



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
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Ref. PR No. 1000056348

Rfx. No. 6100003071

**Technical Specifications and Terms and Conditions for Lab Equipments for
Microfactory**

Sr. No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1	Basic 3D Printer (Qty: 2)	Printing Technology: FDM / FFF Technology Build Volume (W x D x H): Minimum 10.08 × 10.08 × 10.08 in Printing Speed: Minimum 11.81 in/s Layer Resolution: 0.002 in or better Extruder Type: Direct Drive or Equivalent Hot End: All Metal Hot End Nozzle Diameter: 0.4 mm standard Maximum Nozzle Temperature: Minimum 280°C Heated Build Plate: Required (Minimum 100°C) Filament Diameter: 1.75 mm Compatible Materials: PLA, PETG, TPU, and equivalent engineering-grade filaments Auto Bed Leveling: Required Filament Run-Out Detection: Required Power Loss Recovery: Required Connectivity: USB and Wi-Fi Monitoring Facility: Camera-based monitoring preferred Operating System Compatibility: Windows, Linux, and macOS Power Supply: 220–240V AC, 50 Hz Accessories: Complete system with necessary software, cables, and operational accessories		
2	3D Printer (Qty: 2)	Printing Technology: FDM / FFF Technology Build Volume: Minimum 11.81 × 11.81 × 11.81 in • Extruder Type: Direct Drive or Equivalent Nozzle Diameter: 0.4 mm standard		

		Supported Nozzle Sizes: Interchangeable nozzle system Maximum Nozzle Temperature: Minimum 280°C Heated Build Plate: Required Build Plate Temperature: Minimum 100°C Layer Resolution: 0.002 in or better Printing Accuracy: ±0.004 in or better Printing Speed: Minimum 11.81 in/s Acceleration: Minimum 196.85 in/s² Filament Diameter: 1.75 mm Material Compatibility: PLA, PETG, TPU, and equivalent materials Auto Bed Leveling: Required Filament Run-Out Detection: Required Print Failure Detection: Preferred Operating Voltage: 220–240V AC, 50 Hz Display: Color Touchscreen Connectivity: USB and Wi-Fi Operating System Compatibility: Windows, Linux, and macOS Accessories: Complete system with required software, cables, and accessories		
3	Multi Nozzle 3D Printer (Qty: 1)	Printing Technology: FDM / FFF Technology Build Volume: Minimum 9.84 × 8.66 × 9.84 in Extrusion System: Multi-Nozzle or Multi-Material Printing Capability Filament Diameter: 1.75 mm Layer Resolution: 0.002 in or better Extruder Type: Direct Drive Extruder Nozzle Diameter: 0.4 mm standard Maximum Nozzle Temperature: Minimum 280°C Heated Build Plate: Required Maximum Build Plate Temperature: Minimum 100°C Enclosed Build Chamber: Required Chamber Temperature Control: Required Automatic First Layer Calibration: Required Print Surface: Removable Flexible Build Plate Cooling System: High Efficiency Part Cooling System Connectivity: USB, Ethernet, and Wi-Fi Display: Color Touchscreen Firmware Update: Via USB or Network Material Compatibility: PLA, PETG, TPU, ABS, ASA, PA, PC, PVA, and equivalent engineering-grade materials Print Recovery: Power Loss Recovery Required		

