



राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान

(पूर्व नेशनल इंस्टीट्यूट ऑफ फाउंड्री एंड फोर्ज टेक्नोलॉजी)

हटिया, राँची - 834 003 (झारखण्ड)

**National Institute of Advanced Manufacturing Technology**

(Formerly National Institute of Foundry and Forge Technology)

**Hatia, Ranchi – 834 003 (Jharkhand)**

सं No. – NIAMT/S&P/55/2025-26

दिनांक Date - 11/8/25

Limited Tender Enquiry

To,

LAST DATE FOR RECEIPT OF BID

ON 11/8/25 BY 3:00 PM

OPENING OF BID

ON 11/8/25 AT 3:30 PM

Sir/Madam,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions mentioned overleaf. If you are interested, kindly send your offer by Speed/Registered Post with price and complete terms on or before date mentioned above.

Item No.	Description of Item	Qty.	EMD	Performance Security
1.	Electro Pneumatic Training Kit with PC (Specification enclosed in Annexure -5)	1	₹24,900	5% of P.O. value

## TERMS & CONDITIONS FOR SUBMISSION OF QUOTATION

1. **Rate:** The rate quoted must be net inclusive of packing, forwarding, freight, and all other incidental charges. The stores are required to be delivered at this Institute under the supplier's own arrangement free of additional charges. The risk of damage or loss in transit, if any, will be the suppliers. In case the aforesaid terms are not considered, the acceptable charge payable will be required to be specified clearly at ad variorum or lump sum rate. Manufacturer's price list wherever applicable, should be submitted. Packing, forwarding, freight, entry tax etc., when not included in the price, are reimbursable at actual. If external agencies are employed, their receipts must be enclosed with the invoice.
2. **EMD:** An EMD of Rs.24,900 /- to be submitted online (RTGS/NEFT) in the following Institute a/c

- a. Name of Beneficiary: **National Institute of Advanced Manufacturing Technology (NIAMT)**
- b. Account No.: **2730101006939**
- c. Name of Bank: **Canara Bank, NIFFT CAMPUS Branch,**
- d. Bank Address: **Hatia, Ranchi – 834 003 (Jharkhand)**
- e. IFS Code: **CNRB0002730**
- f. MICR Code: **834015008**
- g. Swift Code: **CNRBINBBCFD**

Bidders registered with MSME for services and upon submitting valid certificate will be exempted from submission of EMD. The details of transaction for EMD viz. Name of bidder firm, Tender Description, Transaction ID Number Transaction date, Amount of Transaction, Name of Bank, Address of Bank shall be furnished by the tenderer on their letterhead separately along with their tender.

3. **Taxes:** Excise Duty and GST should be quoted as separate items. It may be noted that the Institute is exempt and/or entitled for concessional rate. An appropriate certificate in prescribed format will be provided with the Purchase Order, wherever applicable.
4. **Warranty:** Items must be under warranty for minimum **one year(s)**. The quotation must contain the terms of warranty, and extended warranty, if available.
5. **Delivery Period:** The stores are required to be delivered at our location within **30 days** from the date of issue of the Purchase Order. Purchase Order will be sent by post with a scan copy by email. All offers of delivery should be made ex-stock, and a clear note should be inserted in case exstock delivery is not possible.
6. **Quality & Specification of Stores:** The stores offered should be of the best quality available, unless otherwise specified, confirming strictly to the specifications cited. The Institute reserves the right to reject the stores as found unacceptable on these grounds.
7. **Performance Security:** To ensure due performance of contract, Performance Security is required to be submitted by successful bidder has been awarded the contract. The Performance Security will be **5%** of the value of the contract. The Performance Security may be furnished in the form of Account payee, Demand Draft, Fixed Deposit, Bank Guarantee from nationalized bank or online payment. The Performance Security shall remain valid for period 60 days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.
8. **Liquidated Damage:** If a firm accepts an order and fails to execute the order in full or part as per the terms and conditions stipulated therein, it will be open to this Institute to recover liquidated damages from the firm at the rate 0.5% of the value of the undelivered stores per week or part thereof, subject to a maximum of 10% of the value of the undelivered stores. It will also be open to this Institute alternatively, to arrange

procurement of the required stores from any other source at the risk and expense of the firm, which accepted the order but failed to execute the order.

