

Specifications of Dual Cylinder Automatic Hot Mounting Press for Metallography

1	<p>Introduction & Scope: Dual Cylinder Automatic Hot Mounting Press having two cylinders in single machine or modular machine with two mounting units. It will be used for mounting of metallography specimens for polishing and lapping preparation suitable for Optical Microscopy, Microhardness Testing, Scanning Electron Microscopy and Electron-Probe Micro Analysis. The detailed technical specification of the equipment is as follows.</p>	
2	Type of equipment	Automatic electro-hydraulic operated system using electrical signals to activate valves and precisely manage the fluid flow. It should provide greater precision and finer control of pressure (should not require air for control of valves).
3	Design	Table top design
4	Mode of operation	Automatic operation as per pre-set programme including heating temperature, time, pressure and cooling cycle.
5	Mounting cylinders	Two parallel mounting cylinders. Two mounting cylinders should operate simultaneously and independently.
6	Different mount size	Possible to make two mounts simultaneously with two different sizes.
7	Mould type	Cylindrical
8	Mounting cylinder/ Mould sizes	First Mould: 30mm dia Second Mould: 40mm dia
9	Heating Power	1000 W (minimum)
10	Temperature range	80 - 180° C
11	Pressure	Upto 350 bar (minimum)

12	Heating time range	1 to 15 minutes, adjustable or higher range
13	Cooling time range	1 to 15 minutes, adjustable or higher range
14	Cooling media and capacity of cooling tank.	Cooling media should be water or water-based Capacity of cooling tank: 4 ltr or higher. Coolant Flow rate: 3ltr/min. or higher
15	Control Panel	Control panel should have 5" LCD/LED display or higher size with turn/push knob OR touch screen with control software. Display of temp, pressure and status of operation should be available.
16	System software	User friendly software for setting the parameters like Temperature, time and pressure.
17	Pre-defined mounting methods	Pre-defined/pre-installed mounting method should be available for commonly used mounting compounds/resins.
18	User defined mounting methods/database	System can store minimum 15 user-defined mounting methods/database
19	Hot mounting powders	<ul style="list-style-type: none"> a) <i>Black Bakelite powder with wood fillers:10 Kg</i> b) <i>Red Bakelite powder with wood fillers:10 Kg</i> c) <i>Green Bakelite powder with wood fillers:10 Kg</i> d) <i>Transparent acrylic mounting powder: 10 Kg</i> e) <i>Edge retention Epoxy resin powder with mineral filler: 20Kg</i>
20	Mould release agent	500ml of mould release agent to be provided
21	Mains Power supply requirement	Equipment should work on 230V+/-10%; 50 Hz, Single phase AC

22. General terms & conditions

- a. Parties should submit their offers in two parts:
 - Part I - Technical bid only
 - Part II - Price bid
- b. All the items quoted in technical bid must be quoted in price bid also. Any item missing in price bid (intentional or unintentional) will disqualify the bidder and no further correspondence will be made with the party.
- c. Indian agents submitting the quotation on behalf of foreign suppliers must submit the authorization letter to submit the quotation, techno-commercial negotiation, after sales service, maintenance and repair.
- d. Any item not explicitly mentioned in the specification but which may be required for demonstration of specification and smooth functioning of the equipment shall be within the scope of supply.
- e. All the accessories required for the installation and operation of the equipment should be arranged by the supplier of the equipment.
- f. The supplier shall install and commission the equipment in our laboratory and demonstrate the performance of the equipment.
- g. The supplier should submit technical brochures and proper application notes for adequately explaining and confirming the availability of features in the quoted model of equipment.
- h. The Indian agents should also have service facilities in India and should have qualified engineers to attend on call within 48 hours.
- i. Training: In-depth training shall be provided for the operation of complete system at VSSC. The training period should be for a minimum of 3 working days after the date of installation, commissioning and acceptance by VSSC.
- j. The vendor should provide a user list of similar model supplied.
- k. Party should not quote an obsolete model. An Undertaking should be provided by the party that the quoted model is the latest in technology.
- l. Delivery period: Delivery of the equipment at VSSC should be clearly mentioned in the offer. Time required for Installation after the receipt of the item at user division and intimation from user for installation should be clearly mentioned. The time required for installation will be included in the delivery period and non-compliance of meeting the delivery schedule will invite the LD penalty.
- m. Warranty: Complete system should be covered for one-year comprehensive warranty from the date of installation, commissioning and acceptance by VSSC. Party should

replace the spares free of cost to maintain the system operational. Party should make two preventive maintenance visits (with interval of six months) and any nos. of breakdown visits during the warranty period. Service response time must be within 48 hours.

- n. AMC: The party should undertake non comprehensive AMC after the completion of warranty period. AMC charges to be quoted year-wise separately for 3 years after the warranty period. Party should make 2 preventive maintenance visits (with interval of six months) and 1 no. of breakdown visit (free of cost) per year during the AMC period. Service response time must be within 48 hours. Price list of essential spares which may require during AMC period to be provided in AMC price bid. The price list should be valid for 3 years AMC period.
- o. During warranty period, spares taken from our stock, if any, should be replaced by the party free of cost.
- p. Operation/ maintenance manual, should be provided.
- q. Optional accessories / attachments: Any additional accessories / attachments which are not mentioned in the specification can be quoted separately.
- r. Detailed compliance matrix of our specifications and supplier specifications item by item should be given in the format provided below. It has to be filled and provided along with the quotation. All the columns in the compliance matrix should be filled with supplier specifications. Incomplete compliance statements will disqualify the offer and no further consideration will be given at a later time. Wherever, numerical values of specification are required, they should be explicitly mentioned.
- s. To substantiate the information provided in the compliance matrix, the party should submit technical brochures, catalogues for all the subsystems proposed with full features and capabilities

FORMAT FOR COMPLIANCE STATEMENT

(1) VSSC's Enquiry Specifications	(2) Specification of Equipment (offered by Manufacturer)	(3) Compliance to VSSC's Technical Specifications YES or NO	(4) Details of Deviation, if any