



DIRECTORATE GENERAL, CRPF
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No. B.V-7-C/2025-26-C (3D Printer)-QR CELL

Dated, the 20 March'2026

Subject: - REQUEST FOR COMMENTS OF STAKEHOLDERS / OEM/FIRMS ON DRAFT QRs & TDs OF "3D PRINTER" REGARDING.

The Draft QRs/TDs of "**3D Printer**" is attached as **Appendix 'A'**. The OEMs/Vendors are requested to forward information of the product, which they can offer and also forward correct specifications of their product against each parameter. Only complied or not complied remarks will not be accepted. The firms are also requested to furnish the following details: -

- Whether you are OEM/Vendor?
- If vendor, details of OEM required.
- Authorization certificate from OEM.

2. The required information/details may please be forwarded at the following addresses by 20 **March'2026**.

Communication Directorate, CRPF
East Block-7, Sec-1, R.K. Puram, New Delhi-110066
Email: comncell@crpf.gov.in

3. An early response is requested.

(Megh Raj)
DIG (Equipment)
Communication & IT Branch
Directorate General, CRPF

DRAFT QRs/TDs OF 3D PRINTER

S.N.	Description	Specifications / Parameters	Trial Directives
1.	Description	The quoted 3D printer should be capable of industrial-scale printing of incredibly strong parts with precision sensing systems. The quoted printer should combine the benefits of continuous fibre reinforcement for parts as strong as metal with high quality surface finish.	Board will check physically
2.	Printing Technology	FDM or Latest Technology (As per User Requirement)	Board will check physically
3.	Build volume	300 × 300 × 300 mm or bigger (As per User Requirement)	Board will check physically
4.	Nozzles	Multi-Colour/Hybrid/Interchangeable Nozzles	Board will check physically and Firm will submit OEM certificate
5.	Nozzles Size	0.4 mm (standard); interchangeable 0.6 mm / 0.8 mm OR As per User Requirement	Board will check physically and Firm will submit OEM certificate
6.	Filament compatibility	PLA, PETG, ABS, ASA, Nylon, Nylon+ CF, PET-CF, flexible TPU (with proper extruder) OR As per User Requirement	Board will check physically and Firm will submit OEM certificate
7.	Bed levelling	Automatic mesh levelling	Board will check physically
8.	Hot end Temperature	As per Filament Material	Firm will submit OEM certificate
9.	Printer Connectivity	USB/ SD card/ Wi-Fi/LAN/ remote monitoring via camera (As per User Requirement)	Board will check physically
10.	Power Recovery	Print resume after power loss	Board will check physically and Firm will submit OEM certificate
11.	Filament Detection	Run-out and jam sensor	Board will check physically

12.	Print Speed	50–250 mm/s (As per User Requirement)	Board will check physically and Firm will submit OEM certificate
13.	Software Features	<ul style="list-style-type: none"> • Industry 4.0 compliant (featuring IoT connectivity, real-time monitoring, predictive maintenance, and data integration capabilities for smart manufacturing and maintenance operations.) • Windows/Mac • Supported Files. STL (Stereolithography file format) & Other Standard File Formats • Auto queuing of slicing and printing 	Board will check physically and Firm will submit OEM certificate
14.	Other key Features of 3D printer	<ul style="list-style-type: none"> -Pause/Resume functionality - Kinematically coupled build platform - Draft-blocking enclosure - Touchscreen interface - Reusable print bed (rated for 1000+ prints) - Capability for embedding metal inserts during printing 	Board will check physically and Firm will submit OEM certificate
15.	Print Quality Control	Automatic homing and calibration after defined layers; real-time error detection with remote user alerts and print cancellation option to prevent material wastage.	Board will check physically and Firm will submit OEM certificate