

INVITATION FOR BIDS/NIT

Tender No. NAL/PUR/CSMST/278/17-Y

Dated: 22-Feb-2018

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research (CSIR), an autonomous body under Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organization. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites online quotation for procurement of the following item(s) for day to day research work.

Sl.No.	Description of Items	Unit	Quantity
1	Design, Development Fabrication, Inspection, Supply, Installation, Commissioning and Testing of Automated 3D Noobing Loom. Please refer Annexure for detailed specification.	No.	1

Single / Double Bid	Double Bid
Bid Security (EMD) (in INR)	Nil

01. Tender Documents May be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring Bidders who have not enrolled/ registered in e- procurement should enroll/ register before participating through the website <https://www.etenders.gov.in>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
02. Tenderers can access tender documents on the website (For searching in the NIC site <https://www.etenders.gov.in>, kindly go to Tender Search option, select tender type and select ' Council of Scientific and Industrial Research' in organization tab and select NAL-Bengaluru-CSIR' in department type Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://www.etenders.gov.in> as per the schedule given in the next page.
03. Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not both. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. To maintain sanctity of tendering system, one Indian Agent cannot represent two different Foreign principals in one tender.
04. Unsolicited / conditional / unsigned tenders (Quotations) **shall not** be considered. Quotations received after the due date and time **shall be summarily rejected**.
05. The Bidder shall comply the terms and conditions of the tender, failing which, the offer shall be liable for rejection.
06. The Director, CSIR- National Aerospace Laboratories., Bengaluru reserves the right to accept any or all the tenders either in part or in full or to split the order without assigning any reasons there for.


STORES & PURCHASE OFFICER



SCHEDULE CUM CRITICAL DATE SHEET

1	Name of Organization	CSIR-National Aerospace Laboratories, Bengaluru	
2	Tender Reference No	NAL/PUR/CSMST/278/17-Y dated 22-Feb-2018	
3	Tender Type (Open/Limited/EOI/Auction/Single)	Open	
4	Type/Form of Contract (Work / Supply / Auction / Service / Buy / Empanelment / Sell)	Supply	
5	No of Covers (One/Two/Three/Four)	Two	
6	Tender Category (Services/Good/Works)	Goods	
7	Allow Resubmission (Only in online mode within scheduled period)	Yes	
	Allow Withdrawal (Only in online mode within scheduled period)	Yes	
8	Allow Offline Submission	No	
9	Work Item Title	Automated 3D Noobing Loom.	
10	Work Description	Automated 3D Noobing Loom.	
11	Delivery Schedule	180 days from the date of purchase order	
12	Product Category (Civil Works / Electrical Works / Fleet Management / Computer Systems)	R & D Equipment	
13	Is Multi Currency Allowed	Yes	
14	a) Tender Publishing Date -	23-Feb-2018	1700 Hrs
	b) Document Download Start Date-	24-Feb-2018	0930 Hrs
	c) Seek Clarification Start Date-	24-Feb-2018	0930 Hrs
	d) Seek Clarification End Date -	08-Mar-2018	1400 Hrs
	e) Bid Submission Start Date	24-Feb-2018	0930 Hrs
	f) Bid Submission End Date-	12-Mar-2018	1000 Hrs
	g) Bid Opening Date-	13-Mar-2018	1100 Hrs
15	Bid Validity Days	90 days	
16	Address for communication	Stores and Purchase Officer CSIR-National Aerospace Laboratories, HAL Airport Road, Kodihalli, Bengaluru - 560017	
17	Inviting Officer	Director, CSIR-NAL	
18	Contact No	25086040, 25086041	
19	E-mail Address	spo@nal.res.in / purchase@nal.res.in	
20	Detailed specification of item	Invitation for bids / NIT	
21	Tender Terms & Conditions & Instruction for online bid submission	Invitation for bids / NIT	


* Stores and Purchase Officer

TECHNICAL SPECIFICATIONS
FOR DESIGN, DEVELOPMENT, FABRICATION
INSPECTION, SUPPLY, INSTALLATION, COMMISSIONING AND TESTING OF
AUTOMATED 3D NOOBING LOOM

SCOPE OF WORK

The job shall be handled by the supplier on a turnkey basis. The scope of work is as follows.

Design of the loom to meet the laid-down and approved specifications and requirements.

Design appraisal & obtaining design approval by NAL; including detailed design calculations.

Preparation of detailed fabrication drawings

Fabrication of loom as per approved design and drawings.

Demonstration of functioning of loom at manufacturer works as per approved acceptance test plan.

Erection and commissioning of loom at NAL

Demonstration of the performance of the loom at NAL as per the approved final acceptance test plan.

Demonstration of weaving as per the weave designs in Annexure B

Submission of operation and maintenance manuals including bought out items.

Providing warranty for the equipment for one year

Development and supply of 5 sets of Noobed preforms on this loom as per enclosed drawing in Annexure C. This is a part drawing of the Nozzle flap. The currently used sheet metal(as reflected in the drawing) is required to be replaced by 3D noobed preform. The carbon tows required for the same will be supplied by NAL.

A. Loom specifications

The 3D noobing loom comprises of mechanisms for weaving orthogonally oriented X, Y and Z yarns. The X yarns, termed warp will be continuous in length and is required

to be creel based. Since the material being woven will be predominantly carbon, the damage to the yarn should be minimal. All yarn contact parts along the carbon yarn passage are required to be designed using highly polished Stainless steel/ ceramic parts, in order to avoid the damage/ filamentation during weaving. No sharp corners in the path of the yarn are permissible and all the edge should be given suitable fillet as feasible with blunt edges.