9. **Submission of Quotation:** All quotations must be forwarded in sealed cover addressed to **Asst. Registrar (S&P), National Institute of Advanced Manufacturing Technology, Hatia, Ranchi-834003**, so as to reach within the specified date and time. The reference to the Enquiry No. and the last date for submission must clearly be super-scribed on the sealed envelope. To ensure receipt of quotations in time intending suppliers are advised to mail them sufficiently in advance. If no counteroffer is made in the quotation, it will be taken for granted that the offer is strictly in accordance with the specification and terms and conditions laid down in this enquiry. Quotations may be sent by Speed/Registered Post or courier or delivered in person. There is no provision for giving a receipt if the quotation is delivered in person.
10. **Opening of Quotation:** Quotations received within the scheduled time and date will be opened in the Administrative Building, First Floor at the time mentioned. A firm may send its authorized representative to witness the opening, if it so desires.
11. **Period of Validity:** A quotation shall remain valid for acceptance at least for a period of 180 days from the date of opening.
12. **GST & Income Tax Clearance:** Up-to-date GST & Income Tax Clearance Certificate should be attached with the quotation.
13. **Payment:** Payment will be made online by RTGS/NEFT only normally within 30 days from the date of receipt of the stores in good condition, and the invoice.
14. **Rejection of Offers:** The Institute reserves the right to ignore or reject any or all offer(s) including the lowest one without assigning any reason.

  
Asst. Registrar (S&P)

**SIGNATURE OF TENDERER**

**ALONG WITH SEAL OF THE COMPANY WITH DATE**



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**Annexure – 1**

**PRICE REASONABILITY CERTIFICATE**

This is to certify that we have offered the maximum possible discount to you in our Quotation No. ....dated..... for (Value Rs.) .....

We would like to certify that the quoted price are the minimum and we have not quoted the same item on lesser rates than those being offered to NIAMT to any other customer within last 12 months from the last date of submission of quotation nor we will do so till the validity of offer or execution of purchase order, whichever is later.

**Seal and Signature of the tenderer**



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**Annexure - 2**

Name of Equipment with Model No: .....

Name & Address of Manufacturer: .....

**Price Quoted:**

**A. For Indigenous Equipment:**

- i) Cost of equipment (Rs.): .....
- ii) GST (Rs.) : .....
- iii) Any other charges (Rs.) : .....
- iv) Total cost of equipment (in Rs.) F.O.R, NIAMT, Ranchi. : .....

**B. For Imported Equipment:**

- i) Cost of equipment (In Foreign Currency): .....
- ii) Packing and Forwarding: .....
- iii) CIF Price: .....
- iv) Freight charges up-to Ranchi Airport / Ranchi Railway Station: .....
- v) Insurance (110% of the cost of the equipment): .....
- vi) For NIAMT Ranchi: .....

**Signature of Tenderer with date and seal**



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**Annexure - 3**

**BID PARTICULARS**

1. Name of the Supplier:
2. Address of the Supplier:
3. Availability of demonstration of equipment: Yes / No
4. Tender cost enclosed: Yes/No if yes
5. Online EMD submission information enclosed: Yes / No if Yes  
Transaction ID/No. of Transfer:.....  
Transaction date: .....  
Amount of Transaction: .....  
Name of Bank: .....  
Address of Bank: .....
6. Name and address of the Officer/contact person to whom all references shall be made regarding this tender enquiry

