

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
VIKRAM SARABHAI SPACE CENTRE (VSSC)
THIRUVANANTHAPURAM**

**Tender for Supply of 3D printed & machined of SS316L Housing
component**

Bids to be submitted online

**Tender No.: VSSC/PURCHASE UNIT V (MME PURCHASE)/VS202300416201 dated
13-09-2023**

A. Tender Details

Tender No :	VSSC/PURCHASE UNIT V (MME PURCHASE)/VS202300416201
Tender Date :	13-09-2023
Tender Classification:	GOODS
Purchase Entity :	PURCHASE UNIT V (MME PURCHASE)
Centre :	VIKRAM SARABHAI SPACE CENTRE (VSSC)

Supply of 3D printed & machined of SS316L Housing component

- 1.Only Class-I and Class-II Local suppliers as per Make in India Policy are eligible to participate in the bid.
- 2.Foreign vendors are not permitted to quote.
- 3.The percentage of Local content should be specifically mentioned in the offer, without which it will be summarily rejected.
- 4.Preference will be given to Class-I Local Supplier and in their absence, Class-II Local Suppliers will be considered.
- 5.GST No: Our Goods and Service Tax Registration No 32AAAGV0026J1ZL.
- 6.GSTIN Rate and HSN Code: Vendors registered under GST shall mention their GSTIN applicable rate and HSN code wherever necessary as per GST Law.
- 7.Delivery of the item should be made as per commercial terms attached in the tender.
- 8.Wherever supply, installation, commissioning & training is involved, the bidders shall clearly specify the delivery period for supply of items, time required for installation & commissioning etc.
- 9.Security Deposit (SD): SD will be applicable if the Purchase Order value is above Rs 5 lakhs. SD at the rate of 3 per cent of order value to be submitted in the form of Bank Guarantee valid till successful completion of PO or Contract if awarded.
- 10.Liquidated Damages Clause (LD):The delivery period should be realistic. The delivery period so quoted and mentioned in the order is the essence of the PO or Contract. In case of delay in delivery of material as per the delivery schedule LD at 0.5 per cent per week or part thereof on the undelivered portion subject to a maximum of 10 per cent of the contract value shall be levied Wherever installation and commissioning are also involved the supply will be deemed to have been completed only when the entire Stores is supplied, installed and accepted
- 11.LD, SD clauses are mandatory and offer without acceptance of these clauses will not be considered for evaluation
- 12.Delivery terms: Our standard delivery term is FOR VSSC Trivandrum. In case any vendors offer delivery term of Ex-Works, Packing and Forwarding charges, if any, should be indicated separately

either as a percentage of the quoted rate or as a lumpsum amount.

13.Payment Terms: Our standard payment term is 100 per cent within 30 days of receipt and acceptance of Stores at our site for indigenous orders.

14.All registered MSME vendors are requested to provide their Registration and Ownership details.

15.Vendors may please note that MSMEs are not exempted from the submission of Security Deposit.

16.Vendors shall provide the name address email ID and contact number of authorised official in order to contact in case of need.

17.If any vendor submits forged or false documents along with their bids, the offer of such vendors will be summarily rejected and such bidders will be blacklisted for all future tenders.

18.Tenders are not transferable and in case any vendor is not interested or able to submit their tenders such vendors may send their regret letter.

19.Wherein PFMS Number is not available, please provide IFSC Code Bank Details etc and upload Copy of Personalized cheque leaf in the name of the Purchase Vendor or NEFT Mandate form duly endorsed by the Bank of the Vendor.

20.Copy of latest filed tax returns

21.Details of registration Number, PAN Card, GST, TIN, NSIC, MSME registration etc.

22.The address of registered site works / workshop / etc.

23.Last minute clarification on tender will not be entertained.

24.PO will be placed on technically and commercially suitable lowest offer basis .

25.VSSC has the right to cancel the tender without assigning any reason thereof.

26.Our Bankers: State Bank of India, Thumba Branch, ISRO PO, Trivandrum 695022.

27.Consignee address:Senior Purchase and Stores Officer, Central Stores, RFF, VSSC, ISRO PO, Trivandrum.

28.If a vendor is not able to submit bid against this tender due to any reason, such vendor is requested to post their REGRET message in the eprocurement portal with clear reasons or email to pso1_mme_pur@vssc.gov.in. Non-submission of bids without regrets will be viewed seriously.

