

## TECHNICAL SPECIFICATIONS OF CONTINUOUS COMPOSITE 3D PRINTER

<b>Description</b>	The quoted printer should combine the benefits of continuous fiber reinforcement for parts as strong as metal with high quality surface finish.
<b>Printing Technology</b>	FFF or FDM with Continuous Filament Fabrication Technology
<b>Build Volume</b>	The build volume shall be in the range of 320 – 350 mm x 130 – 150 mm x 150 – 160 mm or bigger in XYZ
<b>Materials</b>	<p>Should support High performance material like</p> <ul style="list-style-type: none"> <li>· Nylon with chopped carbon fiber</li> <li>· Nylon, PLA (Poly Lactic acid) , TPU (Rubber based material) etc...</li> <li>· Fiberglass</li> <li>· Carbon Fiber</li> <li>· Kevlar</li> <li>· High-Strength High-Temperature Material for application requiring higher temperature with HDT approx. 150 deg. C. or more..</li> </ul> <p>Material properties datasheet of all the materials as per international to be provided.</p> <p>Material should be chemically resistant.</p>
<b>Z Layer Resolution</b>	100 -200 micron or lower
<b>Bed Levelling</b>	Semi-Automatic / Automatic
<b>Printer Connectivity</b>	WiFi, Ethernet, USB Flash Drive
<b>Software Features</b>	<ul style="list-style-type: none"> <li>• Industry 4 compliant</li> <li>• Organization Admin Portal</li> <li>• Supported OS Mac OS 10.7 Lion +, Win 7+, Linux2.</li> <li>• Auto queuing of slicing and printing</li> <li>• Fibre laying: Isotropic layer fully programmable for lay-up angle.</li> <li>• Should have option of pausing &amp; placing insets while printing.</li> <li>• Option of laying concentric fibre reinforcement on parts at different geometry &amp; locations.</li> </ul>
<b>Software Delivery</b>	SaaS deployment and storage capability
<b>Print Quality Control Features</b>	The print head should always be capable to adjust its home position after certain layers and if an error is detected user should be alerted and can choose to cancel the print remotely, saving time and material.
<b>Fiber material</b>	Along with the 3D printer 150cc Carbon Fiber CFF Spool – 1 No, 150cc HSHT Fiberglass CFF Spool – 1 No should be delivered.
<b>Certification</b>	Printer should be CE certified
<b>Warranty</b>	1 year Comprehensive including Spares for Wear & Tear of the parts.
<b>System</b>	Suitable System of latest configuration to be supplied
<b>Training</b>	1 week onsite

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