

भारत सरकार
अंतरिक्ष विभाग (अं.वि.)
द्रव नोदन प्रणाली केंद्र
वलियमला, तिरुवनंतपुरम
695547, केरला



GOVERNMENT OF INDIA
DEPARTMENT OF SPACE (DOS)
LIQUID PROPULSION SYSTEMS CENTRE
VALIAMALA
THIRUVANANTHAPURAM, 695547, KERALA

फोन नं Ph No. 0471-2567 726/813/317/319 / Fax. 091-0472-2800712,0471-2567305 / ईमेल e-mail: head_ps@lpscv.dos.gov.in

निविदा आमंत्रण
INVITATION TO TENDER

मैसर्स
M/s

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हमारी संदर्भ सं
Our Ref. No.

TM63 2024-038954-01

निविदा अंतिम तिथि
Tender Due at

14:30 hrs IST on 24/10/2024

महोदय

Dear Sirs,

कृपया निम्नलिखित मदों की आपूर्ति के लिए अनुलग्नक (फार्म सं. संलग्न) में उल्लिखित निबंधन एवं शर्तों के अनुसार संलग्न निविदा प्रपत्र में वर्णनात्मक सूचीपत्र/पैम्फलेट/साहित्य सहित हमारी संदर्भ सं. एवं अंतिम तिथि (मोटे अक्षरों में) ऊपर लिखते हुए अपनी मुहरबंद निविदा प्रस्तुत करें।

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)

क्र.सं. Sl. No.	विनिर्देशों सहित मद का विवरण Description of items with Specifications	इकाई Unit	मात्रा Quantity
1	Supply, erection & installation, commissioning, demonstration and training of manual universal cylindrical grinding machine as per the detailed specification & terms furnished in Annexure I	No.	1
2	Table stop with dial indicator holder	Set	1
3	Dial indicator holder: Radial type/Universal & metric (division 0.002mm)	No.	1
4	External grinding wheel adapter Dia.500 mm including balancing segments	No.	1
5	External grinding wheel adapter Dia. 400 mm including balancing segments	No.	1
6	External grinding wheel changing unit including Extraction flut (for wheel adaptors Dia. 500)	Set	1
7	External grinding wheel changing unit including Extraction nut (for manual swivel axis) for wheel adaptors Dia. 400	Set	1
8	Balancing equipment for static balancing of the grinding wheel outside of the machine	No.	1
9	Balancing arbor for grinding wheels	Set	1
10	External grinding wheel Dia. 400 mm (silicon carbide/ aluminium oxide)	Nos.	2
11	External grinding wheel Dia. 500 mm (silicon carbide/ aluminium oxide)	Nos.	2
12	Internal grinding attachment, with tool holding fixture, pulleys, grinding arbors with complete accessories	Set	1
13	Internal Grinding quill dia. 5 mm x length 28mm	Nos.	2
14	Internal Grinding quill dia. 9 mm x length 45mm	Nos.	2
15	Internal Grinding quill dia. 12 mm x length 50mm	Nos.	2
16	Internal Grinding quill dia. 16 mm x length 65mm	Nos.	2
17	Internal Grinding quill dia. 25 mm x length 115mm	Nos.	2
18	Internal Grinding quill dia. 25 mm x length 75mm	Nos.	2

19	Internal Grinding quill dia. 32 mm x length 90mm	Nos.	2
20	Internal Grinding quill dia. 32 mm x length 140mm	Nos.	2
21	2 Collet chucks ER 12 dia 3 + 6 mm with tool holding fixture include chuck key	Set	1
22	Internal grinding wheels (silicon carbide/ aluminium oxide, size 25x25x8mm, Grade: 60,80,120) (10 Nos. each) for hardened steel, Internal grinding wheel holders, extra length holders	Set	1
23	Insert for internal fixture MT5 for collet (W25/equivalent)	No.	1
24	Set of 47 Collets, Dia. 2 to 25 mm in steps of 0.5 mm	Set	1
25	Three-jaw manually operated chuck Dia. 200 mm including hard jaws and soft jaws, with chuck key, adjusting key	Set	1
26	Additional Soft jaws for above chuck	Set	10
27	Four-jaw manually operated chuck Dia. 160 mm including hard jaws and soft jaws, with chuck key, adjusting key	Set	1
28	Additional Soft jaws for above chuck	Set	10
29	Magnetic chuck Dia. 230mm (nominal) with adaptor & complete accessories	Set	1
30	Face plate Dia. 240 mm (nominal) with adaptor complete with accessories	Set	1
31	Drivers for dia. 10-50 mm.	Set	1
32	Drivers for dia. 50-80 mm (consist of 1 piece of each for work piece diameter up to max. dia. 10mm, dia. 16mm, dia. 25mm, dia. 40mm, dia. 50mm).	Set	1
33	Centres with adapters for work head & tailstock	Set	1
34	Dressing attachment and dressing tools for OD and ID grinding wheels (Hinged dressing attachment for ID)	Set	1
35	Swiveling Dressing attachment	Set	1
36	Radius Dressing attachment with hand operated valve	Set	1
37	Fliese type Diamond Dressing tool	Nos.	3
38	Single point Diamond Dressing tool	Nos.	6
39	First fill of oils / grease (can of 20 litres)	Set	1
40	Hydraulic & lubrication oil spare 20 lit	Set	1
41	Filter Paper	Set	1
42	Coolant concentrate (can of 20 litres)	Set	1
43	Machine Lamp	Set	1
44	Sets of manuals (English) for operation, and maintenance and 1 CD ROM	Set	1
45	Isolation transformer for input power supply (3 Phase) 20 KVA	Set	1
46	Control system : Contact detection, sensor with complete set	Set	1
47	Wearing and spare parts - set of spare parts for 2000 hrs. of operation.	Set	1
48	Erection & Commissioning	Nos.	1
49	Training	Lot	1
50	Non comprehensive AMC charges for 2 Preventive maintenance visits for first year	Visit	2
51	Non comprehensive AMC charges for 2 Preventive maintenance visits for second year	Visit	2
52	Non comprehensive AMC charges for 2 Preventive maintenance visits for third year	Visit	2

53	Call basis Breakdown visit charges for 1st day (rate shall be valid for 3 years after the warranty period)	Days	1
54	Call basis Breakdown visit charges for 2nd day and subsequent days (rate shall be valid for 3 years after the warranty period)	Days	1

सुपुर्दगी स्थल

Delivery At LPSC, Valiamala

प्रेषण की विधि

Mode of Despatch BY AIR / BY ROAD

शुल्क छूट

Duty Exemptions PARTIALLY EXEMPTED

विशेष अनुदेश

Special Instructions NIL

विशेष निबंधन

Specific Terms ENCLOSED

निविदाकारों को अनुदेश

Instructions to Tenderers

- (1) Note: Scope of work & Terms and Conditions as per Annexure 1
- (2) AMC terms and conditions as per Annexure 2
- (3) General Terms and Conditions as per Annexure 3 and Instructions for Two Part Tenders as per Annexure 4
- (4) A Compliance Statement is attached as Annexure 5 which shall be duly filled and furnished along with your offer without which your offer will not be considered.

