

Oil Mist Separator Unit LGA 1200 FU/FUW

Nominal volume flow 1200 m³/h

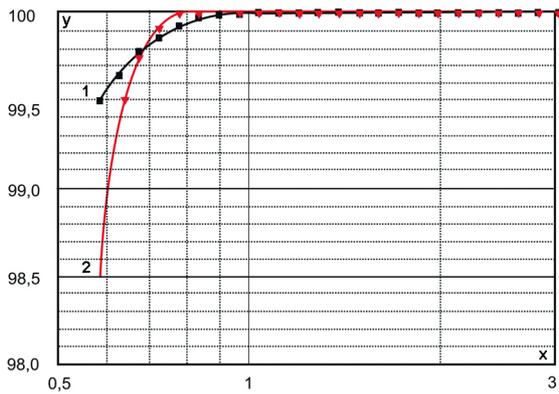
1. Features

High performance oil mist separator unit for separation of coolant from tooling machine exhaust air

- Compact design
- High oil mist load capacity
- Excellent retention rates
- Quality filters, easy to service
- Service reduced and energy-saving system
- Equipped with high-efficient coalescer elements
- High dirt holding and optimized service life
- Modular design for direct installation of main components onto tooling machines
- Pre-separation system for optimized service life
- Optional backfitting with a HEPA filter (H13) for more efficiency
- Recirculating or exit air operation available
- Worldwide distribution



2. Fractional collection efficiency



x = Particle size in μm

y = Fractional retention rate in %

Aerosol: Wiolan SH 10

Raw gas concentration: 50 mg/m^3

Volume flow: $600 \text{ m}^3/\text{h}$

1 = Filter cartridge as delivered

2 = Filter cartridge after 100 operating hours

4. Application

Suitable for non-water-miscible cooling lubricants (cutting oil, grinding oil, drilling oil) and oil aerosol exhausted by machine tools and also for water-miscible cooling lubricants.

Operating limits

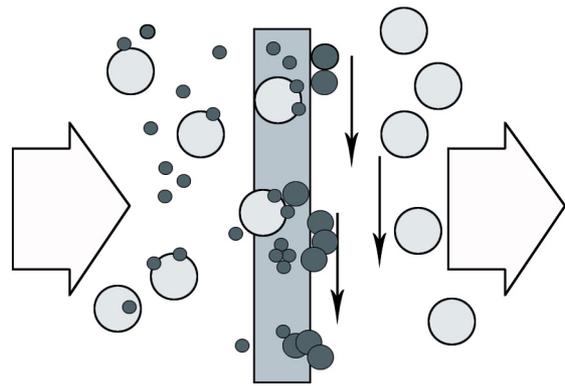
If oil is used as cooling lubricant for machining processes, air usually has to be sucked away from the working area to prevent the atomized oil from dispersing. The concentrations that often occur in the cooling lubricant jet or in the machine room could result in ignition in case of tool breakage, for example. If the machining process involves flammable cooling lubricants or flammable materials, safe operation must be ensured by providing suitable fire and explosion protection devices in conformance with statutory regulations.

Installation in potentially explosive atmosphere (Zones 0, 1 and 2) is not permitted!

6. Order numbers

Type	Order number
LGA 1200 FU RAL7035	70526210
LGA 1200 FUW RAL7035	70386720

3. Operating principle



Oil aerosols are sucked away from the machining space of machine tools. The oil-laden air flows outward through the coalescer element from the inside. The oil attaches itself to the fibre media as it passes through the filter. Minute oil droplets "coalesce" to form larger drops. These larger droplets migrate downwards on the coalescer element due to gravity. The oil accumulates at the bottom of the housing and is returned to the cooling lubricant storage reservoir via the oil drain hose and the membrane valve. The vacuum in the filter housing causes external air to be sealed off by the membrane valve. The valve opens automatically when the oil in the drain hose reaches a height of at least 500 mm. The cleaned airflow is sucked away by means of a high-pressure fan and blown out at the top through a silencer.

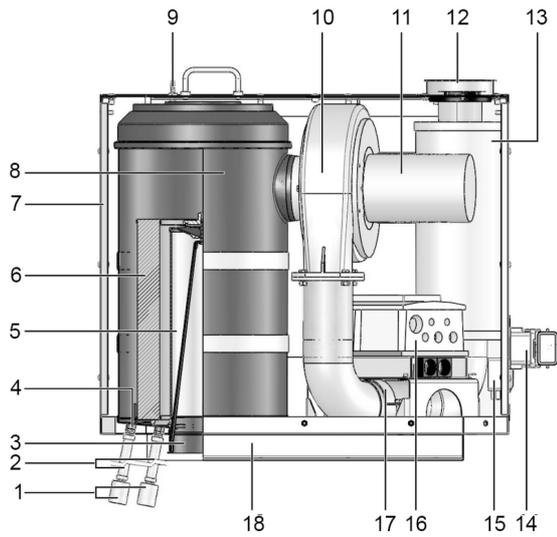
5. Product information

LGA 1200 FU and FUW

The LGA 1200 is a filtering separator with optional pre-separation in FUW version.