**Name:**

**Address:**

**Ph:**

**Fax:**

**Mobile:**

**Email:**

**Web:**





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**Annexure – 4A**

### **Compliance Statement for the Tender Specifications**

**Tender Ref No.:**

Sl. No.	Check list of documents / Undertakings	Yes / No	Remarks (give explanation if the answer is No)
01.	Is EMD details attached? (if applicable)		
02.	Is the bidder original equipment manufacturer (OEM)/authorized dealer?		
03.	If authorized dealer, recent dated certificate to this effect from OEM, attached or not?		
04.	Undertaking from OEM regarding technical support & extended warranty period.		
05.	Validity of 180 days or not?		
06.	Price Reasonability Certificate enclosed as per format?		
07.	Undertaking from bidder regarding acceptance of tender Terms & Conditions		
08.	Whether list of reputed users (along with telephone numbers of contact persons) for the past three years specific to the instrument attached?		
09.	Does the instrument comply with all the specifications detailed? Attach a separate sheet showing compliance with the specifications and explanations thereto if the equipment varies from the requested specifications.		
10.	Whether free installation, Commissioning and Application Training offered?		
11.	Whether comprehensive onsite warranty offered?		
12.	Whether Annual maintenance after expiry of comprehensive onsite warranty quoted separately?		



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**Annexure – 4B**

**Compliance Statement of Technical Specification**

Sl. No.	Parameter as per Annexure-5	Yes / No	Page No.	Remarks

**Place:-**

**Date:-**

**Authorized Signatory  
Seal of bidders**



Sl. no	Specifications Required	Req Qty
I	<p data-bbox="183 174 758 208"><b><u>Electro Pneumatic Training Kit with PLC:</u></b></p> <p data-bbox="183 246 1244 313">The Electro Pneumatic kit must be a standalone tabletop training kit which should cover Electro pneumatic systems and PLC.</p> <p data-bbox="183 353 422 387">Special conditions:</p> <ul data-bbox="183 387 1268 689" style="list-style-type: none"> <li>• Each pneumatic component should have quick fix arrangement for easy, quick &amp; safe mounting.</li> <li>• The components should be fixed manually on the profile plate without tools.</li> <li>• Each pneumatic component should have pneumatic connectors with size of 1/8"/5mm port size for 4 mm tubing</li> <li>• Each electro pneumatic component should have 4 mm banana connectors with safety protection</li> <li>• The kit should be modular and upgradable so that future investments to higher levels of training are reduced.</li> </ul> <p data-bbox="183 728 646 761">The kit should have following items:</p> <p data-bbox="183 761 1005 795"><b><u>1. Air filter with pressure controller and manometer: - 1 no.</u></b></p> <ul data-bbox="183 795 622 929" style="list-style-type: none"> <li>• Pressure range: 1 - 12 bar</li> <li>• Flow rate: 750 l/min</li> <li>• Filter grade: 40 <math>\mu</math>m</li> <li>• With on/off valve with silencer</li> </ul> <p data-bbox="183 967 678 1001"><b><u>2. Distributor with 6 outputs: - 1 no.</u></b></p> <ul data-bbox="183 1001 1013 1135" style="list-style-type: none"> <li>• Pressure range: 1 - 16 bar</li> <li>• 6 Outputs via non return valve</li> <li>• Pneumatic connection for plastic tubing 4 mm</li> <li>• quick fix secure click on system for mounting on profile plate</li> </ul> <p data-bbox="183 1173 654 1207"><b><u>3. Double acting cylinder: - 2 nos.</u></b></p> <ul data-bbox="183 1207 1181 1408" style="list-style-type: none"> <li>• Piston dia: 20 mm</li> <li>• Stroke length: Maximum 100 mm</li> <li>• Operating pressure: Maximum 1000 kPa (10 bar)</li> <li>• Pneumatic connection for plastic tubing 4 mm</li> <li>• quick fix secure click on swiveling system for mounting on profile plate to enable individual adjustment with M6 T bolt.</li> </ul> <p data-bbox="183 1447 622 1480"><b><u>4. Single acting cylinder: - 1 no.</u></b></p> <ul data-bbox="183 1480 1181 1682" style="list-style-type: none"> <li>• Piston dia: 20 mm</li> <li>• Stroke length: Maximum 50 mm</li> <li>• Operating pressure: Maximum 1000 kPa (10 bar)</li> <li>• Pneumatic connection for plastic tubing 4 mm</li> <li>• quick fix secure click on swiveling system for mounting on profile plate to enable individual adjustment with M6 T bolt.</li> </ul> <p data-bbox="183 1720 566 1753"><b><u>5. Power supply unit: -1 no.</u></b></p> <ul data-bbox="183 1753 1252 1989" style="list-style-type: none"> <li>• Input voltage: 230 <math>\pm</math> 10% V AC (50 Hz)</li> <li>• Output voltage: 24 V DC, short-circuit proof</li> <li>• Electrical assembly mounting single /double row rack to hold electronics modules</li> <li>• Electrical connection output via 4 mm socket</li> <li>• Mounting arrangement to fix with electrical mounting frame and should be able to fix with profile plate</li> </ul> <p data-bbox="183 2027 1029 2060"><b><u>6. Relay unit with three relays, 4 changeover switches: -1 no.</u></b></p> <ul data-bbox="183 2060 526 2094" style="list-style-type: none"> <li>• Contact load: max. 5 A</li> </ul>	1 set