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भारत के राष्ट्रपति के लिए एवं ओर से
For and on behalf of the President of India
क्रेता / The Purchaser

**SUPPLY, INSTALLATION, COMMISSIONING & TRAINING OF HIGH PRECISION MANUAL,
UNIVERSAL CYLINDRICAL GRINDING MACHINE WITH ACCESSORIES.**

A.	SCOPE & MACHINE DESCRIPTION AND APPLICATIONS: Supply, erection & installation, commissioning, demonstration and training of High Precision Manual, Universal Cylindrical Grinding machine confirming to VDA 6.4 & ISO 9001 or Equivalent norms. This manual universal cylindrical grinding machine is intended for high precision internal & external grinding of medium sized high precision aerospace components made of materials like Stainless steel alloys, Hardened alloy Steels, & heat resistant super alloys etc.			
B.	TECHNICAL SPECIFICATIONS:			
Sl. No	Description	Unit	Specification	Compliance /Values/ Remarks
B.1.	Machine Description and Capacities: The machine base shall be made from a material structure, Granite based mineral casting or equivalent optimized for high rigidity, vibration damping, thermal and chemical stability etc. which guarantees longer life and better surface finish qualities.			Complied/ Not Complied
B.1.1.	Distance between centres.	mm	1000 (minimum)	Please Specify value
B.1.2.	Height of the centres	mm	220 (minimum)	Please Specify value
B.1.3.	Maximum work piece weight between the centres.	kg	125 (minimum)	Please Specify value
B.1.4.	In-feed drive system	---	Hydraulic	Complied/ Not Complied
B.1.5.	Machine structure	---	Granite based mineral casting preferred	Complied/ Not Complied
B.1.6.	Work head & Wheel head spindle bearings	---	Hydrodynamic bearings	Complied/ Not Complied
B.1.7.	Measuring system (DRO)	mm	Heidenhain or equivalent Linear scale with 0.0001mm resolution.	Please Specify make & value
B.2.	Axis slides (Longitudinal and cross slides): Longitudinal and cross slides shall be made up of high quality grey cast iron with highly precise, ground V and flat guide ways. The V and flat guide ways for the longitudinal and cross slides shall be mounted directly into the machine base and are to be provided with a non-abrasive coating.			Complied/ Not Complied
B.2.1.	Longitudinal slide : Z Axis :			
B.2.1.1.	Maximum travel	mm	1000 (minimum)	Please Specify value
B.2.1.2.	Traverse speed	mm/min	50-5000 (minimum)	Please Specify value

B.2.1.3.	Reverse dwell	sec	0 to 6 or better	<i>Please Specify value</i>
B.2.1.4.	Min. automatic travel	mm	1.5 (minimum)	<i>Please Specify value</i>
B.2.1.5.	Reverse precision at constant speed	mm	0.02	<i>Please Specify value</i>
B.2.1.6.	Max. swivel of table (Fine adjustment and air cushion shall be provided for enabling rapid cylindricity correction and precise setting of tapers).	degree	8	<i>Please Specify value</i>
B.2.1.7.	Hand wheel rotation travel	mm/rev	25	<i>Please Specify value</i>
B.2.2.	Cross slide: X-Axis :			
B.2.2.1.	Travel	mm	250 (minimum)	<i>Please Specify value</i>
B.2.2.2.	Rapid approach	mm/min	50 (minimum)	<i>Please Specify value</i>
B.2.2.3.	Plunge depth diameter	mm	3.0	<i>Please Specify value</i>
B.2.2.4.	In-feed	mm/min	0.012 to 6 (minimum)	<i>Please Specify value</i>
B.2.2.5.	Incremental in-feed	mm	0.001 to 0.05 or better	<i>Please Specify value</i>
B.2.2.6.	Spark-out time	sec	0 to 6 or better	<i>Please Specify value</i>
B.2.2.7.	Hand wheel rotation travel	mm/rev	4 or better	<i>Please Specify value</i>
B.2.2.8.	Minimum grinding diameter	mm	0.5 (minimum)	<i>Please Specify value</i>
B.3.	Turret Wheel head : a. Turret wheel head shall have external grinding wheel on the right and left and one internal grinding spindle. b. The wheel head shall be capable of performing complete internal and external grinding including tapers in a single set up ensuring concentricity and save in time by reducing the number of loading and unloading operation. c. Wheel head swiveling by indexing unit with Hirth serration. d. Grinding spindle bearings shall be of hydrodynamic type with high accuracy without wear and no play adjustments ensuring minimum maintenance.			<i>Complied/ Not Complied</i>
B.3.1.	External grinding unit:			
B.3.1.1.	Wheel spindle bearing	----	Hydrodynamic type	<i>Please Specify type</i>
B.3.1.2.	Swivel range	deg	0 to 180	<i>Please Specify value</i>

B.3.1.3.	Fitting taper (nominal)	mm	Dia. 60	Please Specify value
B.3.1.4.	Drive power	kW	5.0 (minimum)	Please Specify value
B.3.1.5.	Speed	rpm	1600/2000 (minimum)	Please Specify value
B.3.1.6.	Grinding wheel left dia x width x bore	mm	Dia.: 500 (minimum) x Width: 60 (minimum). Bore: Please Specify	Please Specify value
B.3.1.7.	Grinding wheel right dia x width x bore	mm	Dia.: 400 (minimum) x Width: 40 (minimum). Bore: Please Specify	Please Specify value
B.3.1.8.	Circumferential speed	m/s	30 (minimum)	Please Specify value
B.3.1.9.	Revolving unit with Hirth serration	Deg	Every 5° or better, Range 0 to 180°	Please Specify value
B.4.	Internal grinding unit			
B.4.1.1.	Spindle drive system	----	Please Specify	Please Specify
B.4.1.2.	Spindle holder bore	mm	100 (nominal)	Please Specify value
B.4.1.3.	Spindle speed range	rpm	10000-50000 or better	Please Specify value
B.4.1.4.	Grinding wheel holding provision on internal grinding spindle	-----	Collet holder (for smaller dia.)	Please Specify value
B.4.1.5.	Grinding wheel holding provision on internal grinding spindle	-----	Thread type (for other sizes)	Please Specify
B.4.1.6.	Minimum bore to be ground	mm	5 or better	Please Specify value
B.4.1.7.	Internal grinding spindle	-----	Drive motor 1.5 kW (minimum)	Please Specify value
B.4.1.8.	Internal grinding spindle lubrication	-----	Oil mist lubrication type	Please Specify type
B.5.	Work head : a. Work head shall be equipped with 'grinding between fixed centres' and 'live spindle grinding'. b. Accuracy of roundness of work-head spindle shall be 0.0001mm or better. c. It shall be fitted with hydrodynamic multi-surface plane bearings.			Complied/ Not Complied
B.5.1.	Spindle bearing	-----	Hydrodynamic	Please Specify
B.5.2.	Speed range	-----	50-1000 rpm adjustable through potentiometer	Please Specify value

