

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
LIQUID PROPULSION SYSTEMS CENTRE
VALIAMALA, TRIVANDRUM 695547, KERALA
PURCHASE & STORES

Ph No: 0471-2567 726/813/317/319
Fax +091-0472-2800712,0471-256731

Date : 31/08/2021

INVITATION TO TENDER

M/s

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Our Ref No : TM63 2021-035274-01

Tender Due: 14:00 Hrs ISTon 28/09/2021

Opening : 14:30 Hrs ISTon 28/09/2021

Dear Sirs,

Please submit your sealed quotation , in the Tender Form enclosed here along with the descriptive catalogues / pamphlets / literature , superscribed with Our Ref.No. and Due Date for the supply of the following items as per the terms & conditions mentioned in Annexure(Form No: ENCLOSED)

S.No.	Description of Items with Specifications	Unit	Quantity
1	Supply, installation and commissioning of High precision 3 axis CNC Milling Machine	No.	1

DELIVERY AT: LPSC, VALIAMALA

MODE OF DESPATCH BY ROAD

DUTY EXEMPTIONS DETAILS ENCLOSED

SPECIAL INSTRUCTIONS NIL

SPECIFIC TERMS ENCLOSED

INSTRUCTIONS TO TENDERERS:

- Note: 1. General scope and specifications as per Annexure- 1
2. Terms and conditions for AMC as per Annexure- 2
3. General terms and conditions as per Annexure- 3
4. Instructions for TWO PART tenders as per Annexure-4
5. A Compliance statement is attached as Annexure- 5 which shall be duly filled and furnished along with your quote without which your offer will not be considered.

(Sd/-)

For and on behalf of the President of India
The Purchaser

A General Scope

The scope is to supply, erect, commission and training of 1 No. of **High precision 3 axis CNC milling machine** as per the detailed specifications furnished hereunder.

B Specification, terms and conditions

B.1	Type	High precision 3-axis CNC milling machine Casting : ISO 210, FG260 or better
B.2	Application	Machine is intended to use machining of aerospace components of Aluminium, Stainless Steel, Titanium and Nickel Alloys.
B.3	Axis Travel	
B.3.1	X-Axis	600 mm (Nominal)
B.3.2	Y-Axis	500 mm (Nominal)
B.3.3	Z-Axis	450 mm (Nominal)
B.4	Accuracy as per (ISO 230-2 Standard / VDI/DGQ 3441)	
B.4.1	Positional Accuracy for linear axes	0.006 mm or better
B.4.2	Repeatability	0.005 mm or better
B.5	Feed Back System	
B.5.1	Feedback elements for all axis	Direct feedback System with <ul style="list-style-type: none"> • Precision linear Glass scales for X; Y & Z • Temperature compensation
B.5.2	Resolution	0.001 mm
B.6	Table	
B.6.1	Table size	≥ 800 x 500 mm
B.6.2	Admissible load	≥ 500 kg
B.7	Feed – Linear Axes	
B.7.1	Type of drive	AC digital drive
B.7.2	Feed rate	1- 20000 mm/min or better
B.7.3	Rapid traverse	≥ 30 m/min
B.7.4	Guide ways	LM guide ways with Roller bearing
B.7.5	Drive element	Preloaded back lash free ball screws class C3 or better
B.7.6	Automatic centralised Lubrication for all axes guide ways & ball screws	Required
B.7.7	X, Y and Z axis motor brake	Required

B.8	Spindle	
B.8.1	Type	Integrated (electro spindle) or In line spindle
B.8.2	Maximum spindle speed (Infinitely variable)	≥ 15000 rpm
B.8.3	Spindle chiller / thermal stabilisation system	Required, please provide details
B.8.4	Bearing protection	Required, Please specify
B.8.5	Spindle taper	SK 40 / BT40/ HSK A 63/ Big Plus 40
B.8.6	Taper cleaning	Cleaning by means of air
B.8.7	Max power at 40% duty cycle (S6)	≥ 15 kW
B.8.8	Max Torque at 40% duty cycle (S6)	≥ 100 Nm
B.8.9	Speed –Torque/power characteristic diagram	To be provided
B.8.10	Clamping/ unclamping	Hydraulic / Pneumatic
B.9	CNC System	
B.9.1	Controller	Siemens 840D SL or latest with Shop mill/ Heidenhain TNC 620 or latest with Smart Machining module
B.9.2	Resolution	1 microns
B.9.3	Simultaneous Controllable axes	X, Y, Z
B.9.4	Look ahead	≥ 99 NC blocks
B.9.5	Display	≥ 15"
B.9.6	NC memory	Please provide details
B.9.7	Extended memory	≥ 2GB
B.10	Programming	
B.10.1	ISO programming in metric	Required
B.10.2	Free contour programming	
B.10.3	Parametric programming	
B.10.4	Mathematical functions, logical operators	
B.10.5	Coordinate transformation	
B.10.6	Graphics	
B.10.7	Sub programs	
B.10.8	Parallel programming	
B.11	Cycles	
B.11.1	Drilling & tapping cycles	Required
B.11.2	Thread milling cycles	
B.11.3	Multi operation machining of pockets	

