



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR – 721 302, INDIA

No. IIT/CWISS/Tender/EDM/2017-18/06

Date: 29th January, 2018

Sub: Procurement of Equipment

Indian Institute of Technology Kharagpur, an Institute of National Importance, invites sealed bids from reputed manufacturers or their authorized Distributors / Dealers, (foreign firms or their Indian Representative company) who have adequate credential for supply/installation of **DIE SINKING CNC EDM MACHINE** for the items as per the Annexure – I for the **Central workshop and Instrumentation Service Section (CWISS), Indian Institute of Technology, Kharagpur, India**. All these experimental units (standalone complete setups) are required for dedicated use in **manufacturing of test samples and engineering components**.

Interested parties may submit their sealed bids under Two-cover system as per **Technical Specifications** given at **Annexure I**, and **General Terms & Conditions** and **Special instructions** given at **Annexure II and Annexure III**. Bidders are required to submit their **Details** in the format given at **Annexure IV** along with their technical bids & format for Price Bid at **Annexure VI**. They are also required to submit a signed **Declaration** in the format given at **Annexure V** & Format for Solvency Certificate at **Annexure VII**. A **Checklist** and **Compliance statement** against each item of Annexure I - III thereon severally & individually shall also be submitted. Kindly refer to the Institute website www.iitkgp.ac.in [link: Tenders] for complete tender details.

The tender be sent in a sealed packet, containing two separate sealed envelopes (one each for **Technical Bid and Price Bid**) along with prescribed tender fee and Earnest Money Deposit (EMD) duly superscripted with **Tender Notice No.:** No. IIT/CWISS/Tender/EDM/2017-18/06 Date: 29th January, 2018 to the Office of the **Chairman, Central Workshop and Instrumentation Service Section (CWISS), Indian Institute of Technology Kharagpur, P.O. Kharagpur Technology, PIN 721 302, West Bengal, India** on or before **19-02-2018** by 1.00PM.

For any query pertaining to this bid document, communication be addressed to **Chairman, Central Workshop and Instrumentation Service Section (CWISS)**, Indian Institute of Technology, Kharagpur-721302 [Ph.: +913222-282501/06]

The technical bid will be evaluated first and price bids will be opened only in respect of those OEMs/Vendors, who are found technically qualified after evaluation of Technical bids.

The **Technical bids will be opened on 19-02-2018 at 4.00 p.m.** in the Office of **Chairman, Central Workshop and Instrumentation Service Section (CWISS)**, Indian Institute of Technology Kharagpur.

Copy to:

1. Institute website
2. Notice Board
3. News Paper
4. Chairman, CWISS

**Chairman,
Central Workshop and
Instrumentation Service Section
(CWISS)**

Technical Specifications for CNC Electric Discharge Machining (EDM) Machine

Sl. No	The minimum specifications required for CNC Electric Discharge Machine are as mentioned below:
1.	MACHINE DESCRIPTION: CNC Die Sinking Electric Discharge Machining (EDM) machine with CNC Programmable unit, display, dielectric tank, filter, flushing and recirculation system.
2.	Minimum Specifications required:
2.1	Work tank Work tank internal dimensions: 800 mm x 500 mm x 300 mm or near but higher value Tank front opening, clamping system
2.2	Work table Work table size: 500 mm x 350 mm or near but higher value
2.3	Axis Traverse X axis: 300 mm (minimum) Y axis: 200 mm (minimum) Z axis: 250 mm (minimum) Servo controlled feed movement and precise traverse in all axes.
2.4	Job and Tool: Maximum job height = at least 250 mm Maximum job weight = at least 300 kg at least Maximum tool weight = at least 70 kg at least
2.5	Dielectric Dielectric tank capacity = at least 300 liter 10 µm (or finer) paper filter cartridge In-built Dielectric filtration and recirculation system
2.6	CNC and Pulse Generator: Maximum current should not be less than 50 Amps. MOSFET Type pulse generator Multi-axis precise motion control (linear position measuring system) Adaptive anti-arc and flushing control Simple Menu driven Software (CAD/CAM) should be provided for tool path programming & automated NC code generation, capability of DXF file input. Independent programming for X, Y and Z Other programming facilities like: orbiting motion, mirror image, Do loop, cutter length and radius compensation, subroutine call, scaling, use of variables, canned cycle operation, pitch error and backlash compensation, auto edge and center find, multi cavity and other standard operations in CNC programming Program input, view, display and editing from CNC panel Data input and output through standard devices like RS232 connection, data card for input and output data ,USB port etc. Protection and Safety: Protection, safety and error/alarm indication in cases like - Servo overload, over traverse, short circuit, main over or under voltage, dielectric over-temperature, dielectric low level, dielectric overflow, fire detection - MUST
2.7	Other quality requirements: Maximum material removal rate (Copper-Steel) in the order of 350 mm ³ /min or higher Maximum MRR(Graphite-Steel) in the order of 500 mm ³ /min or higher Best surface finish: 0.3 µm Ra or less Minimum electrode wear: <0.2%
2.8	Power supply 3phase AC power supply, 50 Hz supply
	Other Standard accessories to be supplied with the machine i) Machine Lamp / Lighting equipment ii) Paper filter – 3 additional sets iii) Leveling Screws, nuts, pads etc. as required iv) Wrench/ screw drivers/ Allen keys with tool box as required v) Clamping kit vi) Flushing nozzles - 2 sets spare