B.5.3.	Spindle drive	----	Infinitely variable	Complied/ Not Complied
B.5.4.	Collet holding provision	----	To be provided	Please Specify
B.5.5.	Fitting taper	----	Please specify (MT5 preferred)	Please Specify
B.5.6.	Swivel range	Degree	0-90	Please Specify value
B.5.7.	Bar capacity	mm	Please specify	Please Specify
B.5.8.	Driving power	kW	0.50 (minimum)	Please Specify value
B.5.9.	Load during live grinding	Nm	100 (minimum)	Please Specify value
B.5.10.	Max. work piece weight in between centres	kg	125 (minimum)	Please Specify value
B.6.	Tail stock : Shall be equipped with manual tailstock with fine adjustment for cylindricity correction.			Complied/ Not Complied
B.6.1.	Fitting taper	----	Please specify	Please Specify
B.6.2.	Barrel stroke	mm	30 (minimum)	Please Specify value
B.6.3.	Barrel diameter	mm	50 (minimum)	Please Specify value
B.6.4.	Fine adjustment for cylindricity corrections.	Micron	±40 (minimum)	Please Specify value
B.7.	Accuracies (Confirming to DIN 8630 Or Equivalent) Standard acceptance test chart of an identical machine confirming the accuracies as per manufacturer's test plan (B.7.1 to B.7.3) shall be supplied along with the offer.			Submitted/ not submitted
B.7.1.	work-head spindle: Roundness accuracy when live spindle grinding	mm	0.0001 or better	Please Specify value
B.7.2.	work-head spindle: Flatness accuracy when live spindle grinding	mm	0.001 or better	Please Specify value
B.7.3.	Straightness on gauge length of 950mm	mm	0.003 or better	Please Specify value
B.7.4.	Cylindricity on job of diameter 40 x 300 mm long	mm	0.002 or better	Please Specify value
B.8.	Machine Electricals :			
B.8.1.	Connecting load	----	Please specify	Complied/ Not Complied
B.8.2.	Air and water requirements	----	Please specify	Complied/ Not Complied
B.8.3.	Operating voltage	415 volts ±10%, 3 Phase, 50 Hz ± 2%, 4		Complied/

		wire or 5 wire system. Note: In case if the offered machine is built with a different operating voltage and frequency, then the supplier shall provide suitable transformer/power-regulator to match the above mentioned operating voltage.	Not Complied
B.9.	Control & Operation (Electro hydraulic control): a. Shall be provided with a DRO for X and Z axis with display of 0.0001mm resolution by means of linear measuring system of Heidenhain or equivalent. b. Electro hydraulic control		Complied/ Not Complied Please Specify type of control & measuring system
B.9.1.	Automatic grinding cycles with auto switch-off having the following cycles:		Complied/ Not Complied
B.9.1.1.	Rapid approach	Required	Complied/ Not Complied
B.9.1.2.	In-feed	Required	Complied/ Not Complied
B.9.1.3.	Sparking out	Required	Complied/ Not Complied
B.9.1.4.	Fast return of rapid approach and in feed hand wheel to set grinding allowance.	Required	Complied/ Not Complied
B.9.2.	Grinding programmes:		
B.9.2.1.	Plunge grinding	Required	Complied/ Not Complied
B.9.2.2.	Plunge grinding with short stroke of longitudinal slide	Required	Complied/ Not Complied
B.9.2.3.	Longitudinal grinding with intermittent feed at left hand, right hand or at both ends of stroke with cycle shop.	Required	Complied/ Not Complied
B.9.2.4.	The grinding programme shall run with or without rapid in-feed	Required	Complied/ Not Complied
B.9.2.5.	Automatic switching the work head motor on and off.	Required	Complied/ Not Complied
B.9.2.6.	Possibility to override the automatic programme at any time	Required	Complied/ Not Complied
B.9.3.	Shall have the provision for Air gap elimination by built-in sensing system preventing cutting air on batches with varying stock removal enabling cycle time to minimum	Required	Complied/ Not Complied
B.10.	Coolant system:		
B.10.1.	Paper Band Filter with Magnetic separator with minimum coolant tank capacity of 350 liters.	Required	Complied/ Not Complied
B.10.2.	Coolant supply through work head for internal grinding	Required	Complied/ Not Complied

B.11.	OTHER FEATURES:		
B.11.1.	The machine shall be supported on a standard concrete floor eliminating the necessity of separate foundation.	Required	Complied/ Not Complied
B.11.2.	The machine should have adequate safety interlocks for safe operation.	Required	Complied/ Not Complied
B.11.3.	Efficient dressing setup for internal & external grinding wheels including radius dressing attachment with respective dressing tools.	Required	Complied/ Not Complied
B.11.4.	All electrical insulation to be tropicalized.	Required	Complied/ Not Complied
B.11.5.	Machine to be provided with adequate protection guards.	Required	Complied/ Not Complied
B.11.6.	Lubrication: Centralized automatic lubrication preferred.	Required	Complied/ Not Complied
C.	ESSENTIAL ACCESSORIES:		
C.1.	Table stop with dial indicator holder	1 set	Quoted/ Not quoted
C.2.	Dial indicator holder: Radial type/Universal & metric (division 0.002mm)	1 No.	Quoted/ Not quoted
C.3.	External grinding wheel adapter Dia. 500 mm including balancing segments	1 No.	Quoted/ Not quoted
C.4.	External grinding wheel adapter Dia. 400 mm including balancing segments	1 No.	Quoted/ Not quoted
C.5.	External grinding wheel changing unit including Extraction nut (for wheel adaptors Dia. 500)	1 set.	Quoted/ Not quoted
C.6.	External grinding wheel changing unit including Extraction nut (for manual swivel axis) for wheel adaptors Dia. 400	1 set.	Quoted/ Not quoted
C.7.	Balancing equipment for static balancing of the grinding wheel outside of the machine	1 No.	Quoted/ Not quoted
C.8.	Balancing arbor for grinding wheels	1 set.	Quoted/ Not quoted
C.9.	External grinding wheel Dia. 400 mm (silicon carbide/ aluminium oxide)	2 Nos.	Quoted/ Not quoted
C.10.	External grinding wheel Dia. 500 mm (silicon carbide/ aluminium oxide)	2 Nos.	Quoted/ Not quoted
	For Internal Grinding		
C.11.	Internal grinding attachment, with tool holding fixture, pulleys, grinding arbors with complete accessories	1 set	Quoted/ Not quoted
C.12.	Internal Grinding quill dia. 5 mm X length 28mm	2 Nos.	Quoted/ Not quoted
C.13.	Internal Grinding quill dia. 9 mm X length 45mm	2 Nos.	Quoted/ Not quoted
C.14.	Internal Grinding quill dia. 12 mm X length 50mm	2 Nos.	Quoted/ Not quoted