B.11.4	Contour pocket machining cycles	
B.12	Interpolation	
B.12.1	Linear interpolation in 3 out of 3 axes	Required
B.12.2	Circular interpolation in 2 out of 3 axes	
B.12.3	Helical interpolation	
B.13	Compensation	
B.13.1	Cutter radius compensation	Required
B.13.2	Tool length compensation	
B.13.3	Pitch error compensation	
B.13.4	Back lash compensation	
B.13.5	Quadrant compensation	
B.13.6	Pitch error without compensation	Less than 15 microns
B.13.7	Back lash without compensation	Less than 20 microns
B.14	Operator interface	
B.14.1	Solid graphics simulation	Required
B.14.2	Feed & speed override rotary switches	
B.14.3	Pendent type Electronic hand wheel	
B.14.4	Block searching with automatic updates of axes	
B.14.5	Positions & parameters	
B.14.6	USB port	
B.14.7	Ethernet adaptor & port for networking	
B.15	Coolant System	
B.15.1	Coolant shall be supplied through a set of minimum 4 nozzles located around the spindle.	<ul style="list-style-type: none"> ▪ Pressure: 3 bar min ▪ Flow rate: 20 lpm (approx.) Party to specify capacity of coolant tank and filtration method and other details.
B.15.2	Through Spindle Coolant	<ul style="list-style-type: none"> ▪ Pressure: 20 bar minimum ▪ Flow rate: 20 lpm (approx.) ▪ Filtration: please specify
B.15.3	Chip Tray	Required
B.16	Auto Tool Changer	
B.16.1	Number of tools	24 Nos.(min)
B.16.2	Type	Arm type tool changer is preferred

B.17	Safety features/ Machine guarding	
B.17.1	All moving parts /guide ways/ ball screws shall be protected against dust incursion by providing suitable covers /bellows	Required
B.17.2	Machine shall be provided with adequate guarding and doors.	Required
B.17.3	Control system elements shall be enclosed in a dust-proof cabin with air conditioning	Required
B.18	Power supply	
B.18.1	Machine should work on AC 415V±10%, 50Hz ± 5%, 3 Phase & neutral 4 wire system	
B.18.2	Power rating in KVA	Vendor to specify
B.18.3	Under Voltage Protection	Required
B.19	Miscellaneous	
B.19.1	Work space lamp	Required
B.19.2	Compressed air requirement	Party to specify flow rate and pressure required
B.20	Technical Documentation: Following information in full shall be submitted along with the offer:	
B.20.1	Machine layout drawing indicating shop floor space and machine weight.	
B.20.2	Printed catalogue of the offered machine.	
B.20.3	Actual test certificate of similar machine manufactured by the manufacturer for accuracy at Cl. No. B.4	
B.20.4	Details of customers to which similar machines have been supplied	
B.21	Following technical documentation in 'English' shall be supplied along with the machine	
B.21.1	Instruction/ Operational manual	
B.21.2	Spare parts manual	
B.21.3	Maintenance manual for mechanical, electrical/electronic systems.	
B.21.4	Electrical wiring diagrams.	
B.21.5	Preventive maintenance check list, trouble shooting charts and guidelines	
B.22	Essential Accessories/features and consumables: Apart from all standard accessories and consumables, all following accessories/features and consumables shall be quoted.	
B.22.1	Servo voltage stabilizer with Isolation transformer (as a single unit)	1 No.
B.22.2	Coolant mist condenser	1 No.
B.22.3	Machine Mounting pads	1 set
B.22.4	Hand held air gun	1 No.
B.22.5	Sight glass for better visibility during machining, which includes safety rotating glass and a fixed glass on operator side	Please provide details
B.22.6	First fill of oil	Required
B.22.7	Any other accessories, which may be essential for carrying the machining operation / to improve the	Vendor to quote

	performance of the machine, shall also, be quoted.	
B.23	Optional accessories/ features and consumables (shall be quoted but optionally ordered)	
B.23.1	Chip conveyer	Please quote with details
B.23.2	Air through spindle	Please quote with details
B.23.3	Tool Probing	Please quote with details
B.23.4	Work touch probe	Please quote with details
B.23.5	Set of work clamping kit	1 set
B.23.6	Pull studs if applicable	50 Nos.
B.23.7	Precision ER 40 collet adaptors to suit with the machine taper with Gauge plane Length 100 mm Approximately (only Sandvik, Iscar, Kennametal, Walter, Haimer, Seco or Schunk make is acceptable)	Please quote with details
B.23.8	Precision ER 25 collet adaptors to suit with the machine taper with Gauge plane Length 100 mm Approximately (only Sandvik, Iscar, Kennametal, Walter, Haimer, Seco or Schunk make is acceptable)	Please quote with details
B.23.9	ER 40 precision collet of diameter 8 mm, 10mm, 12mm, 14mm, 16mm, 18mm, 20mm, 22mm & 25mm (only Sandvik, Iscar, Kennametal, Walter, Haimer, Seco or Schunk make is acceptable)	Please quote with details
B.23.10	ER 25 precision collet of diameter 3 mm, 4mm, 5mm, 6mm, 8mm, 10mm & 12mm (only Sandvik, Iscar, Kennametal, Walter, Seco or Schunk make is acceptable)	Please quote with details
B.23.11	Schunk/ Rohm make power amplified single acting vice with standard supporting reversible jaws & clamping lever, jaw width: 125mm, Clamping range: 0-212 mm, Clamping Torque = 4 – 40 kN or better	Please quote with details
B.23.12	Extended warranty for one year after the expiry of warranty	Please quote with details
B.24	Annual service contract: Non- Comprehensive AMC for a period of 3 years, after the expiry of the warranty period. AMC Terms & Conditions as per Annexure-2. Party shall quote the AMC as detailed below.	
B.24.1	Cost for Non Comprehensive AMC per year	Please quote
B.24.2	Number of preventive maintenance per year	4 visits per year
B.24.3	Breakdown maintenance	Call basis, please quote
B.24.4	Cost of probable spares list with price break up valid for entire period of AMC	Please quote