		Operating System Compatibility: Windows, Linux, and macOS Accessories: Complete system with software, accessories, and operational tools		
4	Medium Size Multi Color 3D Printer (Qty: 2)	Printing Technology: FDM / FFF Technology Build Volume: Minimum $9.84 \times 9.84 \times 9.84$ in Printing Capability: Multi-color and/or multi-material printing support Extruder Type: Direct Drive Extruder Nozzle Material: Hardened steel or equivalent durable material Nozzle Diameter: 0.4 mm standard, with interchangeable nozzle support Maximum Nozzle Temperature: Minimum 300°C Heated Build Plate: Required Maximum Build Plate Temperature: Minimum 100°C Build Plate Type: Flexible removable build plate preferred Printing Speed: Minimum 11.81 in/s Layer Resolution: 0.002 in or better Filament Diameter: 1.75 mm Material Compatibility: PLA, PETG, TPU, ABS, ASA, PA, PC, and equivalent materials Auto Bed Leveling: Required Filament Run-Out Detection: Required Power Loss Recovery: Required Connectivity: USB and Wi-Fi Monitoring Camera: Integrated camera preferred Power Supply: 220–240V AC, 50 Hz Accessories: Complete system with software, cables, and operational accessories		
5	Advanced 3D Printer with Laser (Qty: 1)	Printing Technology: FDM / FFF Technology Build Volume: Minimum $13.78 \times 12.60 \times 12.60$ in Printing Mode: Single and Dual Extrusion Capability Extruder Type: Direct Drive Extruder Nozzle Diameter: 0.4 mm standard Maximum Nozzle Temperature: Minimum 320°C Heated Build Plate: Required Build Plate Temperature: Minimum 110°C Build Chamber: Fully Enclosed Chamber Chamber Heating: Active Chamber Heating Required Chamber Temperature: Minimum 60°C Layer Resolution: 0.002 in or better Printing Speed: Minimum 11.81 in/s Filament Diameter: 1.75 mm		

		Material Compatibility: PLA, PETG, TPU, ABS, ASA, PC, PA, Carbon Fiber, and Glass Fiber Reinforced Materials Multi-Material Printing: Required Auto Bed Leveling: Required Filament Run-Out Detection: Required Laser Processing Capability: Integrated Laser Engraving/Cutting Module Monitoring System: Integrated Camera Preferred Connectivity: USB, Ethernet, and Wi-Fi Display: Color Touchscreen Operating System Compatibility: Windows, Linux, and macOS Power Supply: 220–240V AC, 50 Hz Accessories: Complete system with software, laser module, safety accessories, and operational tools		
6	Large size 3D printer (Qty: 1)	Printing Technology: FDM / FFF Technology Build Volume: Minimum 31.50 × 31.50 × 39.37 in Extruder Type: Direct Drive or Equivalent Nozzle Diameter: 0.4 mm standard Maximum Nozzle Temperature: Minimum 280°C Heated Build Platform: Required Build Plate Temperature: Minimum 90°C Layer Resolution: 0.004 in or better Printing Speed: Minimum 9.84 in/s Motion System: Precision Linear Motion System Frame Construction: Heavy Duty Metal Frame Filament Diameter: 1.75 mm or 2.85 mm Material Compatibility: PLA, PETG, TPU, and equivalent materials Auto Bed Leveling: Required Filament Run-Out Detection: Required Resume Printing After Power Failure: Required Connectivity: USB, LAN, and Wi-Fi Operating Voltage: 220–240V AC, 50 Hz File Compatibility: Standard 3D Printing File Formats		
7	Continuous Length 3D Printer (Qty: 1)	Printing Technology: FDM / FFF Technology Printing Mechanism: Conveyor Belt Based Continuous Printing System Build Volume: Minimum 7.87 in × 6.69 in × Unlimited Length Extruder Type: Single Extruder Nozzle Diameter: 0.4 mm standard Maximum Nozzle Temperature: Minimum 240°C Heated Print Bed: Required		