C.15.	Internal Grinding quill dia. 16 mm X length 65mm	2 Nos.	Quoted/ Not quoted
C.16.	Internal Grinding quill dia. 25 mm X length 115mm	2 Nos.	Quoted/ Not quoted
C.17.	Internal Grinding quill dia. 25 mm X length 75mm	2 Nos.	Quoted/ Not quoted
C.18.	Internal Grinding quill dia. 32 mm X length 90mm	2 Nos.	Quoted/ Not quoted
C.19.	Internal Grinding quill dia. 32 mm X length 140mm	2 Nos.	Quoted/ Not quoted
C.20.	Collet holder for 3 and 6 mm	1 set	Quoted/ Not quoted
C.21.	Spring collets 3 mm and 6 mm	1 set	Quoted/ Not quoted
C.22.	Internal grinding wheels (silicon carbide/ aluminium oxide, size 25x25x8mm, Grade: 60,80,120) (10 Nos. each) for hardened steel, Internal grinding wheel holders, extra length holders	1 set	Quoted/ Not quoted
	For Work head		
C.23.	Insert for internal fixture MT5 for collet (W25/equivalent)	1 No.	Quoted/ Not quoted
C.24.	Set of 47 Collets, Dia. 2 to 25 mm in steps of 0.5 mm	1 set	Quoted/ Not quoted
C.25.	Three-jaw manually operated chuck Dia. 200 mm including hard jaws and soft jaws, with chuck key, adjusting key	1 set	Quoted/ Not quoted
C.26.	Additional Soft jaws for above chuck	10 sets	Quoted/ Not quoted
C.27.	Four-jaw manually operated chuck Dia. 200 mm including hard jaws and soft jaws, with chuck key, adjusting key	1 set	Quoted/ Not quoted
C.28.	Additional Soft jaws for above chuck	10 sets	Quoted/ Not quoted
C.29.	Magnetic chuck Dia. 230mm (nominal) with adaptor & complete accessories	1 set	Quoted/ Not quoted
C.30.	Face plate Dia. 240 mm (nominal) with adaptor complete with accessories	1 set	Quoted/ Not quoted
C.31.	Splash guard over clamping device with driver	1 set	Quoted/ Not quoted
C.32.	Drivers for dia. 10-50 mm.	1 set	Quoted/ Not quoted
C.33.	Drivers for dia. 50-80 mm (consist of 1 piece of each for work piece diameter up to max. dia. 10mm, dia. 16mm, dia. 10mm, dia. 40mm, dia. 50mm).	1 set	Quoted/ Not quoted
C.34.	Centres with adapters for work head & tailstock	1 set	Quoted/ Not quoted
C.35.	Dressing attachment and dressing tools for OD and ID grinding wheels (Hinged dressing attachment for ID)	1 set	Quoted/ Not quoted
C.36.	Swiveling Dressing attachment	1 set	Quoted/ Not quoted

C.37.	Radius Dressing attachment	1 set	Quoted/ Not quoted
C.38.	Fliese type Diamond Dressing tool	2 nos.	Quoted/ Not quoted
C.39.	Single point Diamond Dressing tool	5 nos.	Quoted/ Not quoted
C.40.	Machine mounting pads	Required	Quoted/ Not quoted
C.41.	First fill of oils / grease	Required	Quoted/ Not quoted
C.42.	Hydraulic & lubrication oil spare 20 lit	1 set	Quoted/ Not quoted
C.43.	Filter Paper	Required	Quoted/ Not quoted
C.44.	Coolant concentrate	Required	Quoted/ Not quoted
C.45.	Machine Lamp	Required	Quoted/ Not quoted
C.46.	2 sets of manuals (English) for operation, and maintenance and 1 CD ROM	Required	Quoted/ Not quoted
C.47.	Isolation transformer for input power supply (3 Phase).	Required	Quoted/ Not quoted
C.48.	Control system : Contact detection, sensor with complete set	1 set	Quoted/ Not quoted
C.49.	Wearing and spare parts – set of spare parts for 2000 hrs. of operation.	1 set	Quoted/ Not quoted
C.50.	Any other relevant accessories – Please specify	1 set	Please specify

D.	TECHNICAL TERMS & CONDITIONS:	
D.1.	DOCUMENTS TO BE SUBMITTED ALONG WITH OFFER:	
D.1.1.	Machine layout drawing indicating shop floor space required.	Submitted/ Not submitted
D.1.2.	Printed catalogue embedded with all technical specifications of the offered machine and technical write up of the offered machine, shall be supplied along with the offer.	Submitted/ Not submitted
D.1.3.	Country of origin certificate	Submitted/ Not submitted
D.1.4.	Standard acceptance test chart of an identical machine confirming the accuracies as per manufacturer's test plan (B.7.1 to B.7.3)	Submitted/ Not submitted
D.1.5.	Un-priced copy of price bid	Submitted/ Not submitted
D.2.	TECHNICAL DOCUMENTATION: Two sets of following technical documentation in ENGLISH and one soft copy in CD shall be supplied along with machine <ul style="list-style-type: none"> o Operator's manual. o Spare parts manual. 	Submitted/ Not submitted

	<ul style="list-style-type: none">o Maintenance manual for mechanical and electrical systems if any.o Foundation drawings if required.o Electrical wiring diagrams, PLC diagrams & Machine parameter manual.o Preventive maintenance checklist, troubleshooting charts & guidelineso Machine test charts.	
D.3.	PRE-DELIVERY INSPECTION (PDI) & SHIPMENT CLEARANCE	
D.4.	LPSC reserves the right to decide the mode of despatch clearance, which is proposed to be either of the following: Pre-delivery inspection of the equipment shall be carried out at manufacturer's site before dispatch at the presence of LPSC representative. The cost of travel and accommodation of LPSC engineers will be borne by LPSC or Accuracy test results (Clause No. B.7.1 to B.7.3) according to manufacturer's test plan shall be sent to us in advance for giving clearance for shipment of machine.	Complied/ Not Complied
D.4.1.	During PDI the accuracy tests on the machine shall also be performed as per the manufacturers test plan.	Complied/ Not Complied
D.4.2.	Theoretical and practical training regarding machine operation shall be provided.	Complied/ Not Complied
D.4.3.	The equipment shall be despatched only after a despatch clearance given by LPSC.	Complied/ Not Complied
D.5.	MACHINE INSPECTION & ACCEPTANCE TESTS AT PURCHASER'S SITE:	
D.5.1.	Pneumatic supply will be provided by LPSC if necessary, Supplier to indicate the pressure and flow requirements.	Party shall provide details. Please specify
D.5.2.	Earthing requirements, if any, shall be projected to Purchaser in advance.	Party shall provide details. Please specify
D.5.3.	Foundation requirements for the machine including drawings shall be communicated to purchaser well in advance to ready the machine installation site.	Party shall provide details. Please specify
D.5.4.	TRAINING: Training of 2 LPSC personnel on operation, programming and machine maintenance aspects after commissioning and acceptance of machine at LPSC, Valiamala, Thiruvananthapuram, for a period of minimum 5 working days.	Complied/ Not Complied

