



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR – 721 302, INDIA

No. IIT/Aero/Tender/CNC/2018-19

Date: 09-10-2018

Sub: Tender enquiry for CNC Vertical Machining Centre with 4th Axis attachment

Indian Institute of Technology Kharagpur (hereafter called “IIT Kharagpur” or “the Institute”), an Institute of National Importance, invites sealed bids from reputed manufacturers or their authorized Distributors/Dealers (including foreign firms or their Indian representatives) possessing adequate credentials, for supply and installation of a CNC VERTICAL MACHINING CENTRE with 4th AXIS ATTACHMENT along with accessories as detailed in Annexure-I for the Department of Aerospace Engineering, Indian Institute of Technology, Kharagpur, India. This equipment, with its accessories, is for dedicated use in the fabrication of test samples and engineering components related to the academic programmes of the Department of Aerospace Engineering, IIT Kharagpur.

Interested parties may bid under the Two-cover system in accordance with the Technical Specifications given in Annexures I and IA, and General Terms & Conditions and Special Instructions given in Annexures II and III. Bidders are required to submit their details in the format given in Annexure IV along with their technical and price bids. The format for the price bid is given in Annexure VI.

Bidders are required to submit a signed declaration in the format given in Annexure V and a Solvency Certificate in the format given in Annexure VII. A checklist and compliance statement against each item of Annexures I to III is also to be submitted. Kindly refer to the Institute website www.iitkgp.ac.in [link: Tenders] for complete tender details. The same is also available in the Central Public Procurement (CPP) portal [<https://eprocure.gov.in/eprocure/app>]. If there is any corrigendum/addendum, it shall only be published on the Institute’s Website and the CPP Portal.

The tender must be sent in a sealed packet, containing two separate sealed envelopes, one each for the Technical Bid and the Price Bid, along with prescribed tender fee and Earnest Money Deposit (EMD). The packet must be labelled “Tender Notice No.: IIT/Aero/Tender/CNC/2018-19 Dt:09-10-2018 and addressed to The Head, Department of Aerospace Engineering, Indian Institute of Technology Kharagpur, P.O. Kharagpur Technology, PIN 721 302, West Bengal, India **so as to reach him by 03:00 p.m. 15-11-2018.**

The technical bids will be opened on 15-11-2018 at 4.00 p.m. in the Office of The Head, Department of Aerospace Engineering, Indian Institute of Technology Kharagpur. Bidders may send their accredited representatives (at most two persons per bid) to attend this bid-opening meeting. The technical bids will be evaluated first. Price bids will be opened only for those bidders who are found technically qualified after evaluation of the technical bids. The date of opening of the price bids will be intimated later.

For any query pertaining to this tender enquiry document, communication should be addressed to The Head, Department of Aerospace Engineering, Indian Institute of Technology, Kharagpur- 721302. (Telephone: 03222-282241/2, e-mail: dkmaiti@aero.iitkgp.ac.in)

Head
Department of Aerospace Engineering
IIT Kharagpur

Copy to:

1. Institute website
2. CPP portal
3. Notice board
4. Chairman, Tender Committee

**TECHNICAL SPECIFICATIONS FOR CNC VERTICAL MACHINING CENTRE WITH
4TH AXIS ATTACHMENT**

Sl. No	The minimum specifications required for CNC Machining Centre are as mentioned below:
1.	<p>MACHINE DESCRIPTION:</p> <p>1.1 CNC 4 Axis Vertical Machining Center with</p> <p>1.1.1 Vertical axis rotatable Spindle with vertical feed, capable of holding cutter.</p> <p>1.1.2 Horizontal X-Y work table with longitudinal and transverse motion.</p> <p>1.1.3 Automatic tool changer with tool magazine.</p> <p>1.1.4 Fully programmable 4th axis rotary table, interfaced with vertical machining centre, with tailstock, Chuck, drive card and all accessories.</p>
2.	<p>Axis travel and table size</p> <p>2.1 Total Traverse of Linear Axes</p> <p>2.1.1 Min 400 mm in X-Axis.</p> <p>2.1.2 Min 200 mm in Y-Axis.</p> <p>2.1.3 Min 375 mm in Z-Axis.</p> <p>2.1.4 The 4th Axis Rotary Table: Minimum Outer diameter that can be held in Chuck : 100 mm or more.</p> <p>2.2 Horizontal X-Y work table</p> <p>2.2.1 Table size: Minimum 800 x 200 mm.</p> <p>2.2.2 Gap between Spindle nose to Table : Min 100 mm - Max 400 mm.</p> <p>2.2.3 Table Load Capacity: 225 kg or higher value.</p> <p>2.3. Machine Head and Spindle</p> <p>2.3.1. Spindle speed : Infinitely variable spindle speed of 5000 rpm or more.</p> <p>2.3.2. Spindle power min. 1.5KW.</p> <p>2.3.3. Digitally controlled AC Spindle Motor drive.</p> <p>2.3.4. Spindle with hydraulic / pneumatic operated automatic tool changing.</p> <p>2.3.5. Protection against Tool Digging during Power Failure (desirable).</p> <p>2.4 Tool Holding, changing and storage</p> <p>2.4.1 Vertical machining centre with suitable Tool Shank.</p> <p>2.4.2 Tool changing : automatic tool change.</p> <p>2.4.3 Tool storage : At least 10 stations.</p>

