

Cryogenic Engineering Centre
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

INVITATION FOR TENDER

No: IIT/CRYO/ENQ/CEM/TKN/CNC-EDM Drill/2018-19/01

Date: 16-11-2018

Sealed tenders are invited in Two-bid System in two separate sealed envelopes (one for Technical specifications and the other for Commercial offers) from eligible Indian manufacturers/suppliers or foreign manufacturers through their Direct Indian Agents for the supply of the following equipment.

If any Indian Agent quotes on behalf of Foreign Principal, in that case, as per GFR Rule, vendor registration number from DGSD under Ministry of Commerce, Government of India, and copy of business agreement are to be submitted along with quotation (in the Envelope containing the Technical Bid) failing which the quotation would not be considered.

- Both the envelopes must be sealed and should clearly be marked on top of envelope about type of envelope (i.e., technical/price bid), tender reference no. and name of agency submitting the bid. The technical bid should not have any price indication.
- These two envelopes, mentioned above, must be in a larger envelope with tender reference number and name of the agency clearly written over it.
- Bids, those are not following two-bid system, will be cancelled.

Please send offers, along with descriptive catalogue/brochure. The validity of the bid should be at least 120 days from the last date of submission. Please ensure that your quotation reaches this office not later than **17.12.2018, 12.00 noon** at the following address:

Head of the Centre
Cryogenic Engineering Centre
Indian Institute of Technology Kharagpur
Kharagpur 721302, West Bengal, India
Kind Attention: Dr. T. K. Nandi

Last Date of Submission of Quotation: 17.12.2018 12.00 noon

Validity: 120 days from the last date of submission

Date & Time of Opening the Tender: 17.12.2018 at 15:00 hrs

CNC EDM drill machine

Technical specifications

Sl. No.	Description	Parameter
1.	The equipment	CNC EDM drill machine
2.	Work table size	600 x 450 mm
3.	Minimum X, Y and Z axis travel	400, 300 and 300 mm
4.	Maximum X,Y and Z axis feed rate	1000 mm/min
5.	Resolution of X,Y and Z axes	5 micron
6.	Electrode diameter	0.3 to 3 mm
7.	Max. drill depth	300 mm
8.	Input power supply	AC 415 V, 50 Hz, 3 Phase
9.	Job material	Steel, brass, copper, aluminum etc.
10.	Maximum work piece weight	200 Kg on work table
11.	Maximum work piece height	300 mm
12.	safety	Built in safety features such as software, hardware and mechanical limit switches
13.	Effective debris removal with additional wash away port near drilling point	Should be provided
14.	Programmable axes	X,Y,Z,W
15.	Simultaneous controllable axes	X,Y,W
16.	Display	High quality display with a minimum 10 inch TFT color monitor.
17.	I/O of program and data transfer	Ethernet, USB port and CF card
18.	Minimum programming increment	1 micron
19.	Minimum Program/data store capacity	3 MB
20.	Universally accepted G code programming	Should be provided
20.	Electronic hand wheel	For manual axes movement
21.	Panel Air conditioner for CNC system	Should be provided
22.	Dielectric system:	(i) Dielectric: DM water