D.5.5.	ACCEPTANCE: The final acceptance of the machine shall be based on demonstration of accuracy at purchaser's site after installation, by carrying suitable jobs and the successful completion of training at D.5.4.		Complied/ Not Complied
D.6.	WARRANTY: Entire machine inclusive of essential and optional accessories shall be warrantied for a period of 12 months from the date of machine acceptance at purchaser's site (LPSC Thiruvananthapuram).	Party shall comply	Complied/ Not Complied
D.7.	ANNUAL MAINTENANCE CONTRACT: Party shall offer Non-Comprehensive Annual Maintenance Contract (AMC) for the offered machine for a period of 3 years after completion of warranty / extended warranty. Terms and condition as per Annexure II.		
D.7.1.	SCOPE OF AMC: AMC will be placed on supplier's Indian counterpart or Indian agent in Indian Rupees. The quote shall be all inclusive, i.e including for boarding, lodging & travel etc. Party shall confirm and provided offer.		Quoted/ Not quoted
D.7.1.1.	Preventive maintenance shall include two (once in every six months) visits per year. Also, party shall provide scope of work and checklist for preventive maintenance along with the offer.		Complied/ Not Complied
D.7.1.2.	1.Breakdown visits (as and when required in the event of malfunction) shall be quoted as: a. Cost for First day (please don't mention the price in technical bid) b. Cost for subsequent day (please don't mention the price in technical bid) 2.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 (this spare list cost will not be considered for cost comparison).		Quoted/ Not quoted
D.7.2.	SECURITY DEPOSIT (SD) FOR AMC: Before commencing AMC, Party shall provide 3 % Security Deposit (SD) by way of Bank Guarantee for AMC order value till completion of AMC period.		Complied/ Not Complied
D.7.3.	PAYMENT TERMS FOR AMC: Payment will be made by LPSC to the Party, half yearly (once in every six months) on pro rata basis after satisfactorily completion of preventive maintenance of the machine.		Complied/ Not Complied
D.8.	OTHER GENERAL TERMS		
D.8.1.	First fill oil for the machine shall be offered as standard supply	Party shall confirm.	Complied/ Not Complied

D.8.2.	Party shall indicate the delivery period from the date of receipt of technical and commercial clear purchase order.	Party shall specify.	Complied/ Not Complied
D.8.3.	Packing of machine is under party's scope.		Complied/ Not Complied
D.8.4.	The scope of work under party's scope includes supply, erection, installation, commissioning & demonstration of the machine at purchaser's site at LPSC, Trivandrum.		Complied/ Not Complied
D.8.5.	Assembly / integration tools, instruments etc. required for machine installation, commissioning and testing of the machine at purchaser site is under party's scope.		Complied/ Not Complied
D.8.6.	After sales service & spares support shall be provided by the party for a minimum period of 10 years from date of machine acceptance.		Complied/ Not Complied
E.	QUALIFICATION CRITERIA		
Sl No.	Criteria	Documents required	
E.1.	Proof of establishment of company/business for a period of more than 5 years.	<p>The bidder must be a reputed original equipment manufacturer in the business of supply, installation and servicing of cylindrical grinding machine for a period of not less than 5 years.</p> <p>If supply through authorized service provider, supplier shall provide the authorization certificate from OEM for sales and service. The certificate of incorporation or any other relevant certificate to this effect is required to be enclosed.</p> <p>If necessary, the representative of LPSC may visit the Bidder/OEM Ex-Works for evaluation.</p>	
E.2.	Previous experience & copy of performance certificates along with Purchase Orders.	<p>(Machines supplied to educational institutions will not be considered for the evaluation)</p> <p>The respondent shall have a minimum of 5 installations of cylindrical grinding machines of similar or higher capacity machines in ISRO centres or Public sector or Government organizations or any private industries in India.</p> <p>Party shall produce PO copy and Installation & commissioning report for the same.</p>	
E.3.	Declaration that the bidder had not been blacklisted or debarred anywhere in India or abroad by any organization.	A certificate/undertaking on the letter head of the company to the effect that the bidder had not been blacklisted or debarred anywhere in India or abroad by any organization.	
E.4.	Test Chart	Standard acceptance test chart of an identical machine supplied & confirming the accuracies as per manufacturer's test plan (B.7.1 to B.7.3) to be provided along with offer.	

E.5.	<u>Duly filled and completed the following</u> <ul style="list-style-type: none"> • Compliance for technical specifications of the equipment to be supplied (B to D.8.6). • Compliance for commercial terms of tender. 	Party shall provide details.
E.6.	AMC details.	Offer without AMC for three years with price breakup for spares shall not be considered.
F.	INSTRUCTIONS TO TENDERERS:	
F.1.1.	The supplier shall submit their offers in two parts as under: Part-I : Technical bid (un-priced) Part-II : Price bid	Party shall specify that the same have been provided.
F.1.2.	The Technical bid shall contain the following <ul style="list-style-type: none"> ○ Compliance statement as per Clause No. E.5 ○ Detailed Technical specification of basic machine and accessories. ○ Documents specified at Clause No. D.1.1 to D.1.4 ○ Un-priced price bid ○ Documents as per Qualification criteria (Clause No. E.1 to E.4) ○ Offer of AMC ○ Any other commercial terms. 	Party shall confirm.
F.1.3.	The price bid shall contain the cost of the following <ul style="list-style-type: none"> ○ Breakup of cost for basic machine. ○ Essential accessories (Clause No. C.1 to C.51) ○ Warranty ○ Annual Maintenance Contract (Clause No. D.8) ○ Erection ○ Installation & commissioning ○ Training ○ Packing ○ Any other cost detail shall be separately indicated. 	Party shall confirm.
F.1.4.	PRICE COMPARISON: Price comparison during evaluation of offers will be based on total cost of Basic machine with standard accessories, Essential accessories, warranty, AMC charges, erection, installation & commissioning, training charges and charges for packing. Spare list cost for AMC will not be considered for cost comparison.	Party shall note.

Terms and Condition for AMC for Cylindrical Grinding machine

1.0 SCOPE OF WORK

- 1.1 Non-Comprehensive AMC includes 2 preventive maintenance visits (2 days per visit) per year and attending call basis break down maintenance as and when required in the event of malfunction/breakdown of the machine.
- 1.2 The preventive maintenance check list: This portion will be updated based on your offer of scope of work and checklist as per the clause No.D.7.1.1 of the technical specification (Annexure I).
- 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 asses the condition and gets the concurrence of the contact point of LPSC. Base 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 **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%.

5.0 **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. Your service person(s) should strictly comply with our security guidelines.

General Terms and Conditions:**1) Instruction to Foreign Suppliers:-**

- a) Payment term shall be **SIGHT DRAFT / 80%** by irrevocable Letter of Credit and balance 20% by wire transfer after receipt & acceptance of the ordered item. Please confirm acceptance in your offer. If you insist for L/C, and all bank charges shall be to your account. Confirm acceptance.
- b) We are eligible for Customs Duty Concession vide Notification No. 050/2017 539 A-CUSTOMS DTD. 30.06.2017 and necessary Customs Duty Exemption Certificate will be provided on request.
- c) Please specify whether any export clearance is required in case of an order on you.
- d) Warranty/Guarantee applicable for the item shall be mentioned in your offer.
- e) Special Certification for packing Material : as per Plant Quarantine (Regulation of Control into India) Order 2003, Articles packed with packing material of plant origin viz., hay, straw, wood shavings, wood chips, saw dust, wood waste, wooden pallets, Dunn age Mats, wooden packages, coir pith, pear or sphagnum moss etc., will be allowed entry by Customs only with a Phytosanitary Certificate. In case if a Purchase Order, if you propose to us any of the above material for packing such a certificate issued by your local Plant Quarantine Authority shall be furnished.
- f) Confirm whether any Export License is required and for which End User Certificate is to be provided by us, in case of an Order on you. (Enclose format for EUC, if applicable)
- g) Either Indian Agent on behalf of the foreign principles or the foreign principal directly can quote against this order, but not both. In either case an Indian *agent* cannot represent more than one principal against the same tender.
- h) High Sea Sales**
In case any bidder is submitting their offer on High Sea Sale (HSS) basis, the Indian Trader shall submit the following documents **mandatorily** along with the offer. It will be the responsibility of the Party to clear the items from Customs and deliver to us on FOR LPSC, Valiamala basis
 - The Import Export Code of the Indian Trader.
 - Bank Authorisation Code of the Indian Trader.
 - GSTIN of the Indian Trader.