3.	<p><u>Applications</u></p> <p>a. It should be possible to carry out at least the following operations on the vertical machining centre</p> <ul style="list-style-type: none"> - Face, shoulder and pocket milling operations, - Drilling, Boring and tapping applications, - All operations like spot facing, counter boring etc., - free form machining with flat end mills and ball end mills, - Metal Engraving (both ferrous and non-ferrous). <p>b. It should be possible to carry out simultaneous 4-axis machining on the vertical machining centre.</p>
4.	<p>4.1. Coolant system</p> <p>4.1.1 Adjustable external coolant nozzles.</p> <hr/> <p>4.2. Axis drives & control – the following features to be present</p> <p>4.2.1. Digitally controlled drive and motors for all axes.</p> <p>4.2.2. Pre-tensioned ball screw support.</p> <p>4.2.3. Feed Rate X/Y/Z Axis : Infinitely variable upto 2.5 m/min or higher value individually along each axis.</p> <hr/> <p>4.3. CNC Control Unit features</p> <p>4.3.1. Siemens/ Fanuc/ Equivalent OEM</p> <p>4.3.2. 4 axes simultaneous controllable. Least increment along X, Y, Z → 0.005mm. Spindle functions S, incl. Spindle Operation. Feed functions f, G-code & M- code. Tool functions T, Tool length and cutter dia compensation G-code. 3D cutter compensation, Tool Load Monitoring (desirable). Interpolations of Tool Life Management (desirable). Standard A] positioning B] Linear interpolation C] Helical D] Involutives E] Polar coordinate F] Cylindrical Rigid tapping/synchronized tapping function. Faster Look Ahead Function. Standard cycles as per ISO std. USB Port for communication. Control Memory Min. 1 GB.</p> <p>4.3.3. LCD colour Monitor with soft keys or touch screen interface.</p> <p>4.3.4. Offline simulation of tool path & digital display of tool position should be possible.</p> <p>4.3.5. Swiveling Panel, waterproof keyboard, mouse and jog dial interface.</p> <p>4.3.6. Feed control potentiometer / interface (10% increments) from 0 – 150%.</p> <p>4.3.7. Spindle speed control potentiometer / interface (10% increments) from 0 – 150%.</p> <p>4.3.8. Emergency brake knob.</p> <p>4.3.9. Spindle load display (desirable).</p>

	<p>4.4. ACCURACY</p> <p>4.4.1 Positioning : +/- 0.02 mm or less.</p> <p>4.4.2 Run out : 0.01 mm run out at Spindle Nose or less (desirable).</p>
5.	<p>Accessories</p> <p>5.1. Fully enclosed splash guard with slide windows.</p> <p>5.2. Fully encapsulated housing with safety type window.</p> <p>5.3. Automatic Tool Magazine for min. 10 tools and Changer with safety – guard.</p> <p>5.4. Leveling pads.</p> <p>5.5. Controllable central lubrication system.</p> <p>5.6. 4th Axis Tilt Rotary Table with platter dia. Minimum 200 mm.</p> <p>5.7. Tailstock for 4th Axis Rotary Table.</p> <p>5.8. 3-Jaw Chuck dia. 200 mm for 4th Axis Rotary Table.</p> <p>5.9. 4-Jaw Chuck dia. 200 mm for 4th Axis Rotary Table.</p> <p>5.10. Rotary Table Center Height : 125 mm Minimum.</p> <p>5.11. Control software including control system for total run of the machine.</p> <p>5.12. CAM software for total run of the machine.</p> <p>5.13. Complete mill-turn kit including software.</p> <p>5.14. Machinist calculator software for CNC Milling machine.</p> <p>5.15. High speed spindle with min speed of 25000 rpm preferably with horizontal mount arm.</p> <p>5.16. Compatible air compressor.</p> <p>5.17. FogBuster or equivalent Coolant System</p> <p>5.18. Digital probing kit for CNC milling machine</p> <p>5.19. Edge finder with analog display for CNC milling machine</p> <p>5.20. plug and play type electronic tool setter kit for CNC milling machine</p> <p>5.21. 5" CNC Vise that can be mounted upright or horizontally.</p> <p>5.22. 5" machinist's vise for CNC milling machine</p> <p>5.23. A starter tool holder kit for CNC milling machine (imperial and metric).</p> <p>5.24. Premium performance semi-synthetic coolant.</p> <p>5.25. Oil for lubrication of the machine's slideways and ball screws. ISO Viscosity 68.</p> <p>5.26. A moderate to heavy-duty near dry machining fluid, applied using mist systems and other minimum quantity lubrication (MQL) equipment.</p> <p>5.27. Hardened Steel Step Jaw Set 5”.</p> <p>5.28. Aluminum Soft Jaw Set 5”.</p> <p>5.29. Super Soft Jaws Kit for vice.</p> <p>5.30. Hardened Steel Multi-V Jaw Set.</p> <p>5.31. Hardened Steel Pin Jaw Set for vice</p> <p>5.32. Parallel Set for vice</p> <p>5.33. Adjustable Work Stop</p> <p>5.34. 1-2-3 Steel Block Set</p> <p>5.35. Digital Caliper</p> <p>5.36. Digital Micrometer</p> <p>5.37. 3 Piece Indicator Set</p> <p>5.38. Stop-Loc Lathe Stop & Milling Vise Setup Tool</p> <p>5.39. Programmable coolant system.</p> <p>5.40. Filter, Regulator, Lubricator (FRL).</p> <p>5.41. Appropriate Pneumatic Hose Kit.</p>