		Build Plate Temperature: Minimum 100°C Layer Resolution: 0.004 in or better Filament Diameter: 1.75 mm Material Compatibility: PLA, PETG, TPU, and equivalent materials Continuous Printing Capability: Required Automatic Batch Production: Required Filament Run-Out Detection: Required Belt Material: High Durability Conveyor Belt Suitable for Continuous Printing Bed Leveling: Automatic or Assisted Bed Leveling Connectivity: USB and SD Card Support User Interface: LCD Display or Touchscreen Operating Voltage: 220–240V AC, 50 Hz Software Compatibility: Windows, Linux, and macOS Accessories: Complete system with required software and operational accessories		
8	Large Format Resin 3D Printer (Qty: 1)	Printing Technology: LCD/MSLA Resin 3D Printing Technology Build Volume: Minimum 11.81 × 6.30 × 11.81 in LCD Resolution: 12K or Higher XY Resolution: 0.0012 in or Better Layer Thickness: 0.0004 in to 0.0079 in or Better Z-axis Accuracy: 0.0008 in or Better Printing Speed: Minimum 1.97 in/hour Light Source: High Uniformity UV Light Source Resin Compatibility: Standard UV Curable Resins Build Plate: Precision Machined Metal Build Plate Connectivity: USB and Wi-Fi Operating Voltage: 220–240V AC, 50 Hz Supported File Formats: Standard Resin Printing Formats Operating Environment: Suitable for Laboratory and Educational Use Software Compatibility: Compatible with Standard Industry Slicing Software		
9	Filament Maker & Shredder (Qty: 1)	System Type: Integrated Plastic Shredder and Filament Extruder Application: Recycling of 3D Printing Waste into Filament Shredder Motor Power: Minimum 700 W Throughput Capacity: Minimum 3 kg/hour (Shredding) Input Material: Plastic Scrap, Failed 3D Prints, and Support Material Safety Features: Safety Interlocks and Emergency Stop Extrusion Temperature: Minimum 250°C		

		Heating System: Multi-Zone Temperature Control Filament Diameter: 1.75 mm and 2.85 mm Filament Diameter Tolerance: ± 0.10 mm or Better Supported Materials: PLA, ABS, PETG, TPU, HIPS, and Equivalent Thermoplastics Filament Production Rate: Minimum 100 g/hour Cooling System: Integrated Filament Cooling System Diameter Monitoring: Automatic Filament Diameter Control Preferred Control Interface: Digital Display and Control Panel Power Supply: 220–240V AC, 50 Hz Accessories: Complete system with extrusion nozzles, spool holder, shredding unit, and operational accessories		
10	Handheld 3D Scanner (Qty: 1)	Scanner Type: Portable Handheld 3D Scanner Scanning Mode: Handheld Scanning Capability Accuracy: 0.05 mm or Better Volumetric Accuracy: 0.30 mm/m or Better Data Acquisition Speed: Minimum 1,500,000 Points/Second Point Resolution: 0.20 mm or Better Light Source: LED or Equivalent Structured Light Technology Alignment Method: Automatic and Manual Alignment Capability Texture Capture: Color Texture Scanning Capability Object Scanning Capability: Suitable for Small, Medium, and Large Objects Output Formats: STL, OBJ, PLY, 3MF, or Equivalent Standard Formats Software: Dedicated Scanning and Mesh Processing Software Connectivity: USB 3.0 or Better Operating System Compatibility: Windows 10/11 or Latest Available Version Reverse Engineering Compatibility: Compatible with Standard CAD Software 3D Printing Compatibility: Scan Data Export Suitable for Additive Manufacturing Applications Accessories: Complete system with calibration tools, software license, cables, and carrying case		
11	5 Axis CNC Engraving Machine (Qty: 1)	Machine Type: 5-Axis CNC Engraving and Milling Machine Working Area (X $\times$ Y $\times$ Z): Minimum 23.62 $\times$ 15.75 $\times$ 3.94 in		

