Industrial Air

Translation of the original assembly instructions
Oil aerosol separator device LGA 601 FU/FUW

Mat. No. of original assembly instructions
72410909

1 Contents

2 General safety instructions

2.1 Safety instructions for installation and operating personnel

This translation of the original installation instructions contains important safety information which must be heeded at all times during installation, normal operation and maintenance.
Non-observance can result in the following risks to persons and the environment as well as in damage to the machine or system:

⇨ Failure of critical functions of the machine or system or of its component parts.
⇨ Danger to persons from electrical or mechanical effects as well as from chemical reactions.
⇨ Danger to the environment owing to the leakage of hazardous substances.

Before installation / start-up:

- Read this translation of the original installation instructions carefully.
- Make sure that installation and operating personnel are adequately trained.
- Make sure the contents of the original installation instructions are fully understood by the responsible persons.
- Define areas of responsibility and competence.
- Prepare a maintenance schedule.

During operation of the system:

- Keep this translation of the original installation instructions handy at the place of use.
- Heed the safety instructions. Always operate the machine or system in accordance with its ratings.

If in doubt:

- Consult the manufacturer.

2.2 Warning structure

Where possible, warnings are structured according to the following system:

Signal word	
Possibly with symbol	**Nature and source of the danger** ⇨ Potential consequences of non-observance • Action to avert the danger.

2.3 Warning symbols used

⚠ DANGER!

Immediate danger!
⇨ Non-observance will result in serious or fatal injury.

⚠ WARNING!

Potentially dangerous situation!
⇨ Non-observance can result in serious or fatal injury.

⚠ CAUTION!

Potentially dangerous situation!
⇨ Non-observance can result in minor or moderate injuries.

CAUTION! (without a symbol)

Potentially dangerous situation!
⇨ Non-observance can result in property damage.

2.4 Other symbols used

	Danger: High voltage!
	Danger information about explosion protection
	Information about environmental protection
	Protective clothing must be worn!
	Eye protection must be worn!
	Hand symbol: Indicates general information and recommendations
•	Bullet: Indicates the order in which actions are to be carried out
⇨	Arrow: Indicates responses to actions

3 Glossary

Initial differential pressure:
Differential pressure at the start of the filtration process (when the coalescer elements are “new”).

Differential pressure (delta p):
Pressure difference between the dirty side and the clean side.

Oil mist:
Minute oil droplets distributed in air.

Coalescer element:
Filter element with star-pleated coalescer material. The medium flows from the inside to the outside. Oil droplets “coalesce” to form larger drops.

Volume flow:
Airflow conveyed by the unit in m³/h.

Preseparating element:
Filter element with special fibre fleece.

4 General information

4.1 Manufacturer

Filtration Group GmbH
Schleifbachweg 45
D-74613 Öhringen
Phone +49 7941 6466-0
Fax +49 7941 6466-429

4.2 Information about the original installation instructions

FG Mat. No.: 72410909
Date: 24.05.2018
Version 02

5 Intended use

⚠ DANGER!	
	**Danger of explosion!** ⇨ Risk of injury to persons or damage to property. • The oil aerosol separator device must not be installed in potentially explosive atmosphere. • The unit must not be used to extract explosive mists. • Provide suitable fire protection devices.

⚠ CAUTION!

This FG oil aerosol separator device is only allowed to be used in accordance with the operating conditions specified in the contract documentation and in the original installation instructions. All forms of use which deviate from or exceed the limits of use described above are considered to be contrary to the intended purpose. The manufacturer is not liable for any damage resulting from such use.

The FG LGA 601 FU / FUW oil aerosol separator device is used to extract oil mist locally from machine tools.

The oil aerosol separator device is suitable for non-water-soluble cooling lubricants (cutting oil, grinding oil, drilling oil) as well as for commercially available oil-water emulsions.

6 Product description

6.1 General

This translation of the original assembly instructions applies to the LGA 601 FU and LGA 601 FUW.