B.25	Shipment Clearance
B.25.1	Geometrical and positioning accuracy (ISO 230-2 Standard / VDI/DGQ 3441) tests of the machine shall be performed at manufacturer's site as per their test plan. NAS cutting test shall be done for conforming machine accuracies and performance
B.25.2	LPSC reserves the right to decide the mode of despatch clearance, which is proposed to be either one of the following: <ol style="list-style-type: none"> 1. Pre-delivery inspection of the equipment shall be carried out at manufacturer's site before despatch or 2. Test certificate as specified at B25.1 shall be sent to us in advance for giving clearance for shipment of machine.
B.26	Erection, Installation and Commissioning
B.26.1	The machine shall be erected, installed and commissioned at LPSC, Valiamala, Thiruvananthapuram, Kerala, India. Party shall arrange all the necessary logistics for unloading the machine and placing the same at LPSC site. All necessary tools, instruments and equipments for erection, installation and commissioning of the machine shall be brought by supplier. <u>Cost towards erection, installation, commissioning & training etc.. shall be quoted separately.</u>
B.26.2	Party shall train 2 of LPSC's engineers on operation, programming and machine maintenance for one week after commissioning of machine at installation site free of cost.
B.26.3	Final acceptance of the machine shall be based on satisfactory completion of the activities mentioned at Cl. Nos. B.26.1 & B.26.2
B.26.4	Installation and commissioning and training at site shall be completed within 1 month from the date of communication from the LPSC on receipt of machine at site.
B.27	Other Terms and conditions
B.27.1	Roadworthy packing of machine and its accessories is under party's scope. Party shall also indicate packing & FOR charges to LPSC, Valiamala.
B.27.2	The supplied machine shall be warranted for a period of minimum 12 months from the date of machine acceptance at LPSC site.
B.27.3	After sales service shall be provided by the party for a minimum period of 10 years from date of machine acceptance.
B.27.4	Foundation requirements and special requirements like earthing for the machine including drawings should be communicated to LPSC within one month of ordering to ready machine installation site if required. The foundation will be readied by LPSC as per the drawing to be supplied by the party.
B.27.5	Machine shall be delivered within 6 months from the date of receipt of technical and commercial clear purchase order.
B.27.6	If the machine or any part of it is lost or damaged in transit, the replacement of such machine or part shall be effected with no additional cost.

C. Instructions for submitting offers

The suppliers shall submit their offers in two parts separately as under:

Part-I: Technical and commercial bid:

1. This part, in addition to covering all technical and commercial points, shall specifically contain the following.

1.1. Compliance matrix showing each & every tender specifications (B1. to B27.6) and details of offer as per format given under. **Specific values shall be provided wherever applicable, simply replying with "complied" or "confirmed" to such clauses will not be accepted.**

Sl. No. of tender specification	Details	Tender specification	Details of offered specification	Implication in case of deviation

1.2. For accuracies as per **Cl. No. B.4**, party shall submit a test chart of recently supplied identical machine.

1.3. Blank price bid without price

1.4. Catalogues of machine

Part-II: Price bid.

The price bid should include complete cost details and shall specifically contain the following details.

1. Price for the basic machine.
2. Price for standard and essential accessories as detailed in **Cl. No. B.22**
3. Price for optional features and accessories as detailed in **Cl. No. B.23**
4. Price for erection, installation, commissioning & training etc.. **Cl. No. B.26**
5. Price for AMC as detailed in **Cl. No. B.24**

D. Qualification criteria for the acceptance of the offer

1. Party shall have minimum 5 installations in last 7 years in ISRO centres or Public sector or Government organizations in India. Party shall produce PO copy and Installation & commissioning report for the last 5 machines supplied.
2. No custom made machines are allowed, party shall only offer standard machines with model prevailing in the market.
3. Test certificates (as per **Cl. No. B.4**) of the latest supplied machines shall be submitted.

E. Check List for Submission of offers

		Enclosed/ Not enclosed
1	Compliance matrix covering all points from A.1 to B27.6	
2	Detailed technical description of machine	
3	Documentation as per B20.	
4	Format of the offered price bid without price	
5	Documents / proofs for qualification criteria as detailed in D.	
6	Actual price bid as part of price bid (Offer with cost as part of technical bid will not be considered.)	

