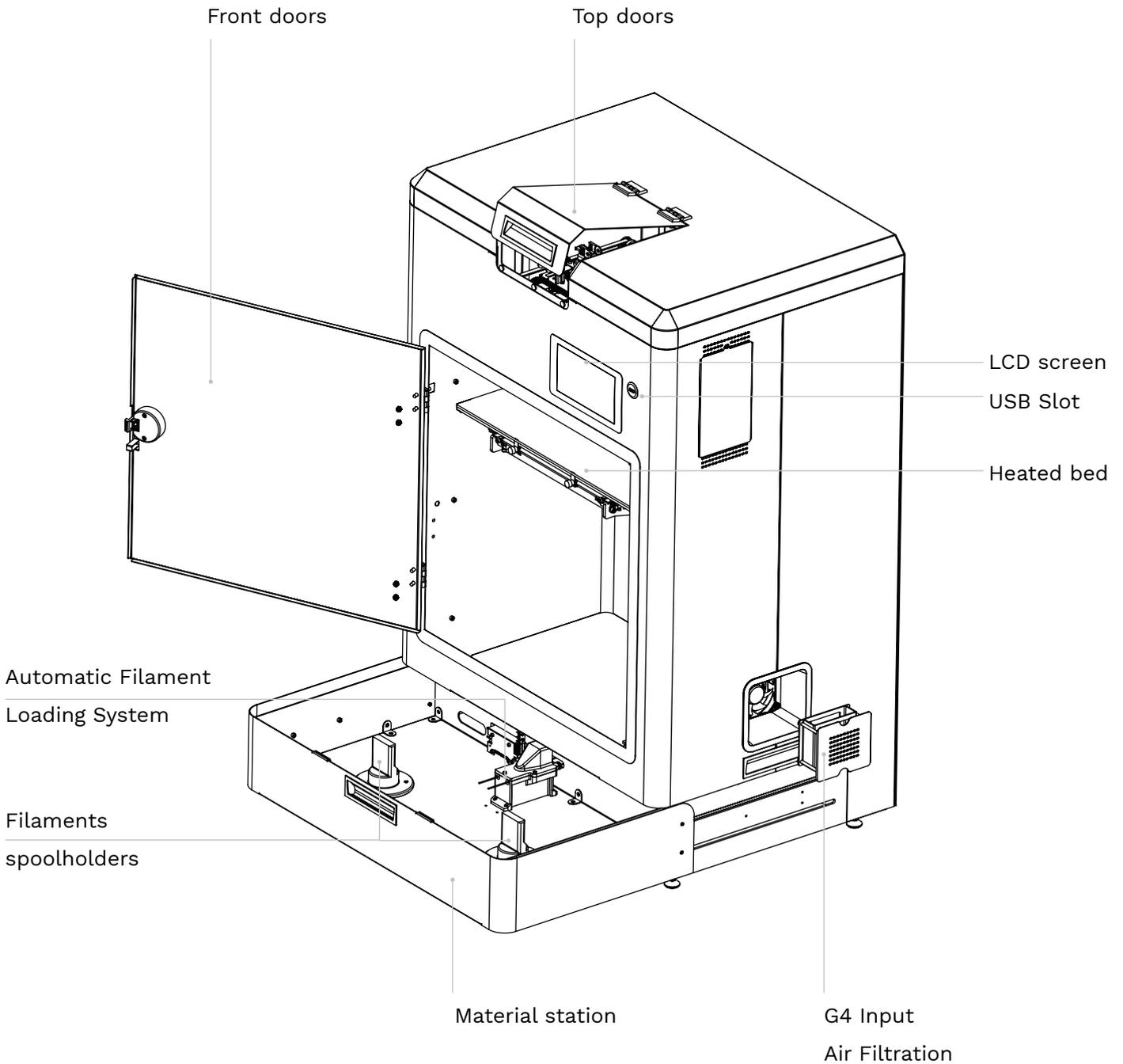


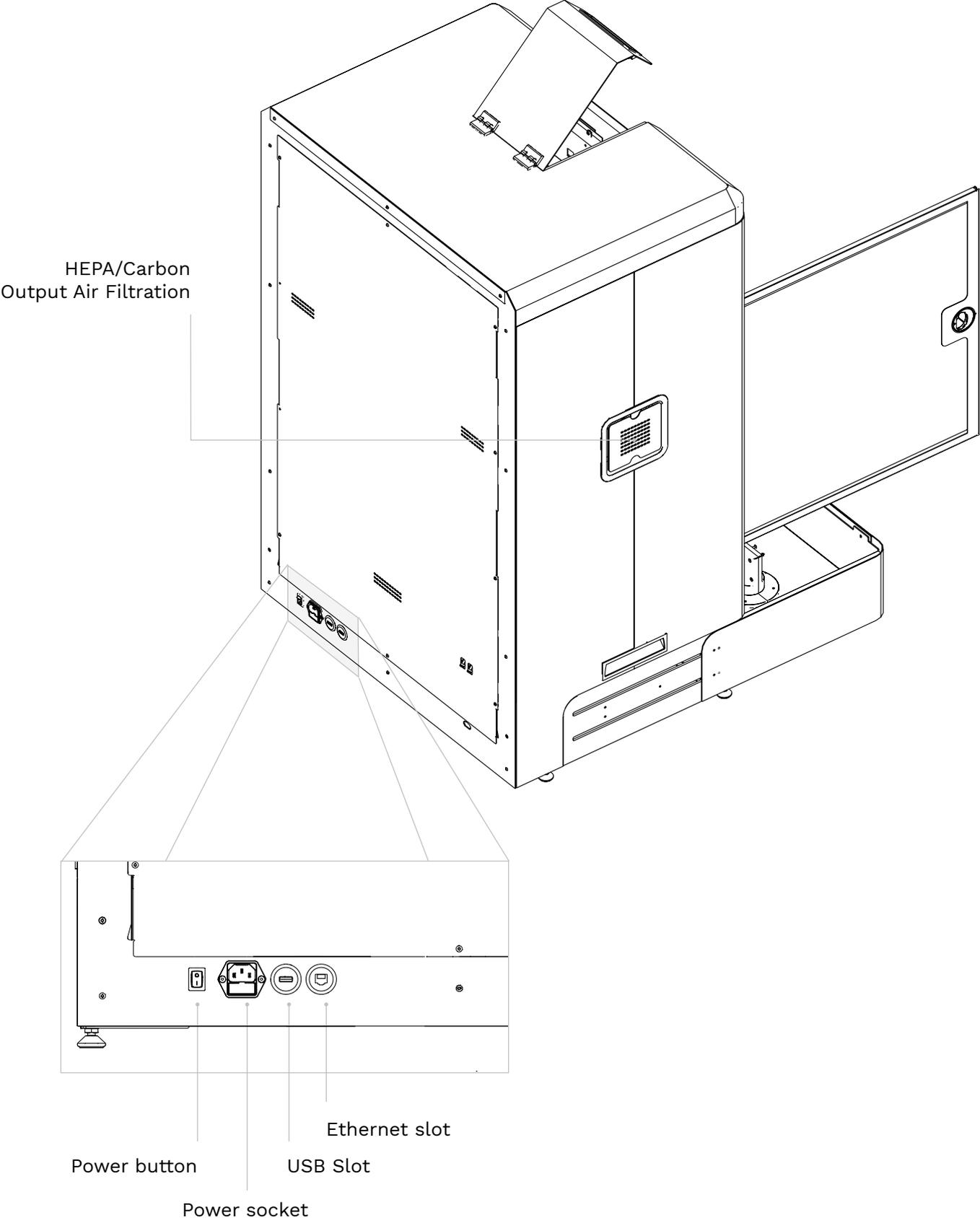
Machine specification

Machine specification

Overview



Machine specification



Machine specification

Specification

Weight and Physical Dimensions

3D printer	703 x 507 x 1075 [mm]
Transport package dimensions	800 x 600 x 1200 [mm]
Transport weight	~ 70 [kg] *
3D printer weight	~ 55 [kg] *

