The SFM-AT800 can be used to clean parts produced on all additive manufacturing systems.

SFM-AT800 depowdering unit for automated powder removal of metal laser-melted parts

The SFM-AT800 cleans metal laser-melted parts within a sealed process chamber, with targeted vibration and automated two-axis rotation.

Through programmable rotation of the parts, including the build plate in two axes, unmelted build material is also removed from complex voids and support structures.

After the automated cleaning program, manual cleaning with compressed air or inert gas is possible using sealed glove ports.

Depending on the build material, the process chamber can be rendered inert with protective gas or dust can be removed by means of extraction.

Materials

- Aluminium
- Titanium alloy
- Nickel-based alloy

Basic features

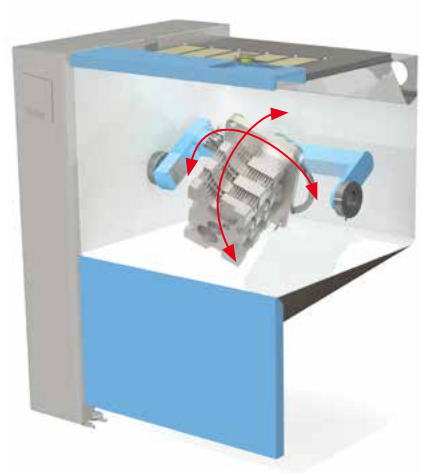
- automated 2-axis rotation device
- automatically-opened roof for crane loading of large parts
- pneumatic connections for manual air cleaning tools
- material airlock with special container for collecting metal powder
- controlled vibration mechanism with wide frequency range

Machine versions

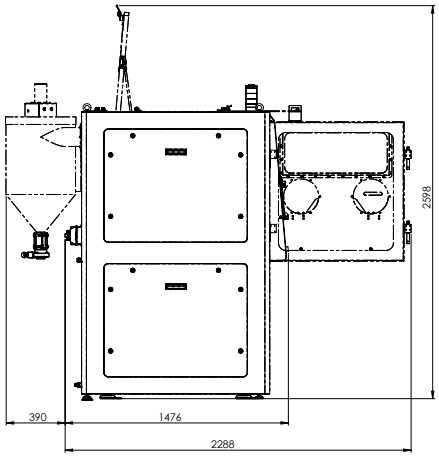
- high-performance dustremoval version for non-reactive materials
- inert gas infusion version meeting European explosive standards for reactive materials (ATEX)

Advantages

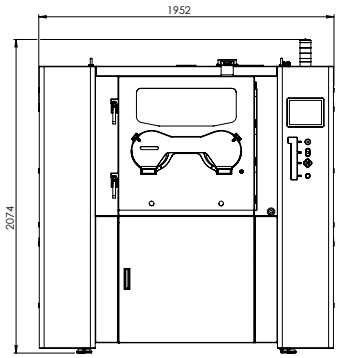
- tested explosion protection
- high degree of protection from harmful dust
- fast and economical part cleaning
- completely inert material handling
- robust design
- maintenance-friendly system layout
- direct link to sieving station



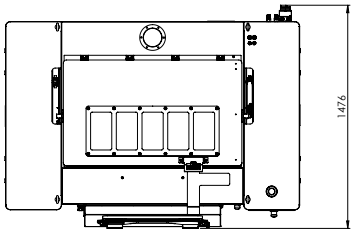
↑ Protected process chamber with programmable rotation device



↑ Side view



↑ Front view



↑ Top view

System specifications	Dimensions	Unit
Installation space (W x D x H)	3,500 x 3,500 x 3,500	mm^3
Weight	890	kg
Part specifications (incl. build plate)		
Maximum dimensions (W x D x H)	800 x 400 x 550	mm^3
Maximum weight	300	kg
Power specifications		
Mains voltage / frequency	400 / 50	V/Hz
Power consumption	0.4	kW
Power supply	16	A
Compressed air specifications		
Working pressure	6	bar
Consumption during operation	50 - 600	l/min
Inert gas specifications		
Working pressure	6	bar
Consumption	10 - 50	l/min

The highest safety standards are achieved through intelligent monitoring of the process and operation.
The well thought-through process sequence, from the loading through to the manual final cleaning, ensures convenient and economical operation.

* available 2018