- Cut-off load: max. 90 W
- Pick-up time: 10 ms
- Drop-off time: 8 ms
- Electrical connection output via 4 mm socket
- Mounting arrangement to fix with electrical mounting frame and should be able to fix with profile plate

**7. Signaling unit with an illuminated pressure switch, three illuminated push button, each with a mini bulb: - 1 no.**

- Contact set: 1 makes, 1 breaks
- Contact load: Maximum 2 A
- Power consumption (Miniature bulb): 0.48 W
- Electrical connection output via 4 mm socket
- Mounting arrangement to fix with electrical mounting frame and should be able to fix with profile plate

**8. Limit switch, electrical, actuation via trip cams (from the left): - 1 no.**

- Contact load: maximum 5 A
- Electrical connection via 4 mm socket
- quick fix secure click on swiveling system for mounting on profile plate to enable individual adjustment with M6 T bolt.

**9. Limit switch, electrical, actuation via trip cams (from the right): - 1 no.**

- Contact load: maximum 5 A
- Electrical connection via 4 mm socket
- quick fix secure click on swiveling system for mounting on profile plate to enable individual adjustment with M6 T bolt.

**10. Proximity reed switch: - 2 nos.**

A contactless proximity sensor for attachment to a cylinder for Non-contacting sensing with port cable and an operating status indicator. Protected against polarity reversal, overload and short circuit. Mounting kit for Sensor slid 8.

- Operating pressure: 10 to 30 V (DC)
- Output current: max. 200 mA
- Switching capacity: 6 W (DC)
- Response time (on/off): max. 0,5 ms

**11. 3/2-Way single Solenoid Valve, NC: - 1 no.**

- Pressure range: 3 - 8 bar
- Flow rate: 220 l/min
- Pneumatic connection for plastic tubing 4 mm
- Electrical connection only via integrated 4 mm safety sockets
- 24 V DC power supply
- Pneumatic connection for plastic tubing 4 mm
- quick fix secure click on system for mounting on profile plate

**12. 5/2-Way single Solenoid Valve: - 1 no.**

- Pressure range: 3 - 8 bar
- Flow rate: 220 l/min
- Pneumatic connection for plastic tubing 4 mm
- Electrical connection only via integrated 4 mm safety sockets
- 24 V DC power supply
- Pneumatic connection for plastic tubing 4 mm
- quick fix secure click on system for mounting on profile plate

**13. 5/2-Way double Solenoid Valve: - 1 no.**

- Pressure range: 2 - 8 bar
- Flow rate: 220 l/min

- Pneumatic connection for plastic tubing 4 mm
- Electrical connection only via integrated 4 mm safety sockets
- 24 V DC power supply
- Pneumatic connection for plastic tubing 4 mm
- quick fix secure click on system for mounting on profile plate

**14. Flow control valve with check valve: - 4 nos.**

- Pressure range: 1 - 10 bar
- Flow rate: 200 l/min
- Pneumatic connection for plastic tubing 4 mm
- quick fix secure click on system for mounting on profile plate