3D printing parameters

3D printing technology	FFF (Fused Filament Fabrication)
Toolhead	Single material 1.75 [mm], Dual material 1.75 [mm]
Layer resolution	0.05 - 0.4 [mm]
Maximum extruder temperature	300 [°C]
Work area (single material)	460 x 300 x 500 [mm]
Work area (dual material)	440 x 300 x 500 [mm]
Maximum bed temperature	130 [°C]
Minimum wall thickness	0.4 [mm]
Dimensional accuracy	+/- 0.2 [mm]
Work area leveling method	Semi-automatic
Material form	Spool, maximum Ø 300x100 [mm]
Material diameter	1.75 [mm]
Nozzle diameter	0.4, 0.6, (0.8 - work in progress) [mm]
Support	Mechanically and chemically removed - printed with build or support material
Connectivity	USB (pendrive), Ethernet, WiFi
Available materials	PLA, ABS, PET, Nylon, PVA, ASA, TPE, PC/ABS, HIPS
Third-party materials	Supported
Work speed	10 - 110 [mm/s]
Travel speed	350 [mm/s]

Electrical parameters

Input current	110 [VAC] ~ 9-10 [A] 50/60 [Hz] 240 [VAC] ~ 5 [A] 50/60 [Hz]
Maximum power consumption	1000 [W]

Machine specification

Software

Software	Own dedicated software
Supported formats	STL, OBJ

Air filtration parameters

Output filter type	HEPA/Carbon
Input filter type	G4 (anti-dust)
Ventilation power	3.1 [W]
Filter dimensions	80 x 80 x 25 [mm]
Filtration control	Temperature

Other

Toolhead changing system	Nozzle Lifting System
Nozzle Waste Remover	Brass brushes and Teflon scrapers
Filament loading	Automatic Filament Loading System
End of material detection	Filament sensors + RFID tags**

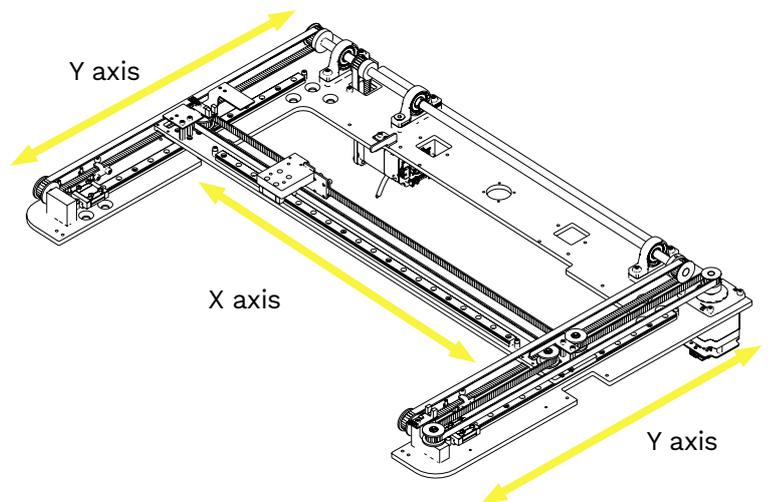
Components

X axis

single toothed-belt system driven by a stepper motor and linear rail as guiding element.
Used for movement of Zmorph Dual Drive Dual Extruder in X-axis. Must be periodically lubricated to ensure a long life of the machine.

Y axis

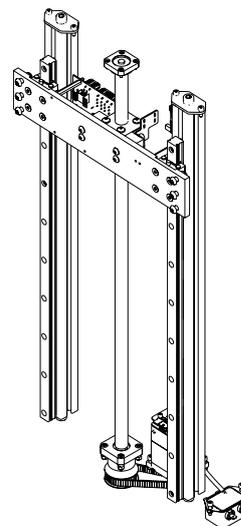
dual toothed-belt system driven by a stepper motor and linear rails as guiding elements.
Used for movement of Zmorph Dual Drive Dual Extruder in Y-axis. Must be periodically lubricated to ensure a long life of the machine.



