

ExTeM-CAPEX-006-3D printer

3-D printing system required for printing of polymer optics

Tender are initiated for Procurement of 3D Printer Indian Institute of Technology Madras, 2 bid system(Technical bid and Commercial bid) from eligible and experienced OEM (Original Equipment Manufacturer) OR OEM Authorized Dealers document.

TECHNICAL SPECIFICATIONS

Technical specifications

1. Building on the platform
2. Excellent warping prevention / Even heat distribution / Longer lifetime / Easy to remove – Build platform with temperature controller
3. Print Technology: Jet Printing with UV curing
4. Build Volume (W×D×H): – Single Extrusion Print: 200×200 ×100 mm
6. Print Head: Dual-head with electronic lifting system
8. XYZ Step Size: 0.5, 0.5 and 0.05 micron
9. Print Head Travel Speed: 30 – 150 mm/s
10. Build Plate: Heated aluminum build plate with magnetic holding
11. Max Build Plate Temperature: 110 oC
12. Heated Bed Material: Silicone
13. Build Plate Leveling: Pre-calibrated leveling
14. Supported Materials: poly (methyl methacrylate) (PMMA, acrylic) polycarbonate (PC), polystyrene, liquid silicone, e.g. in the form of flexible resins
15. Nozzle Diameter: 0.4 mm (Default), 0.2/ 0.6/ 0.8/ 1.0 mm (Available)
16. Max Nozzle Temperature: 300 oC
17. Connectivity: Wi-Fi, LAN, USB port, Live camera
22. Power Supply Input: 100-240V AC, 50/60Hz 230V @3.3A
23. Suitable Slicing Software like idea Maker / equipment
24. Supported File Types: STL/ OBJ/ 3MF 26.
25. Supported OS: WINDOWS/ macOS/ LINUX
26. Machine Code Type: GCODE Printer Controller
27. User Interface: 7-inch Touch Screen

Other conditions

The vendor may specify additional spares required for smooth operation of the unit over a period of five years

PRE-INSTALLATION REQUIREMENTS

The infrastructure/utilities such as power and any other special ambient conditions required from this laboratory should be intimated.

DOCUMENTATION:

Two sets of instruction and service manuals in English including various sub systems, spares, accessories, electronic drawings, schematics drawings should be supplied along with the unit. The necessary software in CD has to be supplied.

It is mandatory to submit the filled Technical Compliance Sheet attached herewith along with the technical quotation.

- a. all sub modules / accessories should be warranted for at least for 12 months from the date of installation/commissioning against all the design, material or manufacturing defects.
- b. Supplier should attend the maintenance issue within 7 days of complaint.
- c. Installation should be done by factory trained engineers at our institute, free of charge.
- d. Operation, service and maintenance training should be provided to at least five persons for a minimum of two days.
- e. One set of maintenance and operating manuals in English (with a hard copy)
- f. The offer should be made @5% GST against a concessional GST certificate.
- g. Equipment to be delivered in test ready, factory calibrated condition.
- h. Supplier must have supplied any kind of this system to at least 1 IIT or 2 NITs or 2 government R&D laboratories in India.
- i. The supplier must provide the detailed address of the customers from IITs, NITs and government R&D laboratories in India to whom they have supplied any kind of similar unit.
- j. The supplier should be equipped with well-trained engineers to offer post warranty maintenance and service support.
- k. The nearest service center is to be mentioned.
- l. Compliance statement needs to be provided clearly specifying COMPLY/NON-COMPLY with remarks/reasons of all of the points mentioned above (from 1.0 to 12.12).