6.2 Principle of the process

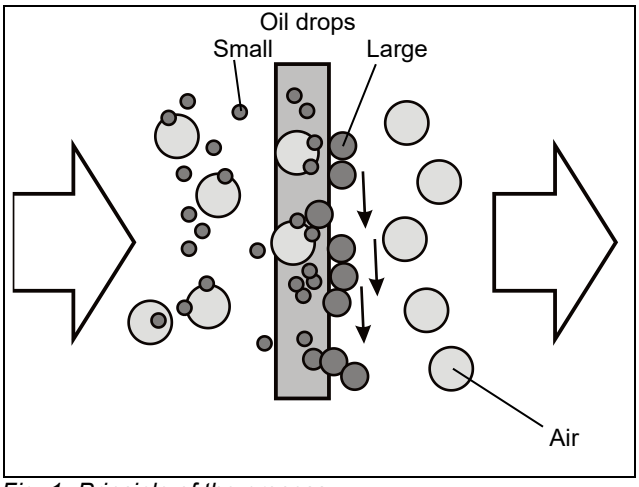


Fig. 1: Principle of the process

6.2.1 General functional description

Oil mist is sucked away from the work area of machine tools. The oil-laden air flows through the coalescer element from the inside to the
outside. The oil attaches itself to the fibre fleece as it passes through the filter. Minute oil droplets coalesce to form larger drops. These large oil drops 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 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 level of at least 500 mm. The cleaned airflow is then extracted by means of a high-pressure fan and blown out at the top through a silencer.

6.2.2 LGA 601 FU / FUW

The LGA 601 FU / FUW is a filtering separator with a coalescer element and an optional preseparating element (LGA 601 FUW). The raw and clean gas nozzles are arranged on the underside (air inlet) and top (air outlet) to allow direct attachment to machine tools. The main components – the filter housing, fan, silencer and frequency converter – are installed in a robust sheet metal housing. The raw gas enters the filter housing at the bottom, then flows through the preseparating element (LGA 601 FUW) from the inside to the outside.

The preseparating element (LGA 601 FUW) separates any solid particles that are entrained in this gas. It also relieves the load on the coalescer element at high aerosol concentrations.

Oil is separated when the coalescer element is saturated (approx. 4 l).

The separated oil migrates to the bottom of the filter housing due to gravity and is returned to the machine via the nozzles.

6.3 Operating principle

6.3.1 LGA 601 FU

The LGA 601 FU is driven by a frequency controlled motor. A volumetric flowrate sensor supplies the actual value required to achieve a constant volume flow of 600 m³/h.

If the volume flow falls below the setpoint, the unit outputs an electrical signal at approximately 450 m³/h. Maintenance procedures can then be implemented in a timely manner based on the evaluation of this signal (refer to the electrical connection diagram).

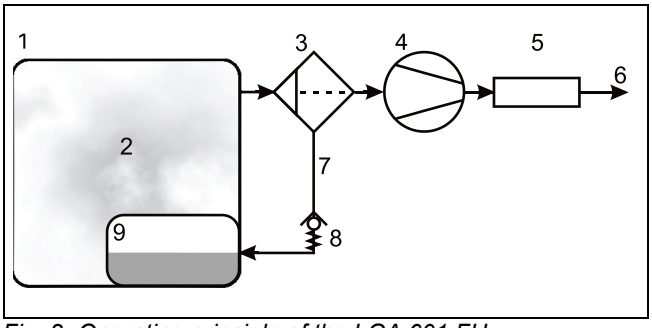


Fig. 2: Operating principle of the LGA 601 FU

1	Machine tool
2	Oil mist
3	Coalescer element
4	Fan
5	Silencer
6	Cleaned air
7	Oil drain hose
8	Membrane valve
9	Oil reservoir

6.3.2 LGA 601 FUW

The LGA 601 FUW is driven by a frequency controlled motor and additionally equipped with a preseparating element. A volumetric flowrate sensor supplies the actual value required to achieve a constant volume flow of approximately 600 m³/h.

