Department of Manufacturing Engineering
RAPID MANUFACTURING FACILITY

Polymer (Powder) based Rapid Manufacturing System and its Accessories procured from EOS GmbH (P 396) costing Rs.3.15 cr approx, which is based on Selective Laser Sintering (SLS) technique. SLS is one of the 3D printing or Rapid Manufacturing or Additive Manufacturing technique in which an object is created by selectively fusing polymer powder layer by layer using a laser beam.

The P 396 machine covers the medium build volume range with a total build size of 340 x 340 x 600 mm. This modular and highly productive system allows the tool-free manufacture of serial components, spare parts, functional prototypes and models directly from CAD data.

This machine is capable of fabricating with PA 2200 (Bio compatible), Glass filled Polyamide - PA 3200 GF (High stiffness and thermal resistance), Alumide (Rigid and thermal resistance), PA1101 (Functional components), Prime Cast 101(investment casting patterns) materials, which enables fabrication of functional parts for Anti-biogramoscope device.

The P396 machine enables to manufacture complex intricate shapes with integrated functionalities such as guide ways and gears which in turn reduces manufacturing time, tooling and also eliminates need of designing parts based on manufacturing constraints.

This facility is produced LED box, Gantry head, multi-stack, tray, micro well holder, camera holder, customized mounting brackets and syringe assemblies in semi, fully automatic, and multistack models of Anti-biogramoscope device.

It can also fabricate functional and end use components for Aerospace, Automotive, Architecture, Defense, Educational, Healthcare, Lifestyle products and Research & Development sectors.