5.42. Tailstock for Standard and 200mm tables.

Tool Accessories

- 5.43. Screw Holder: 1/2", 3/8", 5/16", 1/4", 12mm, 10mm, 6mm.
- 5.44. Suitable collet holder
- 5.45. Suitable collet tap holder
- 5.46. Spring loaded diamond engraver kit including 90 deg diamond bit.
- 5.47. Rotary Broach Kit
- 5.48. Slitting Saw Arbor for 0.5" and 1" saw.
- 5.49. Fly Cutter Kit
- 5.50. Suitable collet with tool holding diameter 1mm, 1.5mm and 2mm to 13 mm with increment of 1mm.
- 5.51. Tension/Compression Tapping Head Kit.
- 5.52. Appropriate Pin Spanner Wrench.
- 5.53. A package of tool holders for CNC milling machine.
- 5.54. 5C Round Collets from 1/16" to 1-1/8" nominal diameters (1/16" increments).
- 5.55. Appropriate 5C Collet Fixture.
- 5.56. Tool accessories, Tap and Drill Dispenser..

Tools

- 5.57. Carbide End Mill Kit. Includes Square, Ball and .030" Radius Carbide End Mills for Aluminum machining.
- 5.58. Carbide End Mill Kit. Includes Square, Ball and .030" Radius Carbide End Mills with TiAlN Coating for Steel machining.
- 5.59. High Speed Steel Jobber Machine Length Drills. TiN Coated. 29 Pieces, 1/16 - 1/2" by 64ths.
- 5.60. 4 Flute Carbide End, regular length, TiAlCN Coated end mill for Stainless Steel :
 - a) 1/8" x 1/8" x 1/2" x 1-1/2" (2 pieces).
 - b) 3/16" x 3/16" x 5/8" x 2" (1 piece).
 - c) 1/4" x 1/4" x 5/8" x 2" (3 pieces).
 - d) 5/16" x 5/16" x 11/16" x 2-1/2" (1 piece).
 - e) 3/8" x 3/8" x 1" x 2-1/2" (3 pieces).
 - f) 1/2" x 1/2" x 1" x 3" (2 pieces).
- 5.61. 5 Flute Carbide Corner Radius Regular Length, TiAlN Coated End Mill
 - a) 1/4" x 1/4" x 5/8" x 2-1/2" x R.015" (2 pieces).
 - b) 1/4" x 1/4" x 5/8" x 2-1/2" x R.030" (2 pieces).
- 5.62. Regular Length Carbide V Engraver.
 - a) 30° x 1/8" x 1-1/2" (1 piece).
 - b) 45° x 1/8" x 1-1/2" (1 piece).
- 5.63. 90° Carbide spot/chamfer drill-mills with shank dia. 1/2" and 1/8" .
- 5.64. Right Hand Boring Bar with shank size 1/2" and appropriate insert tool.
- 5.65. Center Cut End mill tools with inserts (10 pieces) and appropriate tool holder. Cutting diameter 25mm and 17mm.
- 5.66. Polished Fly Cutter carbide insert for Aluminum, Non-Ferrous, Plastic, Cast Iron. (Total 20 pieces) .
- 5.67. Fly Cutter General purpose carbide insert for steel (10 pieces).