If the volume flow falls below the setpoint, the unit outputs an electrical signal at approximately 450 m³/h.

Maintenance procedures can then be implemented in a timely manner based on the evaluation of this signal (refer to the electrical connection diagram).

If the volume flow falls to 450 m³/h, we recommend replacing the filter element.

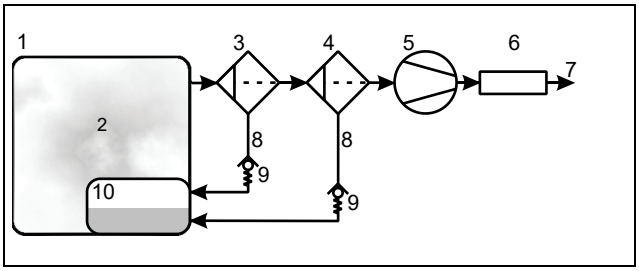


Fig. 3: Operating principle of the LGA 601 FUW

1	Machine tool
2	Oil mist
3	Preseparating element:
4	Coalescer element
5	Fan
6	Silencer
7	Cleaned air
8	Oil drain hose (2x)
9	Membrane valve (2x)
10	Oil reservoir

6.3.3 Protection against fire and explosion

During machining operations where oil is used as cooling lubricant, air generally has to be extracted from the work area to prevent the atomised oil from dispersing.

The concentrations that often occur in the cooling lubricant jet itself could result in ignition in case of tool breakage, for example.

If the machining operation involves flammable cooling lubricants or flammable materials, safe operation must therefore be ensured by providing suitable fire and explosion protection devices in conformity with statutory regulations.

6.4 Main components

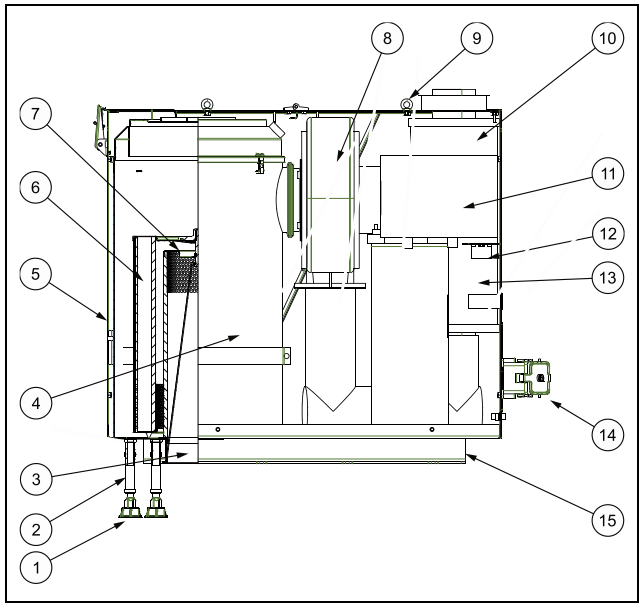
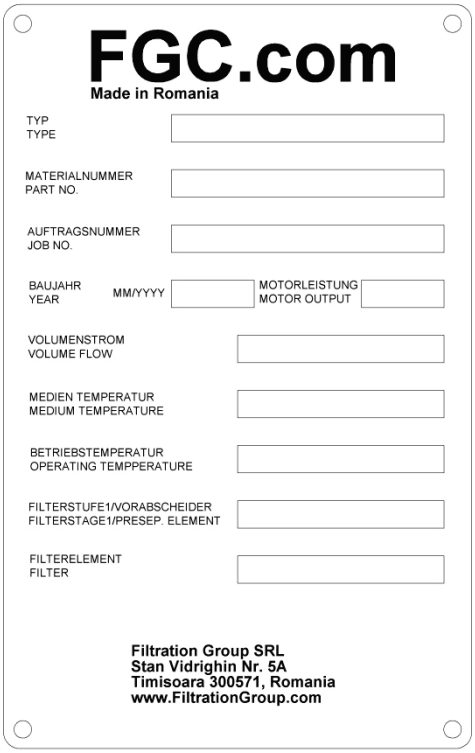