	<p>vii) Drill chuck viii) Electrode holder set ix) Magnetic base/chuck</p>
2.9	<p>Other Machine accessories:</p> <p>Machine lubricating oil, dielectric in sufficient quantity to be supplied along with the machine. Dielectric to be supplied in order to run and commission of the machine. Additional Dielectric for a quantity of around tank capacity should also be supplied.</p>
3.	Additional Standard accessories to be delivered with instrument
3.1	Instruction manuals
3.2	Maintenance kit, installation kit, vibration pads, leveling pads
3.3	Telescopic covers and bellows for dust and oil prevention
3.4	Machine detailed description with diagrams and layout
4	DOCUMENTATION: a complete sets of following documents in English are to be supplied with machine
4.1	Instrument operation manual
4.2	Programming manual
4.3	Electrical connections manual
4.4	Preventive maintenance checklist, troubleshooting charts and guides
4.5	Operational manual
4.6	Machine test charts
4.7	Machine assembly drawings / manual
4.8	Documents of all standard accessories, screw drivers or Allen key set as needed
4.9	Spare parts manual, Installation and commissioning manual.
4.10	Position accuracy, repeatability, machined surface quality and standard acceptance certificate to be provided as well as job quality to be demonstrated during Commissioning of the machine.
5	TRAINING:
	<p>During commissioning, supplier's engineers has to provide training to at least five days of associated faculty/staff/scholars members free of cost in the following areas;</p> <p>(i) Machine operation, Tool path programming through CAM software run. (ii) Mechanical maintenance. (iii) Electrical maintenance. (iv) Precautionary measures.</p>
6	ACCEPTANCE TEST AND INSPECTION
6.1	Inspection schedule for acceptance covering all the relevant international standards should be enclosed along with the quotations.
6.2	The test charts / methods adopted for confirming the geometrical accuracies of the Machines are to be furnished by the supplier along with the quotation.
8.3	All the tests required for confirming the geometrical and positional accuracies should be demonstrated to associated research group (faculty and staff or scholars) for acceptance at commissioning site.
7	PACKING AND SUPPLY:
7.1	Packing: as per the standards to suit the mode of transport.
7.2	Supply, delivery, installation and commissioning of the machine: F.O.R., IIT Kharagpur, Kharagpur Campus, West Bengal.

8	INSTALLATION AND COMMISSIONING:
8.1	Supplier should forward overall dimensions, weight of instrument and space requirement, Electrical power facilities requirement. Electrical power requirement details must be communicated at least two weeks before the commissioning of the machine.
8.2	Necessary checks should be carried out for commissioning and the results have to be checked for acceptance norms.
9	WARRANTY:
9.1	Entire machine inclusive of all mechanical and electrical systems/accessories should be warranted minimum for 2 years at least from the date of installation/commissioning and acceptance.