		Number of Axes: Simultaneous 5-Axis Machining Capability Machine Structure: Heavy Duty Metal Construction Work Table: T-Slot or Equivalent Work Holding Table Motion System: Precision Linear Guideways and Ball Screw Drive System Positioning Accuracy: ± 0.002 in or Better Repeatability: ± 0.0008 in or Better Spindle Power: Minimum 1.5 kW Spindle Speed: Up to 24,000 RPM or Higher Collet System: Industry Standard Collet System Controller: Industrial CNC Controller Drive System: Servo Motors or Equivalent Precision Motion System Programming: G-Code Compatible Software Compatibility: Compatible with Standard CAD/CAM Software Supported Materials: Wood, Acrylic, Plastic, Foam, PCB, Soft Metals, and Composite Materials Connectivity: USB and/or Ethernet Operating Voltage: 220–240V AC, 50 Hz Safety Features: Emergency Stop and Overload Protection Accessories: Complete machine with controller, tooling kit, clamps, cables, and operational accessories		
12	CO2 Laser Cutting and Engraving Machine (Qty: 1)	Machine Type: CO₂ Laser Cutting and Engraving System Working Area: Minimum 47.24 × 47.24 in Laser Power: Minimum 100 W CO₂ Laser Source Laser Wavelength: Approximately 10.6 μm Processing Capability: Laser Cutting and Engraving Positioning Accuracy: ± 0.004 in or Better Motion System: Precision Linear Motion System Cooling System: Industrial Water-Cooling System Cutting Speed: Programmable Variable Speed Control Engraving Speed: Programmable Variable Speed Control Supported Materials: Acrylic, MDF, Wood, Leather, Paper, Fabric, Rubber, and Similar Non-Metallic Materials Power Supply: 220–240V AC, 50 Hz File Compatibility: DXF, AI, PLT, BMP, JPG, PNG, and Equivalent Standard Formats Controller: Industrial Laser Controller		
13	Tabletop CO2 Laser Cutting Machine (Qty: 1)	Machine Type: Tabletop CO₂ Laser Cutting and Engraving System Laser Source: CO₂ Laser Laser Power: Minimum 80 W		

		Processing Capability: Laser Cutting and Engraving • Working Area: Minimum 35.43 × 17.72 in Maximum Processing Height: Minimum 7.87 in Engraving Speed: Programmable Variable Speed Control Cutting Capability: Suitable for Acrylic, Wood, MDF, Leather, Fabric, Paper, and Similar Non-Metallic Materials Positioning Accuracy: ±0.004 in or Better Motion System: Precision Linear Motion System Cooling System: Integrated Water Cooling or Equivalent Air Assist System: Required Monitoring System: Integrated Camera-Based Job Monitoring Preferred Connectivity: USB and Wi-Fi Supported File Formats: DXF, SVG, AI, BMP, JPG, PNG, and Equivalent Standard Formats Software Compatibility: Compatible with Standard Laser Design and Control Software Safety Features: Fully Enclosed Design, Emergency Stop, and Safety Interlock System Power Supply: 220–240V AC, 50 Hz Accessories: Complete machine with cooling unit, exhaust system, air assist, software, and operational accessories		
14	6 in1 Laser cutting machine (Qty: 1)	Machine Type: Multi-Functional Fiber Laser Processing System Laser Source: Fiber Laser Laser Power: Minimum 1000 W Processing Functions: Welding, Cutting, Surface Cleaning, Rust Removal, Marking, and Engraving Welding Modes: Continuous and Pulse Welding Material Compatibility: Carbon Steel, Stainless Steel, Aluminum, Brass, Copper, and Equivalent Metallic Materials Welding Thickness Capability: Suitable for Thin and Medium Gauge Metal Processing Cutting Capability: Precision Metal Cutting Capability Surface Cleaning Capability: Rust, Paint, and Oxide Removal Capability Motion System: CNC Controlled Processing System Cooling System: Industrial Cooling System Control Interface: Digital Touchscreen Control Working Area: Minimum 23.62 × 23.62 in Positioning Accuracy: ±0.004 in or Better Connectivity: USB and Ethernet		