It is driven by a frequency controlled motor. A volumetric flowrate sensor supplies the actual value required to obtain a constant volume flow of $1200 \text{ m}^3/\text{h}$. If this value falls below the setpoint, an electrical signal is output at approximately $900 \text{ m}^3/\text{h}$. These signals can be evaluated to enable suitable maintenance action to be taken.

7. Modules/main components

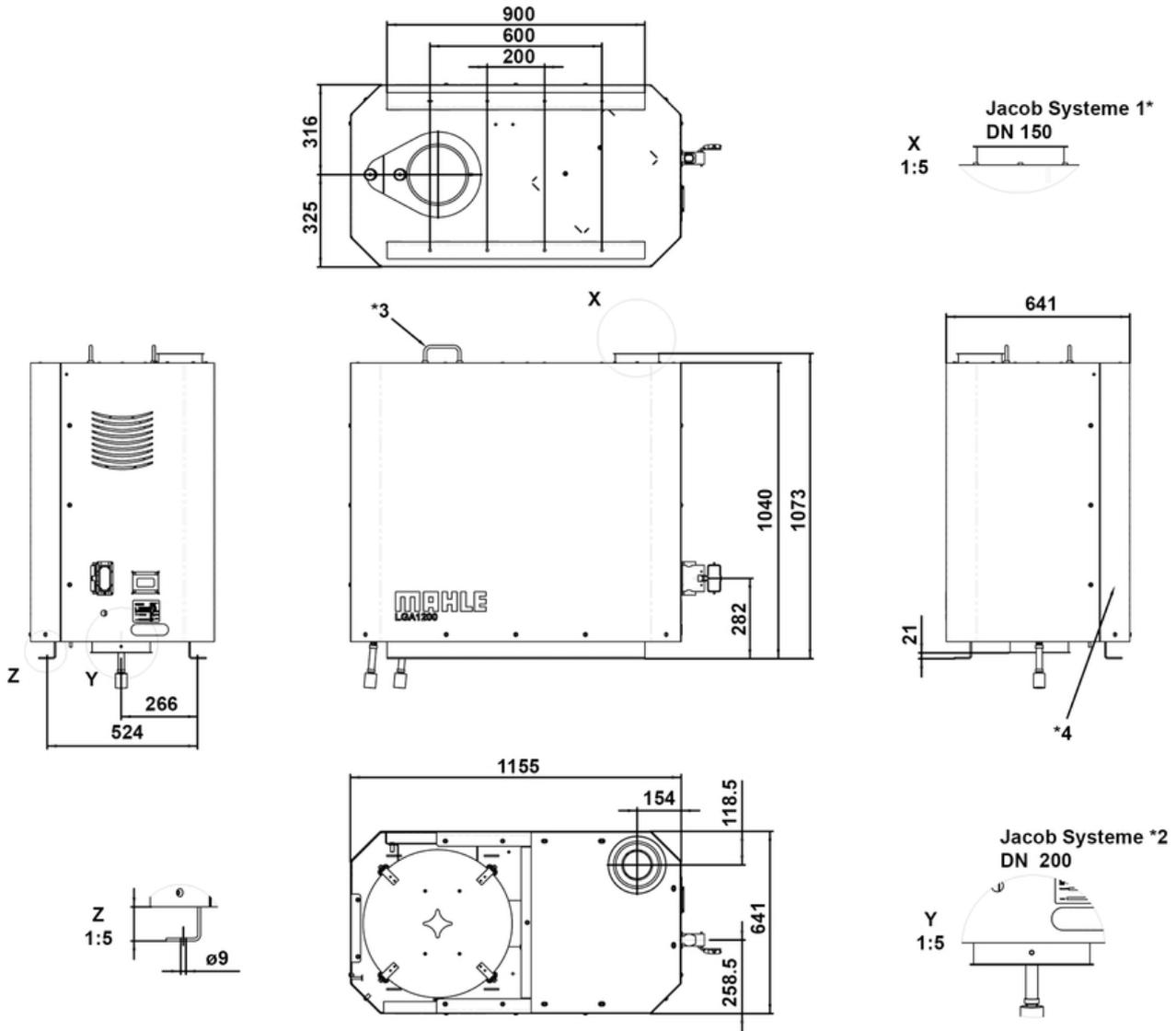


- 1 Membrane valve (FU 1x/FUW 2x)
- 2 Oil hose (FU 1x/FUW 2x)
- 3 Air inlet nozzle
- 4 Oil drain nozzle (FU 1x/FUW 2x)
- 5 Pre-separation element (only FUW)
- 6 Coalescer element
- 7 Housing
- 8 Filter housing
- 9 Eyebolt for transport
- 10 Fan
- 11 Electric motor
- 12 Air outlet nozzle/base for HEPA filter
- 13 Silencer
- 14 Connection port
- 15 Volume flow display
- 16 Frequency converter
- 17 Volumetric flowrate sensor
- 18 Mounting base plate

8. Technical data

Volume flow	1200 m ³ /h
Temperature range	+ 10 °C to + 80 °C
Air nozzles (2x Jacob)	200 mm/150 mm
Oil hose (2x)	PVC transparent 15x2 mm (5 m) (FUW 2x)
Filter	1 pre-separation element and 1 coalescer element (FU) 1 pre-separation element and 2 coalescer elements (FUW)
Filter surface	9.5 m ²
Dimensions (LxWxH)	1155x641x1073 mm
Weight	237 kg
Supply voltage	3 AC 400 V/PE, 50-60 Hz
Current consumption	9.5 A
Protection class electrical devices	IP54
Backup fuse	16 A