GENERAL TERMS AND CONDITIONS

- (1) Price may be quoted in foreign currency for imported items. Manufacturer/Indian Agents of OEM should submit two-parts bid, Technical and Commercial bid in separate sealed envelopes. The Technical bid should have a copy of 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 Rupees. The main equipment as well as the Modules should have warranty of 2 years.
- (2) Only those manufacturers/their Indian Agents are eligible to quote who have supplied and installed at least three such equipment or similar in India during the past five years. The bids must accompany copies of authentic users certificates on successful installations in India. IIT Kharagpur reserves the right to verify confidentially the information in this regard from the users) and
 - (a) Provide the name of the Indian Agent who will be responsible for maintaining the equipment during the entire period under warranty and CMC
 - (b) Provide names of service engineer who are posted in India; the service engineers should have been trained at Original Equipment Manufacturers (OEM's) own unit.
- (3) 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.
- (4) Period of validity: Bids shall remain valid for acceptance for a period of *Four months*(120 days) from the date of opening of Technical Bid.
- (5) Conditional offer will not be accepted.
- (6) Late Tenders:- Tender received after the due date and time of submission as mentioned below shall not be accepted.
- (7) Indian Agents of Bidders or Indian Agents who are bidding on behalf of their principals are to enclose the following documents:
 - (a) Current Sales Tax clearance certificates and PAN No.
 - (b) Banker's Solvency Certificate.
 - (c) Summary of Audited statement of Accounts for the last three years to be enclosed.
- (8) (a) Name and Address, phone and e-mail address of minimum three clients, out of which at least One should be in India to whom such/similar equipment have been supplied during the past two years should be mentioned.
(b) Customer satisfaction certificate from one such organization is to be attached with the technical bid.
- (9) All Tenders (unless otherwise specified) are to be submitted/handed over to **Chairman, Central Workshop and Instrumentation Service Section (CWISS), IIT Kharagpur-721 302** and acknowledgement to be obtained.
- (10) 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 such documents. Only two persons on behalf of each Company will be allowed to participate/attend the Bid opening session.
- (11) Bid once submitted shall be the property of IIT Kharagpur and shall not be returned to the vendor at any time.
- (12) A bid submitted with false information will not only be rejected but the vendor may also be debarred from participation in future tendering process.

- (13) Canvassing in any form not only invites disqualification in this tender but may also result in debarring the vendor from participation in the future tendering process.
- (14) Materials such as pipe, bricks, sand, stone-chips, cement, paint etc. if required for the installation of the above item and other fixation work will have to be supplied by vendor free of cost.
- (15) The Company must be able to provide an all-inclusive Comprehensive Annual Maintenance Contract for the equipment beyond the Warranty Period. The Institute would like to enter into Comprehensive Maintenance Contract beyond initial warranty Period with the manufacturer. No advance payment towards CMC without submission of Bank Guarantee is admissible.
- (16) The installation must be completed within 15 days from the date of receipt by this institute. The presence of Service Engineer from the principal at the time of installation is essential.
- (17) Service during warranty (on site should be provided within 48 hrs. Previous to that, telephonic attendance to the problem should be available).
- (18) Change of Indian Agent: Prior intimation is required for this change. The new Agent should undertake to submit fresh performance guarantee first.
- (19) Documents to be furnished by the concerned Indian Agents:
 - (a) Foreign Principal's proforma invoice indicating the commission payable to the Indian agent and nature of after sales service to be rendered by the Indian agent.
 - (b) Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.
 - (c) The enlistment of the Indian agent with Director General of Supplies and Disposals under the Compulsory Registration Scheme of Ministry of Finance.

INSTRUCTIONS & SPECIAL CONDITIONS

(To be returned by Tenderer along with the Tender duly signed)

1. GENERAL:

Tenderer(s), who are Indian Agents of OEMs should furnish a clear declaration as follows:
We declare that I am/we are Accredited Agents of the suppliers aboard;

2. DEVIATION FROM SPECIFICATIONS:

It is in the interest of the tenderer to study the specifications in the tender schedule thoroughly before quoting so that, if the tenderer makes any deviations, the same are prominently brought out in the body of the tender. If you need to add any optional items to your system in order to meet our specifications, you are requested to quote for the total including the option required to suit our requirements; otherwise, your tender will not be considered at all.

3. PRICE:

For imported items both F.O.B. & C.I.F. Kolkata price by Air or Sea to be quoted. IIT Kharagpur is exempted from the payment of Customs under 51/96. The Institute if required will provide certificates for Import Items: The order acknowledgement should be issued by Fax within 3 days, and the item should be airlifted within 30 days from the date of receipt of the Letter of Credit copy / copy of DD, as the case may be.