Fig. 4: Main components of the LGA 601

1	Membrane valve (FUW: 2x)
2	Oil drain hose 15 x 2 mm (5.5 m) (FUW: 2x)
3	Air inlet nozzle Ø 150 mm
4	Filter housing
5	Housing
6	Coalescer element
7	Preseparating element
8	Fan
9	Eyebolt for transport
10	Silencer
11	Frequency converter
12	Differential pressure transmitter
13	Volumetric flowrate display
14	Harting HAN 10B connector
15	Mounting base plate

☞	For dimensions, refer to section 15.

7 Technical data



The order-specific data can be taken from the name-plate.

(Space for name-plate)

Product version	LGA 601 FU	LGA 601 FUW
Volume flow	Approx. 600 m^3/h	
Medium temperature	+10°C to +80°C	
Operating temperature	+10°C to +50°C	
Filter		1 preseparating element
	1 coalescer element	
Motor output	1.5 kW	
Supply voltage	3 AC 380 … 480 V/PE +/- 10%, 50-60 Hz	
Motor speed	Max. 5920 rpm	
Rated current consumption	3.3 A	
Backup fuse	10 A	
Motor protection class	IP54	
Sound level L_{eq}	69 dB(A)	
Air inlet / outlet nozzles	150 mm	
Dimensions L x W x H	920x550x872 mm	
Weight	130 kg	
Oil drain hose	1x 15x2 mm PVC transparent (5.5 m)	2x 15x2 mm PVC transparent (5.5 m)

8 Transport and storage

Transport
- Always transport upright in the original packaging.
- Avoid vibration.

Storage
- Always store upright in the original packaging.
- Always store in a dry, frost-free room.

☞	Seaworthy packaging is specified in the contract documentation as an option.

8.1 Delivery and acceptance

The oil aerosol separator device is normally delivered by truck completely assembled.

- Please check it for damage in transit as soon as it is received.
- Check all components in the consignment against the packing list.

If any parts are missing or damaged:
- Notify the forwarding agent immediately.
- Notify your local FG field service representative immediately.

9 Installation

⚠ DANGER!

EX

Danger of explosion!
⇨ Risk of injury to persons or damage to property.
- The oil aerosol separator device must not be installed in potentially explosive atmosphere.

⚠ WARNING!

If the unit is installed by unauthorised persons:
⇨ Risk of injury.
⇨ All warranty claims are rendered invalid.
- The unit must be installed by a suitably trained person!

9.1 Installing the oil aerosol separator device

- Attach ropes with clevis pins to the lifting eyebolts.
- Make sure the load is evenly distributed.
- Use spacers if necessary.

☞	For dimensions, refer to section 15.

If a fork-lift truck is used:
- Fasten the oil aerosol separator device to the fork-lift truck with a sling.
- Place the oil aerosol separator device in an upright position. Maximum inclination 5% in all directions.
- Install the oil aerosol separator device so that the oil drain nozzle is at least 700 mm higher than the reservoir of the machine tool.
- Install the oil aerosol separator device so that it is protected from the elements.

9.2 Installation

⚠ CAUTION!

Avoid oil spillage:
- All tubing and seals must be oil-tight.

⚠ WARNING!

Avoid danger due to overvoltage and lightning strikes by observing guidelines and standards.