Connection port	Harting 10B
Motor output	4 kW
Motor speed	6190 U/min
Sound level	72 dB (A)

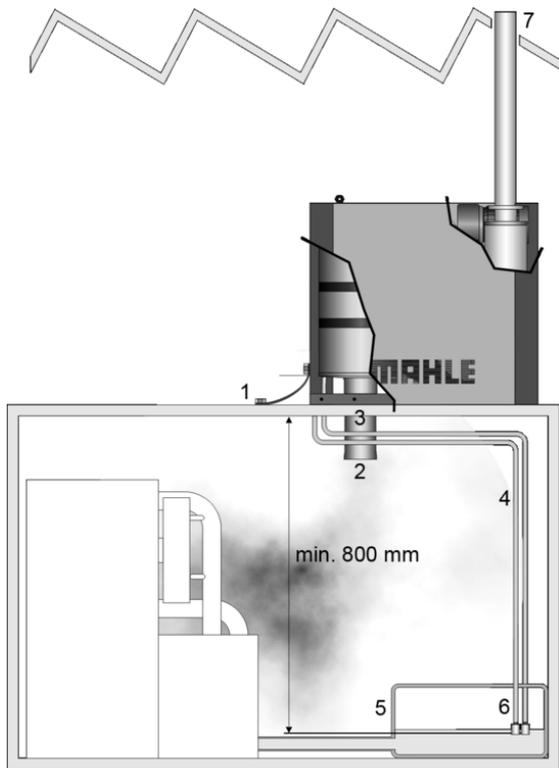
9. Dimensions



- *1 Air outlet nozzle
- *2 Air inlet nozzle
- *3 Cover removable for changing element
- *4 Side cover removable

HEPA filter (H13)
 (further versions upon request)
 Minimum clearance required 150 mm

10. Installation



- 1 Equipotential bonding
- 2 Suction pipe
- 3 Air inlet nozzle
- 4 Oil hose (2x)
- 5 Oil storage reservoir
- 6 Membrane valve (2x)
- 7 Exhaust air pipe

Note the minimum clearance of 480 mm is required for element removal!

11. Spare parts and accessories

Order numbers for spare parts and accessories	
Designation	Order number
Pre-separation element	70517413
Coalescer element (2x)	79354390
HEPA after-filter	72381953
Membrane valve *	78769697
Harting easy hood (19 30 010 1540)	70360184
Harting bush insert (09 33 010 2716)	70345233
Jacob pipe nozzle (11151431)	70346551
Jacob clamp ring (12152903)	79389081
Jacob NBR flanged sealing ring (10156951)	76141121
Jacob 90° bend (11151339)	70365712
Fan	70516277
Frequency converter	70514173
Volumetric flowrate display	70385600
Electrical plug connection	72374158
Oil hose 5 m *	70595658
Element sealing O-Ring	70378616
Element housing flanged sealing ring	70576597

* For FUW version are 2 elements needed

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