- (i) Agency Commission, if any will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances.
- (ii) The unit prices should be for the same unit as indicated in the Schedule to tender enquiry and not for any other unit.
- (iii) Prices quoted should be for supply, installation and commissioning at I.I.T. Kharagpur.
- (iv) Discount, if any, should be indicated separately / prominently.
- (v) Offers should normally be on fixed and firm price basis. Any clause making price variation will not be acceptable.
- (vi) Where tenderer intends to quote in Indian Rupees, for imported items, the price should be quoted "FOR Destination" basis.
- (vii) Indian Institute of Technology Kharagpur is a Public Funded Academic & Research Institute under the Minister of Human Resource Development and is eligible for GST @ 5% vides Notification No: 47/2017 dated 14/11/2017 by the Ministry of Finance, Department of Revenue.

4. TRANSIT INSURANCE: The Purchaser will not pay separately for Transit Insurance.

5. PAYMENT:

90% payment will be made on submission of shipping documents and balance payment will be made on installation, commissioning and submission of PBG for performance period if the payment is made by LC, otherwise after receipt of stores by any other payment mode. The security deposit so retained may be refunded on submission of Bank Guarantee towards Performance Guarantee valid for 2 years throughout warranty period plus sixty days drawn on any commercial bank.

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 vendor.

6. TENDERERS SHALL SUBMIT ALONG WITH THEIR TENDER:

- i) Complete address and tele links for contact persons in principals and Indian agent offices 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 other equivalent certification given by appropriate authorities.

7. EARNEST MONEY DEPOSIT: TENDERER MUST SUBMIT AN EMD OF RS. 25,000 [Rs. TWENTY FIVE THOUSAND (REFUNDABLE)] IN THE FORM OF BANK DRAFT/BANK GUARANTEE IN FAVOUR OF "INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR". It should be placed in the cover containing of Technical Bid.

8. TENDER FEE: TENDER FEE OF TOTAL RS. 1000/ (Rupees one thousand only) IN THE FORM OF BANK DRAFT MUST ACCOMPANY THE TENDER. It should be placed in the cover containing the Technical Bid.

9. GUARANTEE:

The tendered 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.

10. 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 KOLKATA HIGH COURT. Acceptance to this effect is also necessary at the time of opening of Technical Bid.

11. ACKNOWLEDGMENT:

It is hereby acknowledged that we have gone through all the points listed under "Instructions & Special Conditions" outlined above, and those in the accompanying note on "Important Conditions", and we agree to abide by them under the penalty of permanent disqualification for Tender participation and for related penal actions for non-abidance of the conditions.

13. Interested vendors must be able to supply adequate spares and consumable during one year warranty. Vendor should also ensure trouble free service and performance for another two years beyond one year Comprehensive Warranty Period with adequate spares and accessories.

SIGNATURE OF TENDERER
ALONG WITH SEAL OF THE
COMPANY WITH DATE

NOTE: ONE AGENT CANNOT REPRESENT TWO SUPPLIERS OR QUOTE ON THEIR BEHALF AT ONE TIME. In case of import all the particulars required for opening Letter of Credit (L/C) should be furnished in clear terms. After opening of L/C, based on our tender, no more request for amendment of L/C will be entertained. Total price including supply, installation and commissioning at I.I.T., Kharagpur, should be quoted. The cost of items that may be supplied from indigenous resources and also installation part if installation is done by Indian Agents should be stated in Indian Rupees.

1. In case of Import, bidders are requested to quote FOB price mentioning Freight & Insurance charges separately. No Ex-Works pricing is considered.
2. Warranty should be valid for one year for all items including third party items.
3. Quotations should be submitted in Separate Sealed Cover (with Sealing Wax). The quotation should be in typed format. No manual entries are allowed and any manual entry will entail rejection at the opening stage itself.
4. Before submitting vendor should ensure that they have submitted the following in the technical bid the documents as mentioned hereunder: Technical Literature, Specification documents, **Point-by-point Compliance Statement**, General Terms & Conditions, Acceptance of Kolkata High Court Jurisdiction, Name and address of 5 organizations of which 1 must be India where the OEM has installed 1 such equipment in the last 2 years and a copy of Price bid with prices masked.

