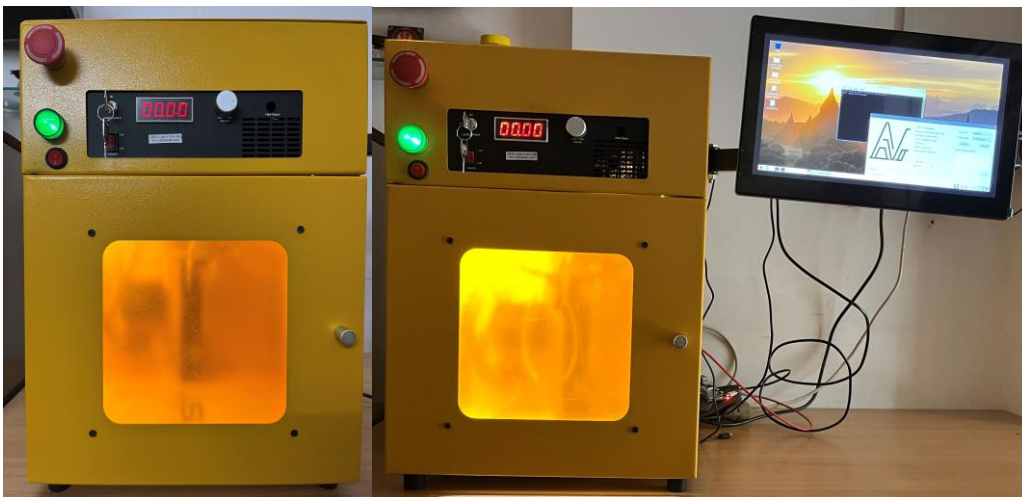


Variable Power Density Laser Exposer System

Specialise Products Private Limited is an Indian Original Design Manufacturer (ODM), who Conceptualise, Design and Manufacture customized machines as per customer's requirement.

We already Conceptualised, Designed and Manufactured Laser Assisted 3D Bio Printer ([International Patent Applied](#)), 3D Direct printer (no need for Filament, directly input your materials in Powder/Granules OR Semisolid form), Liquid (Drop on Demand) 3D Printer, Automatic Laser Exposure and Scanning System (ALES) to name a few. We are always eager to understand customer's pain points and provide customise solutions which are not available in the market.

Our Variable Power Density Laser Exposer System (Model # VPD-LES) is designed to expose the "Bio Samples" with variable Power Density as well as different Exposer Time. "Power Density & Exposer Time" are user defined as per their application.



Technical Specifications

LASER Specifications	
Laser Wavelength	Any Visible, NIR Laser Source (e.g. 532 nm, 638 nm, 750 nm, 808 nm , 915 nm, 980 nm etc.)
Laser Power	Variable 0.1 W to 20W (variable from 10% to 100% of the chosen Laser Source)
Laser Power Stability	+/- 5% (for 2 hours)
Laser Beam Diameter	Variable 5 mm to 50 mm (depends upon chosen collimator as well as distance from the sample)
Laser Power Density	Variable from 0.1 W/cm ² to 10 W/cm ² (by varying the beam diameter through variable collimator OR through variation of distance of Laser source with respect to sample)
Fiber Coupling of Laser	Multi-Mode, NA 0.22, 400 µm Diameter with FC/PC connector and 2 meter length.
Laser Driver	Suitable Laser Source Driver
Laser Life	~ 10,000 hours
SYSTEM Specifications	
System Design	Suitable for tissue/cell culture work (96 well plate or 24 well plate or 6 well plate) and in vivo studies on tumour-bearing/arthritis Rat/Mice
XY Motion	Optional (as per customer requirement; up to 200 mm x 200 mm) – additional cost
Z Motion	30 cm +/- 25 mm (other options are available); Manual (option for motorized at additional cost)
Display	12" colour touch screen display.
On Screen Display	Features: <ul style="list-style-type: none"> ➤ Laser: Manual: Start Emission ➤ Laser: Manual: Stop Emission ➤ Laser: Manual: Reset ➤ Laser: Auto: Set Time (in mm: ss), ➤ Auto: Start; Auto: Pause; Auto: Reset
	<ul style="list-style-type: none"> ➤ Status: Laser connected; Disconnected ➤ System Shutdown ➤ System Restart ➤ Time elapse display ➤ Display of power density display



SPÉCIALISÉ PRODUCTS

Customized Solutions Company

Alarms & Safety	<ul style="list-style-type: none"> • Instrument should give an alert alarm if the laser emission gets off in between experiments • Instrument should give alert alarm after completion of the experiment • Key switch • Emergency stop • Thermal shut down • Safety/ Warning labels as per laser and thermal safety compliance
Power requirement	220VAC, 5A, 50 Hz
Training & Installation	2 Days training session will be provided to the concern person & team by Certified trainer
Warranty	Standard on-site comprehensive warranty for one year (Option for Warranty Extension)
Optional Items	<ol style="list-style-type: none"> 1. IR Card 2. Safety Goggle 3. Thermal Camera to monitor temperature of the sample with following Specification (01 pc) <ul style="list-style-type: none"> ➢ Ambient Temperature min: 5 °C ➢ Ambient Temperature Max: 50 °C ➢ Scene Temperature min: 0 °C ➢ Scene Temperature Max: 120 °C ➢ Radiometric Information: All Pixels ➢ Absolute Temperature Reading Accuracy: + 2% ➢ Spectral Range: 8 to 14 μm ➢ Field of View: 60 °C ➢ NUC: Shutterless 4. Multi-Mode Infra-red Laser Wavelength: 808 nm with following specification (01 pc) (Laser Power: > 2W; Power Tunability: From minimum up to > 2W; Beam Diameter: Adjustable from 5 mm to 30 mm; Collimator: Variable Beam Diameter, from 5 mm to 30 mm; Laser Exposure Time: Variable, from seconds to Minutes; Power Density: Adjustable from 0.2 to 10 W/cm²; Fiber length: Minimum 1.0 meter • Fiber core diameter: 200 μm minimum; Laser Diode Driver: 220 V/ 50 Hz / 5 A; Distance from Sample: Variable, from 5 to 50 mm; Laser Lifetime: 10000 hours minimum)
Model Number	
Variable Power Density Laser Exposer System	Model # VPD-LES