	<p>5.68. A starter kit including suitable collets and carbide cutting tools for use with the High Speed Spindle.</p> <p>5.69. Carbide Slitting Saw: 3" x 1" x 1/8" x 60T, 3" x 1" x 3/32" x 60T, 3" x 1" x 1/16" x 60T and 3" x 1" x 1/32" x 60T.</p> <p>5.70. Diamond Slitting Saws.</p> <p>5.71. Spiral point taps made from high vanadium HSS and coated with TICN: M1 to M12, one pieces each with 2 extra pieces for M3, M5 and M6.</p>
6.	<p>Delivery/Shipment</p> <p>6.1 If sourced indigenously, then delivery on site at IIT Kharagpur</p> <p>6.2 If imported, then FCA (source port)</p>
7.	<p>Documentation</p> <p>Each documentation in three sets in English (along with machine delivery)</p> <p>7.1. Detailed layout plan and prospect to be given.</p> <p>7.2. Operating and Programming instruction.</p> <p>7.3. Installation and Commissioning instructions.</p> <p>7.4. Quality Test records.</p> <p>7.5. Maintenance / repair charts.</p> <p>7.6. Preventive maintenance instructions.</p> <p>7.7. Lubrication chart & parameter list.</p> <p>7.8. Requirement/recommendation for stabilized power supply has to be given.</p> <p>7.9. Instruction manual for supplied coolant Concentrate and coolant maintenance.</p> <p>7.10. Detailed invoice and packing list of all items and devices and detailed prospectus of machine and all other accessories enclosed in Respective boxes.</p>
8.	<p>8.1 Installation & commissioning</p> <p>The complete installation and commissioning must be carried out by the supplier at the project (at the final destination/premises). Certificate of acceptance is to be signed by customer and supplier.</p> <p>8.2 Acceptance criteria</p> <p>As a demonstration of the capability of the machine, the successful bidder will have to fabricate the part shown below on a machine of the same model as quoted, out of Aluminium blank. A Solid Works CAD model will be provided. The bidder will have to certify that the part was fabricated on a machine of the same model as quoted.</p>
9.	<p>Training must be provided at final destination place</p> <p>9.1. Operator training 5 days</p> <p>9.2. Programming course 5 days</p> <p>9.3. Maintenance course mechanical, electrical and electronic 5 days.</p>
10.	<p>Service</p> <p>The authorized Service Partner in India (Name & Address) must be certified by manufacturer and shown in the quotation</p>
11.	<p>Warranty</p> <p>The machine with accessories must bear a two year comprehensive on site warranty.</p>

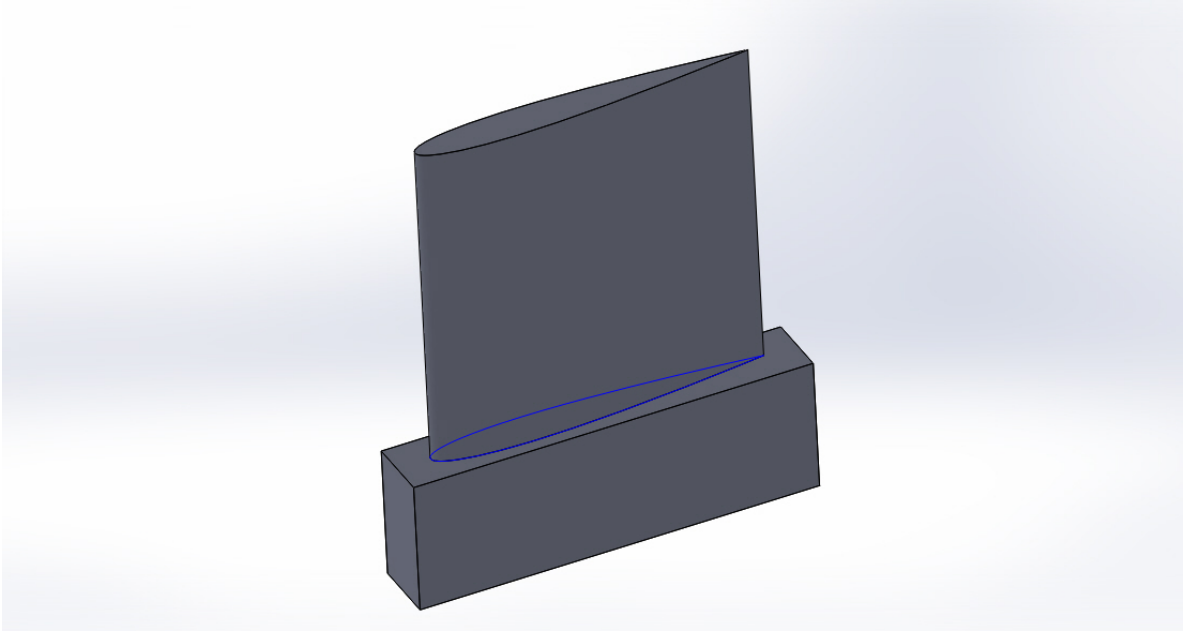


Figure: A small symmetric wing of length 50mm and chord 50mm, section: airfoil NACA0012.

