



System for process gas cleaning in laser powder bed fusion (LPBF)

- Modular, open and cost-optimized gas cleaning system based to the use of standard components
- Volume flow up to 200 m³/h at a vacuum of 10,500 Pa (N2, 50°C) / 15,000 Pa (Ar, 50°C) and connected load of 2.2 kW
- Scaled systems with several modules allow larger volume flows
- Filter cell size optionally selectable according to dust load
- · Filter cleaning via jet impulse
- Operation possible with or without dosing of filter aid
- High level of safety and containment when removing used filter cells
- Simple handling
- Technical control operation as a slave with I/O system or as an independent system with individual control
- Small footprint





Equipment

- Frame with housing on castors (total space requirement WxDxH 800 x 1,200 x 2,000 mm)
- Standard: two filter cells, each with 5 m² filter area and dust collection volume up to 60 l
- Larger filter cells with 10 m² filter area each possible (total width from 800 to 1,000 mm)
- Filter cleaning system
- One emergency filter (filter cell)
- Side channel blower with mounted frequency converter
- Various sensors (differential pressure filter stages, fill level filter cell, oxygen, volume flow, temperature)
- Shut off process gas inlet, outlet (pinch valves)
- Field bus modules