A tentative general arrangement drawing is enclosed with this specification at Annexure A. This drawing gives only a conceptual sketch. Based on this concept, the firm has to prepare the detailed General arrangement drawing indicating the various mechanisms proposed for shedding, weft insertion, beat up, take up etc. The General arrangement drawing should also give details like overall dimensions of the equipment, major Bill of materials, makes of major components, material of construction including electrical and electronic controls. This is required to be submitted to NAL purchase committee, prior to commencement of manufacture and concurrence should be obtained from the technical team. Any change in approach and any changes subsequently should be mutually discussed and agreed upon as per NAL's purchase process.

1. Weave architecture : Noobed
2. Participating yarns : carbon and Kevlar with the prospects of utilizing 12K, 6K, 3K or equivalent yarns for noobing
3. Working Width : 400 mm
4. Speed : 1 minute per cycle of weaving
5. Loom positioning – Horizontal.
6. Total number of layers : 16 (sixteen)
7. Warp - 16 layers –creel based (creel will be supplied by NAL.

Note: The existing creel at NAL should be examined by the firm and should check its suitability for this loom. The tension compensator arrangement should be designed considering the tensioning arrangement of the creel

8. 4 heald shafts for the Z threads are required to be provided and cam assembly for their movement in the patterns 1 up 1 down and 2 up 2 down
9. Thread alignment board for creel should be a stainless steel grid with provisions to draw in 3-5 threads in each grid
10. Tension compensating rollers are required for the Z threads which bind the X and Y threads
11. Weft Insertion :
 - a. needle picking concept (17 nos) with automated Weft looping and foolproof , automated thread locking or alternatively, mechanism to

prevent the previously inserted weft from being drawn in during weaving.

b. By the use of creel (NAL's Scope)

12. The rapiers for weft insertion should be guided in the fixed reed and should be replaceable. Spare rapiers (20 in number) will be required to be supplied with the machine. The eye of the rapier should be smoothly finished and ceramic eyelet should be provided for the yarn passage. Care should be taken to prevent entanglement of the individual weft threads with adjacent rapiers.
13. A stainless steel mesh is required to be mounted to ensure the weft threads from the creel are all parallel and are in alignment with the individual rapiers.
14. Motorised movement should be provided for the picking system
15. Provision to change the pick density is required to be provided up to 20 picks per inch. Minimum picks per inch to be 6.
16. Beat up should be based on open reed concept and support during beat-up is required to be provided for uniform compaction along the thickness. The beat-up should be linear and automated.
17. Take-up –Pressure nip conveyor based Linear take-up for atleast 200mm adapted to grip carbon with end deflection roller and subsequent fabric collection tray for atleast 2 mtrs length. The take up system should be modular to enable its separation from the main loom to enable threading in
18. Preform thickness achievable with 6K to be around 6 mm
19. The shedding, picking, beat-up and take up systems should be sequentially synchronized .
20. Detailed drawing indicating major equipment details both mechanical and electrical and electronics should be provided prior to manufacture. Manufacturing to be carried out after appraisal from NAL team.
21. Any interim/unanticipated changes (due to the nature of the research development) during manufacturing, should be made after acceptance through NAL purchase process.

22. All the operations of the machine like shedding, picking and beat up should be automated and weaving should happen without manual intervention.

Preform specifications

The nozzle flap preforms should conform to the drawing specifications. The X and y content should be balanced and the Z content to be 10%. Total fibre weight content to be about 40%.

B. ACCEPTANCE TESTS AT MANUFACTURER'S WORKS:

1. The loom will be inspected at manufacturer's works for the following
2. Shake down or Composite Axes movement test (CAMT): This test is meant for assessing the reliability of the loom for continuous operation for a minimum period of 8 hours. For this purpose, all the mechanisms will be operated simultaneously at 70 to 80% of their maximum speeds continuously for 8 hours without yarns. No failures of any system should occur during this test and temperature of various motors/ bearing will be monitored during this test.
3. The actual weaving has to be demonstrated on carbon yarn of either 3k, 6k or 12k. The typical weave architecture is enclosed at Annexure B. The required carbon/ Kevlar yarn will be supplied by NAL. The woven preform should not have any damaged spots, filamentation and visible loosely woven spots, without wrinkles, with good compaction and no overlap and uniform spacing of yarns etc.,
4. Speed of working to be demonstrated using carbon tows.

C.. INSTALLATION AND COMMISSIONING:

The loom has to be installed at NAL. The required material handling equipment, tools, shackles, unloading from the trailer and mounting is the responsibility of the supplier. The supplier is responsible for any damage during transportation, installation and commissioning.

D. ACCEPTANCE TESTS AT NAL

After completion of installation, the weaving of preforms should be demonstrated. The woven preform should not have any visible defects.

5 sets of noobed preform as per the enclosed drawing should be woven at NAL and supplied. The woven preforms should not have any visible defects, floats, no visible filamentation when examined through pick glass and the thread density to be 8 X 8 on the surface and back face. The preform produced by the machine should be consistent and repeatable production of preform should be achieved.

During weaving, the loom should not break down and weaving should be demonstrated with no human intervention except for normal loom stoppages such as warp breakage/ weft replenishment

SCHEDULE 2

TERMS AND CONDITIONS

1. DOCUMENTS, MANUALS, DRAWINGS AND INSPECTION REPORTS

The supplier shall submit 3 copies each of fabrication drawings, test certificates of materials, inspection reports, manufacturer's test records and 3 sets of "As built" drawings for the loom and other accessories if any.

NAL is an ISO 9001- 2000 certified organisation and therefore it is mandatory that all documents shall conform to ISO standards.