As a demonstration of the capability of the machine, the successful bidder will have to fabricate the part shown above on a machine of the same model as quoted, out of Aluminium blank. A Solid Works CAD model will be provided. The bidder will have to certify that the part was fabricated on a machine of the same model as quoted.

OPTIONAL ITEMS

1. Spare parts

Spares for high wear, high maintenance mechanical and electrical parts such as transmission belts and line fuses, and consumables such as lubricants.

2. Additional two years' warranty

Additional two years' comprehensive on site warranty on the same terms as the original two year warranty.

The vendor must quote for these items. However, IIT Kharagpur may or may not purchase them.

The prices of these optional items will not influence the determination of the lowest bid. That will be based on the prices of the items in Annexure – I only.

GENERAL TERMS AND CONDITIONS

- (1) Price may be quoted in foreign currency for imported items. The bid must be in two parts, Technical and Commercial, in separate sealed envelopes. The technical bid should have a copy of the commercial bid with prices masked. Modules to be supplied by the Indian Agent from indigenous sources must be with ISO 9001 or equivalent certification and unit prices of such modules must be given in INR. The main equipment as well as all additional modules and accessories should have a comprehensive on-site warranty of 2 (two) years from the date of installation and commissioning.
- (2) Only those manufacturers/their Indian Agents are eligible to bid who have supplied and installed at least five such or similar equipment during the past five years, of which three must be in India. Copies of recent user satisfaction certificates from these users and their complete contact details must accompany the bid. IIT Kharagpur reserves the right to verify confidentially the information in this regard from the users.
- (3) Bidders must additionally provide:
 - (a) the name and all contact information of the Indian Agent (if the bidder is a foreign company) who will be responsible for maintaining the equipment during the period under warranty and later during the period under comprehensive maintenance contract (CMC)
 - (b) names and locations of service engineers who are posted in India; the service engineers should have been trained at the Original Equipment Manufacturers (OEM's) own unit.
- (4) While submitting the technical bid, the company must undertake to ensure continued availability of adequate number of technically qualified Service Engineers for the Equipment during the period of supply, installation and throughout the warranty period.
- (5) Period of validity: Bids should remain valid for acceptance for a period of 120 days from the date of opening of the Technical Bid.
- (6) Conditional offers will not be accepted.
- (7) Late Tenders:- Tender received after the due date and time of submission as mentioned below shall not be accepted.
- (8) All Tenders are to be submitted to The Head, Department of Aerospace Engineering, IIT Kharagpur by 03:00 p.m. on 15-11-2018.**
- (9) The person attending the bid opening session should be delegated with appropriate Power of Attorney (duly endorsed by a Notary Public) by the Chief Executive Officer of the Company to sign on behalf of the bidder such documents as may be required. Only two persons on behalf of each bidder will be allowed to participate in the bid opening session.
- (10) A bid once submitted shall be the property of IIT Kharagpur and shall not be returned to the bidder.
- (11) If a bidder submits a bid with false information or tries to canvas or influence the vendor selection process in any way then not only will his bid be rejected but the bidder may also be debarred from participation in future tendering processes at IIT Kharagpur. Materials such as pipes, bricks, sand, stone-chips, cement, paint etc. if required for the installation of the above item will have to be supplied by the vendor free of cost.
- (12) Materials such as pipes, bricks, sand, stone chips, cement, paint etc. if required for the installation of the above item will have to be supplied by the vendor free of cost.
- (13) The Company must be able to provide an all-inclusive Comprehensive on-site Annual Maintenance Contract (CMC) for the equipment beyond the Warranty Period. No advance payment towards CMC without submission of Bank Guarantee is admissible.
- (14) Service during warranty on site should be provided within 48 hours of the lodging of the complaint. Telephonic attendance to the problem should be available.
- (15) Change of Indian agent: Prior intimation is required for this change. The new agent should undertake to submit a fresh Performance Based Guarantee (PBG) first.
- (16) Indian agents of foreign bidders or Indian agents who are bidding on behalf of their foreign principals are to enclose the following documents:
 - (a) Current Sales Tax clearance certificates and PAN number.
 - (b) Banker's Solvency Certificate.

