



DEPARTMENT OF CIVIL ENGINEERING
Indian Institute of Technology Madras
I.I.T.P.O., MADRAS-600 036

Form for Inviting Quotations

Ref.No.CIE/PHAN/2019/Cutting Machine.

Date: 19-9-2019

DUE DATE: 1-10-2019

To

Dear Sirs,

1. Quotations are invited in duplicate for the various items shown below / overleaf / **Enclosed list.**
2. **The Quotations duly sealed and superscribed on the envelope with the reference No. and due date, should be addressed to the undersigned and contain in 2 bid system i.e. Technical bid and Commercial bid in two separate envelopes should be enclosed in a single envelope only so as to reach on or before the due date stipulated above.**
3. The Quotations should be valid for ninety days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
6. Local Firms : Quotations should be for free delivery to this Institute. If Quotations for Ex-Godown delivery charges should be indicated separately.
7. Firms Outside Madras : Quotations should be for F.O.R. Madras. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If Ex-Godown, packing, forwarding and freight charges must be indicated.
8. The rates of GST and other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for GST/General Taxes will be admitted at any stage and on any ground whatsoever. IIT Madras is eligible for concessional GST. Relevant certificate will be issued. In case of import supply the price should be quoted without custom duty. I.I.T. Madras is exempted from levy of IGST on Imports and eligible for concessional custom duty (not exceeding 5%) and the price should be quoted on **EX-WORXS** and **CIP** basis indicating the mode of shipment.
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. Payment : Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.

Yours faithfully,


[Dr. P. PRADEEP]

- Note: (i) Quotation should be sent by SPEED POST only or to be delivered directly to the concerned.
(ii) Firms are requested to submit the specifications of their product along with supporting technical Documentation / brochure instead of reproducing the specifications sent by us.

Laser cutting machine requirements:

ITEM	REQUIREMENT
Technical/Hardware specifications	
Laser type	CO2 based, RF tube (SHOULD be metal tube of reputed brand) with a minimum life cycle of 25000 hours
Laser Wattage	30 Watts
Work area size	407mm x 305mm (16in x 12in)
Lattice grill/grid required for cutting protection	Cutting table and honeycomb table required
Laser features	Air-cooled Laser, Controllable speed and power levels, Fan control for noise reduction
PC connection	USB 2.0 or higher
Power requirements	220V-240V (suitable for operation in India and with presence of any required stabilizers)
Auto-focusing and auto-alignment	Yes
Auto-detection of accessories (cutting table, other)	Should be able to detect accessories such as cutting table (and any other fixtures) and AUTOMATICALLY ADJUST the settings such as laser focus (and other relevant system settings) due to height change of cutting bed
High Density Power Focusing Optics	Should provide provision for accessories (for future use) such as high-density power focusing that will allow for ultra-fine laser spot size.
Drive belts	High quality Kevlar belts
Software specifications	
Laser source (smart laser)	Should be able to communicate wattage and be able to diagnose errors (through a built-in system) to prevent damage of laser tube
Interface software	To operate the machine using a Windows PC. Should be able to use/read AutoCAD/JPEG/Corel Draw/Adobe files as input.
Display estimated job time	Yes
Materials database support	Pre-loaded optimum power/speed settings for a wide range of laser-cutting/engraving materials
Control on job settings	Should be able to toggle between both automatic and manual control over power, speed and other job/system settings for current or a pre-loaded job
Storage settings	Should be able to store up to 1000 jobs
Control panel on screen	Should be able to preview the job on screen before cutting/engraving
Re-use of stored jobs	Should be able to view, edit and re-run stored jobs directly from the control panel WITHOUT USING the original software input file (from AutoCAD or other).

Safety specifications	
Temperature and Fire-safety features	Temperature control with over temperature indicator and sound alarm
Safety glass cover	Access door with laminated glass (non-acrylic based) – should be heat strengthened and annealed
User protection from Laser	Provide Googles or other
Lens/optics protection	Compressed air based
Air-extraction/air-compressor system	Provision to remove heat, toxic/combustible gases and/or smoke
Other specifications/requirements	
Materials to cut	Acrylic sheets, mylar, plastic, paper, cardboard
Warranty requirement	Minimum of 3 years
On-site commissioning & training	Yes
NOTE:	
(1) Please provide a list of ATLEAST THREE REPUTED ORGANIZATIONS carrying out ENGINEERING/ SCIENTIFIC research along with references to whom this equipment has been supplied.	
(2) Payment will be made ONLY after successful installation and satisfactory demonstration of all the above specifications.	