Terms and Condition for AMC, High precision 3 axis CNC milling machine

1.0 SCOPE OF WORK

1.1 Non-Comprehensive AMC includes 4 preventive maintenance visits per year and attending break down maintenance as and when required in the event of malfunction/breakdown of the machine.

1.2 The preventive maintenance includes the following:-

Electrical

- a. Check for CNC memory, Battery and coding arrangement.
- b. Check for proper voltages at test point.
- c. Check for external wiring.
- d. Checking for servo performance, adjust parameters and provide compensation were ever required.
- e. Check and ensure the functions of end limit and emergency circuit.
- f. Tune and adjust the drive parameters for all axes.
- g. Check and ensure the homing sequences.
- h. Check all lamps and meters.

Mechanical

- a. Check for smoothness of motion of axis.
- b. Check for hydraulic coolant lines.
- c. Check for guide way and screw lubrication.
- d. Check for lubrication circuits.
- e. Functioning of proximity sensors.
- f. Functioning of controllers
- g. Mechanical system of spindle.
- h. Function of belts.
- i. Check and correct the source of abnormal sounds.

1.3 The preventive maintenance shall be attended between 9 am and 5 pm on all working days (Monday to Friday).

1.4 First preventive maintenance shall be carried out immediately on acceptance of the contract.

1.5 Break down maintenance

- a) Break down call shall be attended to within 48 hours of intimation by our Contact Person.
- b) If replacement of any spare is required, necessary spares to be replaced with concurrence of LPSC contact person. The cost of the items replaced shall be paid by LPSC as per the price furnished in the spare list for which party shall be requested to submit the list of spares with price breakup.
- c) In case of replacement of any spares which are not listed in the spare list mentioned above or any component cannot be repaired at our premises, the same can be replaced/repared as per following procedure.

- d) The party shall assess the condition and get the concurrence of the contact point of LPSC. Based on the assessment, the party shall submit a quote to LPSC. In case, the party is unable to submit the quotation until he receives the equipment at his premises to assess the failure, he shall provide the cost based on the probable causes failure giving details of costing.
- e) Based on the offer received, indent shall be raised with all relevant details.
- f) LPSC shall place a repair order after necessary processing and approvals.
- g) In case party changes/does any spare parts/extra work while repairing the system at party's premises which are not covered in the said repair order, the party shall intimate LPSC about the additional work/ spare parts required over and above the those included in the order, along with charges for the same and order amendment shall be issued with necessary approvals

2.0 Payment

Pro-rata half yearly payment shall be made after completion of each half year (pro rata payment for break down maintenance shall be made after satisfactory repair and certification by focal point and duly approved by head of the facility) against your bill along with Service Call Report duly signed by the Contact Person and countersigned by the head of the facility and sent to the Sr. Accounts Officer, LPSC, Valiamala for arranging payment. Your invoice shall be in triplicate, Original to the Paying Authority, Duplicate to the Contact Person and Triplicate to your Service Engineer.

3.0 Security Deposit

On acceptance of the order, you shall submit an interest free amount being 3% of the total contract/order value towards security deposit. This security deposit is collected towards the performance of the Contract. The said Security Deposit shall be submitted either in the form of Bank Guarantee/Demand Draft/PDR receipts duly endorsed in the name of the Centre. The Security Deposit will be returned to you on successful completion of the Contractual obligations; failing which it shall be forfeited / adjusted.

4.0 Fall Clause

The service charges quoted by you shall in no event exceed the lowest charges at which you service the machines of identical description to any other party during the period of this Contract. If at any time during the said period, you reduce the service charges of such item to any other customers, it shall be forth with done after the date of coming in to force of such reduction of service charges shall stand correspondingly reduced.

5.0 Down-Time Compensation

In case the break-down calls are not attended to within 48 hours of intimation and if reported problem is not solved within 96 hours without valid reasons, down time compensation @ 0.5% (of the annual maintenance charges) per day shall be recovered from you subject to a maximum of 5%.

6.0 Force Majeure

If at any time during the continuance of the order the performance in whole or part by either party of any obligation under this order shall be prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fire, floods, lightening, epidemic, quarantine restrictions, strikes, go-slow, lockout or acts of God, notice of which is given either party to the other within 21 days from the date of occurrence thereof, neither party shall be reasons of such eventually be entitled to

terminate this order nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance.

7.0 Arbitration

Dispute, If any shall be settled mutually, failing which it shall be referred to a One-Man –Arbitrator appointed by Director, LPSC in accordance with the Arbitration & Conciliation Act 1996, whose decision shall be final and binding on both parties.

8.0 Addition And Deletion

LPSC reserve the right to add/delete any number of machines in this contract during the currency of the Contract.

