

GAS RECIRCULATION- AND FILTER SYSTEM FOR

ADDITIVE MANUFACTURING

MAKE IT BECKER.



ENABLING THE NEXT LEVEL OF PREMIUM-QUALITY 3D METAL PRINTING

Rethinking the entire laser powder bed fusion process lead us to the development of a new gas recirculation- and filter system for AM machines.

EFFICIENCY

Reduced cost of ownership by use of cleanable filters and by the gas-tight system.

CUSTOMIZATION

Modular concept for customer specific stand-alone- or integrated system solutions with variable number of filter modules.

ADVANTAGES

- Higher productivity through uninterrupted long build jobs
- Best 3D parts quality through optimal constant inert atmosphere in the build chamber
- Capable to operate with lower density inert gases

CYCLEAM

 **BECKER**

THE BECKER AM SYSTEM SOLUTION

FEATURES OF THE NEW CYCLEAM

Gas Recirculation- and Filter System

MODULAR

- Optimal system solution for medium-size to largest 3D metal printing machines

CLEANABLE

- Long-life filters for cleaning between, or interference-free, during ongoing build jobs

COOLED

- Heat exchanger for optimal temperature level in the build chamber (optional)

SAFE – GAS-TIGHT – VACUUM-RESISTANT

- Safe inert atmosphere
- Safe and easy removal of filtrate
- No oxygen entry from outside into the process
- Evacuation of the system possible for a faster inerting of the machine
- Capable of handling lower density inert gases

INTELLIGENT AND FULLY AUTOMATED

- Gas recirculation blower with flow control for constant process gas flow
- Interference-free filter cleaning process supported by integrated vacuum generation

CUSTOMIZED

- Customer-specific system-design and interfaces for optimized adaption to the 3D metal printing machine



CYCLEAM
Gas Recirculation- and Filter System

MORE BECKER AM SOLUTIONS

With decades of experience in gas recirculation, we are among the pioneers in 3D metal printing. For individual AM machine integration we offer the following components:

- Gas-tight blowers and heat exchangers for inert gas recirculation

- Vacuum pumps (not gas-tight) for evacuation services
- Pumps and blowers for pneumatic conveying of metal powder
- Vacuum-tight filters for smaller-size 3D metal printers



VASF 2
gas-tight



Heat exchanger RV 1.17
gas-tight



SV
gas-tight



Filter CSL
vacuum-tight