2) Delivery Terms:

FOR : LPSC, VALIAMALA

In case of Foreign vendors : Ex-works (place)/ FOB (port of despatch)

3) Payment Term

- (a) 100% payment shall be made through RTGS within 30 days of receipt and acceptance of the item at our site.
- (b) In case of Foreign orders, Payment term shall be **SIGHT DRAFT / 80% BY IRREVOCABLE LETTER OF CREDIT AND BALANCE 20% BY WIRE TRANSFER AFTER RECEIPT & ACCEPTANCE OF THE ORDERED ITEM.**

4) 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.

5) Please specify IGST percentage, if any, in your offer.

6) 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.

7) Performance Bank Guarantee

Vendor has to submit a PBG from a Nationalised / Scheduled Bank (from a bank of international repute in case of foreign vendors) 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.

8) Security Deposit (only for order value above INR 5 Lakh)

Vendor has to furnish a Bank Guarantee for 3% of the order value (from a bank of international repute in case of foreign vendors) 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).

9) Resolution of Disputes

Any dispute, disagreement or question arising out of or relating to or in consequence of the contract or to its fulfillment, or the validity of enforcement thereof which cannot be settled mutually, or the settlement of which is not herein specifically provided for, shall within 30 (thirty) days from the date either party informs the other in writing that such dispute or disagreement exists be referred to arbitration by the sole arbitrator. The Arbitrator shall be appointed "As per the Indian Arbitration and Conciliation Act 1996" and proceedings will be conducted in Kerala. The Arbitration proceedings shall be conducted in accordance with and subject to the Arbitration and Conciliation Act 1996 (Act 26 of 1996) as amended from time to time and the decision of the Arbitrator shall be final and binding on the parties thereto. Each party shall bear its own cost of preparing and presenting its case. The cost of Arbitration including the fees and expenses of the Arbitrator shall be shared equally by the parties unless the award provides otherwise. Subject to provisions of this clause, the courts at Kerala shall have exclusive jurisdiction. Performance under this Contract shall, however continue during Arbitration proceeding and any payment due or payable by the parties hereto shall be withheld unless any such payment is/or forms a part of the subject matter of the Arbitration proceedings.

10) 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.

11) We only accept offers which are signed by hand. Offers received through fax or email 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 2024038954 01
DUE ON 24.10.2024 at 14.30 hrs IST
OPENING ON 25.10.2024 at 10.30 hrs IST
FOR PROCUREMENT OF HIGH PRECISION MANUAL UNIVERSAL CYLINDRICAL
GRINDING MACHINE - 1 SET
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 2024038954 01
DUE ON 24.10.2024 at 14.30 hrs IST
FOR PROCUREMENT OF HIGH PRECISION MANUAL UNIVERSAL CYLINDRICAL
GRINDING MACHINE - 1 SET
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 2024038954 01 due on 24.10.2024, 14.30 hrs IST for
**FOR PROCUREMENT OF HIGH PRECISION MANUAL UNIVERSAL CYLINDRICAL GRINDING
MACHINE - 1 SET** 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 Nos.

Telephone : 0471 2567571

Your offer should reach us on or before the due date and time i.e. **24th, OCTOBER 2024 at 14.30 hrs IST.** ***Offers received after the due date and time will not be considered.***

Offers received through fax or email will not be considered.

COMPLIANCE STATEMENT FOR COMMERCIAL TERMS**Annexure 5**

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.	ISRO is eligible for Customs Duty Concession vide Notification No. NO. 050/2017 539 A-CUSTOMS DTD. 30.06.2017 [We will provide Customs Duty Concession Certificate for bought out items being imported for manufacturing the ordered items (List of items to be imported with quantities to be enclosed along with offer) OR for Orders placed on Foreign Vendors OR for High Sea Sale orders OR vendors from SEZ]		
4.	<ul style="list-style-type: none">• Installation Charges, if any,• Third Party Inspection (TPI) charges if any, as per tender. (If mentioned as EXTRA OR INCLUDED in your quote, please mention the percentage in Remarks Column).		
5.	Delivery Term :- <ul style="list-style-type: none">• FOR : LPSC, VALIAMALA• In case of Foreign orders: Ex-works (place)/ FOB (port of despatch)		
6.	Freight charges, if any. (If mentioned as EXTRA OR INCLUDED in your quote, please mention the percentage in Remarks Column).		
7.	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")		
8.	Payment Term :- (a) 100% payment shall be made through RTGS within 30 days of receipt and acceptance of the item at our site. (b) In case of Foreign orders, Payment term shall be SIGHT DRAFT / 80% BY IRREVOCABLE LETTER OF CREDIT AND BALANCE 20% BY WIRE TRANSFER AFTER RECEIPT & ACCEPTANCE OF THE ORDERED ITEM.		
9.	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.		

Sl. No. (1)	Description (Commercial terms & conditions) (2)	Compliance to Col. (2) [YES/NO] (3)	Remarks (4)
10.	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.		
11.	Security Deposit (SD) :- (only for order value above Rs.5 Lakh) You have to furnish a Bank Guarantee for 3% of the order value (from a bank of international repute in case of foreign vendors) 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).		
12.	Performance Bank Guarantee (PBG) :- You have to submit a PBG from a Nationalised / Scheduled Bank (from a bank of international repute in case of foreign vendors) 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.		
13.	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.		
14.	Insurance :- Being a Govt. Of India Dept., Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper AIR / SEA / ROAD worthy packing		
15.	Validity of Offer :- (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.		

Sl. No. (1)	Description (Commercial terms & conditions) (2)	Compliance to Col. (2) [YES/NO] (3)	Remarks (4)
16.	<p>In case of foreign orders,</p> <p>(a) Please specify whether any Export clearance is required. If it is required please provide End User Certificate format along with offer.</p> <p>(b) Please specify whether any Agency Commission is involved or not. If 'YES' mention the percentage of Agency Commission. [Agency Commission shall be claimed by the Indian Agent through an Invoice. The Agency Commission shall be paid to the Indian Agent in Indian Rupees worked out on the basis of Telegraphic Transfer buying rate of exchange prevailing on the date of placement of the Purchase order/Contract and within 30 days from the date of satisfactory acceptance of the item at our site. Distributors are not eligible for Agency Commission]</p>		
17.	<p>Special conditions against Indian Agents submitting quotations in Foreign Currency.</p> <p>(a) Foreign Principal's proforma invoice indicating the commission payable to the Indian Agent and nature of after sales service to be rendered by the Indian Agent.</p> <p>(b) Copy of Agency agreement with the Foreign Principal, precise relationship between them and their mutual interest in the business.</p>		

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

Tender No: TM63 2024 038954 01
Due on: 24.10.2024
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
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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)

