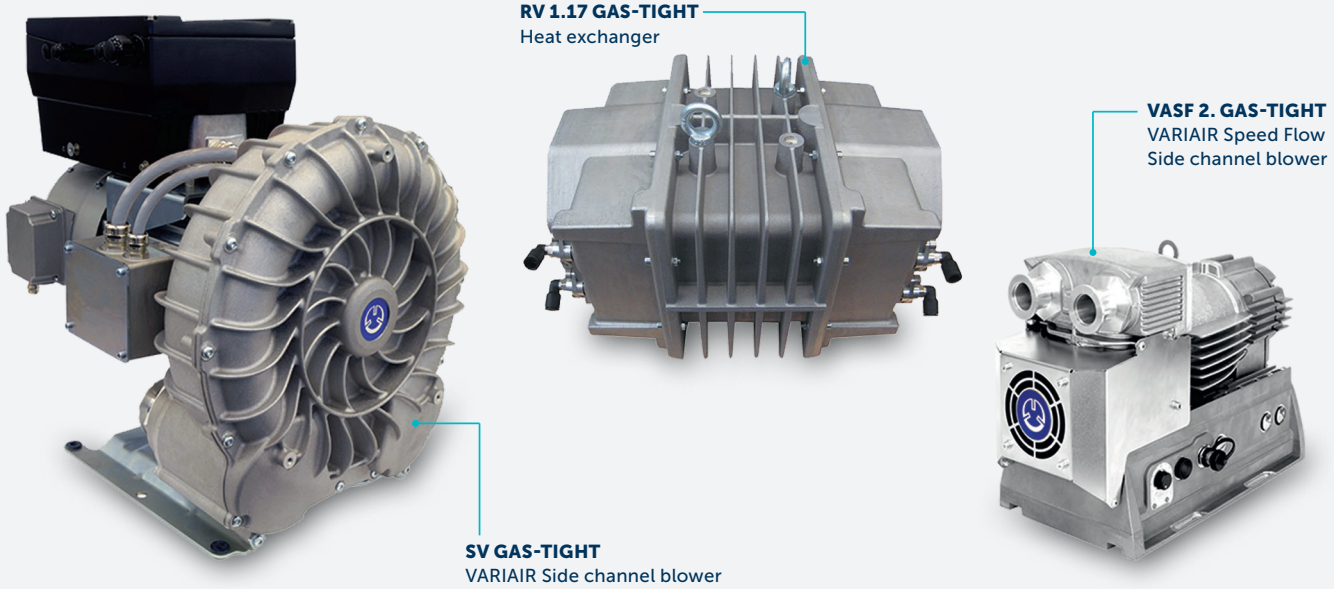
GAS-TIGHT BLOWERS & COMPONENTS FOR

ADDITIVE MANUFACTURING

MAKE IT BECKER.



BECKER GAS-TIGHT BLOWERS AND COMPONENTS FOR PREMIUM-QUALITY 3D METAL PRINTING

Additive Manufacturing offers huge potential and possibilities, while specifications are evermore demanding. In an optimized manufacturing process for high quality industrial metal 3D-printing, the gas recirculation and pneumatic conveying under inert conditions should meet the same high level requirements. Opt for gas-tight blowers and heat exchangers in your Additive Manufacturing machines.

EFFICIENCY

- Reduced Total Cost of Ownership
- No loss of inert gas
- Tightness 100% leak tested
- VARIAIR frequency inverter control for optimized adaptation to variable process conditions

CUSTOMIZATION

- Customer specific solutions for premium 3D metal printers
- Support and consulting in all project phases of AM machine R&D, design, and production

ADVANTAGES

Blowers and heat exchangers Made in Germany for

- Small to largest 3D metal printers
- Optimal inert gas atmosphere without oxygen entry
- Prevention of oxidation and lack-of-fusion defects
- Optimal temperature level in build chamber
- Powder transport with inert gas
- 3D metal parts of highest quality
- Best process quality
- Optimal systems integration

VARIAIR

BECKER

SPECIFICATIONS BLOWERS & HEAT EXCHANGERS

GAS-TIGHT BLOWERS FOR INERT GAS VOLUME FLOWS (ARGON AND NITROGEN) UP TO 930 M^3/H						
	VASF 2.50/1	VASF 2.80/1	VASF 2.120/1	VARIAIR SV 201/1	VARIAIR SV 300/1	VARIAIR SV 500/1
m^3/h	47	91	143	370	600	930
p/p (max.)	1.29	1.28	1.23	1.3	1.38	1.315
Hz	50–300	50–250	50–200	10–100	10–100	10–100
kW	0.65	1.1	1.4	4.0	7.5	11–22
	VASF 2.50/2	VASF 2.80/2	VASF 2.120/2	VARIAIR SV 300/2		
m^3/h	24	45	71	280		
p/p (max.)	1.56	1.57	1.46	1.52		
Hz	50–300	50–250	50–200	10–100		
kW	0.65	1.1	1.4	7.5		

GAS-TIGHT HEAT EXCHANGERS FOR NOMINAL COOLING CAPACITIES UP TO 9.5 KW			
	RV 1.17-0-114-04	RV 1.17-0-114-05	RV 1.17-0-114-06
kW (max.)	3.8	7.5	9.5

- p/p (max.) of blowers ⟶ inlet pressure ≤ 1050 mbar
- Gas-tight: leakage rate <1x10^{-5} mbar l / s (<1x10^{-6} Pa m^3/s) measured with a helium leak detector, integral for the complete unit
- Volume flow and pressure measured for air (VASF) and argon (SV), respectively, at reference data (1000 mbar, 20°C)

THE BECKER SOLUTIONS

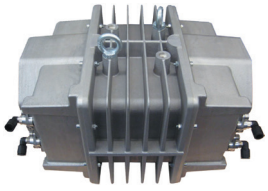
As a leader in the field of suction and blast air as well as decades of experience in gas recirculation we offer

- Gas-tight blowers and components for individual machine integration,
- Vacuum pumps (not gas-tight) for evacuation services and
- Customer focused systems solutions for high efficient inert gas recirculation and pneumatic powder conveying in Additive Manufacturing machines.

VARIAIR SPEED FLOW



VASF 2. gas-tight



Heat exchanger RV 1.17 gas-tight

VARIAIR UNIT



SV gas-tight

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