

Enquiry Letter for Quotation of Semi-Automatic Grinding and Polishing Machine

Enquiry No: ME/NS/02/2015-16/GPM

Enquiry Dated: November 10, 2015

Closing Date: December 01, 2015

Sealed quotations (in two separate envelopes namely “TECHNICAL ONLY” and second ‘FINANCIAL’ bid) are required for **Semi-Automatic Grinding and Polishing Machine**. The specifications for the equipment are given at the bottom. The closing date for the above item is December 01, 2015.

The prospective suppliers are required to send quotation in two parts in sealed envelopes, as “**Technical Bid**” and “**Financial Bid**”. The two separate and sealed envelopes should be clearly marked appropriately as “Technical Bid” and “Financial Bid”.

(i) The **Technical Bid** should contain detailed technical specification of the product being offered and should not mention any price. This should also mention the guarantee and complete spare parts must be included that are required for functioning of the unit.

(ii) The **Financial Bid** should include the detailed price quotation clearly including the cost of the equipment, taxes, service charges if any, shipping and handling charges.

Our organization is an educational institute of repute and liable to get maximum education discount from manufacturer. Please specify it, separately.

Kindly send the Technical and Financial bids in sealed envelopes latest by December 01, 2015 by 5pm to:

Dr. Niraj Sinha

Department of Mechanical Engineering

IIT Kanpur, U.P. 208016, India.

e-mail: nsinha@iitk.ac.in

General Specification for Semi-Automatic Grinding and Polishing Machine:

A] GRINDING/POLISHING DISC: Single disc machine equipped with water tap and drain outlet. The whole machine should be easy to clean and made from corrosion resistant material. The on/off switch should be comfortably positioned on front panel. Other specifications as follows:

- 1) Type-Single Disc machine
- 2) Diameter – 200 mm
- 3) Speed-variable speed from 50 to 500 rpm. The speed should be kept constant, independent of load. Speed control knob should be on forehead.
- 4) Rotational direction-counter clockwise
- 5) Grinding and Polishing disc should be magnetic in nature and supported by a cone disc system.
- 6) Motor Power -370 W or better
- 7) Water tap should be automatically controlled through solenoid valve.
- 9) Automatic spinning function should be provided.
- 9) Dimensions: 400mm Width x 673mm Depth x 580mm Height (with force head) & maximum weight 40 kg (with force head)
- 10) Machine should have storage pad for samples.
- 11) Machine should be equipped with plastic tray at the base for easy cleaning.
- 12) Power Supply: Single Phase 200-240 V AC; 50 Hz
- 13) Emergency stop on the front panel.
- 14) Machine should be CE certified.

B] SPECIMEN MOVER HEAD: The equipment should be equipped with an automatic specimen mover that can apply desired pressure on the samples and also should rotate the samples relative to the polishing discs. It should be possible to move out the specimen mover (without actually having to detach it from the basic unit) to carry out polishing operations manually. Other specifications as follows:

- 1) Suitable for 4 mounted specimens of about max. 40mm size. It should be possible to polish 1,2 or 4 samples simultaneously.
- 2) Force/single specimen – It should be possible to apply pressure as low as 0-30 N to polish very fragile material. The force should be applied individually on each sample.
- 3) Motor Power -40W at least.

- 4) Speed – Maximum 150 rpm
- 5) The specimen mover should be connected mechanically and electrically to the polishing machine, so that specimen mover functions can be controlled via polishing head.
- 6) The specimen mover design should be simple and eliminate the necessity to level the specimens. The specimen Mover plate should automatically level the specimens individually.
- 7) LED light should be provided in the head to illuminate polishing area.

C] DOSING SYSTEM: Equipment should be equipped with Dosing unit for grinding polishing unit for dosing of different grade size diamond suspension, lubricant and all-in-one products, alumina or oxide suspensions. Dosing level should be controlled via rotating knob. Provision for extra nozzle for dosing should be provided.

D] CONSUMABLE:

- 1) Consumables including grinding/polishing disc. Combined Diamond suspension for 9 micron, 3 micron and 1 micron should be quoted along with suitable grinding and polishing cloths.
- 2) The grinding & polishing discs should be magnetic disc based.
- 3) Bimetallic plate should be quoted for using SiC papers of different grits.
- 4) SiC foil of 500 grit, 800 grit and 1000 grit should be quoted.

NOTE / Terms and Conditions:

- Maximum education discount should be offered.
- Validity of quotation should be at least for 60 days.
- Local vendor must have supplied at least 10 similar machines to IITs, IISERs OR other institutes of national repute in the past 5 years. Please attach the reference list of 10 such users with phone numbers and email addresses.
- OEM Manufacturer must be an ISO-9001 company & equipment must be with CE compliance. Please attach both certificates.
- Please attach Principal Authorization Letter Specific for this tender.
- Machine must have a warranty of at least 1 year. Please also quote the price for extended warranty of 3 years.
- An undertaking that the vendor will supply all the spares and services for the equipment for at least 5 years from the date of commissioning.

- If it is an imported item, please quote FOB charges and CIF charges separately.
- If the product is manufactured outside India, please attach NMIC certificate.
- Prices should include the installation and training cost.
- Normal payment terms for the Institute will be applicable (90% on delivery of the items and the remaining 10% after satisfactory installation/inspection).
- Delivery must be within 6 months.