

Domestic Tender notification for the procurement of Laser deposition head(powder feeding) for additive manufacturing (Last date: 06.04.2024)

Dear Sir/Madam,

This is a domestic tender for the procurement of a laser head for additive manufacturing(refer to Annexure 2 for eligibility criteria). In order to accomplish the goals of a DRDO funded project we plan to acquire a laser deposition head. In the following we list the minimum specifications.

Minimum specifications

- a) Lasertype: It should be possible to integrate the head with a programmable Fiber/Diode Laser
- b) Max. laser power: The maximum permissible power should be 6 KW
- c) Numerical aperture or beam parameter product: 3–20 mm-rad and beam diameters from 100–300 micrometers
- d) Fiber diameter: 100–300 micron (depending on beam diameter requirements)
- e) Needed spot diameter on specimen: 1--2 mm
- f) Minimum needed working distance: 7mm--15mm
(lower edge of the head to specimen):

- g) Fibre-head socket type: QBH/LLK-D
- h) Collimation Focal length : 100--125 mm
- i) Motorized collimation should be possible
- j) Flange for mounting camera should be available
- k) Observation Camera: VGA/Kappa
- k) Focussing focal length : 250--400 mm
- l) Protective window control : Temperature, presence and degree of pollution
Pyrometer temperature measurement and closed-loop control

- m) Cladding nozzle type: Co-axial ring type and Co-axial 4 way nozzle
- n) Closed-loop control for maintaining constant deposition temperature

Other specifications

- a) Warranty of three years for all parts
- b) Spares should be provided for components for the period of warranty
- c) All requirements with respect to cooling and compressed air requirements should be mentioned technical-bid.

Terms and conditions

1. Two-bid system (separate technical and financial bids) in sealed tenders.
2. The technical bid must clearly specify the prescribed technical specifications without including the prices. Please provide in detail the specifications under each subhead and bullet point. Unique characteristics may be highlighted.
3. Vendors who include price information in the technical bids will be automatically disqualified.

4. Technical bids will be opened first. IISc may seek clarifications after opening of technical bids and may ask vendors to perform some example experiments on the samples given by IISc to demonstrate the promised technical specifications. Vendors may be required to give presentations.
5. There are several items that require detailed information to be provided by the supplier. If information is not provided against any of these items, this will disqualify the supplier.
6. After technical evaluation by a committee, vendors may be asked to re-quote in a specific format to facilitate comparison of prices.
7. Price bids of only technically qualified vendors will be considered.
8. **The price must be quoted in INR (Indian Rupee). Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor. The quotations should be on FOR-IISc Bangalore basis in INR only.**
9. The price should be on FOR-IISc Bangalore basis in INR only.
10. IISc also reserves the right to cancel the tender at any time without assigning any reason whatsoever.
11. Indicate delivery period.
12. Order will be placed on lowest bid from technically qualified vendor.
13. Prices for the individual items should be quoted separately.
14. The tender documents can be sent at the following address:
The Chairman
Department of Materials Engineering
Indian Institute of Science, Bangalore 560012
Karnataka (INDIA)
Attn: Prof. Abhik Narayan Choudhury

Annexure 2: Eligibility Criteria

Prequalification criteria:

- 1. The Bidder should belong to either class 1 or class 2 supplier distinguished by their “local content” as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter.**
 - a) Class 1 supplier: Goods and services should have local content of equal to or more than 50%.**
 - b) Class 2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.**
- 2. Purchase preference as defined by the recent edits to GFR (within the “margin of purchase preference”) will be given to Class-1 supplier.**
- 3. MSME can seek exemption to some qualification criteria. IISc follows GFR2017 for such details.**
- 4. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere.**
- 5. Original Invoice, Original Warranty Certificate, Original Test Reports should be produced for all imported items from OEM (Original Equipment Manufacturer) at the time of supply of the equipments.**
- 6. Details of experienced service engineer including contact detail should be provided in tender document.**
- 7. Bidder shall have to submit audited accounts (Balance sheet profit and loss account) of financial year 2015-16, 2016-17 and 2017-18. Audited statement must be signed and stamped by qualified chartered accounted.**
- 8. Bidder must submit Income Tax return for assessment year – 2016-17, 2017-18 and 2018-19.**
- 9. Bidder must submit up to date sales tax or GST clearance certificate.**
- 10. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.**