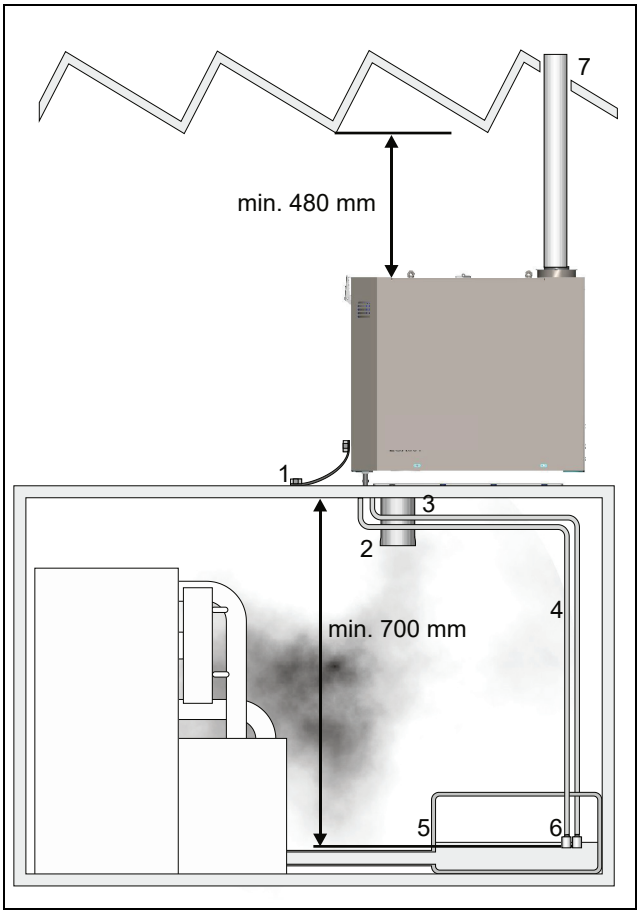


Fig. 5: Installing the oil aerosol separator device

- Note the minimum clearance of 480 mm required to replace the element!
- Bolt the housing of the oil aerosol separator device so that it is rigid.
- Provide equipotential bonding between the machine tool and the grounding lug (1) on the oil aerosol separator device.
- Connect the extraction point to the air inlet nozzle (3) of the oil aerosol separator device using a tube section (2) that is as short as possible.
- Lay the oil drain hoses (4) into the reservoir of the machine tool (5).
⇨ The oil drain hoses can be shortened to a length of 700 mm; they must not be joined together.
- Allow a height difference of 700 mm between the drain nozzle and the reservoir of the machine tool (5).

☞	A minimum height difference of 700 mm must be observed to ensure proper working.

- Attach the membrane valves (6) to the oil drain hoses.

- FG recommendation: Discharge cleaned exhaust air into the atmosphere (7) and ensure a sufficient supply of fresh air.
- Additional airflow devices can be provided if required owing to the tube length or arrangement.

9.3 Signal meanings

⇨ COM1NC1 signal: Ready
⇨ COM2NC2 signal: ≤ 450 m³/h (time to replace the element) (refer to section 17, page 14)

10 Start-up

⚠ CAUTION!

- Only aerosols from approved cooling lubricants should be exhausted (refer to section 5).
- Observe the specific safety precautions (fire hazard!) when working with hazardous materials (e.g. Mg).
- The system should only be connected to the designated mains voltage.
- The oil aerosol separator device must not be started up if damaged.

- Either switch on the oil aerosol separator device using an electrical switching device to be provided by the customer or start it up via the machine controller.
- Refer to the circuit diagram in section 17 for the terminal assignment.

11 Normal operation

⚠ WARNING!

The membrane valve opens automatically!
⇨ Risk of injury.
- Never operate the oil aerosol separator device unattended.

⚠ CAUTION!

- Make sure the membrane valve for the oil drain hose is working correctly at all times.
- The oil drain hose must not be kinked.
- No hearing protection is required if the system is installed as a standalone unit. It may be necessary to wear ear protectors if several different noise sources are present simultaneously at the place of use.

The extraction volume flow is approx. 600 m^3/h in normal operation.

The separated oil mist is drained via the transparent oil drain hose and can be returned to the oil reservoir.

12 Removal from service

- Either switch off the oil aerosol separator device using an electrical switching device or shut it down via the machine controller.

- All components must be disposed of in a manner which does not pollute the environment.