- (c) Summary of audited statement of accounts for the last three years
 - (d) Proof of Enlistment with the DGS&D under the Compulsory Registration Scheme of Ministry of Finance.
 - (e) A declaration that they are accredited agents of the foreign vendor.
- (17) Documents to be furnished by the Indian agent in respect of their foreign principals:
- (a) Foreign Principal's pro forma invoice indicating the commission payable to the Indian agent and nature of after sales service to be rendered by the Indian agent.
 - (b) Certificate from the foreign principal authorising the Indian company to act on their behalf in fulfilling this contract.
 - (c) Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.

INSTRUCTIONS & SPECIAL CONDITIONS

1. GENERAL:

Bidders who are Indian agents of foreign OEMs should furnish a declaration clearly stating that they are accredited agents of the foreign principal. This must be accompanied by a declaration from the principal confirming that they have appointed the Indian agent as their representative in India. The Indian agent must be registered with the DGS&D and must attach a copy of the certificate of registration with the technical bid.

The name of the functionary/official of the firm with whom the purchase order should be placed and his contact information (postal and e-mail addresses and telephone number) must be clearly mentioned in the quotation.

2. DETERMINATION OF THE SUCCESSFUL BIDDER:

Bidders will have to meet the technical criteria laid down in Annexure-I before their price offerings can be considered. Among those bidders who satisfy the technical criteria, normally the one whose prices are lowest for the items listed in Annexure-I will be awarded the order. *Prices quoted against items listed in Annexure-IA (optional items) will not influence the choice of the successful bidder.*

3. DEVIATION FROM SPECIFICATIONS:

It is in the interest of the bidder to study the specifications in the Annexure-I thoroughly before quoting so that, if he makes any deviations, the same are prominently brought out in the body of the tender. If it becomes necessary to add any optional items to the proposed system in order to meet the specifications listed in Annexure-I then the bidder should quote for the total system, including the options required to meet the specifications; otherwise the tender may not be considered at all.

4. PRICE FOR INDIGENEOUS AND IMPORTED ITEMS:

In all cases the prices quoted must include i) installation and commissioning at I.I.T. Kharagpur, ii) comprehensive on site warranty for two years from the date of installation and commissioning. Discounts, if any, should be indicated separately and clearly. Prices quoted should be firm. Clauses in the bid providing for price variation will not be accepted. The unit prices quoted should be for the units appearing in Annexures I & IA and not for any other unit.

For quotes in Indian Rupees (INR), the prices quoted must include delivery on site at IIT Kharagpur.

For quotes in a foreign currency the prices quoted must be FCA (source port). In addition, the quotation must provide the following information:

- i. Name & address of the foreign firm
- ii. Name & country of port of shipment
- iii. Country of origin of stores.

An amount equal to 20% of the quoted price will be added (after conversion to INR) to prices quoted in a foreign currency with delivery terms "FCA (source port)" for comparison with prices quoted in INR with delivery terms "on site at IIT Kharagpur".

Agency commission, if any, will be paid to the Indian agents of the foreign principal in INR on receipt of the equipment and after satisfactory installation and commissioning. Agency commission will not be paid in a foreign currency under any circumstances.

IIT Kharagpur is exempted from the payment of Customs Duties under GOI Notification No.51/96-Customs dt. 23-09-1996. IIT Kharagpur is also eligible for GST@5% through GOI Notification No.47/2017 dt. 14-11-2017. Necessary certificates will be issued as needed and on the request of the successful bidder.

5. ORDER ACKNOWLEDGEMENT AND DELIVERY OF STORES:

The order acknowledgement should be issued by Fax within 3 (three) days of issue of the purchase order.

For goods sourced within India, the stores should be delivered and installation completed within 90 (ninety) days after the issue of the purchase order.

For goods imported from abroad, the stores should be handed over to the freight forwarder within 69 (sixty-nine) days from the date of opening of the letter of credit (LC).

6. PAYMENT TERMS AND PERFORMANCE BANK GUARANTEE (PBG):

For indigenously sourced stores, 90% payment will be made on delivery and successful installation of the item. Successful installation will have to be certified by the Head, Department of Aerospace Engineering. The balance 10% will be released against submission of Performance Bank Guarantee (PBG) of like amount.

For imported items 90% payment will be made on submission of shipping documents. The balance 10% payment will be made by wire transfer on successful installation and commissioning certified by the Head, Department of Aerospace Engineering, and submission of Performance Based Guarantee (PBG) for like amount.

The PBG may be drawn on any nationalized bank and should be valid for the warranty period plus 60 days.

No advance/mobilization support is payable against supply of stores.

In the event of failure to deliver the stores beyond the specified date, liquidated damage @ 1% per month or part thereof in respect of value of stores will be deducted, subject to a maximum of 5%; alternately the order will be cancelled and the undelivered stores purchased from elsewhere at the risk and expense of the successful bidder.