29.We are eligible for paying IGST at 5 per cent In line with Notification No. 01/2017-Central Tax (Rate) dated 28-06-2017, as amended by Notification No. 06/2018 Central Tax (Rate) dated 25-01-2018 and Notification No. 24/2018 Central Tax (Rate) dated 31-12-2018 and corresponding SGST Rate Notifications, GST rate for the goods at Sl. No. 243 B: Scientific and technical instruments, apparatus, equipment, accessories, parts, components, spares, tools, mock up and modules, raw material and consumable required for Launch Vehicles and Satellites and Payloads is 2.5% CGST and 2.5% SGST. IGST is charged at 5 % in terms of Notification No. 01/2017-IGST dated 28-06-2017 as amended by Notification No. 07/2018 IGST dated 25-01-2018 and Notification No. 25/2018 IGST dated 31-12-2018, necessary IGST/CGST/SGST concession certificate shall be issued.

A.1 Tender Schedule

Bid Submission Start Date : **13-09-2023 16:00**

Bid Clarification Due Date : **28-09-2023 12:00**

Bid Submission Due Date : **09-10-2023 14:00**

Bid Opening Date : **09-10-2023 14:05**

B. Tender Attachments

Technical Write-up/Drawings

Document : Round tensile drawing

Document : Drawing:

Instructions To Vendors

3. Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA

1. Any bidder from a country which shares a land border with India will be eligible to bid in this tender, only if the bidder is registered with the Competent Authority.

Competent Authority for the purpose of registration shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).

2. Any false declaration and non-compliance of the above would be a ground for immediate rejection of offer or termination of the contract and further legal action in accordance with the laws.

3.

Validity of Registration: Registration should be valid at the time of submission of bids and should be valid at the time of placement of order.

4. PPP Make in India(Non- Divisible Items-Class I & II Local Suppliers Only)

1. A committee (with an external expert from a practicing cost accountant or practicing chartered accountant, if required) constituted for independent verification shall verify the self-declarations & auditor's / accountant's certificates on random basis, as per the requirements.

2. a) The subject item falls under Non-divisible category. b) The offers sought only from Class-I & Class-II local suppliers

3. Definitions: A supplier or service provider, whose goods, services or works offered for procurement, has local content: i. Equal to or more than 50%: Class-I local supplier. ii. More than 20% but less than 50%: Class-II local supplier. iii. Less than or equal to 20%: Non-local supplier.

4. False declarations will be in breach of code of the integrity for which a bidder or its successor's will

not be eligible/debarred for purchase preference from further tenders / pending tenders for two years along with other actions as may be applicable.

5. In case of a complaint received from any local supplier indicating a need for review / verification of Local content of successful vendor / awarded vendor, for accepting a complaint from such complainant (w.r.t the false declaration given by the successful vendor on the local content), a complaint fee of Rs.2Lakhs or 1% of the locally manufactured items being procured (subject to a maximum Rs. 5Lakhs), whichever was higher, to be paid by demand draft by the complainant. In case, the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest.

6. In cases the quoted price is in excess of Rs.1000 Lakhs (including duties, taxes and freight & Insurance) the 'Class-I & II local supplier shall provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in case of suppliers other than companies) giving the percentage of local content.

7. In line with Public Procurement (Preference to Make in India), Order 2017 & its amendments issued by Govt. of India from time to time with a view to support the Indian industries, ISRO has implemented "Purchase Preference Policy". The "Purchase Preference" is applicable for the "Class-I Local Supplier" for the goods/ services/ works covered in this tender, subject to the following terms & conditions:-

8. 'L1' means the lowest technically accepted tender / bid / quotation (i.e. lowest landed cost including duties, taxes and freight & Insurance).

9. 'Local content' means the amount of value added in India (i.e. indigenous items/services added in the offered products/ services/ works) be the total value of the item offered (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties/IGST) as a proportion of the total value (excluding net domestic indirect taxes), in percent.

10. 'Margin of purchase preference' means the maximum extent to which the price quoted by the "Class-I local supplier" above the L1 (landed cost).

