MASS PORTAL®

D400 Dual Dryer

Production 3D Printer with Dual Filament Dryers

AUTOMATION READY

EXTRUSION SYSTEM
Dual nozzle Bowden system
All-metal hotend and feeder
Extrusion temperature up to 475 °C
Included nozzle: 0.4 mm

BUILD CHAMBER
Enclosed, thermally insulated, heated chamber
Build volume: 400 mm x 400 mm x 400 mm, cylindric
Quick-release glass printbed
Printbed heating up to 120 °C

Nozzle Touch™ autocalibration

Dual nozzle hotend

Heated chamber

Compressed air part cooling

Integrated dual filament dryers

Hotend liquid cooling

FabControl

Printer control software

FabCloud™

Printer & dryer monitoring and control

SIMPLIFY3D™

Full commercial license for Simplify3D™ slicing software

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Printer
Technology: Fused Filament Fabrication (FFF)
Build volume (w x d x h): 400 mm x 400 mm x 400 mm, cylindric
Build chamber: enclosed, thermally insulated
Build chamber door: tempered glass
Build chamber temperature: room temperature - 80°C
Build chamber illumination: yes
Build chamber ventilation: two intake, two exhaust fans
Motion system: precision linear guideways
Frame: rigid aluminium frame
Maximum printhead travel speed: 250 mm/s
Electronics: 32-bit
Firmware: open-source Repetier-Firmware
Extrusion type: Bowden tube
Feeder type: custom-designed dual grip feeder
XYZ accuracy: 6, 6, 5 micron
Ultimate layer resolution: 150 micron (0.4-mm nozzle)*
Remote monitoring: built-in HD camera
Connectivity: USB 2.0 and Ethernet jacks, Wi-Fi
Automation ready: yes (software interfaces)

Printhead
Printhead: all-metal Mass Portal dual nozzle
Printhead cooling: liquid cooled
Rod ends: heat-resistant precision rod ends
Heater: four resistive heaters
Nozzle temperature: 75 - 475 °C
Nozzle heatup time: < 5 min
Nozzle inner diameter: 0.4 mm (supplied), 0.6 - 1.4 mm
Deposition speed: < 5 mm^3/s (0.4 mm nozzle)*
Printed part cooling: compressed air

Build plate
Type: glass plate
Temperature range: room temperature - 120 °C
Heatup time: 5 min

*material and settings dependent value

Power requirements
Max. 2780 W

Regulatory compliance
CE, WEEE

Safety
Air filtering: HEPA & active carbon filters
Door safety switch: yes
Overheating protection: yes

Model material
Type: filament
Filament diameter: 1.75 mm
Supported nozzle materials: “open material” with softening/melting temperature below 475 °C
(ABS, ASA, BVOH ,CPE, HIPS, PA (Nylon), PC, PEI, PEEK, PET, PETG, PLA, PMMA, POM, PP, PPSU, PVA, PVB, TPE, TPU, as well as filled filaments)
Hardness: > 85 A Shore

Filament dryers
Compatibility: "open material" spools up to 1 kg
Spool size (diameter x width):
200 mm x 80 mm

Printer size
Dimensions (w x d x h):
755 mm x 770 mm x 1775 mm

Ambient conditions
Operating ambient temperature: 15-35 °C, 10-90 % RH

Software
Supplied software:
Simplify3D™ (slicer and control software)
cloud-based FabCloud™ (printing, drying profile management software)
FabControl® (printer control software)
Supported OS: Linux, MacOS, Windows
Supported 3D models file format : .stl, .obj, .3mf
Supported print file format: .gcode

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