



Department of Metallurgical and Materials Engineering
Indian Institute of Technology, Madras, Chennai – 600 036

Enquiry No.

MET	2014	001	VSSA
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Date: 10.10.14

Due Date: 27.10.14

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 so as to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty 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, Rate Contract Number 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. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
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 are for Ex-Godown, delivery charges should be indicated separately.
7. **Firms Outside Chennai :** Quotations should be for F.O.R Chennai. 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 rate of Sales / General Taxes and the percentage of such 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 Sales / General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concession. Sales Tax Certificates will be issued at the time of final settlement of the bill.**
8. Goods should be supplied carriage paid and insured.
9. Goods shall not be supplied without an official supply order.
10. 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.

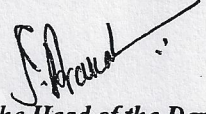
Yours faithfully,

1) Precision cut off Machine - 1 no approx.
Technical Clarification enclosed.

Technical Clarifications if any

Please Contact Dr. V. S. Sarma. - 044-22574774

E-mail - vsarma@iitm.ac.in


for The Head of the Department
The Project Co-ordinator
Met. & Materials Engineering
IIT Madras, Chennai – 600 036

Specifications Precision Cut off machine:

The precision cut off machine should have the following capabilities / specifications

- **Operation mode:** Automatic or manual mode of operation. Motorized positioning of work piece and digital read-out.
- **Cutting Action:** Automatic linear blade feed and retraction, controlled up and down motion of blade during cutting
- **Multi-cut:** Should cut slices of specified thickness (smallest thickness of 0.1 mm or better) automatically compensating for wheel thickness
- **Load:** Automatic and manual control
- **Feed:** 0.005 – 3 mm/s (in steps of 0.005 mm or better). Automatic adjustment of feed rate in conjunction with the load on motor
- **Blade speed:** 300 to 5000 rpm with an increment of 100 rpm or better
- **Cutting length:** 0.1 mm - 150 mm in steps of 0.1 mm or better
- **Cutting Capacity:**
Sample dimensions: cylindrical samples of 1mm to 70mm diameter,
Rectangular Samples: up to L × D × H [150 × 50 × 13 mm]
- **Cooling unit:** Built-in recirculating unit along with a drain basket to prevent blocking of coolant circulation system. Option to connect external cooling unit.
- **Cutting table:** inbuilt T-slots and stainless steel bands. Sample stand for fixing sample over table. Should have precise control over X and Y motion (increments of 5 μm or better)
- **Sample holders:** Suitable sample holders for holding cylindrical samples (1 mm to 50 mm) and prismatic samples sizes upto 150 × 50 × 13 mm.
- **Arbor size:** 12.7 and 22 mm. Should be compatible with blades of other manufacturers.
- **Dresser:** Automatic or manual.
- **Safety:** Machine should stop when the door/cover is opened. Emergency stop for ensuring safety
- **Warranty:** minimum of one year.

Optional accessories / spares:

- Specimen holder for irregular samples

- Three-jaw Chuck for centering and clamping cylindrical work pieces up to 50 mm diameter

Consumables:

- 8 inch wafering and abrasive blades to cut metals like Copper, Nickel, Titanium and hard materials like Stainless steels, high strength steels and superalloys.
- Coolant
- Dressing sticks

Other information:

- List of service centres/personnel in South India
- List of installations of similar machines in India in the last 2 years

Please fill up the attached table indicating compliance with the above specifications and give any additional information in remarks. Also indicate in which page of the catalogue (if any), the above specifications are indicated. Please note your bid will not be considered if the table indicating the compliance to the specifications is not provided.

Specification	Compliance (Yes / No)	Remarks
Operation mode: Automatic and manual operation Motorized positioning of work piece and digital read-out		
Cutting Action: Automatic Linear Blade Feed and Retraction controlled up and down motion of blade during cutting		
Multi-cut: Should cut slices of specified thickness (Automatically compensating wheel thickness.)		
Load: Automatic and manual		
Feed: 0.005 - 3 mm/s (in steps of 0.005 mm or better),		
Blade speed: 300 to 5000 rpm with an increment of 100 rpm or better		
Cutting length: 0.1 - 150 mm in steps of 0.1 mm or better		
Cutting Capacity: Sample dimensions: cylindrical samples up to 70mm diameter Rectangular Samples: up to L x D x H [150 x 50 x 13 mm] or better		
Cooling unit: Built-in recirculating unit, Option to connect external cooling unit.		

<p>Drain basket: to prevent blocking of coolant circulation system</p>		
<p>Arbor size: 12.7 and 22 mm,</p>		
<p>Cutting table: in built T-slots and stainless steel bands. Sample stand for fixing sample over table.</p>		
<p>Safety Machine should stop when the door/cover is opened Emergency stop for ensuring safety</p>		
<p>Dresser: Automatic or manual (specify in remarks)</p>		
<p>Sample Position Settings: 0-50mm, Should have precise control over X and Y motion(increment of 5 μm or better)</p>		
<p>Serial Cut Quantity: up to 100</p>		
<p>Warranty 1 year:</p>		