INSTRUCTIONS TO TENDERERS

1. The Tenderers should submit quotations in duplicate in a sealed envelope, superscribing the Tender No. and due date of opening and complete in all respects with technical specifications, including pamphlets and catalogues.
2. A Proforma Invoice may also be given which should contain the following information:
 - a) The FOB/FCA value, the C & F value for import by Sea freight / Air freight up to and for air parcel post up to should be separately indicated.
 - b) Agency Commission: The amount of commission included in the price and payable to the Indian Agent of the Contractor shall be paid directly to the Indian Agent by the Purchaser in equivalent Indian Rupees on the basis of an ~~invoice~~ ~~from~~ ~~him~~ applying T.T. buying rate of exchange ruling on the date of placement of the Purchase Order and which shall not be subject to any further exchange variations. This payment will be released to the Indian Agent immediately after Customs clearance of the goods in India.
 - c) The Contractor shall invoice only for the net amount payable to him, after deducting the amount of Agency Commission included in the invoice which will be paid to the Indian Agent directly by the Purchaser. However, the Contractor's invoice should separately reflect the amount of commission payable to his Indian Agent.
 - d) The earliest delivery period and country of origin of the Stores.
 - e) Banker's name, address, telephone/fax Nos. & e-Mail ID of the Contractor.
 - f) The approximate net and gross weight and dimensions of packages/cases.
 - g) Recommended spares for satisfactory operation for a minimum period of one year.
 - h) Details of any technical service, if required for erection, assembly, commissioning and demonstration.
3. The FOB/FCA and C & F prices quoted should be inclusive of all taxes, levies, duties arising in the tenderer's country.
4. The offer should be valid for a minimum period of 90 days from the due date of opening of the tender.
5. Samples, if called for, should be sent free of all charges.
6. Late and delayed tenders will not be considered. Quotations by cable must be followed by detailed offers.
7. Offers made by Indian Agents on behalf of their Principals, should be supported by the proforma invoice of their Principals.
8. The details of Import Licence will be furnished in the Purchase Order.
9. The authority of person signing the tender, if called for, shall be produced.
10. Instructions / Operation Manual containing all assembly details including wiring diagrams should be sent wherever necessary in duplicate. All documents / correspondence should be in English language only.
11. The Purchaser reserves the right to accept or reject the lowest or any offer in whole or part without assigning any reason.
12. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser.
13.
 - a) Part shipment is not allowed unless specifically agreed to by us.
 - b) As far as possible stores should be despatched by Indian Flag Vessels / Air India through any Agency nominated by us.
14. Inspection / Test Certificate should be provided for the goods ~~after~~ ~~testing~~ it thoroughly at the Contractor's works. If any inspection by Lloyds or any other testing agency is considered necessary, it shall be arranged by Contractors.
15. Where erection or assembly or commissioning is a part of the Contract, it should be done immediately on notification. The Contractor shall be responsible for any loss/damage sustained due to delay in fulfilling this responsibility.
16. For items having shelf life, those with maximum shelf life should be supplied if order is placed

I. TERMS AND CONDITIONS

1. DEFINITIONS:
 - a. The term 'Purchaser' shall mean the President of India or his successors or assignees.
 - b. 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, representatives, heirs, executors and administrators unless excluded by the Contract.
 - c. The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an officer duly authorized 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 of plant, machinery or equipment of part thereof.
 - d. The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order.

2. **PRICES:**
Tenders offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotations 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 variations.
3. **TERMS OF PAYMENT:**
 - 3.1. Being a Department of the Government of India, the normal terms of payment are by Sight Draft. However other terms of payment like establishment of Letter of Credit may be considered by the Purchaser on such terms and conditions as may be agreed upon.
 - 3.2. The Sight Draft / Letter of Credit will be operative on presentation of the under mentioned documents:
 - a) Original Bill of Lading / Airway Bill
 - b) Commercially certified invoices describing the stores delivered, quantity, unit rate and their total value, in triplicate. The invoice should indicate the discounts, if any, and Agency Commission separately.
 - c) Packing List showing individual dimensions and weight of packages.
 - d) Country of Origin Certificate in duplicate.
 - e) Test Certificate.
 - e) Declaration by the Seller that the contents in each case are not less than those entered in the invoices and the quality of the Stores are guaranteed as per the specifications asked for by the Purchaser.
 - f) Warrantee and guarantee Certificate/s vide Clause 20 herein below
4. **IMPORTANT LICENCE:**
Reference to Import License No. & date and Contract number & date shall be prominently indicated in all the documents vide para 3.2
5. **DEMURRAGE:**
Supplier shall bear demurrage charges, if any, incurred by the purchaser due to delayed presentation of shipping documents as prescribed in para 3.2 to the bankers within a reasonable time (say within 10-12 days) from the date of bill of lading for sea consignments and within 3-4 days from the date of Air Way Bill for air consignments.
6. **ADDRESS OF INDIAN AGENTS:**

7. **GUARANTEED TIME DELIVERY:**
The time for and the date of delivery stipulated in the Purchase Order shall be deemed to be the essence of the Contract. Delivery must be completed within the date specified therein.
8. **INSPECTION AND ACCEPTANCE TEST:**
 - 8.1. The Purchaser's representatives shall also be entitled at all reasonable times during manufacture to inspect, examine and test on the Contractor's premises the material and workmanship of all stores to be supplied under this Contract and if part of the said stores is being manufactured on other premises, the Contractor shall obtain for the purchaser's representative permission to inspect, examine and test as if the equipment were being manufactured on the Contractor's premises. Such inspection, examination and testing shall not release the Contractor from the obligations under this Contract.
 - 8.2. For tests on the premises of the Contractor or of any of his sub-Contractors, the Contractor shall provide free of cost assistance, labour, material, electricity, fuel and instruments as may be required or as may be reasonably needed by the purchaser's representative to carry out the tests efficiently.
 - 8.3. When the stores have passed the specified test, the purchaser's representative shall furnish a certificate to the effect in writing to the Contractor. The Contractor shall provide copies of the test/s certificates to the purchaser as may be required.
9. **MODE OF DESPATCH:**
Generally, stores should be despatched through Indian Flagged Vessel / Air India or through any other Agency nominated by the purchaser. A copy of the invoice and packing list should invariably be kept inside each of the packages.
10. **PORT OF ENTRY:**
Thiruvananthapuram/Chennai/Mumbai/Hyderabad/Bangalore/
11. **CONSIGNEE:**
Purchase & Stores Officer, Stores, (Valiamala, Thiruvananthapuram)
12. **SHIPPING MARKS.**
The mark on the shipping documents such as invoice, bill of lading and on the packages should be as follow:

PURCHASE ORDER NO.
DATED

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
LIQUID PROPULSION SYSTEM CENTRE
DESTINATION: THIRUVANANTHAPURAM / MADRAS / BANGALORE
PORT OF ENTRY: THIRUVANANTHAPURAM / MADRAS / BANGALORE