7. BIDDERS SHALL SUBMIT ALONG WITH THEIR TENDER:

- (i) Complete postal and e-mail addresses and telephone numbers for contact persons in the offices of the principals and their Indian agent dealing with this purchase.
- (ii) Name and full address of the OEM's Banker and their SWIFT code.
- (iii) Proof of having ISO 9001 or equivalent certification given by appropriate authorities.

8. EARNEST MONEY DEPOSIT:

A refundable non-interest bearing Earnest Money Deposit (EMD) of Rs. 80,000/- (Rs. eighty thousand only) in the form of bank draft/bank guarantee favouring IIT Kharagpur must accompany the tender. It should be placed in the cover containing the technical bid. A bid without the EMD will be summarily rejected.

Unsuccessful bidders will be refunded their EMD after the tendering process is finalized. The EMD of the successful bidder will be treated as part of the security deposit towards the PBG. If the successful bidder, on being awarded the contract, fails to execute it then his security deposit shall stand forfeited.

9. TENDER FEE:

A non-refundable tender fee of Rs. 1000/- (Rupees one thousand only) in the form of a bank draft in favour of IIT Kharagpur must accompany the tender. It should be placed in the cover containing the technical bid. A bid without the tender fee will be summarily rejected.

IIT Kharagpur will give exemption for submission of tender fee and EMD to bidders who are registered with MSME, NSIC or start-ups as recognised by DIPP per the revised rule 170 of GFR – 2017. Proper and valid documents in this regard must be submitted by the bidders in support of their

claim.

10. GUARANTEE:

The bidder has to declare that the goods sold to the buyer under this contract shall be of the best quality and workmanship and shall be strictly in accordance with the specifications.

11. JURISDICTION:

All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued i.e. Jurisdiction of the Kolkata High Court. Acceptance to this effect is also necessary at the time of opening of the technical bid.

12. ACKNOWLEDGMENT:

Along with the technical bid the bidder must provide a copy of this tender enquiry document duly signed by him on every page, along with a declaration as follows: "We hereby acknowledge that we have gone through the Technical Specifications (Annexure-I), as well as all the points listed under "General Terms and Conditions" (Annexure-II), and under "Instructions and Special Conditions" (Annexure-III), and we agree to abide by them under the penalty of permanent disqualification from tender participation and for related penal actions for non-abidance of the conditions."

13. WARRANTY:

The bidder must be able to supply adequate spares and consumables during the period of comprehensive warranty. He should also be in a position to ensure trouble free service and performance beyond the comprehensive warranty period with requisite spares and accessories. The Institute may enter into a post-warranty comprehensive maintenance contract with the vendor.

14. IMPORTANT POINTS:

- (i) Warranty should be comprehensive on site and be valid for two years, for all items including third party items.
- (ii) The quotation should be typewritten. No overwriting/manual entries are allowed and any overwriting/manual entry will entail rejection of the bid whenever found.
- (iii) One agent may not represent two suppliers or quote on their behalf at the same time.
- (iv) In case of import all the particulars required for opening the Letter of Credit (LC) should be furnished in clear terms.
- (v) After opening of the LC based on our tender, no more request for amendment of the LC will be entertained.
- (vi) The cost of items that may be supplied indigenously and also the cost of installation, if installation is done by the Indian agent, must be stated in Indian Rupees.
- (vii) The name of the functionary/official of the firm with whom the purchase order should be placed and his contact information (postal and e-mail addresses and telephone number) must be clearly mentioned in the quotation.
- (viii) The Director, IIT Kharagpur may accept or reject any or all the bids in part or in full without assigning any reason and does not bind himself to accept the lowest bid. IIT Kharagpur at its discretion may change the quantity/upgrade the criteria/drop any item or part thereof at any time before placing the purchase order.
- (ix) In case of any dispute, the decision of the Director, IIT Kharagpur shall be final and binding on the bidders.
- (x) In case the published date for opening of the tender happens to be declared a holiday, the same will be opened the next working day. The timings will however remain unchanged. Please note that the Institute remains closed on Saturday & Sunday
- (xi) For any queries regarding this bid document, bidders/intending bidders should contact:

The Head
Department of Aerospace Engineering, IIT Kharagpur
P.O. Kharagpur Technology
PIN – 721302, West Bengal, India.
e-mail: dkmaiti@aero.iitkgp.ac.in, phone: +91 3222 282242

TECHNICAL BID DOCUMENT

FORMAT TO BE FILLED BY THE MANUFACTURERS / INDIAN AGENTS (ON BEHALF OF THEIR FOREIGN PRINCIPALS) OR THEIR AUTHORIZED COUNTRY DISTRIBUTORS/ REPRESENTING DEALERS/ REGIONAL AGENCIES. SUBMITTING TENDER FOR SUPPLY OF CNC VERTICAL MACHINING CENTRE WITH 4th AXIS ATTACHMENT FOR IIT KHARAGPUR