The Commercial bid shall have all the commercial documents, agreements and Price bid. Prices should be given component wise to enable the Institute to decide the final configuration.

Important :

1. The institute 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. The Institute at its discretion may change the quantity/upgrade the criteria/drop any item or part thereof at any time before placing the Purchase Order.
2. In case of any dispute, the decision of the Registrar of this Institute shall be final and binding on the Bidders.
3. For any query pertaining to this Bid document correspondence may be addressed to :-

The Chairman

Central Workshop and Instrumentation and Service Section (CWISS)

Indian Institute of Technology, Kharagpur-

721302 [Ph.: 91-3222- 282501/282506]

N.B.: In case the due date for opening tender happens to be a holiday, the same will be opened on the next working day. The timings will however remain unchanged. Please Note that the Institute remains closed on Saturday & Sunday.

TECHNICAL BID DOCUMENT**FORMAT TO BE FILLED BY THE MANUFACTURERS / INDIAN AGENTS (ON BEHALF OF THEIR FOREIGN PRINCIPLES) OR THEIR AUTHORIZED COUNTRY DISTRIBUTORS/ REPRESENTING DEALERS/ REGIONAL AGENCIES, SUBMITTING TENDER FOR SUPPLY OF Flow Rate Measurement Unit, Reynolds number Measurement Unit, Jet Force Measurement Unit, Pipe Friction Measurement Unit and Vortex Formation and Visualization Setup FOR IIT KHARAGPUR**

1. Name of the Tenderer :
2. Status of the Tenderer :
(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, to whom similar products and services were extended & 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:**

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: This is to be submitted in a separate sealed envelope super scribing "TECHNICAL BID", Notice inviting Tender No. IIT/CWISS/Tender/WEDM/2014-15/06 Dated: 10th March, 2015 and name of the bidder. All technical documents like literature, catalogues etc., are to be put in the same envelope. Price bid of that company/firm only will be opened which do technically qualify, for further consideration. **Attach all relevant documents in the same serial order as above, properly indexed, duly signed and sealed.**

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..... Dated.....

1. Name of Tender: DIE SINKING CNC EDM MACHINE

2. Name of Firm/Bidder:

3. Address:

4. Phone/ Fax/ Mobile/ Email:

SL. NO (a)	Description (b)	Unit Basic Price (In Rs.) (c)	GST (d)	Total (All Inclusive) (In Rs.) (e = c + d)
1.	<u>DIE SINKING CNC EDM MACHINE</u>			

SL. NO (a)	Description (b)	FOB (Source Port)	C.I.F (Kolkata Airport)
1.	<u>DIE SINKING CNC EDM MACHINE</u>		

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

केंद्रीय कार्यशाला तथा उपादान सेवा प्रखंड

CENTRAL WORKSHOP AND INSTRUMENTS SERVICE SECTION



भारतीय प्रौद्योगिकी संस्थान, खड़गपुर
Indian Institute of Technology, Kharagpur

No. IIT/CWISS/Tender/EDM/2017-18/06

Date: 29th January, 2018

Sub: Press advertisement.

The following text along with a soft copy is sent herewith for publication in the 1. Indian Express (in all editions) 2. Indian Trade Journal, 3. Central Public Procurement Portal (CPPP) (Publication of Tender Enquiry on CPPP is mandatory from 01.04.2012 vide MHRD Order No.F.No.22-5/2011-TS.I dated 19.01.12.

This has approval of the Competent Authority.



INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR – 721 302, INDIA

Tender Notice No. IIT/CWISS/Tender/EDM/2017-18/06 Date: 29th January, 2018

Sealed bids are invited for the Procurement of "**DIE SINKING CNC EDM MACHINE**" for the **Central Workshop and Instrumentation Service Section (CWISS)**, Indian Institute of Technology, Kharagpur, India.

Tender document and details be kindly seen and downloaded from the Institute website www.iitkgp.ac.in (link: tenders).

Last date for submission of sealed bids is 19-2-2018, by 1.00 pm.

Chairman
Central Workshop and Instrumentation
Service Section (CWISS)

A hard copy and a soft copy is provided.

Chairman
Central Workshop and Instrumentation
Service Section (CWISS)

To
The Assistant Registrar (E)