9.0 General

- 9.1 All faults /maintenance shall be attended to during the normal working hours (09.00 Hrs. to 17.00 Hrs. from Monday to Friday) of the Centre.
- 9.2 Service engineer who are conversant with CNC machines having thorough knowledge of electrical, electronic and mechanical areas shall only be deputed.
- 9.3 In the event of any damages to our property or personal injury to our personnel due to the negligence of your personnel, the responsibility shall solely rest with you for rectifying or compensating for the injury to our personnel.
- 9.4 LPSC shall not be responsible for any loss of life or injury of the service personnel while performing the contract at our premises due to natural calamities /accident/explosion etc., Hence insurance of the workers/ staff deployed against such eventualities shall be done by you positively and no compensation shall be paid by us.
- 9.5 You shall go through the operation logs to pin point trouble and advice the contact person how to avoid them in future.
- 9.6 You shall provide any clarifications required by the contact person as technical documentation.
- 9.7 If the machine cannot be made available by us due to workload, the re scheduled date of visit should be mutually agreed upon with the contact person.
- 9.8 You shall arrange for police verification of your employees and submit the report on acceptance of the contract.
- 9.9 You shall deploy only Indian national to our centre for servicing.
- 9.10 Your service person(s) should strictly comply with our security guidelines.

General Terms and Conditions:

- 1) As far as implementation of provision for Public Procurement (Preference to Make in India) Order, 2017 is concerned, the Office orders vide No. P-4502/2/2017-B.E-II dt 15.06.2017, which is partially modified by Order No.P-45021/2/2017-PP (BE-II) dt 28.05.2018, Order No. P- 45021/2/2017-PP (BE-II) dt 29.05.2019, Order No. P-45021/2/2017-PP (BE-II) dt 04.06.2020 and Order No. P-45021/2/2017-PP (BE-II) 16.09.2020 and subsequent Amendments issued by the Department of Promotion of Industries and Internal Trade, Ministry of Commerce and Industry regarding Class-I/Class-II local suppliers, Purchase preference, verification of local contents etc shall be applicable to this tender. Therefore, bidders are requested to ensure compliance of the same while submitting tenders.

The tendered requirement is having local content more than 20%. Hence the provision/evaluation of offers shall be as per the office orders mentioned above, issued by Govt. of India. Bidders have to submit all relevant documents as per the said office orders.

- 2) **Price Preference to MSE's**

Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs. Such MSE.s shall produce documentary proof of registration as per provisions of the Policy ie: registration with District Industries Centre (DIC) or Khadi and Village Industries Commission (KVIC) or Khadi and Industries Board (KVIB) or Coir Board or National Small Industries Commission (NSIC) or Directorate of Handicrafts and Handlooms or Udyog Aadhar Memorandum or any other body specified by Ministry of MSME

- 3) **Only Indian manufacturers (Class-I / Class-II local suppliers) can participate in this tender.**

- 4) **Earnest Money Deposit :**

Earnest Money Deposit amounting to **INR.5,00,000/-** shall invariably be submitted by you along with your offer. Offer without EMD will be rejected. The EMD shall be submitted in the form of Demand Draft/Bankers Cheque/FD receipts or Bank Guarantee drawn in favour of Accounts Officer, LPSC and payable at Thiruvananthapuram/Bengaluru. Submission of EMD is exempted in respect of Registered vendors, CPSU/CPSE, MSE, KVIC, NSIC. Vendors seeking exemption from payment of EMD shall submit necessary proof like registration number, copy of relevant valid certificates along with your offer, failing which the said offer will be rejected. The EMD of a vendor will be forfeited if the vendor withdraws or amends their tender or deviates from the tender in any respect within the validity period of the tender.

- 5) **Payment Term**

Our normal payment term is 100% payment through RTGS within 30 days of receipt and acceptance of the item at our site.

6) Warranty

Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for a minimum period of one year or as specified in the tender document.

7) Please specify IGST percentage, if any, in your offer, IGST @ 5% shall be paid as per Notification No. 47/2017 –Integrated Tax (Rate) dated 14.11.2017

8) Liquidated Damages:

If the ordered items are not supplied within the delivery schedule, LD shall be levied from your bill @ 0.5% per week for the undelivered items subject to a maximum of 10% of the order value for the delayed period.

9) Performance Bank Guarantee

You have to submit a PBG from a Nationalised / Scheduled Bank for 3% of the order value towards the performance of the system at the time of supply valid till the completion of warranty period plus 60 days as per the format provided by the Department.

OR

3% OF THE ORDER VALUE SHALL BE WITH HELD TILL THE COMPLETION OF WARRANTY PERIOD PLUS 60 DAYS.

10) Security Deposit (only for order value above Rs.5 Lakh)

You have to furnish a Bank Guarantee for 3% of the order value within 10 days of receipt of Order towards the faithful execution of the order valid till the completion of the scope of work as per order plus sixty days. (This will be returned to you immediately on execution of the order satisfactorily as per order terms. In case of non-performance / poor performance, the amount will be forfeited).

11) Offer Validity

(a) The validity of the offers should be 90 days (in case of single part tender) from the date of opening of the tenders.

(b) The validity of the offers should be 120 days (in case two part tender) from the date of opening of the tenders.

Note :- Tenders having shorter offer validity will not be considered for evaluation.

12) Tender fee Rs.590/- (Rupees Five Hundred and Ninety only) (Including GST) shall be payable only in the form of Bank draft in favour of Accounts Officer, LPSC, Valiamala payable at Trivandrum and the same shall be enclosed along with Part-I, Techno-Commercial Bid, without which your offer will not be considered.