		Safety Classification: Industrial Laser Safety Compliant System Safety Features: Emergency Stop, Protective Enclosure, Interlock Protection, and Laser Safety Shielding Power Supply: 220–240V AC, 50 Hz Operating Environment: Suitable for Industrial, Educational, and Research Applications Accessories: Complete system with laser head, cooling system, safety accessories, software, and operational tools		
15	Desktop Forming Machine (Qty: 1)	Machine Type: Desktop Vacuum Forming Machine Forming Area: Minimum 11.02 × 9.06 in Sheet Size Capacity: Minimum 11.81 × 9.84 in Maximum Forming Depth: Minimum 5.12 in Material Thickness Capacity: Up to 0.16 in or Higher Heating System: Electric Heating System with Adjustable Temperature Control Vacuum System: Integrated Vacuum Forming System Operating Interface: Digital or User-Friendly Control Interface Forming Capability: Suitable for Thermoplastic Sheet Forming Supported Materials: ABS, HIPS, PETG, Acrylic, and Equivalent Thermoplastic Sheets Temperature Control: Adjustable Heating Control Frame Construction: Heavy Duty Metal Construction Power Supply: 220–240V AC, 50 Hz Safety Features: Over-Temperature Protection and Emergency Stop Application: Prototype Development, Product Design, Packaging and Educational Applications Accessories: Complete system with vacuum unit, frame assembly, and operational accessories		
16	Glass Drill + Cutter (Qty: 1)	Machine Type: CNC Glass Cutting and Drilling Machine Working Area: Minimum 94.49 × 70.87 in Processing Capability: Glass Cutting and Drilling Operations Control System: CNC Based Control System Motion System: Precision Linear Guide and Drive System Positioning Accuracy: ±0.004 in or Better Repeatability: ±0.002 in or Better Drilling Capability: Suitable for Circular and Custom Hole Drilling in Glass Cutting Capability: Straight, Curved, and Profile Glass Cutting		

		Work Table: Air Floatation or Equivalent Glass Handling Table Lubrication System: Automatic Lubrication / Cutting Fluid System Supported Glass Thickness: Suitable for Processing Standard Industrial Glass Sheets User Interface: Industrial Control Panel with Digital Display		
17	Handheld welding (Qty: 1)	Machine Type: Portable Inverter-Based Welding Machine Welding Processes: MMA (Stick Welding) and TIG Lift Start or Equivalent Input Voltage: Single Phase 220–240V AC, 50 Hz Output Current Range: Minimum 20 A to 200 A Duty Cycle: Minimum 30% at Rated Output Welding Electrode Compatibility: Suitable for Common Welding Electrodes up to 4 mm Diameter Output Current Control: Continuously Adjustable Display: Digital Display for Welding Parameters Technology: IGBT Inverter Technology or Equivalent Safety Features: Overload Protection, Over-Temperature Protection, and Voltage Fluctuation Protection		
18	Acrylic Bending Machine (Qty: 1)	Machine Type: Acrylic / Plastic Sheet Bending Machine Effective Bending Width: Minimum 51.18 in Material Thickness Capacity: Minimum 0.04 in to 0.39 in Heating System: Electrically Heated Linear Heating Element Temperature Control: Adjustable Temperature Control Maximum Heating Temperature: Minimum 500°C Bending Angle Capability: Adjustable Bending Angle Cooling System: Integrated Cooling System Working Material: Acrylic, PVC, PETG, and Similar Thermoplastic Sheets Heating Zone: Adjustable Heating Width Suitable for Various Material Thicknesses Frame Construction: Heavy Duty Metal Construction Operating Mode: Manual or Semi-Automatic Operation		
19	Hydraulic Multi Cutter (Qty: 1)	Machine Type: Hydraulic Multi-Cutter / Ironworker Machine Operating System: Hydraulic Operated Cutting Operations: Channel, Angle, Flat Bar, Round Bar, and Square Bar Cutting Punching Capability: Integrated Punching Facility Notching Capability: Integrated Angle Notching Facility Hydraulic Capacity: Minimum 50 Ton		

