

3D Bioprinting Solutions



Fabion Bioprinter has the following components and characteristics:

Fabion is able to handle up to five different materials in one print. It is composed of three syringes with one being able to have the temperature from room temperature to 2°C. One spray nozzle and one fluid dispenser. The X-Y stage has heated bed from room temperature up to 70°C. It is also have a high precision laser reference position detector for alignment of the nozzles for a flawless print.

X-Y stage:

- Effective stroke: 450mmx350mm
- Positioning accuracy: 30µm
- Repositioning accuracy: 5µm
- Payload: 2kg

Z stages:

- Effective stroke: 150mm
- Positioning accuracy: 3µm
- Thrust of up to 222N

Syringe dispenser

- Fishman AirFree™ dispensing system
- Syringe Size 3cc, 5cc and 10cc
- Outlet thread: Male Luer lock
- Minimum dispense volume: 0.00023ml
- Viscosity 1 to 800,000 cps

Aseptic spray dispenser - Nordson 784S-SS

- Easy to clean or sterilize in place
- FDA-compliant wetted parts
- Low-maintenance design
- Actuating air pressure required: 70 to 90 psi
- Maximum fluid pressure: 25 psi
- Uniform spray patterns from 3.3 mm to 19.1 mm in diameter.

Aseptic fluid dispenser - Nordson 754V-SS Valve

- Accurate, consistent shot size
- Easy to clean or sterilize in place
- FDA-compliant wetted part
- Exceeds 500 cycles per minute
- Actuating air pressure required: 70 psi

- Fluid inlet thread: 5/16-24 UNF
- Fluid outlet thread: Male Luer lock
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Laser centring unit for precision detection of a reference point

UV Laser (365nm) module for polymerization mounted next to spray unit