Aerosol separator
LGAir O 600 Basic/Advanced

For oils, nominal flow rate 600 m³/h

1. Summary

Efficient device for the separation of Cooling lubricants from machine tool exhaust air

The LGAir Basic/Advanced is a filtering separator with a specially matched filter stage configuration and efficient and durable filter elements for aerosol mist separation for oil applications.

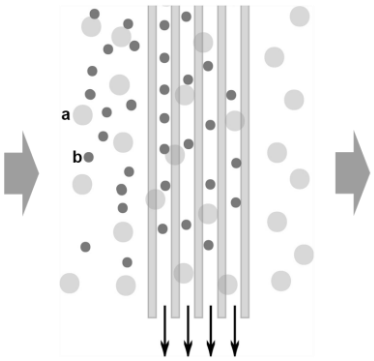
LGAir Basic is the cost-effective uncontrolled version
LGAir Advanced is an energy-efficient version with controlled extraction

Main features

- Separation of harmful aerosols directly at the processing machine
- Low-maintenance aerosol separator for continuous operation
- Suitable for high raw gas concentrations up to 1000 mg/m³
- Excellent separation performance of the built-in filter stages ePM1 85 % according to ISO 16890
- Efficient and durable filter elements
- Two-stage element configuration for clean gas values <1 mg/m³ HEPA filter H13 (standard for oil applications, optional for emulsion applications)
- Little need for space
- Service-friendly handling
- Tool-free element exchange
- Worldwide distribution

2. Principle of operation

The oil aerosols are extracted from the machining area of machine tools. The air flow loaded with oil flows through the specially developed filter elements from the inside to the outside. The oil accumulates on the fibers as it flows through the filter elements in the filter material. The very fine separated aerosols coalesce into larger droplets. The drops follow the law of gravity and are eliminated from the filter element. The separated oil is discharged from the aerosol separator into a storage tank or similar via return hoses with mechanical membrane valves. The mechanical diaphragm valves open automatically when the oil column in the hose is approx. 300 mm (depending on the density of oil). At the same time, the membrane valves seal in order to be able to exclude the ingress of external air.



Aerosols when passing through the separation plates
a air
b aerosols

3. Area of application

Depending on the version, suitable for non-water-miscible cooling lubricants (cutting, grinding, drilling oil) or oils.