13. INSURANCE OF THE STORES:
The necessity or otherwise of insurance will be as indicated in the Purchase Order.
14. CONTRACTOR'S DEFAULT LIABILITY:
4.1. The purchaser may upon written notice of default to the Contractor terminate the Contract in whole or in part in circumstances detailed hereunder:
a) If in the judgment of the Purchaser the Contractor fails to make delivery of Stores within the time specified in the Contract/agreement or within the period for which extension has been granted by the Purchaser to the Contractor.
b) If in the judgment of the Purchaser the Contractor fails to comply with any of the other provisions of this Contract.
15. In the event the Purchaser terminates the Contract in whole or in part as provided in Clause 14 the Purchaser reserves the right to Purchase, upon such terms and in such a manner as he may deem appropriate, stores similar to that terminated and the Contractor shall be liable to the Purchaser for any additional costs for such similar stores and/or for liquidated damages for delay as defined in Clause 19 until such reasonable time as may be required for the final supply of stores.
15.1. If this Contract is terminated as provided in Clause 14 the Purchaser in addition to any other rights provided in this Article, may require the Contractor to transfer title and deliver to the Purchaser under any of the following clauses in the manner and as directed by the Purchaser:
a) Any completed stores.
b) Such partially completed stores, drawing, information and Contract rights (hereinafter called manufacturing material) as the Contractor has specifically produced or acquired for the performance of the Contract as terminated. The Purchaser shall pay to the Contractor the Contract price for completed stores delivered to and accepted, by the purchaser and for manufacturing material delivered and accepted.
- 15.2. In the event the Purchaser does not terminate the Contract as provided in Clause 14, the Contractor shall continue the performance of the Contract in which case he shall be liable to the purchaser for liquidated damages for delays set out in Clause 19 until the stores are accepted.
16. REPLACEMENT:
If the stores or any portion thereof is damaged or lost during transit, the Purchaser shall give notice to the Contractor setting forth particulars of such stores damaged or lost during transit. The replacement of such stores shall be effected by the Contractor within a reasonable time to avoid unnecessary delay in the intended usage of the Stores. In case the purchaser agrees, the price towards replacement items shall be paid by the purchaser on the basis of original price quoted in the tender or as reasonably worked out from the tender.
17. REJECTION:
In the event that any of the stores supplied by the Contractor is found defective in material or workmanship or otherwise not in conformity with the requirements of the Contract specifications, the purchaser shall either reject the stores or request the Contractor, in writing, to rectify the same. The Contractor, on receipt of such notification, shall either rectify or replace the defective stores free of cost to the purchaser. If the Contractor fails to do so, the purchaser may at his option either –
a) replace or rectify such defective stores and recover the extra cost so involved from the Contractor, or
b) terminate the Contract for default as provided under clause 14 above, or
c) Acquire the defective stores at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the Purchaser's rights under clause 19.
18. EXTENSION OF TIME:
If the completion of supply of stores is delayed due to reason of *force majeure* such as acts of god, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, etc., the Contractor shall give notice within 15 days to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the Contract.

19. DELAY IN COMPLETION / LIQUIDATED DAMAGES:

If the Contractor fails to deliver the stores within the time specified in the Contract or any extension thereof, the purchaser shall recover from the Contractor as liquidated damages a sum of one-half of one percent (0.5 percent) of the Contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10 percent) of the Contract price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.

20. 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 are found to have developed under proper use arising from faulty materials, 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 parts thereof are faulty.
- c) If in the opinion of the purchaser it becomes necessary to replace or renew any defective stores, such replacements or renewals 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 defects 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) To fulfill guarantee conditions outlined in Clause 20 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser - Bank Guarantee format enclosed) 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 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, and in such cases, the period of 14 months referred to in Clause 20 (b) and (c) shall be asked for guarantee period plus two months.

21. REQUIREMENT OF ADDITIONAL NUMBERS OF THE STORES/SPARE PARTS ORDERED:

The Contractor shall also undertake the supply of additional number of items covered by the order as considered necessary by the purchaser at a later date, the actual price to be paid shall be mutually agreed to after negotiations.

22. PACKING:

- a) The Contractor wherever applicable shall pack and crate all stores for sea / air shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail or sea for space qualified stores. The Contractors shall be held responsible for all damages due to improper packing.
- b) The Contractor shall ensure that each box / unit of shipment is legible and properly marked for correct identification. The failure to comply with this requirement shall make the Contractor liable for additional expenses involved.
- c) The Contractor shall notify the purchaser of the date of shipment from the port of embarkation as well as the expected date of arrival of such shipment at the designated port of arrival.
- d) The Contractor shall give complete shipment information concerning the weight, size, content of each packages, etc.
- e) Transshipment of equipment shall not be permitted except with the written permission of the purchaser.
- f) Apart from the despatch documents negotiated through Bank, the following documents shall also be airmailed to the purchaser within 7 days from the date of shipment by sea and within 3 days in case of air consignments:
 - Commercial Bill of Lading / Air Way Bill / Post parcel Receipt. (Two non-negotiable copies)
 - Invoice (3 copies)

- Packing List (3 copies)
- Test Certificate (3 copies)
- Certificate of Origin.

The Contractor shall also ensure that one copy of the packing list is enclosed in each case

23. Resolution of Disputes:

Any dispute, disagreement or question arising out of or relating to or in consequence of the contract or to its fulfillment, or the validity of enforcement thereof which cannot be settled mutually, or the settlement of which is not herein specifically provided for, shall within 30 (thirty) days from the date either party informs the other in writing that such dispute or disagreement exists be referred to arbitration by the sole arbitrator. The Arbitrator shall be appointed "As per the Indian Arbitration and Conciliation Act 1996" and proceedings will be conducted in Trivandrum. The Arbitration proceedings shall be conducted in accordance with and subject to the Arbitration and Conciliation Act 1996 (Act 26 of 1996) as amended from time to time and the decision of the Arbitrator shall be final and binding on the parties thereto. Each party shall bear its own cost of preparing and presenting its case. The cost of Arbitration including the fees and expenses of the Arbitrator shall be shared equally by the parties unless the award provides otherwise. Subject to provisions of this clause, the courts at Kerala shall have exclusive jurisdiction. Performance under this Contract shall, however continue during Arbitration proceeding and no payment due or payable by the parties hereto shall be withheld unless any such payment is/ or forms a part of the subject matter of the Arbitration proceedings.

24. LANGUAGE AND MEASURES:

All documents pertaining to the Contract including specification, schedule, notice, correspondence, operating and maintenance instructions, drawings or any other writings shall be written in English language. The metric system of measurement shall be used exclusively in the Contract.

25. 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 trade mark and shall at all times indemnify the purchaser against all claims which may be made in respect of stores for infringement of any right protected by Patent, Registration of design or Trade Mark, and shall take all risk of accident or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfillment of the Contract.

26. COUNTER TERMS AND CONDITIONS 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.

27. SECURITY INTEREST:

On each item to be delivered under this Contract, including an item of work in progress in respect of which payments have been made in accordance with the terms of the Contract, purchaser shall have a security interest in such items which shall be deemed to be released only at the time when the applicable deliverable item is finally accepted and delivered to the purchaser in accordance with the terms of the Contract. Such security interest of the purchaser shall constitute a prior charge as against any other charge or interest created in respect of such items by any entity.

28. BANK CHARGES:

While the purchaser shall bear the bank charge payable to his Bankers (State Bank of India), the Contractor shall bear the Bank charges payable to his Bankers including the cheques towards advising amendment commissions.

29. TRAINING:

The Contractor shall, if required by the purchaser, provide facilities for the practical training of Purchaser's engineering / technical personnel from India and for their active association on the manufacturing processes throughout the manufacturing period of the Contract / stores, number of such personnel to be mutually agreed upon.

30. APPLICABLE LAW:

The Contract shall be interpreted, construed and governed by the laws of India.