Request for quote (RFQ) from domestic (India-based) manufacturers

Summary

1.	Tender Number	MTE/PD/22-23/01
2.	Tender Date	12th August 2022
3.	Item Description	Micro Injection Moulding Machine
4	Quantity	1
5.	Tender Type	Two bid system: (a) Technical Bid (Part A) (b) Commercial Bid (Part B)
6.	Place of tender submission	Prof. Prosenjit Das Department of Material Engineering, Indian Institute of Sciences, Bengaluru 560012
7.	Last Date & Time for submission of tender	31th August 2022, 5:00 PM

To whom it may concern

This is a **Request for quote (RFQ) from domestic (India-based) manufacturers only** for procurement of **Micro Injection Moulding Machine** (MIMM) and associated software at the department of **Material Engineering (ME)** Indian Institute of Science, Bangalore.
All interested vendors shall submit a response demonstrating their capabilities to produce the requested equipment to the primary point of contact listed below.

With respect to this tender, the rules laid out by the Government of India in order No. P45021/2/2017-pp-BE-II issued by the Public Procurement Section, Department or Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, dated 4th June 2020 will be followed. As per this order, the government has defined a 'Class-I local supplier' as "a supplier or service provider whose goods, services or work offered for procurement, has local content equal to or more than 50%". A 'Class-II local supplier' is "a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%". **Only Class-I and Class-II local suppliers are eligible to participate in** this open domestic tender. Any "Non-local supplier" i.e. "a supplier or service provider, whose goods, services or works offered for procurement, has local content less than 20%" is ineligible to participate in this tender.
The deadline for submission of proposals is **31st August 2022 by 5:00 PM.** Proposals should arrive at the office of **Prof Prosenjit Das, Department of Material Engineering, Indian Institute of Science, Bangalore, Karnataka 560012, India.**
Direct all questions concerning the acquisition to addresses to **Prof Prosenjit Das** at: prosenjitdas@iisc.ac.in

General Terms and Conditions

1. The quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
2. The quotations should be on FOR-IISc Bangalore basis in INR only.
3. The bid should be submitted in the two-cover system, i.e. technical bid and commercial bid separately in sealed covers. The technical bid should contain all commercial terms and conditions, except the price.
4. The technical bid must contain a point-by-point technical compliance document. The technical proposal should contain a compliance table that should describe your compliance in a "yes" or "no" response against each of the items in the table listed in this RFQ. If "no" the second column should state the extent of deviation. The third column should state the reason for the deviation, if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirement table below.

5. In the commercial bid, the price should be inclusive of all discounts.
6. The vendor should have qualified technical service personnel for the equipment basedin India (preferably in Bangalore).
7. The covering letter should clearly state that whether the vendor is a Class-I or Class-II local supplier. Failing this the bid will be automatically rejected.
8. The vendor to state the percentage of the local content and provide self-certification that the item offered meets the minimum local content requirement. They should also give details of the location(s) at which the local value addition is made.
9. The lead time for the delivery of the equipment should not be more than 3 months from the date of receipt of our purchase order. It should be clearly mentioned in the technicaland commercial bids.
10. All the quotations must be valid for at least 90 days at the time of submission.
11. List of customers and references: **The Bidder should have supplied similar equipment in Central Universities preferably in centrally Funded Technical Institutes (IITs, IISC, IISER, NIT) and National Laboratories. Please provide the details and contact information**.
12. The Bidder must not be blacklisted/banned/suspended or have a record of any service- related dispute with any organization in India or elsewhere. A declaration to this effectshould be provided.
13. Items in addition to that listed in the technical table that you would like to bring to theattention of the committee, such as data sheets, technical plots etc. can be listed at the end of the compliance table.
14. Vendors are encouraged to highlight the advantage of their tools over comparable toolsfrom the competitors.
15. If needed, a meeting for any technical clarifications can be scheduled with the undersigned by sending an email.
16. The Institute reserves the right to accept or reject any bid, or to annul the bidding process and reject all bids, at any time prior to the award of contract without thereby incurring any liability of the affected bidder or bidders.
17. Warranty terms and additional warranty options is a must for all the components. Pleasespecify the service plan like whether the local distributor will address the issue or the parent company.
18. Terms and conditions for the annual maintenance contract beyond the warranty periodshould be mentioned.
19. After the award of purchase order, the vendor must provide an Order Acknowledgementwithin 30 days from the receipt of the Purchase Order.
20. Please quote the price of each optional line item, separately.

Technical requirements: Please note that the requirements listed below are only guidelines. It does not disbar bids that do not meet the criteria listed. Vendors are requested to quote for equipment that meet the criteria to the best extent possible and list deviations. Deviations are NOT an automatic reason for disqualification. They will be discussed by the technical committee prior to making an informed decision.

Micro Injection Moulding Machine (MIMM)

TECHNICAL DATA - Micro Injection Moulding machine		
***PISTON Diameter (*Machines with screw not required)**	mm	12-14
Volume	cc	6.8-9.2
Clamp force	KN	60-65
Max.Clamp Speed	mm/Sec	275-315
Opening Stroke	mm	30-110
Platification rate (PP)	gm/sec	1.5-1.8
Injection speed	mm/sec	40-50
Heater capacity Plasticizing	kW	0.8-1
Heater capacity Chamber	kW	0.4-0.46
Heater capacity -Nozzle	kW	0.1-0.15
Linear Tol. Of Transducer		0.10%
Power	kW	2.5-3
Mold Dimensions	mm	75x75x70
Weight	kg	200
Power Supply	**3Ø-400 V 50/60 Hz +Neutral +Earth**	
Dimensions	m	1-1.1x0.5-0.6x0.7-0.75
Footprint	Sqm	0.5-0.66

Features requirement

1. Suitable for all types of thermoplastic materials up to 420° (PEEK), metals (MIM), ceramic(CIM), wax.
2. Touch screen colour display
3. Easy to consult pages and user friendly display
4. Handles and stores over 1000 tool settings
5. Back-up on USB memory drive
6. LogFile production monitoring
7. Quality control (Cycle time/cushion/injection time/injection pressure /Plastification Time)
8. Automatic shut down in case of alarm
9. De-compression

10. Two injection pressures
11. Possibility for off centre injection
12. Temperature tolerance band
13. PID temperature control
14. Stand-by temperature
15. Speed control on all movements
16. Mould safety
17. 2 clamp speeds
18. Central ejector with up to 9 strokes
19. Speed and pressure control on ejector
20. Removable tie bars
21. Ejector return sensor
22. Easy to consult pages and user-friendly display
23. Multi-lingual
24. Handles and stores over 100 tool settings
25. Part counter – settings for production batches
26. Integrated 4 zone cooling water manifold
27. USB socket
28. Intrusion program
29. Hour meter
30. Sprue break
31. Injection and clamp positions monitored via transducers
32. Electronic transducer for pressure control
33. Inverter for motor speed control
34. Colour touch screen display
35. 4th zone for mould temperature control
36. Machine platens act as bolsters to reduce costs and time for mould construction
37. Outputs for core pull Injection pressure plot graph

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