11. Purchase Preference Policy:- Goods/Works which are not divisible (ie., required quantity is 1 or as a package) and Services:

a) If L1 is from a 'Class-I local supplier, the contract will be awarded to L1 bidder.

b) If L1 is not from a 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price subject to local supplier's quoted price falling within the margin of purchase preference (i.e. 20%) and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price (inclusive of duties, taxes and freight & insurance).

c) In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local

supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on, and order/contract shall be awarded accordingly. In case where none of the 'Class-I local supplier' within the margin of purchase preference agree to match the L1 price, then the order/contract shall be awarded to the original L1 Bidder.

12. The 'Class-I & II local supplier' should provide a "Self Certification" along with technical offer indicating that the item offered meets the minimum local content [as per Sl. No.(3)] as called for in the tender and provide the percentage of local content along with details of the location(s) at which the local value addition is made. In case of two bid tenders, it is mandatory to indicate compliance to MLC(minimum Local Content) in technical bid zone.

13. The ink-signed certificate shall be provided on vendors letter head along with the offer (in case of online tender, copy of ink-signed certificate shall be uploaded along with your offer under concerned tab. Original in Hard copy shall be produced on request). In case of non-submission of certificate, the purchase preference shall not apply.

14. The margin of Purchase Preference shall be up to 20%.

15. The Public Procurement (Preference to Make in India), Order 2017 issued by Govt. of India indicates that if there are any general or specific restrictive clauses to restrict participation of Indian companies in those countries procurement tenders, reciprocity clause need to be invoked as per the order. Hence, if ISRO or Govt. of India come across that Indian suppliers of an item are not allowed to participate and / or compete in procurement by your government, the bid submitted by you will be not be considered and excluded from eligibility for procurement. Please note this point.

16. Works means all works as per Rule 130 of GFR- 2017, and will also include 'turnkey works'. Works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

5. PROFORMA FOR TERMS AND CONDITIONS OF TENDER where the indent value is < 2.00 lakhs for indigenous stores items

1. (a) Prices are required to be quoted according to the units indicated in the Price Bid Template. When quotations are given in terms of units other than those specified in the tender form, relationship between the two systems of unit must be furnished.

2. Arbitration: In the event of any dispute or difference arising under these terms & conditions or any condition 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 dealt with in accordance with the provisions of Arbitration and Conciliation Act, 1996 along with the provisions of the Arbitration and Conciliation (Amendment) Act, 2015 or any other enactment made by Government of

India.

3. (b) Packing and Forwarding : 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 to the Contractor.

4. Goods and Service Tax and/or other duties/levies, where legally leviable and intended to be claimed, should be distinctly shown separately in the Price Bid Template.

5. Guarantee: Wherever mentioned, the stores offered should be guaranteed for a minimum period of twelve months or any other period as mentioned, against defective stores design, operation or manufacture. For defects noticed during the guarantee period, replacement/repair should be arranged free of cost within a reasonable period of such notification. In cases where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.

6. Payment terms are full payment within 30 days from the date of receipt and acceptance of material ordered. Our Bankers are State Bank of India, Branch, Thumba (place).

7. Price quoted should be on the basis of FOR, VSSC, Thiruvananthapuram/delivery at site. The Purchaser will not pay separately for transit insurance, and the risk and cost during transit shall be exclusively the responsibility of the Contractor and the purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

8. Quotation should be valid for at least 60 days from the date of opening of the tender.

9. Specifications: Stores offered should strictly conform to Purchaser's specifications. Deviations, if any, shall 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 quotation. Test certificate, wherever necessary, should be forwarded along with supplies. Wherever options are called for in our specifications, the tenderer should address all such options, wherever specifically mentioned by us, and the tenderer could suggest changes to specifications with appropriate response for the same. Even in such case, the tenderer should state why he cannot meet our specification/s and why he is suggesting the change.

10. The Contractor shall at all times indemnify the Purchaser against all claims which may be in respect of the stores for infringement of any right protected by Patent, Registration or design or Trade Mark and shall take all risks of accidents or damage which may cause a failure of the supply from whatever causes arising and the entire responsibility for the sufficiency of all means used by him for the fulfilment of the Contract.

11. The Purchaser reserves the right to accept or reject any quotation fully or partly without assigning any reason therefore.

12. 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 not later than the date specified therein, and failure to do so, without adequate justification, may involve cancellation of the Contract at the discretion of the Purchaser

13. Where counter terms and conditions/printed or cyclostyled conditions of sale have been offered by the tenders, the same shall not be deemed to have been accepted by the Purchaser unless the Purchaser's specific written acceptance thereof is obtained.