INSTRUCTIONS FOR TWO PART TENDERS

1. We invite your offer duly signed, in TWO parts as follows:-

(a) **PART - I : TECHNICAL & COMMERCIAL** (Other than Price)

(b) **PART -II : PRICE BID**

1.1 PART-I : TECHNICAL & COMMERCIAL

1.1.1 **TECHNICAL:** The detailed Technical Specification and Commercial Terms such as delivery date, taxes, duties payable, place of delivery, payment term, validity, guarantee etc and scope of supply shall be covered in this part. Please enclose a copy of the details indicated in price quotation (**WITHOUT PRICES OR BY MASKING THE PRICE**) mainly to know the items/ specifications for which you have indicated prices in price bid. **This part should not contain prices.** The Technical and commercial part of the offer should be kept in a sealed envelope superscribing the following details.

**QUOTATION AGAINST TENDER NO TM63 2021035274 01
DUE ON 28.09.2021 at 14.00 hrs IST
OPENING ON 28.09.2021 at 14.30 hrs IST
FOR SUPPLY, INSTALLATION AND COMMISSIONING OF HIGH PRECISION 3 AXIS
CNC MILLING MACHINE
PART I - TECHNICAL & COMMERCIAL**

The cover should indicate "SENDER'S" address.

1.2. PART -II : PRICE BID

1.2.1. This part shall contain **PRICE** details only.

1.2.2. The price for the item should be indicated item wise in this part. All the items/ specifications mentioned in the Technical Part should come here and prices indicated against each. The break-up for each item of supply or services should be indicated.

1.2.3. Whenever options are quoted, the same should also be indicated with quantity and unit rate separately. The prices are to be mentioned both in figures and in words. This part should also be kept in a sealed cover superscribing as follows:-

**QUOTATION AGAINST TENDER NO TM63 2021035274 01
DUE ON 28.09.2021 at 14.00 hrs IST
FOR SUPPLY, INSTALLATION AND COMMISSIONING OF HIGH PRECISION 3 AXIS
CNC MILLING MACHINE
PART II - PRICE BID**

THE TWO SEALED COVERS PREPARED AS ABOVE SHOULD BE KEPT IN ANOTHER ENVELOPE, SEALED AND SUPERSCRIBED AS UNDER:-

"Quotation against Tender No. **TM63 2021035274 01** Due on **28.09.2021, 14.00 hrs IST** for **FOR SUPPLY, INSTALLATION AND COMMISSIONING OF HIGH PRECISION 3 AXIS CNC MILLING MACHINE** containing **TWO SEPARATE COVERS PART-1 & PART -II** and addressed to:

**SR.PURCHASE & STORES OFFICER
Liquid Propulsion Systems Centre
Valiamala (PO)
Thriuvananthapuram- 695 547.**

The cover should indicate " **SENDER'S** " address

For any clarification you may contact us at following phone/Fax Nos.

Telephone : 0471 2567726/0471 2567727

Fax : 0472 2800712/0471 2567305

Your offer should reach us on or before the due date and time i.e. **28th, SEPTEMBER 2021 at 14.00 hrs IST. Offers received after the due date and time will not be considered.**

Offers received through fax or email will not be considered.

Note:

Tender fee **Rs.590/- (Rupees Five Hundred and Ninety only)** (Including GST) shall be payable only in the form of Bank draft in favour of Accounts Officer, LPSC, Valiamala payable at Trivandrum and the same shall be enclosed along with Part-I, Techno-Commercial Bid, **without which your offer will not be considered.**

COMPLIANCE STATEMENT FOR COMMERCIAL TERMS - INDEGENOUS CASES

Sl. No. (1)	Description (Commercial terms & conditions) (2)	Compliance to Col. (2) [YES/NO] (3)	Remarks (4)
1.	P & F charges, if any, (If mentioned as EXTRA OR INCLUDED in your quote, please mention the percentage in Remarks Column)..		
2.	Whether applicable GST percentage mentioned in offer (If mentioned as EXTRA OR INCLUDED in your quote, please mention the percentage in Remarks Column).		
3.	Installation Charges, if any, (If mentioned as EXTRA OR INCLUDED in your quote, please mention the percentage in Remarks Column).		
4.	Delivery Term :- FOR : LPSC, VALAIAMALA		
5.	Freight charges, if any. (If mentioned as EXTRA OR INCLUDED in your quote, please mention the percentage in Remarks Column).		
6.	Delivery Period (If any specific delivery period is mentioned in the tender, please comply the same. If not agreed, please mention your delivery period in remarks column OR if already mentioned in your quote please mention as "already furnished in the quote")		
7.	Payment Term :- 100% payment shall be made through RTGS within 30 days of receipt and acceptance of the item at our site.		
8.	Liquidated Damages (LD) :- If the ordered items are not supplied within the delivery schedule, LD shall be levied from your bill @ 0.5% per week for the undelivered items subject to a maximum of 10% of the order value for the delayed period.		
9.	Warranty :- Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for a minimum period of one year or as specified in the tender document.		
10	Security Deposit (SD) :- (only for order value above Rs.5 Lakh) You have to furnish a Bank Guarantee for 3% of the order value within 10 days of receipt of Order towards the faithful execution of the order valid till the completion of the scope of work as per order plus sixty days. (This will be returned to you immediately on execution of the order satisfactorily as per order terms. In case of non-performance / poor performance, the amount will be forfeited).		