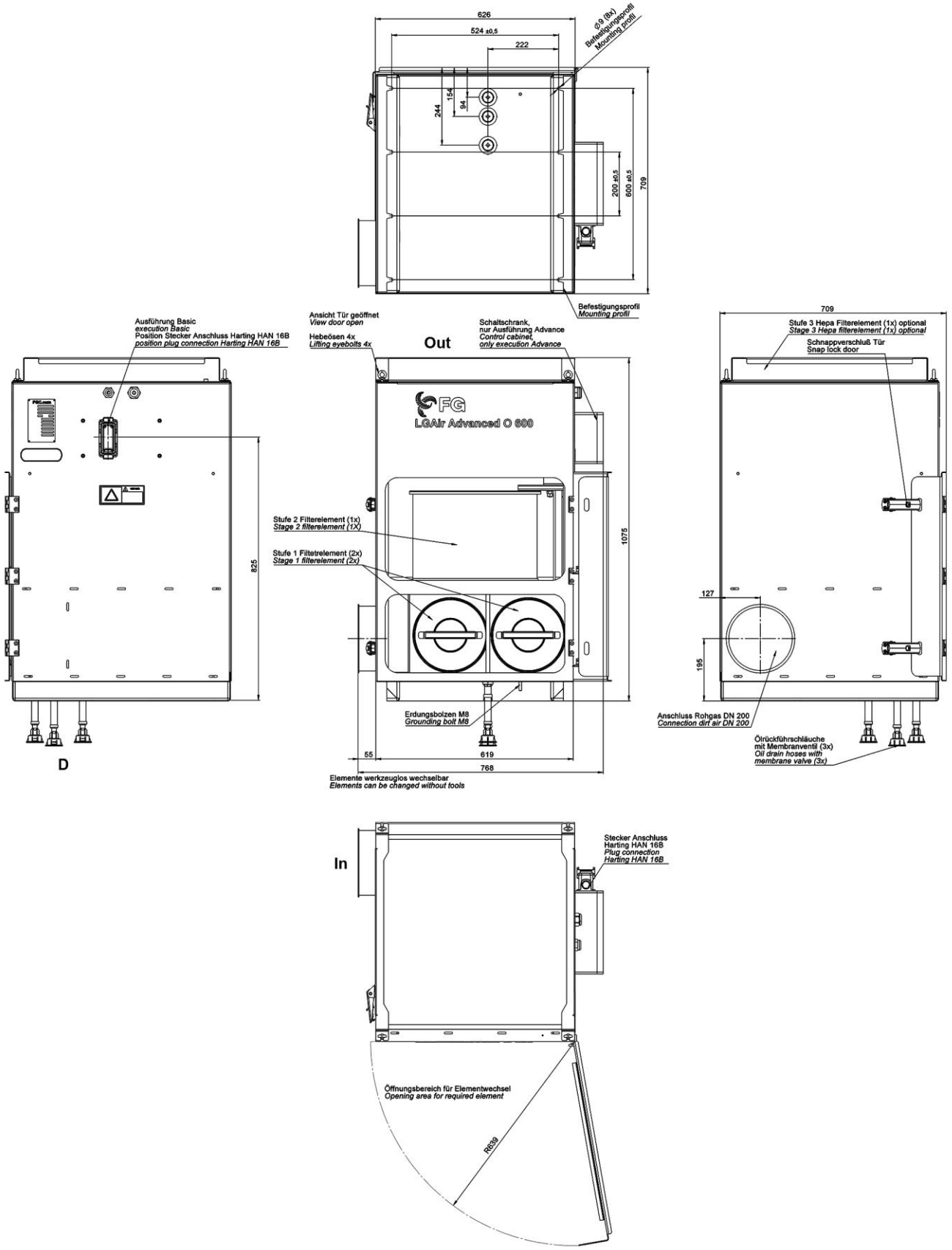
Limits of use

When cooling during machining with oil, air must usually be extracted from the work area to prevent the atomized oil from spreading. Concentrations can occur in the cooling lubricant oil jet itself or in the machine room which, for example, can cause ignition if a tool breaks. When working with flammable cooling lubricants or flammable materials, suitable fire and explosion protection devices must be used to ensure safe operation, taking into account the statutory regulations.

Other special applications on request.

Installation in an explosive atmosphere (zone 0, 1 and 2) is not permitted!
Extraction of toxic or hazardous substances is not permitted!

4. Dimensions



In	Inlet
Out	Outlet
D	Drain

5. Specifications

Operating flow rate	max. 600 m³/h
Media temperature range	+10 to +80 °C
Operating temperature range	+10 to +50 °C
Motor voltage	400 VAC 50-60 Hz
Current consumption	1.85 A
Motor power	0.8 kW
Back-up fuse	16 A
Degree of protection	IP54
Motor speed	3977 rpm
Sound level	≤ 71 dB(A) LAeq
Raw gas connection	DN200
Clean gas connection	DN200
Return hose	3x 15x2 mm PVC transparent (each 5.5 m)
Dimensions WxHxD	836x1075x704 mm
Weight	105 kg
Surface	EPS coating RAL 7035
Filter stage 1 ENA/OENA	Main separating element (2x)
Filter stage 2 OENA fine filter	Fine filter element (1x)
HEPA filter	HEPA filter H13 optional

6. Type code

Type key with LGAir O 600 Basic selection example

Type			
LGAir	Aerosol separator		
	Series		
	O 600	for oil with a flow rate of 600 m³/h	
	E1200	for cooling lubricant (emulsion) with a volume flow of 1200 m³/h	
		Variant	
		Basic	without control and optical indicator
		Advanced	with control and optical indicator
LGAir	**O 600**	**Basic**	(selection example)

7. Order numbers

Part designation	Order number
LGAir O 600 Basic	72499059
LGAir O 600 Advanced	72498192

8. Replacement parts

Part designation	Order number
852 611 TI 2026 ENA/OENA STAGE 1	72497165
852 612 TI 2037 OENA STAGE 2	72497060
852 612 Ti 5064 ENA STAGE 2	72498931
HEPA FILTER 610x610x68 LGAir	72497002
Process assembly group LGA/LGAir (1x NBR valve; 1x LPO body; 5.5 m hose)	72405215

Your Contact

FILCOM GmbH
Schönbuchstr. 1
D-73760 Ostfildern

Phone: +49 (0) 711-4413322-0
Fax: +49 (0) 711-4413322-22
Mail: info@filcom.de

www.filcom.de