Emergency shut-down
- Interrupt the electrical power supply.

13 Troubleshooting

Fault	Possible cause	Remedy
Oil aerosol separator device cannot be switched on	System not connected to power supply	Connect the system to the power supply
	Fault in frequency converter	Ask an electrician to test the frequency converter and repair it if necessary
	Motor temperature too high	
Oil aerosol separator device switches off suddenly	Fault in electrical system	Ask an electrician to test the system and repair it if necessary
Extraction capacity too low	Coalescer elements are dirty	Replace the coalescer elements. Recommended order: 1. Preseparating element (FUW) 2. HEPA after-filter (if installed) 3. Coalescer element
	Leak in tubing on extraction side	Repair the leak
	Incorrect design	Check the design and consult the manufacturer if necessary
Oil exits on clean gas side	Membrane valves for oil drain hoses are missing, faulty or incorrectly attached	Attach the membrane valves correctly and replace them if necessary (refer to section 14.1)

14 Maintenance

⚠ WARNING!

If the unit is maintained by unauthorised persons:

⇨ Risk of injury.

⇨ All warranty claims are rendered invalid.

- The unit must be maintained by a suitably trained person!

Before all maintenance work:

- Take steps to prevent the oil aerosol separator device from being switched on by unauthorised persons.
- Disconnect the oil aerosol separator device from the power supply.
- Take steps to prevent the oil aerosol separator device from being switched on again by unauthorised persons.

- Take any necessary safety precautions (protective clothing, eye protection, etc.).

- Carry out the maintenance work.
- Start up the oil aerosol separator device again.
- Observe the oil aerosol separator device.
  Does it operate normally (refer to section 11)?

14.1 Inspection and maintenance schedule

Interval	Component	Activity
Daily	Oil aerosol separator device	Check for leakage. The transparent oil drain hose must not be completely filled with oil
		Check the volume flow through the coalescer elements
Monthly	Oil aerosol separator device	Check for damage to mechanical components. Check the electrical devices of the oil aerosol separator device, and in particular the protective devices, for visible damage and perform a functional test
	Membrane valves	Check for damage, perform a functional test and if necessary replace
Yearly	Oil aerosol separator device	Clean the housing. Replace the elements: Preseparating element (FUW), coalescer element, HEPA after-filter (optional). Replace the membrane valves

☞	The necessary inspection and maintenance work is dependent on the particular application. Please consult the manufacturer if necessary. All maintenance work can also be carried out by the manufacturer on request.

Customer Service contact:
Filtration Group GmbH
Schleifbachweg 45
D-74613 Öhringen
Phone +49 7941 6466-0
fm.de.sales@filtrationgroup.com

14.2 Information on the fan / frequency converter

☞	All repairs to the fan / frequency converter must be carried out by the manufacturer. No liability will be accepted by FG for repairs by third parties.

All wearing parts must be replaced in accordance with the maintenance intervals recommended by the manufacturer. Such parts do **not** provide grounds for warranty claims. The service life of wearing parts depends on the runtime, the operational load and various other influences such as temperature, etc.

14.3 Replacing the coalescer elements

☞	Note the minimum clearance of 450 mm required to replace the elements!

14.3.1 Removing the coalescer elements

	• Provide a suitable vessel for the dirty coalescer elements. • Provide wipes to mop up leaked oil. • Use only FG original coalescer elements. • Dispose of all dirty coalescer elements and wipes in accordance with the applicable statutory requirements and regulations.

- Open the spring catches on the cover of the filter housing (1).
- Remove the cover of the housing.
- Loosen and unscrew the fastening nut (2) with a spanner (a/f 19).
- Remove the fastening nut.
- Remove the coalescer element (3).

