch & chart
- 7. Rub off
- 8. Hydro pneumatic test reports
- 9. Installation qualification report
- 10. Guarantee
- 11. D.Q, I.Q, & P.Q, Documents of fabricated equipment being supplied by fabricator.

8.0 Spares/consumables

Fabricator should supply spares/consumables troubles free operation.

9.0 DATA SHEETS AND STANDARD DRAWINGS

9.1 24 NOS. Drawings of the HTRC to be fabricated are attached

S.No	Description	Drawing No	Quantity
01	Inconel Condenser	BC-C-MET-2019/10-10/9	1 set
02	SS 316 Braded Bellows	BC-C-MET-2019/10-11	6 No's

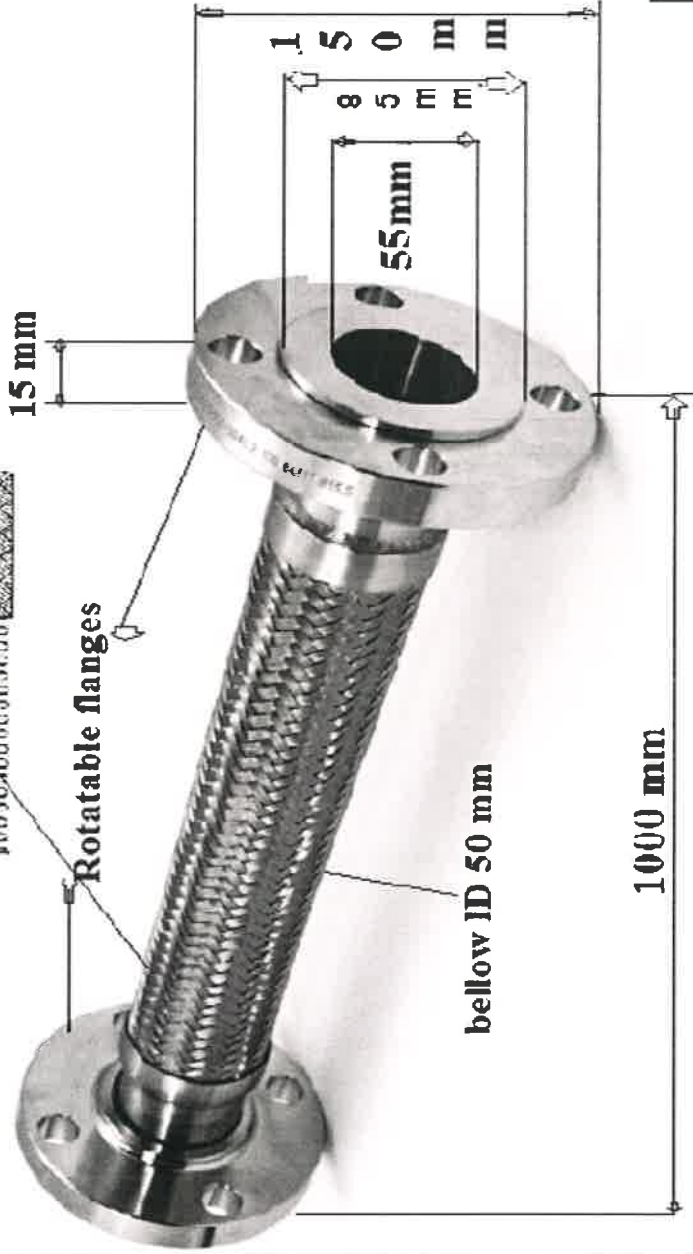
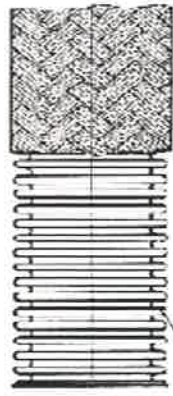
9.2 Operating conditions:

1. **Reduction Unit:**

Condenser	:	pressure 1kg/Sqcm gauge
Temperature	:	500°C

Delivery:

Fabricator should strongly adhere to the delivery schedule detailed in the bar chart. In no point of time delivery period cannot be more than four months from the date of issue of purchase order.