		Motor Power: Minimum 2.2 kW (3 HP) Structure: Heavy Duty Fabricated Steel Construction Cutting Accuracy: Suitable for Industrial Fabrication Applications Operation Mode: Manual or Foot Pedal Operated Tooling: Interchangeable Cutting and Punching Tooling Safety Features: Emergency Stop and Operator Safety Guards Power Supply: 415V AC, 50 Hz, Three Phase Application: Fabrication, Structural Steel Work, Educational and Workshop Applications		
20	Band saw (Qty: 1)	Machine Type: Vertical Band Saw Machine Motor Power: Minimum 900 W Cutting Capacity (Height): Minimum 6.30 in Throat Capacity: Minimum 11.81 in Blade Speed: Variable Speed Operation Work Table: Heavy Duty Tilting Work Table Table Tilting Range: Up to 45° or Better Blade Guide System: Precision Blade Guide Arrangement Frame Construction: Heavy Duty Steel Construction Material Compatibility: Wood, Plastic, Non-Ferrous Metals and Similar Materials		
21	Micro Band Saw (Qty: 1)	Machine Type: Bench-Top Micro Band Saw Motor Power: Minimum 80 W Cutting Capacity (Height): Minimum 3.15 in Throat Capacity: Minimum 5.91 in Blade Speed: Variable Electronic Speed Control Work Table: Precision Metal Work Table Table Tilting Capability: Up to 45° or Better		
22	Manual Thermo-Cutting (Qty: 2)	Machine Type: Manual Hot Wire Thermo-Cutting Machine Cutting Technology: Electrically Heated Wire Cutting Temperature Control: Continuously Adjustable Temperature Control Operating Temperature Range: Suitable for Cutting Foam and Thermoplastic Materials Maximum Workpiece Height: Minimum 5.91 in Cutting Reach: Minimum 7.87 in Cutting Element: Replaceable Hot Wire System Material Compatibility: Thermocol, EPS, XPS, Foam Boards, and Similar Materials Frame Construction: Lightweight and Rigid Metal Construction Operating Mode: Manual Operation		

		Power Supply: Suitable Power Adapter/Transformer Included		
23	Thermo-Cutting Machine (Qty: 1)	Machine Type: Bench-Top Hot Wire Thermo-Cutting Machine Cutting Technology: Electrically Heated Wire Cutting System Temperature Control: Continuously Adjustable Temperature Control Temperature Range: Suitable for Precision Cutting of Foam and Thermoplastic Materials Working Surface: Minimum 13.78 × 9.84 in Cutting Reach (Throat Depth): Minimum 11.81 in Maximum Material Height: Minimum 5.51 in Cutting Wire: Replaceable Hot Wire System Work Table: Flat Precision Work Table Material Compatibility: EPS, XPS, Thermocol, Foam Boards, and Similar Materials Application: Model Making, Architectural Models, Prototyping, and Educational Applications		
24	Scroll Saw (Qty: 1)	Motor Power: Minimum 80 W Speed Control: Variable Speed Operation Cutting Mechanism: Reciprocating Blade System Throat Capacity: Minimum 11.81 in Cutting Capacity: Suitable for Precision Cutting of Wood, Plastic, and Non-Ferrous Materials Work Table: Precision Metal Work Table Table Tilting Capability: Up to 45° or Better Blade Mounting: Tool-Free or Easy Blade Replacement System		
25	Welding Table (Qty: 2)	Table Top Size: Minimum 47.24 × 47.24 in Table Height: Minimum 33.46 in Table Material: Heavy Duty Steel Construction Table Top Thickness: Minimum 0.39 in Load Capacity: Minimum 1000 kg Uniformly Distributed Load Surface Finish: Corrosion Resistant Surface Treatment Work holding Compatibility: Compatible with Modular Clamping and Fixturing Systems		
26	PCB Milling Machine (Qty: 1)	Machine Type: PCB Milling and Prototyping Machine Application: PCB Isolation Milling, PCB Routing, PCB Drilling and Engraving Number of Axes: Minimum 3 Axes Working Area (X × Y × Z): Minimum 7.87 × 5.91 × 1.97 in Positioning Accuracy: ±0.002 in or Better		

