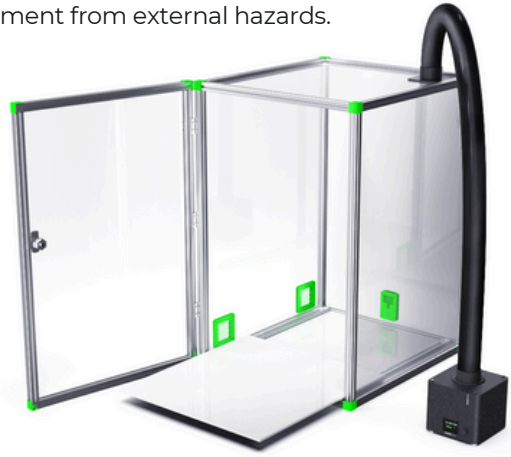
Customized 3D Printer Housing for FDM and SLA

The use of an Alveo3D housing protects the operator and the equipment from the risks associated with 3D printing during operation:
- Protection against the risk of burns from contact with the heating platen and extruder.
- Protection against injuries caused by machine movements.
- Protection against toxic emissions (nanoparticles and VOCs).
- Protection of equipment from external hazards.



Filters

Handle filters with care.
- When installing a new filter, avoid tampering with the filter media to ensure total efficiency.
- When changing a used filter, remove it smoothly and place it in a resealable bag. It's advisable to wear disposable gloves for this operation, or to wash your hands if you can't.

In addition to the electronic card, which keeps track of the filter's operating time, we recommend you keep a maintenance log to prevent your filtration system from reaching saturation point:

- Store in a dark, dry place at room temperature.
- Dispose of used filter as incinerable waste.

	Lifetime	Composition	Grade	Protection
P3D	600h	HEPA & Activated carbon	H13	Grille nylon
P3D-R	600h	HEPA & Activated carbon	H13	Grille nylon
P3D-L	600h	HEPA & Activated carbon	H13	Grille nylon
P4D	900h	HEPA & Activated carbon	H14	Grille nylon
M100	1500h	HEPA & Activated carbon	H14	
UM55	900h	HEPA & Activated carbon	H13	Grille nylon

Handling the cabinet

The use of an enclosure in a room with little or no ventilation confines the 3D printer's toxic emissions. Without filtration in the chamber, the concentration of VOC emissions and ultrafine particles can reach toxicity thresholds.

Always ventilate the box at least 5 minutes before opening it for the first time each day, or between two 3D prints.

If you're using a V2 Alveo3D electronic board, a “Fast clean mode” is available. It adapts the filtration time to the volume of your chamber.

In the case of an AlveoPRO, you'll get the airflow equivalent to Fast Clean Mode at 50% power.

Filter housing

The alveoONE / AlveoPRO filter box operates with a powerful fan. Never use the system without the protective grids or cover.

To guarantee air filtration efficiency, we advise you not to use a new filter with a V2 electronic board at less than 30% power.

Temperature

The housing withstands an internal temperature of 80°C.

The activated carbon filtration system loses efficiency at air temperatures of 60°C and above.

To prevent damage in the event of a fire starting in the 3D printer housing, we recommend installing a smoke detector directly in the enclosure.

Polycarbonate panels

Transparent panels are best cleaned with a specially adapted, antistatic product.

Use a microfiber cloth to avoid scratches. We recommend the use of disposable gloves and a respiratory protection mask.

HPL panels can be cleaned with resin solvents. It is advisable to wipe off residues after use.

Air intake grilles

Perforated air intake grilles should be wiped clean with a damp cloth to remove all dust agglomerates. These grilles are removable and should be replaced if damaged.