**15. 4mm connection cables: Min. 50 cables in diff. length as required and red and blue colour: - 1 set**

- Plugs with rigid protective sleeve and axial socket for safety
- All the connection cables should be with safety measures in place and no exposed pins
- Conductor cross section: 1 mm<sup>2</sup>
- 1000 V CAT II
- Rated current: 16 A

**16. PLC Unit – 1 no.**

- Min. 10 digital inputs each connected with switch which should act as toggle as well as momentary and with 4 mm sockets.
- Min. 8 digital outputs each connected with 4 mm sockets and LED
- The PLC should have minimum 4 IO link masters
- Should support protocols like CANopen, Ethernet and also USB interface
- Mounting arrangement to fix with electrical mounting frame and should be able to use as a tabletop

**17. PLC programming software for above PLC, 12 users: - 1 no.**

- Should supports standard languages (FBD, LD, IL, ST, SFC).
- Should be user-friendly interface with graphical and textual editors.
- Includes libraries for reusable code and modular programming.
- Should offer online debugging, testing, and simulation tools.

**18. Communication cable: - 1 no.**

- RJ45, CAT5
- 2 M length

**19. Aluminium profile plate: 1 no.**

- Anodized aluminum profile plate with grooves on each side
- Size: Min. 1000 x 700 mm
- With ergonomic angled work surface should be able to fix on worktables/benches

**20. Mobile workstation with one drawer unit (vertical): 1 no.**

The Training System is to be used from both sides with high strength metallic (aluminium) profile legs with four heavy-duty lockable castor wheels, MDF or waterproof wooden work surface, grey in colour, and one pedestal drawer units and each drawer unit having at least four drawer inserts for the storage of components, each with handles and individual locks, on metallic full panel drawer slides, and mounting frames with matching dimensions to be attached to each side of the workstation for firmly holding electrical/electronic modules.

Accessories such as storage plate for placing compressor, cable guides for keeping laboratory

cables, and brackets/supports for attaching profile plates, component mounting frames, etc.,

**Dimensions (Approx.)**

- Worktable –Size (approx.) Length 1500 mm X Width 800 mm X Overall height 1700 mm
- Drawer – Overall size of Drawer unit (Approx.) Length 470 mm X Height 780 mm X Depth 590 mm
- Mounting frame for electrical components – 1500 mm wide

**21.Silent Compressor: 1 no.**

Compressor, oil-lubricated, extremely silent (<50 dB), power supply: 230V, 50 Hz, AC, Pressure rating: 8 bar, tank capacity: 25 litres with pressure regulator, pressure gauge, and water separator, power cable. Note: The compressor must be suited for use in classroom

**22. Nature inspired Flower: - 1 no.**

- It should open and close its petals due to external influences such as touch, approach or light.
- The sensor and control technology should be built into the Flower.
- It should have one light sensor and one touch sensor
- It should have a drive unit with stepper motor and control board
- The robotic Flower should have more than 12 petals and a mechanism that allows them to open and close one by one.
- It Should be controlled via WiFi using mobile devices.

**23. Optical proximity sensor: - 1 no.**

- Sensing distance of 70 – 300 mm
- Power supply 10 – 30 V DC
- N/O contact (PNP) starting function
- 360° rotatable, detenting every 15° without changing of quick fix Position
- Connection only via the 4 mm safety connectors integrated in the quick fix quick connector system
- protection against polarity reversal, overload and short circuit.
- quick fix secure click on system for mounting on profile plate

**24. Polyurethane plastic tube, 4 mm: - 15 M**

- Pressure range: 1 - 10 bar
- Size: 4 mm

**25. Polyurethane plastic tube, 8 mm: - 5 M**

- Pressure range: 1 - 10 bar
- Size: 8 mm

**26. Tee connector for 4 mm tube: - 10 nos.**

- Pressure range: 1 - 14 bar, Size: 4 mm

**27. Blanking plug for 4 mm tube: - 10 nos.**

- Pressure range: 1 - 14 bar, Size: 4 mm

**28. Electro Pneumatic & PLC – Hard copy of Textbook & Workbook: - 1 set**

**Certification Required:**

Valid ISO 9001, ISO 14001, TUV, CE Certifications (To be attached with the bid)