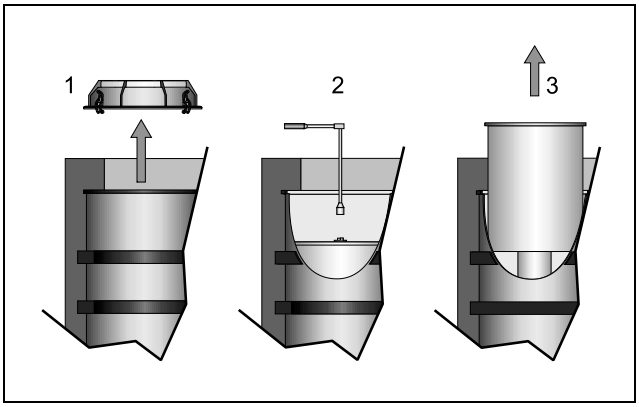


Fig. 6: Removing the coalescer element

To remove the preseparating element (LGA 601 FUW only)

- Loosen and unscrew the fastening nut (4) with a spanner (a/f 19).
- Remove the fastening nut.
- Remove the preseparating element (5).

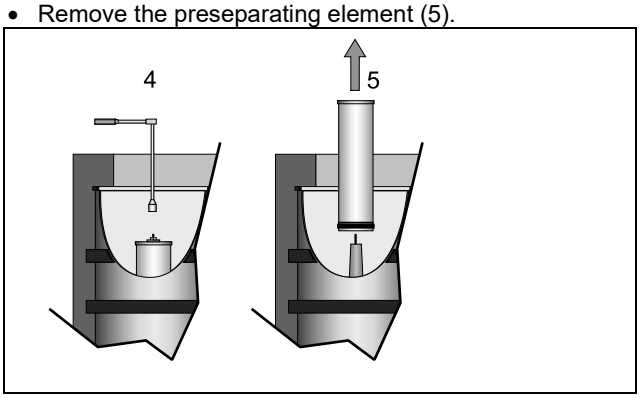


Fig. 7: Removing the preseparating element

14.3.2 Installing the coalescer elements

⚠ DANGER!

Danger of explosion!

⇨ Risk of injury to persons or damage to property.

- The fastening nut must be tightened to 10 Nm to ensure a conductive connection between all metal parts of the coalescer element and the filter housing.

To install the preseparating element (LGA 601 FUW only)

- Fit the new preseparating element onto the drawbar (6).
- Tighten the fastening nut (7) to 10 Nm with a spanner (a/f 19).

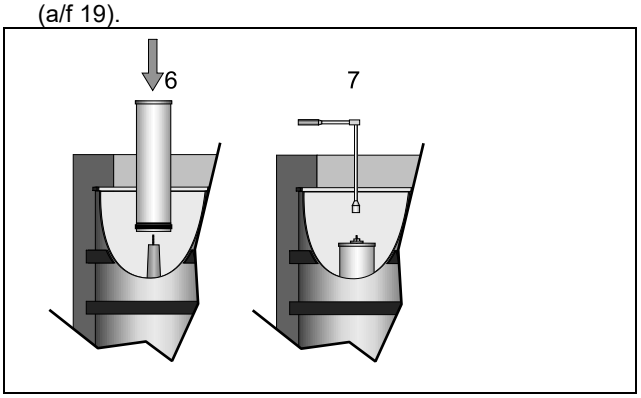


Fig. 8: Installing the preseparating element

- Fit the new coalescer element onto the drawbar (8).
- Tighten the fastening nut (9) to 10 Nm with a spanner (a/f 19).
- Fit the cover.
- Fasten the cover with the spring catches (10).

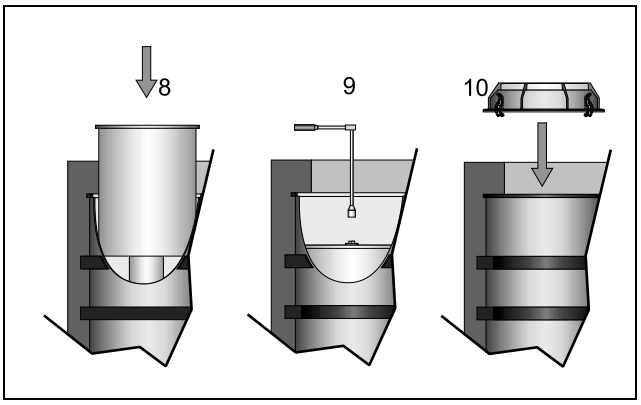


Fig. 9: Installing the coalescer element

- Dispose of all dirty coalescer elements and wipes in accordance with the applicable statutory requirements and regulations.