1. Name of the Bidder :
2. Status of the Bidder :
(Attach documents, if registered company/partnership/propriety ship)
3. Whether OEM/representing foreign principle :
(attach copy of certificate/authorization)
4. Details of key top official/authorized official :
(attach details)
5. Details of tie-ups for supply/services, if any :
(Attach details, agreements, escalation matrix)
6. Income Tax and Service Tax returns of previous three assessment year (copy) :
7. Financial status of bidder and/or his associates including Annual Report & Balance Sheet/Statement of Account of past three years with Registration of Companies (ROC) receipts duly authenticated by Chartered Accountant :
8. Current list/address of clients where similar material has been supplied and successfully working :
9. Name of the vendor's three largest clients in India to whom similar products and services were extended, with recent satisfaction certificates and contact details & amount of transaction/annual bills to such clients :
10. Name and address of Vendor's bankers and attach a Solvency Certificate from the Bank for a minimum amount of Rs. 20.00 Lakh. :
11. Income Tax Permanent A/c No. (attach copy) :
12. **Details of EMD/Bank Draft No., issuing branch and date:**
13. **Details of Tender Fee/Bank Draft No., issuing branch and date:**

Certified that all above information are correct to the best of my/our information, knowledge and belief.

Dated signature & seal of the Authorized person of OEM/Vendor

Note:- Submit technical bid along with relevant documents in a separate sealed envelope marked "Technical Bid for tender enquiry no. IIT/Aero/Tender/CNC/2018-19 dt.09-10-2018".

DECLARATION

1. I, -----Son /Daughter of Shri -----

Proprietor/Partner/CEO/MD/Director/
Authorized Signatory of M/s. ----- am
competent to sign this declaration and execute this tender document.

2. I have carefully read and understood all the terms and conditions of the tender and hereby convey my acceptance of the same.

3. The information/ documents furnished along with the above application are true and authentic to the best of my knowledge and belief.

4. I/ we/ am are well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.

5. Each page of the tender document and papers submitted by my Company is authenticated, sealed and signed, and I take full responsibility for the entire documents submitted.

Signature of the Authorized Person

Date: -----

Full Name : -----

Place: -----

Company Seal : -----

FORMAT FOR PRICE BID

Format to be filled up by the Agency

Tender No. IIT/Aero/Tender/CNC/2018-19

Dated.....

1. Name of Tender: **CNC VERTICAL MACHINING CENTRE WITH 4th AXIS ATTACHMENT**

2. Name of Firm/Bidder:

3. Address:

4. Phone/ Fax/ Mobile/ Email:

A. Format for quotations in Indian Rupees:

SL. NO (a)	Description (b)	Price (In Rs.) (c)	GST (d)	Total (All Inclusive) (In Rs.) (e = c + d)
1.	<u>CNC VERTICAL MACHINING CENTRE WITH 4th AXIS ATTACHMENT</u> 1. <i>Delivery & installation at IIT Kharagpur.</i> 2. <i>Comprehensive on site warranty of two (02) years.</i>			

B. Format for quotations in foreign currency:

SL. NO (a)	Description (b)	Price
1.	<u>CNC VERTICAL MACHINING CENTRE WITH 4th AXIS ATTACHMENT</u> 1. <i>FCA (source port)</i> 2. <i>Comprehensive on site warranty of two (02) years</i>	

Note:-

1. The lowest bidder will be decided based on the total price of the items in Annexure-I, without consideration of the optional items in Annexure-IA.
2. IIT Kharagpur reserved the right to decide whether to purchase any or all of the optional items listed in Annexure-IA.
3. If IIT Kharagpur decides to purchase any or all of the optional items then the vendor will have to supply the same.
4. Price bid is to be submitted in a sealed envelope separately from the technical bid and marked: "Price Bid, tender enquiry no. IIT/Aero/Tender/CNC/2018-19 dt. 09-10-2018".

**Solvency Certificate
[Format for Solvency Certificate]**

To
The Registrar
Indian Institute of Technology, Kharagpur
Kharagpur - 721302
West Bengal

Solvency Certificate

This is to certify that to the best of our knowledge and information, M/s.....(Address)..... a customer of our bank is respectable and be treated as good for an engagement up to a sum of Rs.....(Solvency amount).....only as on(Date of Certificate)

This Certificate has been issued without any risk and responsibility on the part of the Bank or any of its officers. This certificate is issued at the specific request of the customer.

Yours faithfully,

ForBank
Bank Officer with designation