6. i. Model Certificate for Tenders (For Transitional Cases)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered.

ii. Model Certificate for Tenders

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

iii. Model Certificates for Tenders for Work involving possibility of sub-contracting

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contracting from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contract from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

C. Bid Templates

C.1 Technical Bid - Supply of 3D printed & machined of SS316L Housing component

1. 3D Printing / Additive Manufacturing (Metals , Polymers etc.) SS 316 L housing component with tensile coupons

Item specifications for 3D Printing / Additive Manufacturing (Metals , Polymers etc.)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Description:	3D Printing of Housing in SS316 L grade material (3D Model to be shared on inquiry) (component details attached) Provision of Design change is possible with approval of VSSC to explore feasibility of full 3D printing potential.	Yes / No / Explain		
2	Standard	ASTM F 3184-16	Yes / No / Explain		
3	Details of test coupons to be printed along with Component:	Tensile coupons (Round): Dia 10 x 120 mm - 6 Nos (in X/Y and Z directions) Test coupons for microstructure and hardness: 10 x 10 x 10 mm - 5 Nos (1 number each from all four corners and middle of powder bed)	Yes / No / Explain		
4	Test coupons to be machined to tensile specimens as per Drawing No.:	FQMT/QCM/TTS/RO UND (SI.No.4)	Yes / No / Explain		
5	Delivery Period	2 months from the date of clearance of QAP from VSSC.	Yes / No / Explain		

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
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1	Scope of Work	<p>Manufacture and supply of 3D printed and machined (Powder Bed Fusion process) Stainless Steel 316 L grade component conforming to ASTM F3184-16 standard in Condition A (Stress relieved) . Components shall be shot / grit blasted for achieving surface finish as per requirements specified.</p> <p>Tensile coupons (Round) (4 Nos. each in X , Z and 45 degree directions = 12 Nos. of coupons) shall be machined to the drawings attached for tensile test specimens. 5 Nos of density cuboids to be printed along with the component.</p>	Yes / No / Explain		
2	General guidelines	<p>General guidelines for manufacturing the 3D printed components as specified in ISO/ASTM standards will be applicable (Component details attached)</p>	Yes / No / Explain		
3	Raw material	<p>Party has to source all the raw materials required for realization and supply of these products. Powder shall be procured from OEMs or Manufacturers qualified and approved by VSSC. Source shall be from India/US/Europe only. Powder characterization results shall be submitted to VSSC and clearance shall be obtained prior to production.</p>	Yes / No / Explain		
4	Design Change	<p>The part may be repurposed to improve print-ability with approval from VSSC</p>	Yes / No / Explain		

5	Manufacturing process plan	To be shared with VSSC for confirmation from VSSC	Yes / No / Explain		
6	Heat Treatment Cycle	Condition A (stress relieving (i.e 600 °C for 2 hours followed by air cooling to ambient temperature) as per ASTM F3184-16. Heat treatment has to be carried out in a calibrated furnace approved by VSSC.	Yes / No / Explain		
7	Dimensional inspection	Housing component and test coupons shall be subjected to dimensional inspection for all specified values using conventional measuring instruments and CMM as applicable. Dimensional inspection shall be performed at approved facilities (NABL accredited and approved by VSSC) and using instruments having valid calibration as on date of inspection.	Yes / No / Explain		
8	Testing	A) Test coupons printed along with the brackets shall be machined to tensile specimens as per drawing and sent to VSSC for tensile testing B) VSSC will perform the testing and provide the results. C) On receipt of component, VSSC will perform Radiography, DP testing and Structural testing for qualification.	Yes / No / Explain		

9	Inspection	VSSC engineer may witness critical processing steps and inspection of products as per the approved QAP. Dispatch clearance for the brackets will be issued only after completing the testing of all specimens and test results found to be meeting the specification.	Yes / No / Explain		
10	Identification & Marking	Each Component shall be provided with unique identification number embossed during 3D printing. Each Component shall be completely traceable to the raw material batch, build and post processing batch. All test coupons shall be provided with proper identification for the build number, direction and location and kept in separate covers with proper labeling. Lack of proper identification/ traceability will lead to rejection of the build	Yes / No / Explain		
11	Documents	The following documents shall be provided a. Details of powder used and powder characterization results as per qualification plan b. Product and powder chemical analysis results c. Heat treatment/ Post processing details of each build of brackets and test coupons d. Dimensional inspection report including all the dimensions mentioned in the drawing and surface roughness values (Ra) at these locations.	Yes / No / Explain		