		Repeatability: ± 0.0008 in or Better Spindle Speed: Minimum 7,000 RPM Tool Holding System: Suitable for PCB Drilling and Milling Tools Minimum Drill Diameter: 0.008 in or Better Minimum Trace/Isolation Width: 0.006 in or Better Supported PCB Types: Single-Sided, Double-Sided, and Prototype PCB Fabrication Motion System: Precision CNC Motion Control System Control Interface: PC-Based Machine Control Software: PCB Milling and Toolpath Generation Software Included Supported File Formats: Gerber, Excellon, and Standard PCB Manufacturing Formats Operating System Compatibility: Windows 10/11 or Latest Available Version		
27	PCB Prototyping Machine with Drill-probe and Dispenser (Qty: 1)	Machine Type: Desktop PCB Prototyping System Application: PCB Printing, Dispensing, Drilling and Circuit Prototyping Number of Axes: Minimum 3-Axis Motion System Working Area: Suitable for PCB Prototyping Applications Conductive Trace Generation: Required Solder Paste Dispensing: Required Automated Drilling Capability: Required Positioning Accuracy: ± 0.002 in or Better Repeatability: ± 0.0008 in or Better Minimum Trace Width: 0.008 in or Better Supported PCB Types: Single-Sided and Double-Sided Prototype PCBs Material Compatibility: Standard PCB Substrates and Equivalent Prototyping Materials Control Software: PCB Design Import and Toolpath Generation Software Included Supported File Formats: Gerber, Excellon and Standard PCB Manufacturing Formats Accessories: Complete machine with dispensing system, drilling tools, probing system, software and operational accessories		
28	Reflow Oven (Qty: 1)	Application: Surface Mount Technology (SMT) Soldering and PCB Assembly Heating Technology: Infrared, Convection, or Equivalent Reflow Heating System Temperature Range: Ambient to Minimum 300°C Temperature Control Accuracy: $\pm 2^\circ\text{C}$ or Better		

		Heating Zones: Multi-Zone Temperature Control Preferred Temperature Profile Control: User Programmable Reflow Profiles Profile Storage: Multiple Reflow Profiles Storable PCB Compatibility: Single-Sided and Double-Sided SMT Assemblies Chamber Size: Suitable for PCB Prototyping and Small Batch Production Display: Digital Display / Touchscreen Interface Process Monitoring: Real-Time Temperature Monitoring Control System: Microprocessor-Based Control System		
29		All items in the list should be covered for a comprehensive warranty for at least 2 years.		
30		There must be a local service centre with the availability of the spares in India.		
31		The spares will be made available for the equipment for at least 5 years from the date of installation.		

Terms and Conditions

- Complete technical specification of the instruments and its necessary parts and accessory items required for running the instrument has to be submitted.
- A complete design along with the clear indication/markings of the specification mentioned in the technical bidding document (wherever possible) of the instrument.
- Scanned copy of the technical brochure and website reference of the same must be included in the bid.
- All items in the list should be covered for a comprehensive warranty for at least 2 years. The comprehensive warranty should cover all parts, accessories, spares and labour on site, free maintenance and service on-site at no additional cost, and regular upgradation of software. This should be clearly and explicitly specified.
- There must be a local service centre with the availability of the spares in India. The details of local service center has to be submitted.
- A declaration from the principal stating that the spares will be made available for the equipment for at least 5 years from the date of installation.
- The bidder should have supplied equipment with similar or higher specification within India, and must provide scanned copies of 3 purchase orders showing the same. These POs must not be older than 5 years, and at least ONE of them must be from a premier Government Institution or R&D Organization.
- A duly signed detailed User List (at least 5) with the concerned person's valid contact details, in India where the instrument is still in the operational condition must be provided.

- A copy of the Authorization Certificate issued by the principal in favour of the Indian agent along with a certified copy of the Agency Agreement between the foreign Principal and Indian agent. Both these certificates must be up-to-date. (If applicable)
- A duly signed separate compliance sheet of the specification (at every point) mentioned in the technical part along with the deviation (if any). This compliance sheet will not be considered as the technical specification of the instrument.
- Each bidder has to mandatorily quote for all the items.