2. WARRANTY

The loom supplied by the supplier (including bought out items) must be guaranteed for raw materials and workmanship for a period of 24 months after being put in operation at NAL and accepted by NAL. The firm has to submit the 10% of the order value as a performance Bank Guarantee for the guarantee period.

During the warranty period, all the defective parts should be replaced by the contractor to NAL's satisfaction, free of cost.

3. DELIVERY

The delivery period is 6 months from the date of purchase order. The firm has to include time schedule bar chart clearly indicating the various events such as.

Preliminary design

Design calculations and fabrication drawings

Approval by NAL

Material procurement

Loom fabrication

Integration and Assembly

Inspection

Erection at NAL Site

Commissioning and handing over

(All the systems have to be delivered at Centre for Societal Missions and Special Technologies, NAL, Bangalore – 560017, India.

The nozzle flap preforms should conform to the drawing specifications. The X and y content should be balanced and the Z content to be 10%. Total fibre weight content to be 40%.

4. QUALITY & WORKMANSHIP

The quality and workmanship shall comply with the specifications in all respects and to the satisfaction of NAL

5. DESIGN MODIFICATIONS, IMPROVEMENTS

NAL reserves the right to change the design at any stage of fabrication of the loom. Generally changes may be minor in nature and to meet any assembly problems if it occurs. The supplier should not modify any approved drawing without written permission from NAL.

6. SECURITY OF TECHNICAL DATA

All the technical specifications, drawings supplied by NAL are proprietary drawings of NAL and should be kept confidential. These documents should not be distributed. No copies or excerpts should be made without the prior written consent of NAL.

7. REVIEW OF PROJECT PROGRESS

Periodic review meetings to review the design, manufacturing, inspection, progress of the work and any other relevant issues will be conducted. These meetings will be conducted either at NAL or at Manufacturer's place. The representative(s) of the supplier firm should attend these meetings.

8. PACKING, SHIPPING AND OFF – LOADING AT SITE

Immediately after the successful completion of all the testing, the contractor shall at his own expenses arrange for the system to be crated suitably depending on the mode of transport.

The system shall be carefully and securely packed so as best to avoid damage during transit. All the cases should contain packing slips detailing the contents.

The offloading of equipment at NAL, and positioning at the final place of commissioning is the responsibility of the supplier.

9. INSURANCE

The supplier shall arrange the insurance for loading, transit, off-loading, storage, erection and commissioning in respect of the loom to cover all risks up to the commissioning stage. In the event of any damage (or) loss of equipment or spares, the supplier shall take appropriate action to replace or repair such equipment / spares and lodge their claim on the insurance company.