Rotatable flange

5mm

18 mm

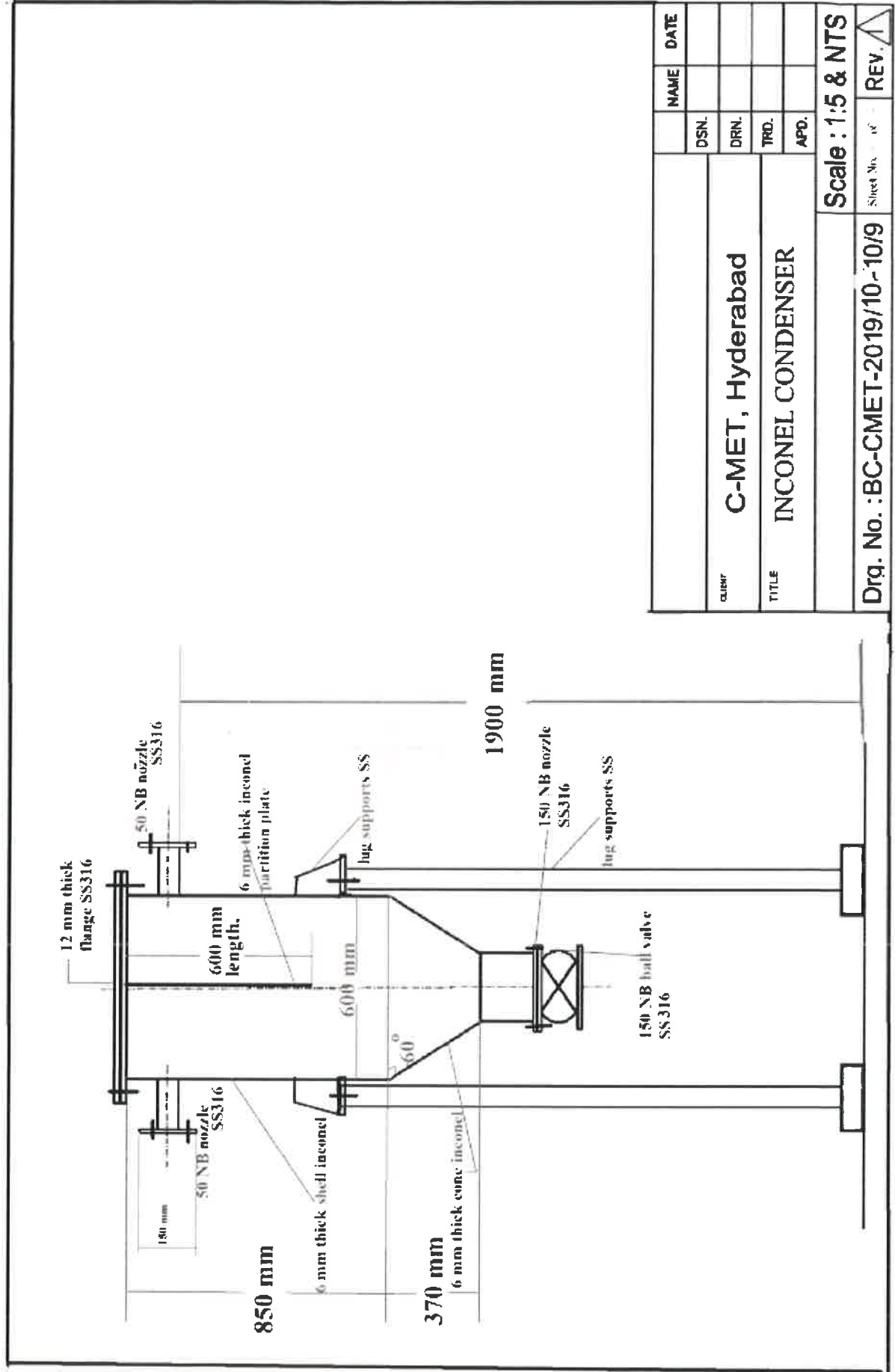
122 mm

C-MET, HYDERABAD

SS 316 BRADED BELLOW

Drg.no. BC-CMET-2019/10-11

SS 316 FLEXIBLE BRADED HOSE PIPE BELLOW
WITH ROTATABLE FLANGES



(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 (Bid Security declaration)		
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	Bid form and Price schedule for Optical Accessories WITHOUT PRICE	NA	
8	Bid form and Price schedule for extended warranty WITHOUT PRICE	NA	
9	Price schedule for non-comprehensive annual maintenance contract after warranty period WITHOUT PRICE	NA	
10	Previous experience details alongwith documents like PO/WO etc. (not more than 3 years old)		
11	Undertaking and declaration		
12	Technical compliance statement with/without deviation		
13	Technical brochure of the Product offered or drawings		
14	GST Registration certificate or No		
15	Bank details for NEFT/RTGS		
16	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	
2	Bid form and Price schedule for Optional Accessories WITH PRICE	NA
3	Bid form and Price schedule for extended warranty WITH PRICE	NA
4	Price schedule for non-comprehensive annual maintenance contract after warranty period WITH PRICE	NA

