



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
Powai, Mumbai 400076.

Ref. No. (PR.1000038190)

RFx No. 6100001831

Technical Specification for Fusion CO2 Laser Step Heating System

Sr No.	Detailed Specification	Compliance (Yes/No)	Additional Information if any
1	<p><u>Specifications:</u></p> <p>Coherent Fusion CO2 10.6 μm homogenized 55W step-heating system, real-time energy readout calibrated to the sample surface.</p> <ul style="list-style-type: none">• Water chiller and required connections.• Ultra-high vacuum fusion sample chamber with ZnS/ZnSe viewport window and appropriate cover glass for the UHV sample cell.• Lighting – high-intensity LED Ring and Coaxial software controlled variable intensity.• Removable homogeniser for flat, uniform, and non-uniform heating.• Viewing optics and video: UHD colour CCD camera, motorised zoom video microscope with optical zoom. <p>Laser software controls variable intensity with precise steps, smooth temperature transitions, and programmable stepped heating functions.</p> <ul style="list-style-type: none">• Laser burst mode with minimum millisecond burst duration.• Variable laser spot diameters.• Motorised XYZ motion control, precise stage controlled directly from PC with better stage resolution.• Appropriate mounting racks with motion control.		

	<ul style="list-style-type: none"> • Appropriate vacuum station with vacuum gauge. • Appropriate vacuum bellows (long and short) and flanges for connection between the UHV sample chamber and Argus VI sample preparation unit. • PC with the required control software <p>Installation and Training:</p> <ol style="list-style-type: none"> a. Applications training at the site for operation and maintenance of the instrument immediately after installation. b. Vendor should include in their tender, provision for maintenance tools and initial stock of maintenance spares that are essential for the proper operation and maintenance of equipment. Full particulars of spare parts should be provided and the cost of the same should be included in the price bid. c. The vendor should be fully responsible for the manufactures warranty in respect of proper design, quality and workmanship of all the equipment accessories etc. covered by the tender. <p>Service Support:</p> <ol style="list-style-type: none"> a. Contact details for Remote assistance with the same-day response and Telephone/mail assistance when the user has sufficient knowledge to attempt minor repairs. Maximum onsite response time of FIVE (5) working days for both hardware and software-related problems. b. Provide the list of users across the world, emphasizing reputed Earth Sciences departments, with their contact details. 		
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	Warranty: Two-year standard warranty from the date of installation		
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