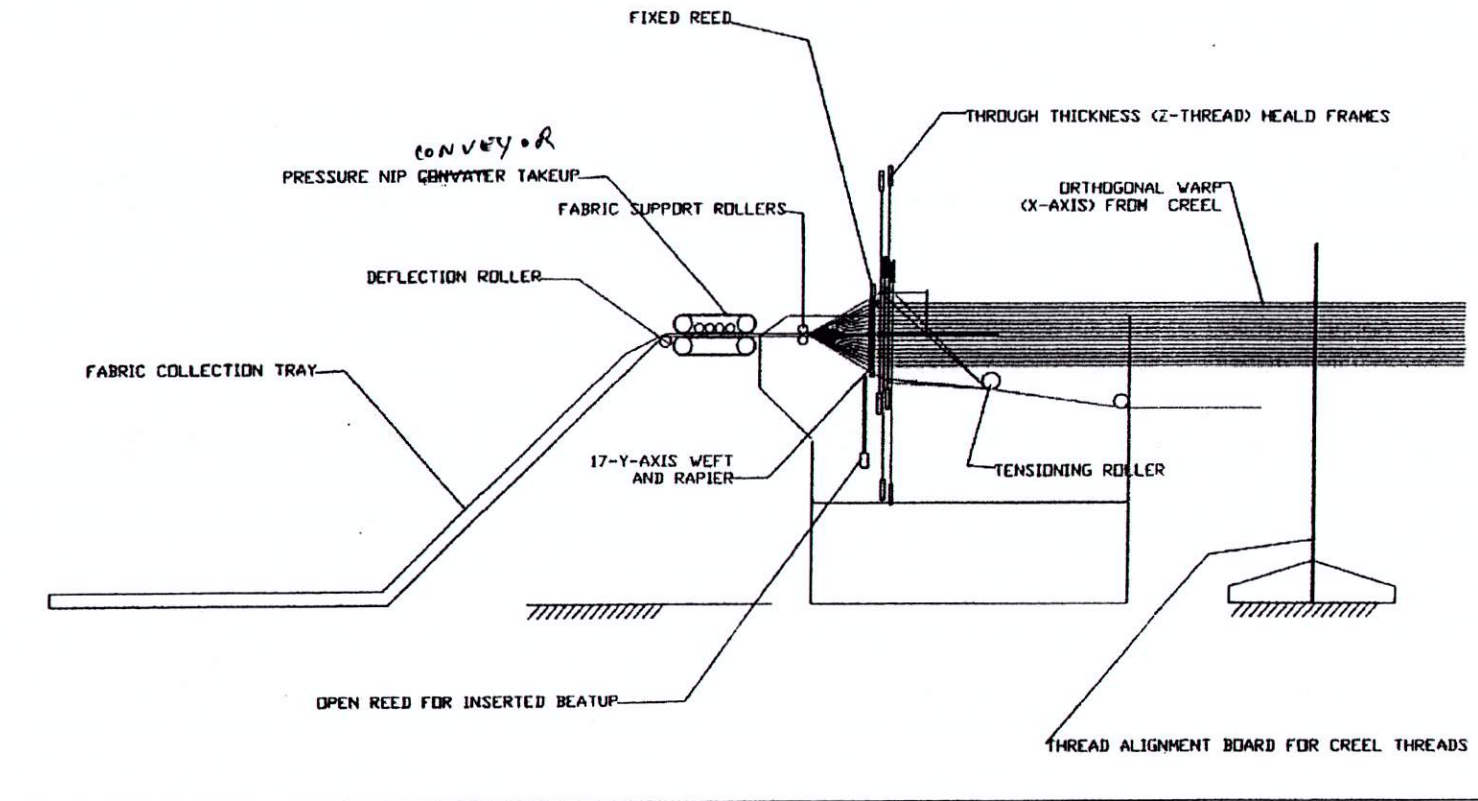
10. LIQUIDATED DAMAGES

Time is of essence in this contract and this work has to be executed on a turn-key basis and completed in all respect including commissioning within the stipulated time. In the event of delay in the scheduled commissioning date, the liquidated damages will be recovered as per the rules in force.

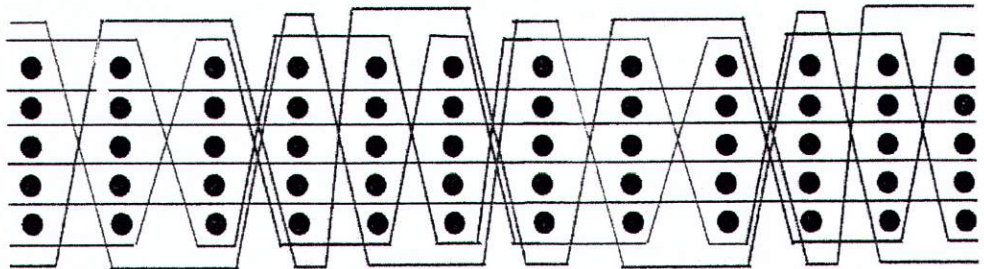
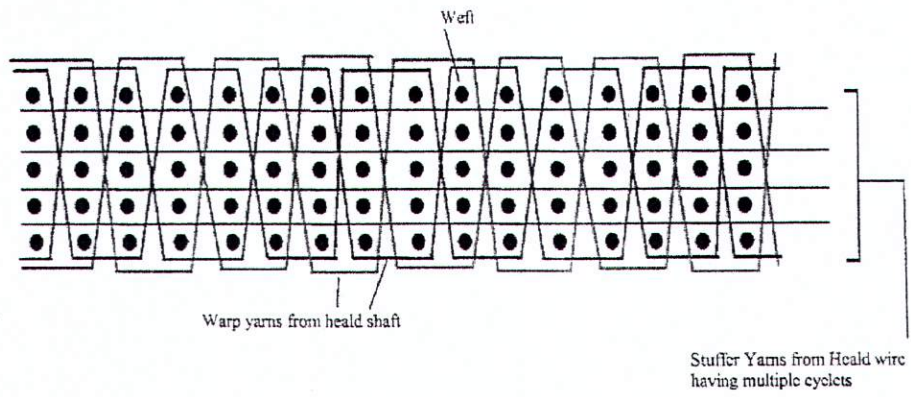
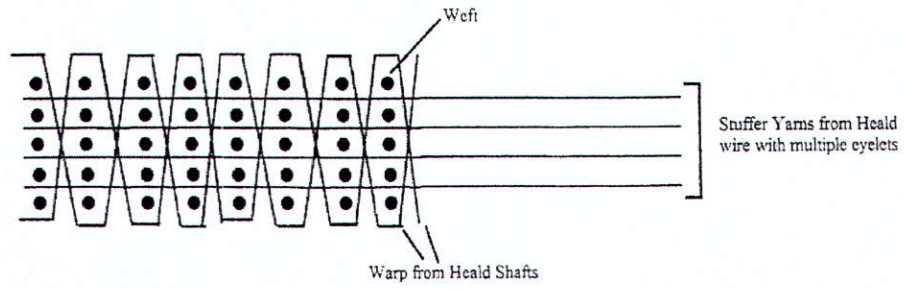
11. CLARIFICATIONS

For any clarifications on the specifications and other details, please contact Senior Stores and Purchase officer, NAL.

Annexure A Concept drawing of the 3D noobing Loom



Annexure B – weaving cross sections (sample)

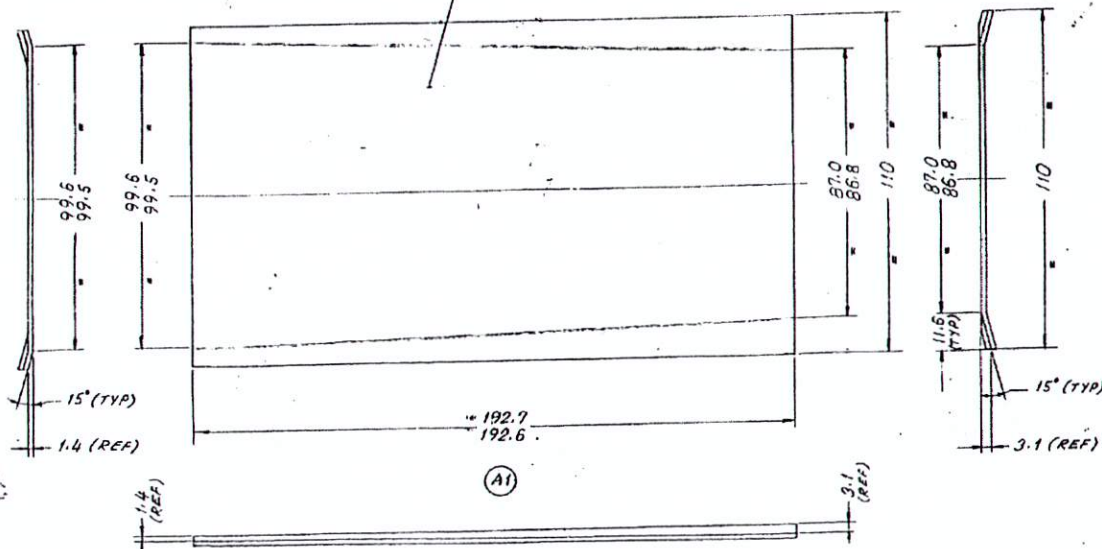


ANNEXURE 'C'

