

3D Printer Technical Specification Sheet

The ALTO 3D printer is a robust additive manufacturing machine, industrially designed to print reliably and repeatably, 24/7. It has been specially designed to print the following custom orthopedic devices in polypropylene (PP):

- temporary socket
- scoliosis brace

Model Name: PROTEOR PRINT ALTO

Manufacturer: ALCHIMIES (9 Rue Roger Husson – ZA – 57260 Dieuze, FRANCE)

Seller: PROTEOR (6 Rue de la Redoute - 21850 Saint-Apollinaire, FRANCE)

General Information:

- Technology: Fused Filament Fabrication (FFF) or Fused Deposition Modeling (FDM)
- Build Volume: 400 x 400 x 700 mm
- Machine Dimensions: Length 852 mm x Depth 852 mm x Height 1335 mm
- Weight: around 100 kg
- System Movement: Core XY with linear guide rails (X, Y, Z axes)
- Extruder Type: Direct extrusion
- Interchangeable head (brass nozzle 0.8 mm diameter included with machine)
- Head Temperature Range: Up to 250°C
- Plate: Fixed aluminum plate (8 mm thick) heating 230V
- Bed Temperature Range: Up to 110°C

Printing Specifications (for PP with 0.8 nozzle):

- Filament Diameter: 1,75 mm
- Hotend temperature: 240°C
- Bed temperature: 85°C
- Extrusion width: 0.8 mm
- Layer height: 0.3 mm
- Print flow: Up to 11 mm³/s
- Travel speed: Up to 150 mm/s

Software and Connectivity:

- Supported File Formats: G-code, without size limit
- Interface: 7-inch touchscreen
- Connectivity: USB, Wi-Fi, Ethernet

Power Requirements:

- Input Voltage: 220V
- Power Consumption: 1400W PF>0,90

Additional Features:

- Thermoregulated drying chamber, automatic door locking during printing (for filament spools up to 5 kg)
- Emergency stop button
- Management of power system outages
- Spool end management: machine pauses until spool is replaced

Warranty:

1 year

Warranty terms:

- Service and maintenance in accordance with supplier's recommendations
- Filament supplied by PROTEOR – Natural polypropylene
- Install the printer in a room complying with the supplier's recommendations

Emergency contact:

cs@proteor.com