Sl. No. (1)	Description (Commercial terms & conditions) (2)	Compliance to Col. (2) [YES/NO] (3)	Remarks (4)
11.	<p>Performance Bank Guarantee (PBG) :-</p> <p>You have to submit a PBG from a Nationalised / Scheduled Bank for 3% of the order value towards the performance of the system at the time of supply valid till the completion of warranty period plus 60 days as per the format provided by the Department.</p> <p>OR</p> <p>3% OF THE ORDER VALUE SHALL BE WITH HELD TILL THE COMPLETION OF WARRANTY PERIOD PLUS 60 DAYS.</p>		
12.	<p>In case, if parties are unable to provide two separate BGs, i.e., one for SD and one for PBG, they can submit a combined BG for SD & PBG within 10 days of receipt of order for 3% of order value valid till the completion of total contractual obligation (i.e., supply period + warranty period + 60 days) as per the format provided by the Department.</p>		
13.	<p>Insurance :-</p> <p>Being a Govt. Of India Dept., Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper ROAD worthy packing</p>		
14.	<p>Validity of Offer :-</p> <p>(a) The validity of the offers should be 90 days (in case of single part tender) from the date of opening of the tenders.</p> <p>(b) The validity of the offers should be 120 days (in case two part tender) from the date of opening of the tenders.</p> <p>Note :- Tenders having shorter offer validity will not be considered for evaluation.</p>		

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
LIQUID PROPULSION SYSTEM CENTRE
PURCHASE DIVISION
VALIAMALA P.O. THIRUVANANTHAPURAM

Tender No:TM63 2021 035274 01

Due on: 28.09.2021

Tenders Ref. No:

Date:

TENDER FORM

From :

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

To: The Purchase & Stores Officer,
Liquid Propulsion Systems Centre
Valiamala P.O.
Thiruvananthapuram – 695 547

Dear Sir,

I/We hereby offer to supply the stores detailed below at the price hereunder quoted and agree to hold this offer open till.....I/We shall be bound to supply the stores hereby offered upon the issue of the Purchase Order communicating the acceptance there of on or before the expiry of the last mentioned date. You are at liberty to accept any one or more of the items of stores tendered for or any portion of any one or more of the items of such stores. I/We notwithstanding that the offer in this tender has not been accepted in whole, shall be bound to supply to you such items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance:

Sl. No.	Description	Quantity	Unit	Rate Rs.	Delivery Date
---------	-------------	----------	------	----------	---------------

.....
.....

NOTE: All the rates should be given both in figures and words.

Place at which delivery will be made:

Date by which the ordered items will be supplied:.....

2.I/We have understood the items of the tender annexed to the invitation to tender and have thoroughly examined the specification/drawing and / or pattern quoted or referred to herein and /are fully aware of the nature of the stores required and my/our offer is to supply the stores strictly in accordance with the requirements subject to the terms and conditions stipulated in the enquiry and contained in the purchase order communicating the acceptance of this tender either in whole or in part.

Signature of Tenderer
Date.....

(Seal)

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
LIQUID PROPULSIONS SYSTEMS CENTRE
PURCHASE AND STORES DIVISION

Form No. DOS:PM:20

TERMS AND CONDITIONS OF TENDER

1. Tenders should be sent in sealed envelopes superscribing the relevant tender No, and the due date of opening. Only one tender should be sent in each envelope.
2. Late tenders and delayed tenders will not be considered.
3. GST intended to be claimed should be distinctly shown separately in the tender.
4. a) Your quotation should be valid for 120 days from the date of opening of the tender or any other period as specified in the tender enquiry. Offer with validity lesser than that specified is liable for exclusion from the procurement process.
 - b) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. (a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
 - (b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expense.
 - (c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
 - (d) **Specifications:** Stores offered should strictly conform to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.
6. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderers shall supply the same at the rates quoted.
7. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
8. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.
9. The Purchaser reserves the right to place order on the successful tenderer for additional quantity up to 25% of the quantity offered by them at the rates quoted.
10. The authority of the person signing the tender, if called for should be produced.

TERMS & CONDITIONS OF TENDER

1. DEFINITIONS:

- (b) The term 'Purchaser' shall mean the President of India or his successors or assigns.
- (c) The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the Contract.
- c) The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.
- d) The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

2. PRICES:

Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variation/s.

3. SECURITY DEPOSIT:

On acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding three percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, 'Security' and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re-purchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause (ii) and (iii) of clause 10(b) hereof and/or to recover from the Contractor, damages arising from such cancellation.