(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)
{01.04.2017 to 31.03.2020}**

S. No.	Name of System	Name, address, e-mail and mobile no.	Purchase Order No. & Dt.	Delivery due date as per PO	Actual date of delivery	Date of installation and commissioning
(1)	(2)	(3)	(4)	(5)	(6)	(7)

Signature of Tenderer _____

Name_____

Seal of the tenderer_____

Date:

Place:

(in the company letter head)

DETAILS ABOUT THE PRODUCT OFFERED

The following are the particulars about the Product offered:

INCONEL CONDENSER

S No	Description	Product details	
1	Capacity		
2	MOC		
3	No of Inconel Condenser of the same capacity now offered to C-MET were sold during last 1 year upto _____ India/Hyderabad	India	
		Hyderabad	
4	Year(s) of supply to others of the same capacity now offered to C-MET		
5	Feedback (if any) from the end user of the Product on model supplied		
6	Any other information supplier would like to offer about the Product offered		

Signature of Tenderer_____

Name_____

Business Address_____

Seal of the Tenderer_____

Date:

Place:

NOTE: 1) Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

(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_____

Date:

Place:

(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.

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:

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

(in the company letter head)

BID FORM AND PRICE SCHEDULE

Tender Reference No. : ENQ. NO.: HD/PUR/TS-002/IC/01/2020-21/12691
Date : 24.06.2021

Name of the Stores/
Goods/Equipment : DESIGN, FABRICATION, INSPECTION, SUPPLY &
ERECTION OF **INCONEL CONDENSER**

Sl. No.	Description	HSN/SN CODE	Qty.	Amount(₹)
DESIGN, FABRICATION, INSPECTION, SUPPLY & ERECTION OF INCONEL CONDENSER				
1	Inconel Condenser		1 set	
2	SS 316 Braded Bellows		6 nos.	
	Sub-total			
	Packing & Forwarding charges			
	Freight charges			
	Insurance			
	Installation charges			
	Taxable value			
	GST			
	GRAND TOTAL			

(Rupees _____ only)

1. Payment Terms:
2. Bid Validity:
3. Delivery Schedule:
4. Place of delivery: C-MET, HYDERABAD
5. Warranty, if applicable:
6. Any other relevant information:

Signature of Tenderer _____

Name _____

Seal of the Tenderer _____

Date:

Place:

(in the company letter head)

COMPLIANCE STATEMENT IN R/O COMMERCIAL TERMS

Tender Reference No. : ENQ. NO.: HD/PUR/TS-002/IC/01/2020-21/12691
Date : 24.06.2021

Name of the Stores/
Goods/Equipment : DESIGN, FABRICATION, INSPECTION, SUPPLY &
ERECTION OF **INCONEL CONDENSER**

Sl. No.	Description	C-MET Terms	Accepted / Not Accepted	Remarks
1	Payment Terms	100% payment within 30 days against receipt, installation, commissioning, training and acceptance of material in good condition by NEFT/RTGS subject to submission of BG for 10% of basic cost covering warranty period/ extended warranty period		
2	Bid Validity	120 days		
3	Delivery Schedule	within four (4) months from the date of placing Purchase Order		
4	Place of delivery	C-MET, Hyderabad		
5	Warranty	12 months after commissioning OR 18 months after supply, whichever is earlier		
6	Any other relevant information			

Signature of Tenderer _____

Name _____

Seal of the Tenderer _____

Date:

Place:

(in the company letter head)

BID SECURITY DECLARATION

I hereby submit a declaration that the bid submitted by the undersigned, on behalf of the bidder. *[Name of the bidder]*, either sole or in JV, shall not be withdrawn or modified during the period of validity i. e., not less than 120 (one hundred twenty) days from the bid due date.

I, on behalf of the bidder, *[Name of the bidder]*, also accept the fact that in case the bid is withdrawn or modified during the period of its validity or if we fail to sign the contract in case the tender is awarded to us or we fail to submit a performance security before the deadline defined in clause 9 of the Tender Document, then *[Name of the bidder]* will be suspended for participation in the tendering process for the tenders of C-MET, Hyderabad for a period of one year from the bid due date of this tender.

(Signature of the authorized signatory)
Official Seal

Date:

Place:

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