PART OF NOZZLE FLAP

KJ00112
REV. 001

MARK PART No.
AS PER GTAS 0018



REVISIONS

ZONE	LTR.	DESCRIPTION	DATE	APPD.	DCN. No.
C6	A	1. CONFIGURATION CHANGE INCORPORATED	2/3	KJN	KSCN 343

FOR SHEET METAL PARTS ONLY
UNLESS OTHERWISE STATED
TOLERANCES ON:
DIMENSIONS: ±0.5
BEND RADIUS: 1 x O.D.
REDUCTION IN THICKNESS DUE TO BENDING: -0.3
BEND ANGLES: ±2°
OTHER ANGLES: ±1°
FITTINGS TO BE WITHIN 0.5 OF SPECIFIED POSITIONS

The drawing is for reference of dimensions & is required to be developed on the fabricated form using 3D modeling concept.

Stability
PRODUCTIVITY

2. CRACK DETECT BY FPI METHOD AS PER AMS-2645H.
1. COMPONENT TO BE IN FULLY HEAT TREATED CONDITION AS PER GTM-SU-263

FIND. No.	DESCRIPTION	B/O.	STD.	PART No.	MATL./SPECN.	No. OFF	ZONE

PARTS LIST

REVISION	STATUS OF SHEETS	SHT. No.

PART NO. KJ00112		CODE No. 29.9.98	
DRAWING PRACTICE		EDS SHEETS (GTRE)	
PROCESS SPECIFICATION		SPECIFICATION No. SUMMARY	
MATERIAL H. ALLOY		UNLESS OTHERWISE STATED	
PROJECT 4		DIMENSIONS IN MM.	
MODULE JET PIPE		TOLERANCES ON MC FACES ±0.25	
MATERIAL H. ALLOY		TOLERANCES ON DRILLED HOLES ±0.25	
SPECIFICATION GTM-6J-263		SURFACE ROUGHNESS 1.6	
FAB. MC FROM SHEET		REMOVE SHARP CORNERS 0.25 MINIMUM	
STOCK SIZE 1.6 THK		CHAMFER 1 x 45°	
WEIGHT 0.289		RADI 1	
SCALE 1:1		ANGULAR TOLERANCE ±0° 15'	
TITLE		NEXT ASSY. No. KJ00110	
DRAWN		CHECKED	
APPD.		DATE	
SHEET		SHEET	
DRG. No. KJ00112		SHEET OF SHEETS	

TERMS & CONDITIONS

1. Eligibility Criteria

Either Foreign manufacturer / supplier or Indian Agent on behalf of foreign principal can bid directly in a tender but not both. However, the offer of the Indian agent should also accompany the authorization letter from their principal, without authorisation of principal, quotation will be rejected. To maintain sanctity of tendering system, one Indian Agent cannot represent two different foreign principals in one tender.

Authorisation letter from the OEM for quoting their products should be furnished in case of indigenous items

2. Period of Validity of Bids

Bids shall remain valid for minimum of **90 days** after the date of bid opening prescribed by **CSIR-NAL**. A bid valid for a shorter period shall be rejected by the **CSIR-NAL** as non-responsive.

In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (by fax or e-mail). The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. Such bidder's bid will be returned unopened if they do not extend the validity of the bid as requested by CSIR-NAL. A Bidder granting the request will not be required nor permitted to modify its bid.

3. Clarification of Bids

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

4. Bid Prices

The Bidder shall indicate on the appropriate price schedule form, on item-wise basis the unit prices, and total bid prices of the goods it proposes to supply under the contract. The Purchase Order shall be issued to the lowest quoted firm on item-wise basis and not on lump sum basis until and unless not specified in the tender document.

The Bidder should quote the prices both in figures and words. In case of any discrepancy found in the figures and words, then, the price in words shall prevail unless the amount expressed in words is related to an arithmetic error.

Prices are required to be quoted in units indicated in the enquiry. When quotations are given in terms of other units, relationship between two sets of unit should be furnished. Quantity discount, if any should also be indicated. The item should be quoted indicating the Serial number as mentioned in Tender document.

In case of imports, the consignments are to be shipped through the Purchaser's nominated freight forwarder. The terms FOB, FCA, CIF, CIP, etc. shall be governed by the rules prescribed in the current edition of the INCO terms published by the International Chambers of Commerce, Paris.

The price quoted shall remain fixed during the **bid evaluation/contract period** and shall not vary on any account. No escalation of prices is permitted.

The purchases made by the purchaser for scientific purpose are concessionally exempted from GST & Custom Duty and is leviable as follows:-

GST	CSIR-NAL is a public funded Research Institution under Department of Scientific & Industrial Research and concessional GST shall be made applicable for the goods purchased for research purpose vide Ministry of Finance (Department of Revenue) Notification No.47/2017-Integrated Tax dated 14.11.2017 & Notification No.45/2017-Central Tax dated 14.11.2017 .
Custom Duty	CSIR-NAL is exempted from payment of Custom Duty at concessional rate vide Govt. Of India Notification No.51/96-Customs dated 23 rd July, 1996

The quotation should be only in Indian Rupees for indigenous items. In case of foreign quote, the Bidders may quote their rates in Indian Rupees as well as in Foreign Currency.

