



**ULTRAFILTER**  
THE FILTRATION MANUFACTURER

*Kronsbein ultrafilter*®



**ultra.pure ALG  
Breathing Air Systems**

# ALG Breathing Air Systems

## ultra.pure ALG Breathing Air Systems

- The ultra.pure breathing air systems ALG 50 S – 375 S are desiccant type purification systems to supply breathing air in excess of all relevant international standards and medical prescriptions.
- The purification consists of seven stages: A two-stage prefiltration with a microfilter MF and a sub-microfilter SMF removes water, oil (liquid stage) and solid particles larger than 0.01 µm. The remaining oil content after the prefiltration is less than 0.01 mg/m<sup>3</sup>.
- The following desiccant dryer reduces the water vapour content of the compressed air down to a pressure dew point of –40 °C (equivalent to a remaining water content of 0,11 g/m<sup>3</sup>).
- The CO<sub>2</sub>-content is adsorbed to a level far below 300 ppm by a special grade molecular sieve

- adsorber (SP-stage), before the air is led through a deep bed filling of activated carbon (AK) to adsorb still present oil vapours and hydrocarbons to a level below 0,003 mg/m<sup>3</sup>.
- The following deep bed filling of a catalyst (OX-stage) converts CO into CO<sub>2</sub> and thereby reduces the carbon monoxide level down below 1 ppm.
- The final particle filter PE removes all particles which might be carried over from the adsorption and/or catalyst stages.

### Applications:

- Hospitals
- Cleaning Works
- Paint Industry

Features:	Benefits:
Complete purification package with CO and CO <sub>2</sub> removal	turnkey-product, no additional installation required, all components are designed to fit to each other
Guaranteed and validated separation efficiency	Breathing air quality in excess of all relevant international standards, as e.g.: DIN EN 12021 (DIN 3188); BS 4275; ANSI/CGA G.7.1; Z 180, 1 M85; AS 2299-1979; NZL 5813
Optimal adaption and generous dimensioning of components	Low pressure drops and low running costs
User and service friendly housings	Simple access to all components. Easy to maintain and to service.
Close range of systems.	Taylor-made system solutions

Media:	Operating pressure:	Inlet temperature:
Compressed air	max. 16 bar g / min 4 bar g	min. 4 °C / max. 50 °C

Pressure dewpoint:	max. oil content	Regeneration air requirement:
-40 °C at 100 % nominal load	3 ppm	approx. 15 % at an average

Ambient temperature:	Initial Δp	max. design temperature
min 2 °C, max. 50 °C	350 mbar	60 °C

Vessel design:	Approval	Power supply
EN 286-1	Declaration of conformity	230 v / 50 Hz

Air quality (related to standard inlet conditions)		Ave. power consumption
Particles	< 0.01 ppm	0.03 kW
Residual oil content	< 0.01 ppm	
Oil vapour & hydrocarbons	< 0.003 ppm	
CO <sub>2</sub>	< 300 ppm	
CO	< 1 ppm	
Water vapour	0.11 ppm	
Taste & odours	free of taste and odour	

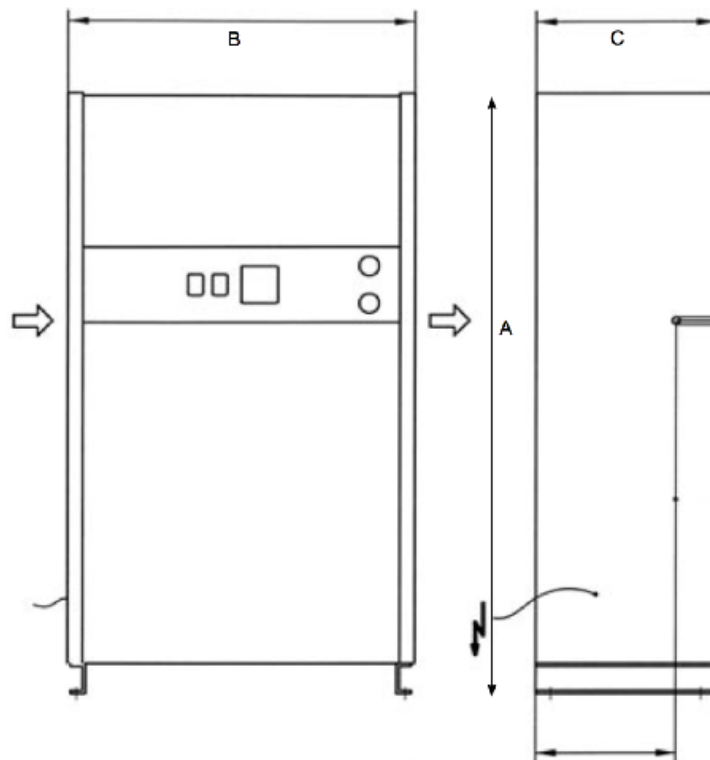
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## Correction factors

pressure bar g	4	5	6	7	8	9	10	11	12	13	14	15	16
$p_p$	0.63	0.75	0.88	1	1.12	1.25	1.38	1.5	1.62	1.75	1.88	2	2.13

Inlet temperature °C	20	25	30	35	40	45	50
	1	1	1	1	0.8	0.7	0.5

Type <b>ALG</b>	Flow Rate <sup>1)</sup> $V_{nom}$ m <sup>3</sup> /h	Connection BSP	Width W mm	Dimensions		Weight kg	Art. No.
				Depth D mm	Height H mm		
0050	50	G 3/4	915	460	1600	150	593123
0080	80	G 3/4	915	460	1600	195	593124
0100	100	G 1	915	460	1600	240	593127
0150	150	G 1	1120	600	1970	290	593128
0225	225	G 1 1/2	1120	600	1970	450	593130
0300	300	G 1 1/2	1120	600	1970	590	593131
0375	375	G 1 1/2	1490	710	2180	680	593132
0550	550	G 2	1490	710	2180	830	593133



Technical alterations reserved.



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