4. GUARANTEE & REPLACEMENT:

- (a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- (b) For a period of twelve months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.
- (c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 14 months from the date of acceptance thereof.
- (d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.
- (e) The decision of the purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defect has developed within the said period of 12 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.
- (f) **Performance Bank Guarantee:** To fulfil guarantee conditions outlined in clause 4 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser) from a Bank approved by the purchaser for an amount equivalent to 3% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.
- (g) All the replacement stores shall also be guaranteed for a period of 12 months from the date of arrival of the stores at purchaser's site.
- (h) Even while the 12 months guarantee applies to all stores, in case where a greater period is called for by our specifications then such a specification shall apply in such cases the period of 14 months referred to in para 4 (b) & (c) shall be the 'asked for' guarantee period plus two months.

5. **PACKING FORWARDING & INSURANCE:**

The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

6. **DESPATCH:**

The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

7. **TEST CERTIFICATE:**

Wherever required, test certificates should be sent along with the despatch documents.

8. **ACCEPTANCE OF STORES:**

- (a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost.
- (b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by the purchaser, whose decision shall be final.
- (c) If, in the opinion of the purchaser, all or any of the stores that do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.
- (d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. 8 (c) above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

9. **REJECTED STORES:**

Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

10. **DELIVERY AND LIQUIDATED DAMAGES:**

- (a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates.
- (b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either:
 - (i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week of the price of any stores which the Contractor has failed to deliver as aforesaid or during which the delivery of such store may be in arrears subject to a minimum of 10%, or
 - (ii) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of the consignment (s) not yet due for delivery, or
 - (iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the

particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor.

In the event of action being taken under sub-clause (ii) & (iii) of clause 10 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is an agreement to re-purchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. The manner and method of such re-purchase shall be at the discretion of the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re-purchase on the defaulting Contractor. This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

11. EXTENSION OF TIME:

As soon as it is apparent that the Contract dates cannot be adhered to, an application shall be sent by the Contractor to the purchaser. If failure, on the part of the Contractor, to deliver the stores in proper time shall have arisen from any cause which the purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances, of the case without prejudice to the purchaser's right to recover liquidated damages under clause 10 thereof.

12. ERECTION OF PLANT & MACHINERY:

Wherever erection of a plant or machinery is the responsibility of the Contractor as per the terms of the Contract and in case the Contractor fails to carry out the erection as and when called upon to do so within the period specified by the purchaser, the purchaser shall have the right to get the erection done through any source of his choice. In such an event, the Contractor shall be liable to bear any additional expenditure that the purchaser is liable to incur towards erection. The Contractor shall, however, not be entitled to any gain due to such an action by the purchaser.

13. PAYMENT:

Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

14. MODE OF PAYMENT:

Normally payment will be made for the accepted stores within 30 days from the date of receipt of the materials.

15. RECOVERY OF SUM DUE:

Whenever any claim for the payment of, whether liquidated or not, money arising out of or under this Contract against the Contractor, the purchaser shall be entitled to recover such sum by appropriating in part or whole, the security deposited by the Contractor, if a security is taken against the Contract. In the event of the security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other Contract with the purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claim, whether liquidated or not, against the Contractor under any other Contract with the purchaser, the payment of all moneys payable under the Contract to the Contractor including the security deposit shall be withheld till such claims of the purchaser are finally adjudicated upon and paid by the Contractor.

16. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfilment of the contract.

17. ARBITRATION:

In the event of any question, dispute or difference arising under these conditions or any conditions contained in the Purchase Order or in connection with this Contract (except as to any matter the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Head of the Purchase office or some other person appointed by him. It will be no objection that the arbitrator is a Government servant, that he had to deal with matter to which the Contract relates or that in the course of his duties as Government servant he has expressed

views on all or any other matters in dispute or difference. The award of the arbitrator shall be final and binding on the parties of this Contract.

If the arbitrator be the Head of the Centre/Unit –

- (i) In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor-in-office either to proceed with reference himself, or to appoint another person as arbitrator, or
- (ii) In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Centre/Unit to appoint another person as arbitrator.

If the arbitrator be a person appointed by the Head of the Purchase Office – In the event of his dying, neglecting or refusing to act or resigning or being unable to act, for any reason, it shall be lawful for the Head of the Centre/Unit either to proceed with the reference himself or appoint another person as arbitrator in place of the outgoing arbitrator.

Subject as aforesaid the Arbitration & Conciliation Act 1996 and the rules thereunder and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings under this Clause. The Arbitrator shall have the power to extend with the consent of the purchaser and the Contractor the time for making and publishing the award. The venue of arbitration shall be the place as purchaser in his absolute discretion may determine. Work under the Contract shall, if reasonably possible, continue during arbitration proceedings.

In the event of any dispute or difference relating to the interpretation and application for the provisions of the Contracts, such dispute or difference shall be referred by either party to Arbitration of one of the Arbitrations in the Department of Public Enterprises. The Arbitration Act 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute provided however any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Govt. of India. Upon such reference, the dispute shall be decided by the Law Secretary or the Special Secretary / Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties finally and conclusively. The parties to the dispute will share equally, the cost of arbitration as intimated by Arbitrator.

18. COUNTER TERMS AND CONDITION OF SUPPLIERS:

Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

19. SECURITY FOR PURCHASE OF MATERIALS:

Successful tenderer will have to furnish in the form of a bank guarantee or any other form as called for by the purchaser towards adequate security for the materials and properties provided by the Purchaser for the due execution of the Contract.