In case of INR bids, the price criteria should be on Free Delivery to CSIR-NAL, Bengaluru. Govt. Levies if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, taxes, packing, forwarding, freight, transportation, insurance, installation and commissioning charges, etc. separately upto the FOR destination prices. Where there is no mention of these charges the offer would be considered as inclusive of all such charges otherwise rejected as incomplete.

For goods offered from abroad, quotations should be submitted inclusive of charges of FOB / FCA and CIF / CIP basis. FOB / FCA and CIF / CIP charges should be indicated separately to facilitate proper comparison at our end. Offers without such charges will be rejected.

Custom Duty is levied on all imports meant for CSIR-NAL as applicable to R&D Institutions will be paid by the Purchaser, unless otherwise specified.

In case of FOB / FCA consignment, port of shipment / international gateway airport of carrier should be clearly mentioned. Also indicate approximate weight and dimension of the consignment.

Note: All payments due under the contract shall be paid after deduction of statutory levies at source (like ESIC, IT, TDS/Withholding Tax, etc.), wherever applicable.

5. **Format and Signing of Bid**

The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialled by the person or persons signing the bid.

Any interlineations, erasures or overwriting shall be valid only if they are initialled by the person or persons signing the bid.

6. **SUBMISSION OF BIDS**

The bids should be submitted online only at the e-procurement portal at <https://www.etenders.gov.in> only. Manual/ Offline bids shall not be accepted under any circumstances.

Terms and conditions, if any or otherwise sent along with the quotation / bid shall NOT be binding on us.

7. **Price Reasonability by the Bidder**

The bidder shall submit a certificate stating that they have not supplied the said Goods & Services to any other purchaser at a lesser quoted price. Bidder to submit copies of atleast two Purchase Orders of such Goods & Services provided.

8. **Due date for Submission of Bids**

Bidders are advised to submit their offers / bids timely within due date for submission of Bids in view of the electronic process so as to avoid last minute issues.

The Purchaser may, at its discretion, extend the due date for submission of bids in which case all rights and obligations of the Purchaser and Bidders previously subject to the due date will thereafter be subject to the due date as extended.

Bidders must note that the e-tender portal will not permit uploading of bids after the scheduled time of submission.

9. **Conversion to Single Currency**

To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers on the date of bid opening. For this purpose, exchange rate notified in www.xe.com or www.rbi.org or any other website could also be used by the purchaser

10. Mode of Shipment & price schedule

The mode of shipment (By Air / Sea / Rail / Road / Courier) of the items must be mentioned clearly in the quotation.

Delivery Term	Indigenous	FOR CSIR-NAL Bengaluru
	Foreign	FCA Nearest Gateway Airport
		FOB Nearest Seaport CIP Bangalore Airport

The appropriate price schedule form furnished. These forms must be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

11. Negotiations

There shall not be any negotiation normally. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply.

12. Confidentiality

Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.

Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.

13. Contract Price

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

14. Suppliers' Responsibilities

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

15. Order Acceptance

The successful bidder should submit Order Acceptance within 15 days from the date of issue, failing which it shall be presumed that the Bidder is not interested.

16. Extension of time

Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.

If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and Services and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.

Except as provided under the Force Majeure clause, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause an extension of time is agreed upon pursuant to above clause without the application of penalty clause

17. Delivery and Documents

Delivery of the Goods and completion and related services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents to be furnished by the supplier as under:-

Details of Shipping and other Documents to be furnished by the Supplier are :	
A)	For goods manufactured or supplied from within India
	Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/email
(a)	Three copies of Supplier's Invoice indicating, inter-alia description and specification of the goods, quantity, unit price, total value
(b)	Packing list
(c)	Certificate of country of origin
(d)	Insurance certificate, if required under the contract
(e)	Railway receipt/Consignment note
(f)	Manufacturer's warrantee certificate and in-house inspection certificate, if any
(g)	Inspection certificate issued by purchaser's inspector, if any
(h)	Any other document(s) as and when required in terms of the contract
NOTE:	
1	The nomenclature used for the item description in the invoice(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).
2	The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.
3	Delivery of ordered materials will be at Central Stores CSIR-NAL, Kodihalli
B)	For goods manufactured or supplied from abroad
	Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by Registered Post / courier and copies thereof by FAX.
(a)	Three copies of supplier's Invoice giving full details of the goods including quantity, value, etc.
(b)	Packing list
(c)	Certificate of country of origin
(d)	Manufacturer's warrantee and Inspection certificate, if any
(e)	Inspection certificate issued by the Purchaser's Inspector, if any
(f)	Insurance Certificate, if required under the contract
(g)	Name of the Vessel / Carrier
(h)	Bill of Lading / Airway Bill
(i)	Port of Loading
(j)	Date of Shipment
(k)	Port of Discharge & expected date of arrival of goods
(l)	Any other document(s) as and when required in terms of the contract
NOTE:	
1	The nomenclature used for the item description in the invoice(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s).
2	The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.
3	The clearing of the consignment at Bengaluru Airport shall be done by our authorized Custom House Agents (CHA). The corresponding shipping documents may be forwarded to them accordingly. It is advised to give us and our CHA, a pre-alert before the consignment is dispatched. If there is delay in clearing of the consignment for <u>not</u> giving timely pre-alert then demurrage (Ware house charges), if applicable has to be refunded to us.

