



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH  
PUNE

CLARIFICATION ON TENDER NUMBER - IISER-PUR-2001-20

ITEM DESCRIPTION- PROCUREMENT OF 5 Axis CNC MILLING MACHINE

Refer IISER Pune press tender notice dated 24/03/2021 for procurement of 5 Axis CNC Milling Machine.

Pre-Bid meeting was held on March 31<sup>st</sup> , 2021 at 3.00 PM via video conferencing and minutes of meeting is as under.

At the outset, the Chairman welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter requested Assistant Registrar (S&P) to brief the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in Annexure -II

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website [www.iiserpune.ac .in](http://www.iiserpune.ac.in) will remain unchanged. No more correspondence in this regard will be entertained

**Please note that, bid submission close date is extended to 17/05/2021 up to 15:00 Hrs. and tender opening is on 19/05/2021, 14:00 Hrs.**

The meeting ended with vote of thanks to the Chair

31.3.2021

Assistant Registrar (S&P)



## IISER PUNE

## PRE-BID CONFERENCE FOR PROCUREMENT OF 5 Axis CNC MILLING MACHINE

## TECHNICAL &amp; COMMERCIAL QUERIES AND CLARIFICATION

S.No	Query/Clarification Sought	Clarification / Amendment
1	4.1: Basic machine: - Swivel axis in both sides/single side	Swivel axis to be supported on both sides for rigidity and for guaranteeing accuracies mentioned in 4.6
2	4.1 Basic machine: Emulsion type spindle cooling	Spindle cooling- Oil cooled Main spindle with heat exchanger/emulsion type
3	4.2 CNC controller: Heidenhain, Siemens, Fanuc or Mitsubishi (Latest/advanced) with user guide	Siemens, Heidenhain or Fanuc controller. To be the latest with assured service support during the product lifetime. This is due to the wide usage in Indian industry and availability of trained operators who are familiar with these controllers
4	Technical calculator for calculation of power and torque required	To be provided: Optional

5	Internal storage to be 100 Gb or more	Original: '12 Gb or more' remains unchanged
6	Spindle speed control Potentiometer to be 80-120%	Yes: Spindle Speed control potentiometer to be 80-120%
7	Rotating Clear view window is not necessary	Rotating clear view window is needed
8	Tool kit for control and compensation of the kinematic accuracy of 4/5 axis machine configurations - Calibration tool for the 4th/5th axis	Needed: Quote as optional
9	Minimum quantity lubrication.	Minimum Quantity lubrication/grease/equivalent lubrication
10	Spindle with air-oil lubrication	Yes
11	A / B axis total swivel range 120° or more	A/B total swivel range 120° or more
12	Feed drive for X, Y, Z: 20 m/min. or higher	Feed drive for X, Y, Z: 20 m/min. or higher
13	Direct absolute or photo electrical or magnescale	Only Photo-electrical or optical scales
14	Job size 300 mm Cube	Mountable job size to be 300 mm x 300 mm x 300 mm or higher excluding the mounting fixtures
15	Load capacity: 250 kG	Yes: Load capacity to be >200 kg or higher
16	Min Tool length : 300 mm or more without taper	Yes: Min tool length to be 300 mm or higher without taper: NO change
17	Air blast through spindle Centre activated by M function	Airblast through spindle center activated through any function accessible from the machine control system:
18	Power (direct drive): 20 kW for 20% duty cycle 15 kW for 40% duty cycle	Yes: 20 kW for at 20% duty cycle or better 15 kW for at 40% duty cycle or better

19	Tool change time: 6 sec or better	Yes: tool change time to be 6 sec or better
20	Positional accuracy (All Linear Axes X, Y & Z): 0.006 mm or better with Laser Calibration Report	Positional accuracy (All Linear Axes X, Y & Z): 0.006 mm or better with laser calibration report for the supplied machine
21	Solidworks CAM or Equivalent Software for 9 seats	To be changed to 'Solidworks 3-D modeling software (research licence) for 4 seats AND Mastercam or Solidworks CAM for translating the 3-D models into machine readable formats for operating the 5-Axis machine.
23	Delivery Period / Timeliness:  The deliveries & installation must be completed within 120 Days after placement of purchase order.	Delivery Period / Timeliness: is amended as  "The deliveries & installation must be completed within 180 Days after placement of purchase order.
24	Acceleration X-Y-Z: 4 m/s <sup>2</sup> or better	Yes: Acceptable: acceleration on the x-y-z to be 4 m/s <sup>2</sup> or higher
25	Temp. compensation on Z axis through Linear Glass Scale	Electronic temperature compensation or through linear glass scale
26	Positional accuracy (All Linear Axes X, Y & Z): 0.01 mm or better	<b>Accuracy in Positioning and Accuracy in repeatability should be 0.006 mm or better.</b> These machines will be used to make precision opto-mechanical components and for quantum computing hardware for positioning of atoms and focused laser beams at precise locations. Hence, the accuracies in fabrication are of utmost importance which cannot be compromised.

26	Online service support using IoT connector from remote location with the feasibility to integrate hand held camera in the feature	Any type of service support (telephonic, videoconferencing, personal visit, Or through IOT) is preferred which would reduce the machine downtime to a minimum. All efforts to be made to include the best possible service support.
27	Three sets as follows in English - 2 sets of hard copies + 1 set of  Soft copy of the manual to be loaded in the machine control	Hassle free access to manuals in any form to be available at the machine location.
28	Warranty may be amended to  24 months for the entire machine,  36 months for the spindle from the date of installation/ commissioning.	Warranty  36 months warranty on the entire machine (including spindle) to be provided. Hours of operation should not be used as a cutoff for the warranty time, since these machines are not used 24 hours by 7 days like in a manufacturing setup.
29	Custom duty is to be borne by buyer or seller	As this tender is invited from Class I and Class II local Supplier . Non-Local supplier need not to apply for this tender, hence custom duty point is not applicable

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