		<p>(ii) Minimum storage tank capacity: 50 litres</p> <p>(iii) Pump type: Direct drive plunger pump with stainless steel body</p> <p>(iv) Dielectric filtration system to recycle the dielectric</p> <p>(v) Non-corrosive dielectric tank material</p>
23.	Machining	<p>(i) All four axes should be programmable</p> <p>(ii) Auto sensing of job surface before starting drill operation</p> <p>(iii) Multiple drill positions should be programmable</p> <p>(iv) 4 axes digital read outs with 5 micron resolution on LCD display</p>
24.	Consumables	<p>i) Electrodes for drilling brass, SS, MS, Aluminum etc.:</p> <p>0.3 mm dia, 400 mm length, 100 Nos.</p> <p>0.4 mm dia, 400 mm length, 100Nos.</p> <p>0.5 mm dia, 400 mm length, 100 Nos.</p> <p>0.6 mm dia, 400 mm length, 50 Nos.</p> <p>0.7 mm dia, 400 mm length, 50 Nos.</p> <p>0.8 mm dia, 400 mm length, 50 Nos.</p> <p>0.9 mm dia, 400 mm length, 50 Nos.</p> <p>1.0 mm dia, 400 mm length, 50 Nos.</p> <p>1.5 mm dia, 400 mm length, 50 Nos.</p> <p>2.0 mm dia, 400 mm length, 50 Nos.</p> <p>2.5 mm dia, 400 mm length, 50 Nos.</p> <p>3.0 mm dia, 400 mm length, 50 Nos.</p> <p>ii) Copper Electrodes</p> <p>0.3 mm dia, 400 mm length, 10 Nos.</p> <p>0.4 mm dia, 400 mm length, 10 Nos.</p> <p>0.5 mm dia, 400 mm length, 10 Nos.</p> <p>0.6 mm dia, 400 mm length, 10 Nos.</p> <p>0.7 mm dia, 400 mm length, 10 Nos.</p> <p>0.8 mm dia, 400 mm length, 10 Nos.</p> <p>0.9 mm dia, 400 mm length, 10 Nos.</p> <p>1.0 mm dia, 400 mm length, 10 Nos.</p> <p>1.5 mm dia, 400 mm length, 10 Nos.</p> <p>2.0 mm dia, 400 mm length, 10 Nos.</p> <p>2.5 mm dia, 400 mm length, 10 Nos.</p> <p>3.0 mm dia, 400 mm length, 10 Nos.</p> <p>iii) One tool holder for holding 0.3 mm to 3.0 mm diameter electrode</p> <p>iii) Rubber Stoppers – 50 Nos</p>

24.	Tool kit and Instruction manual in English	1 set
25.	Warranty	Comprehensive warranty for two years
26.	Training	The supplier should provide full training on operation of the machine and programming to the operator of the Centre after the installation.

Techno-commercial conditions

- a. Interested original equipment manufacturers or dealers or agents may submit their quotations in **two bid systems** (technical and commercial).
- b. **Warranty – Minimum 2 years from the date of installation and commissioning at the site.**
- c. Scope of supply should include **free installation, commissioning and training at site.**
- d. Please provide **list of such supplied systems in India and abroad** both in academics and industry.
- e. **Validity** of the quotation should be **120 days from last date of submission**
- f. In the technical bid, vendors have to give a technical compliance certificate along with the technical literature.
- g. Compliance statement is to be submitted as per our technical specification. Claim for compliance should be traceable to your brochure. Please mention page number etc. of your brochure for easy traceability.
- h. Commercial bid is to be provided in clearly marked separate sealed envelope.
- i. If any Indian Agent quotes on behalf of Foreign Principal, in that case, as per GFR Rule, vendor registration number from DGSD under Ministry of Commerce, Government of India, and copy of business agreement is to be submitted along with quotation.
- j. **Last date of submission of sealed quotation is 17.12.2018 (Monday) at 12.00 noon**
- k. **Date & Time of Opening the Tender is 17.12.2018 (Monday) at 15:00 hrs**
- l. The envelope should have the following number on the top and submitted to the office of

IIT/CRYO/ENQ/CEM/TKN/CNC-EDM Drill/2018-19/01

Head of the Centre

**Cryogenic Engineering Centre, I.I.T. Kharagpur,
West Bengal-721302, INDIA**

(Attn: Dr. T. K. Nandi)

- m. Regarding this purchase, the decision of the Director would be final and binding.
- m. Payment terms for foreign firms: 100% payment through irrevocable L/C
- n. Payment terms for Indian firms:
 - a) 100% payment through electronic transfer or A/c payee demand draft after receipt of store in good order and condition. Generally payment is released after certification of bill which typically takes 30 days.
 - b) Ensure mentioning
 - i) Bank details of the beneficiary and PAN number
 - ii) Full name and address of the beneficiary on whom order has to be placed