Goods should not be dispatched until the Bidder receive a firm Purchase Order

18. Payment

The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

A. Payment for Goods supplied from abroad:

100% through Sight Draft / irrevocable Letter of Credit (excluding the Agency Commission due to the Indian Agents) opened in favor of the Supplier through

State Bank of India,
NAL Branch, Kodihalli,
Bengaluru-560017, (India)

Bank Charges: All Bank Charges within India to CSIR-NAL's account and outside India to Supplier / Beneficiary account

B. Payment for Goods and Services supplied from India:

100 percent (100%) of the Contract value shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate issued by the Purchaser.

We prefer to release the payment on BILL basis (excluding Indian agency commission) after the receipt of consignment in good condition. Alternatively, depending upon the value and foreign exchange regulations the payment can also be considered through Sight Draft/Letter of Credit through the State Bank of India for the order value excluding the Indian agency commission.

NOTE: No advance payment request will be considered under any circumstances.

19. Payment of Agency Commission:

- i. The Bidder has to indicate, if they have any agents in India, their Address the details of service rendered.
- ii. The Agency commission payable to the Indian Agent should be clearly indicated.
- iii. The Agency commission would be payable only in Indian Rupees as per the exchange rate mentioned in custom Bill of Entry.

E-payment : CSIR-NAL prefers to make all payments by electronic transfers through State Bank of India, NAL Branch, Bengaluru. Successful Bidder has to furnish bank details viz., Beneficiary Name, Name of the Bank & Branch, Account No., IFSC Code, MICR Code.

20. Taxes and Duties

For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.

For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, TDS/Withholding Tax, etc., incurred till its final manufacture / production.

If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

All payments due under the contract shall be paid after deduction of statutory levies (at source) like ESIC, IT, etc., wherever applicable. Your offer/Invoice should include your GST details & HSN Code.

Our Pan No. AAATC2716R, Central Excise Registration No. AAATC2716REM001, Service Tax Registration No. AAATC2716RSD040 and Tin No. 29750311018 and GST No. 29AAATC2716R1ZB.

21. Packing

The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, and in any subsequent instructions ordered by the Purchaser.

22. Insurance

The goods supplied shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture, acquisition, transportation, storage and delivery to the Purchases.

The Insurance shall be for an amount equal to 110% of the CIF or CIP or FOR Destination value of the contract from within "warehouse to warehouse (final destination)" on "all risk basis" including strikes, riots and civil commotion, in addition to storage policy for 60 days is advised.

Where delivery is on FOB or FCA basis for imported goods or FOR dispatch station for indigenous goods, then insurance would be the responsibility of the purchaser.

With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to CSIR-NAL and he shall also liaise with CSIR-NAL to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the CSIR-NAL on the event of the delay

23. Warranty

The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

Unless otherwise specified in the scope of supply, the warranty shall remain valid for **One Year** after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination i.e. CSIR-NAL.

The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary.

The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.

24. Performance Bank Guarantee

Performance Bank Guarantee for 10% contract value should be submitted and should be valid till 60 days after the warranty period to cover warranty obligations wherever applicable.

Whenever the bidder chooses to submit the Performance Bank Guarantee in the form of Bank Guarantee, and 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

25. Annual Maintenance Contract

The bidders should also quote for Annual Maintenance Contract after warranty for subsequent years. CSIR-NAL at its discretion may award / utilise these quotes for AMCs.

No sub-contracting will be allowed for installation or maintaining system/ equipment / instrument during or after warranty period in case AMC is awarded

Mention the charges for comprehensive maintenance contract separately in Commercial bid (for post warranty period).

26. Spare Parts

The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

(a)	Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
(b)	In the event of termination of production of the spare parts: Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

27. Freight Forwarder/ Cargo Consolidation and Customs Clearance

CSIR-NAL, has appointed its own Freight Forwarder and Custom House Agent for all its imports. Please note that all the consignments have to be routed through their associates only. The address and contact details will be provided at the time of placing the Purchase Order. While submitting your bid, you may confirm this condition.

28. Liquidated Damages/Penalty clause

As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to.

a)	If the supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages @ 0.5% of order value per week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier
b)	CSIR-NAL reserves the right to cancel the order in case the delay beyond the delivery schedule
c)	The maximum amount of liquidated damages shall be: 10% The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value
d)	However, the Competent Authority shall waive imposing LD/Penalty upon mutual agreement.

29. Subcontracts

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

30. Assignment

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

31. Termination for Default

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

i)	If the Supplier fails to deliver any or all of the Goods and Services within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to Clause on Extension of Time; OR
ii)	If the Supplier fails to perform any other obligation(s) under the Contract

32. Force Majeure

Notwithstanding the provisions relating to extension of time, penalty and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

33. Arbitration

All disputes of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc. shall be referred by either party (CSIR-NAL or the bidder) after issuance of 30 days' notice in writing to the other party clearly mentioning the nature of dispute to a single arbitrator acceptable to both the parties. The venue for arbitration shall be CSIR-NAL, Bengaluru, India. The jurisdiction of the courts shall be Bengaluru, Karnataka, India.

34. Notices

Any notice given by one party to the other pursuant to this contract / order shall be sent to the other party in writing or by FAX, e-mail or / and confirmed in writing to the other party's address specified.

A notice shall be effective when delivered or on the notice's effective date, whichever is later.

35. Governing Language

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

36. Applicable Law / Jurisdiction

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction is Bengaluru, India.