Machine specification

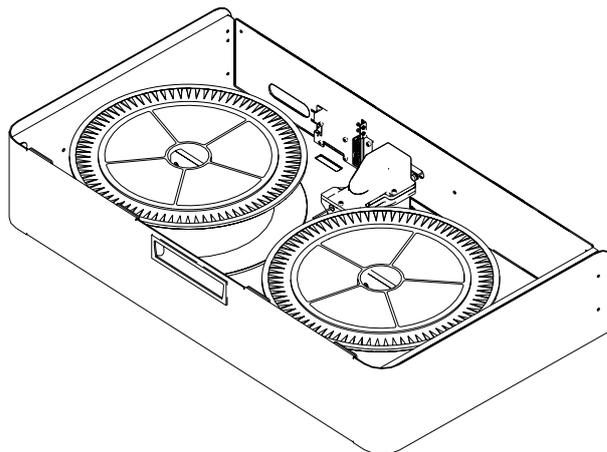
Z axis

axis driven by single stepper motor coupled with trapezoidal screw and high-quality Iglidur® trapezoidal nut. Guiding elements are two linear rails. Used for movement of heated bed in Zmorph i500 machine. Must be periodically lubricated to ensure a long life of the machine.



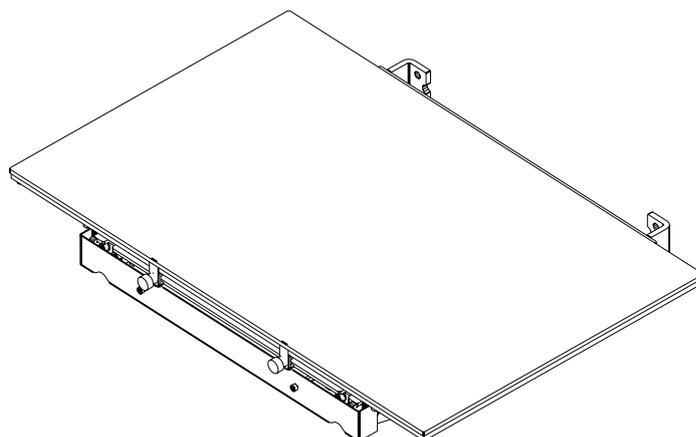
Materials Station

Zmorph i500 is equipped in drawer, specially designed for filament storage during the prints, it contains the two spoolholders for filaments and Automatic filament loading system inside.



Heated bed

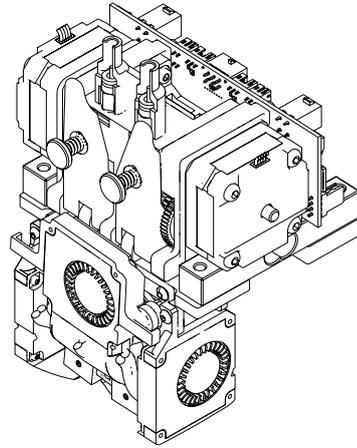
Zmorph i500 has a Heated bed with work area up to 460 x 300 x 500 [mm], it can be preheated to 130 °C. Bed design allows exchanging the heated bed glass really easily.



Machine specification

Zmorph Dual Drive Dual Extruder

it has a build in Nozzle Lifting System which controls the change of the left and right nozzle during the work. It is equipped with two separate nozzles, Zmorph Build Hotend with 0.4 mm nozzle and Zmorph Support Hotend with 0.6 mm nozzle



Hotend

Zmorph Dual Drive Dual Extruder has two separate hotends, it can be easily disconnected and replaced. As default we have on left Zmorph Build Hotend with 0.4 mm nozzle and on right a Zmorph Support Hotend with 0.6 mm nozzle

