

## Potentiels pollutants generated by machines in the workshop

Machines	Potential pollutants
3D printer	Plastic dust, fine particles, volatile organic compositions (VOC)
Laser marker	Smoke, fine particles, VOCs
Pad printing	Pad dust, fine particles, solvents
Electroplating	Emissions of acids, fine particles, heavy metals
Jewelry pickling	Pickling dust, fine particles, heavy metals
Rhodium plating	Emissions of acids, fine particles, heavy metals

## Type of filter to implement

Type of pollution	Description	Type of filter to implement
Fine particles	Fine particles are generally residues of melted material that are expelled by the printer during the manufacture of parts. These particles can be inhaled and cause health problems.	HEPA filter (High Efficiency Particulate Air)
Carbon monoxide	Carbon monoxide is a gas that can be generated during incomplete combustion of healthcare materials such as ABS. It can cause health problems such as headaches and fatigue.	Activated carbon filter
Formaldehyde	Formaldehyde is a gas that can be generated by certain printing materials such as PLA. It can cause eye, nose and throat irritation, as well as respiratory problems.	Activated carbon filter with chemical adsorbent
Acrolein	Acrolein is a gas that can be generated by certain printing materials such as ABS. It can cause eye, nose and throat irritation, as well as respiratory problems.	Activated carbon filter