12	Rejection	VSSC will perform the Non-destructive evaluation (RT & DP) and acceptance structural test on 100% brackets and test specimens. Rejections if any shall be replaced by the party without any extra cost.	Yes / No / Explain		
13	Delivery period	Delivery shall be completed within 2 months from date receipt of P.O. or clearance of QAP from department whichever is later.	Yes / No / Explain		

Supporting Documents required from Vendor

1. Certificate of compliance to VSSC purchase terms

2. Local Content Certificate

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Components in 3D printed and stress relieved as per condition A of ASTM F3184-16, shot / grit blasted, holes and interfaces machined.	Yes / No / Explain	
2	Taxes and other costs, if any . GST : (In line with Notification No. 01/2017-Central Tax (Rate) dated 28-06-2017, as amended by Notification No. 06/2018-Central Tax (Rate) dated 25-01-2018 and Notification No. 24/2018 Central Tax (Rate) dated 31-12-2018 and corresponding SGST Rate Notifications, GST rate for the goods at Sl. No. 243 B : Scientific and technical instruments, apparatus, equipment, accessories, parts, components, spares, tools, mock up and modules, raw material and consumable required for Launch Vehicles and Satellites and Payloads is 2.5% CGST and 2.5% SGST. IGST is charged at 5 % in terms of Notification No. 01/2017-IGST dated 28-06-2017 as amended by Notification No. 07/2018 IGST dated 25-01-2018 and Notification No. 25/2018 IGST dated 31-12-2018, necessary IGST/CGST/SGST concession certificate shall be issued)	Yes / No / Explain	
3	Payment Term: (Our Default payment term: For indigenous orders: 100% within 30 days after receipt and acceptance of item at our site.)	Yes / No / Explain	
4	Delivery Terms: FOR VSSC	Yes / No / Explain	
5	Delivery Period: Within 02 months from the date of receipt of PO or QAP clearance from department whichever is later.	Yes / No / Explain	
6	Definitions: A supplier or service provider, whose goods, services or works offered for procurement, has local content: a)Equal to or more than 50% : Class-I local supplier. b)More than 20% but less than 50% : Class-II local supplier. c)Less than or equal to 20% : Non-local supplier. Mention your category.	Yes / No / Explain	

7	Local content means the amount of value added in India (i.e. indigenous items/services added in the offered products/services/works) be the total value of the item offered (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties/IGST) as a proportion of the total value (excluding net domestic indirect taxes), in percent. Indicate extent of Minimum Local Content in offered product/service and location of such value additions.	Yes / No / Explain	
8	The Class-I & II local supplier should provide a Self Certification along with your offer in PDF format indicating that the item offered meets the minimum local content as called for in the tender as mentioned above and provide the % of local content along with details of the location(s) at which the local value addition is made. In case of two part tenders, it is mandatory to indicate compliance to MLC(minimum local content) in technical bid itself. Confirm attachment of Self declaration along with the offer.	Yes / No / Explain	
9	Liquidated Damages (Applicable beyond the delivery period mentioned in this tender @ 0.5% per week or part thereof on the undelivered portion subject to a maximum of 10% of the contract value. Mandatory compliance required).	Yes / No / Explain	
10	Quote Validity; Minimum 90 days from the date of opening of tender.	Yes / No / Explain	
11	PO Ordering Address with Name and Contact Details of Sales Person concerned (e-mail and phone number).	Yes / No / Explain	
12	Any Other Terms	Yes / No / Explain	
13	If a vendor is not able to submit bid against this tender due to any reason, such vendor is requested to post their REGRET message in the eprocurement portal with clear reasons or email to spso_mme_pur@vssc.gov.in. Non-submission of bids without regrets will be viewed seriously	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	3D Printing / Additive Manufacturing (Metals , Polymers etc.) SS 316 L housing component with tensile coupons	2.00 Nos.		-		

Common charges (Applicable for all items)

Freight charge	
P&F Charges	