PRICE SCHEDULE FOR GOODS BEING OFFER FROM **ABROAD**
(BIDDER SHOULD QUOTE IN THIS FORMAT)

Tender No.:						
Quotation No.					Date:	
Quotation Valid upto						
Country of Origin					Currency	
Sr. No.	Description of Item	HSN/SAC Code	Unit	Quantity	Rate	Amount
1						
2						
3						
4						
5						
Sub-Total: Ex-Works Price						
Less: Discount% (if any)						
Sub-Total : Net Ex-Works Price						
Add: FCA/FOB Charges						
Sub-Total: INCOTERM: FCA/FOB International Airport,Country						
Add: CIP/CIF Charges						
Total (A):						
OTHER CHARGES						
5	Installation & Commissioning Charges (if any)					
6	Training (if any)					
Sub-Total : Before Tax						
Add: GST on Sr. No.5 & 6 (if applicable)						
7	Bank Charges (if any)					
8	Any other specific charges					
Total (B):						
Grand Total (A+B): CIP/CIF Charges - Bengaluru Price						
For Sl. No.5 & 6 - TDS will be deducted at actuals.						
OTHER TERMS						
Sr. No.	Approximate weight of the Consignment	Approximate dimensions of the consignment				
1						
2	Mode of Shipment					
3	Port of Destination	Final Destination				
4	Delivery Term (INCO Term)					
5	Delivery Schedule including Item, Installation, Commissioning, Training & Acceptance					
6	Payment Term					
7	Warranty					

NOTE: Agency Commission, if any would be payable only in Indian Rupee as per the Exchange Rate mentioned in the Bill of Entry.

PRICE SCHEDULE FOR GOODS BEING OFFER FROM INDIA
(BIDDER SHOULD QUOTE IN THIS FORMAT)

Tender No.:						
Quotation No.					Date:	
Quotation Valid upto						
Country of Origin					Currency	
Sr. No.	Description of Item	HSN/SAC Code	Unit	Quantity	Rate	Amount
1						
2						
3						
4						
5						
Sub-Total: Ex-Works Price						
Less: Discount% (if any)						
Sub-Total : Net Ex-Works Price						
Add: Packing & Forwarding Charges (if any)						
Add: Transportation Charges (if any)						
Add: Insurance Charges (from Warehouse to Warehouse) (if any)						
Sub-Total : Before Tax						
Add: GST / IGST (against Concessional Certificate)						
Total (A):						
OTHER CHARGES						
5	Installation & Commissioning Charges (if any)					
6	Training (if any)					
Sub-Total : Before Tax						
Add: GST on Sr. No.5 & 6 (if applicable)						
7	Bank Charges (if any)					
Total (B):						
Grand Total (A+B): F.O.R CSIR-NAL						
For Sl. No.5 & 6 - TDS will be deducted at actuals.						
8	Annual Maintenance Contract / Charges					
	Comprehensive		Non-Comprehensive			
Grand Total in Figures						
Grand Total in Words						
OTHER TERMS						
Sr. No.	Approximate weight of the Consignment		Approximate dimensions of the consignment			
1						
2	Mode of Shipment					
3	Port of Destination		Final Destination			
4	Delivery Term					
5	Delivery Schedule including Item, Installation, Commissioning, Training & Acceptance					
6	Payment Term					
7	Warranty					

INSTRUCTIONS FOR ONLINE BID SUBMISSION

1. Tender documents may be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring bidders who have not enrolled / registered in e-procurement should enrol / register before participating through the website <https://www.etenders.gov.in>. The portal enrolment is free of cost. Bidders are advised to go through the instructions provided at “instructions for online bid submission”.
2. Tenderers can access tender documents on the website (for searching in the NIC site <https://www.etenders.gov.in>, kindly go to Tender Search option, select tender type and select Council of Scientific and Industrial Research in organization tab and select CSIR-NAL Bengaluru in department type. Thereafter, click on “Search” button to view all CSIR-NAL, Bengaluru tenders). Select appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://www.etenders.gov.in>.
3. The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://etender.gov.in/eprocure/app>.

REGISTRATION

4. Bidders are required to enroll on the e-procurement module of the Central Public Procurement Portal (URL: <https://etender.gov.in/eprocure/app>) by clicking on the link “Click here to Enroll”. Enrolment on the CPP Portal is free of charges.
5. As part of the enrolment process, the bidder will be required to choose a unique username and assign a password for their accounts.
6. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
7. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify/ nCode /eMundra etc.), with their profile.
8. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
9. Bidder then in to the site through the secured log-in by entering their user ID/ password and the password of the DSC/ e-Token.

SEARCHING FOR TENDER DOCUMENTS

10. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
11. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tender’ folder. This would enable the CPP Portal to intimate the bidders through SMS/ e-mail in case there is any corrigendum issued to the tender document.
12. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification/help from the Helpdesk.

PREPARATION OF BIDS

13. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
14. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
15. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and generally, they can be in PDF / XLS /RAR/ DWF /JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned documents.
16. To avoid the time and effort required in uploading the same set of slandered documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g PAN card copy, annual reports, auditor certificate etc.) has been provided to the bidders. Bidders cab use “My Space” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “ My space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part Technical Bid.

SUBMISSION OF BIDS

17. Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidders will be responsible for any delay due to other issues.
18. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
19. **Bidders are requested to note that they should necessarily submit their financial bids in the format provided no other format is acceptable.** If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quoted and other details (such as name of the bidder) NO other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
20. The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidder, opening of bids etc. The bidders should follow this time during bid submission.
21. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener’s public keys. Overall, the uploaded tender documents become readable only after the tender tender opening by the authorized bid openers.
22. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
23. Upon the successful and timely submission of bids (i.e. after Clicking “Freeze Bid submission” in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
24. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.
25. The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

26. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender of the relevant contact person indicated in the tender.
27. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.
28. Tenderer are advised to follow the instructions provided in the 'Instructions to the Tenderer for the e-submission of the bids online through the central Public Procurement Portal for e Procurement Portal for e Procurement <https://www.etenders.gov.in>