14.4 Replacing the membrane

14.4.1 Removing the membrane

- Insert a blunt object into the narrow orifice of the valve (1).
- Press the membrane (2) out carefully through one of the valve orifices (1).

⇨ The membrane has now been removed from the valve.

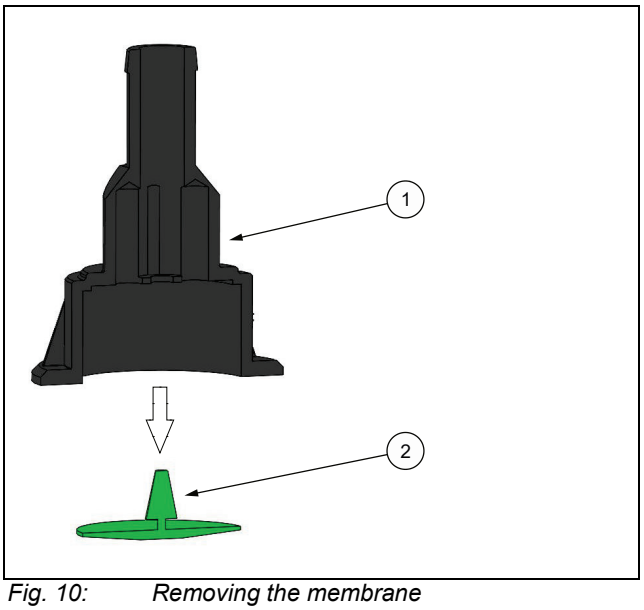


Fig. 10: Removing the membrane

14.4.2 Inserting the membrane

- Insert the membrane (2) into the valve (1) centrally with the nipple (3) first.
- Insert the nipple (3) into the middle orifice of the valve (2).
- A thin, blunt object (such as a 2 mm Allen key) can be inserted into the orifice on the underside of the membrane as an aid.
- Press the membrane (2) into the valve (1) as far as it will go.

⇨ The membrane (2) has now been inserted into the valve (1).

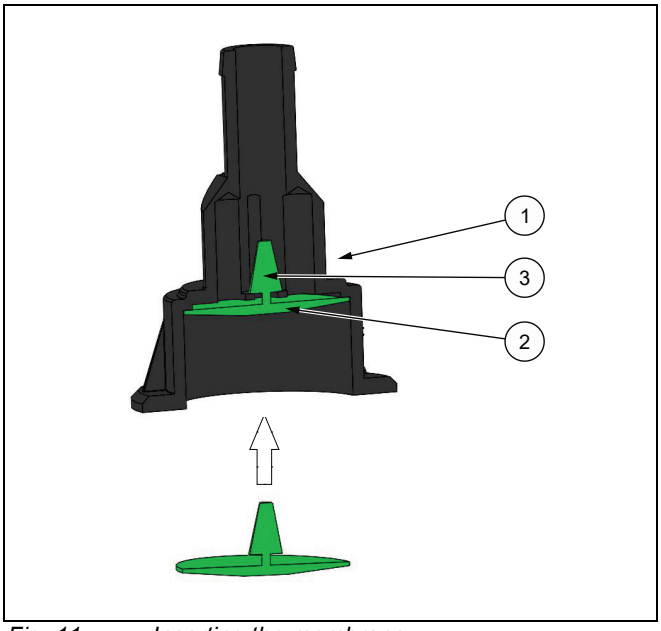


Fig. 11: Inserting the membrane

15 Dimension drawing

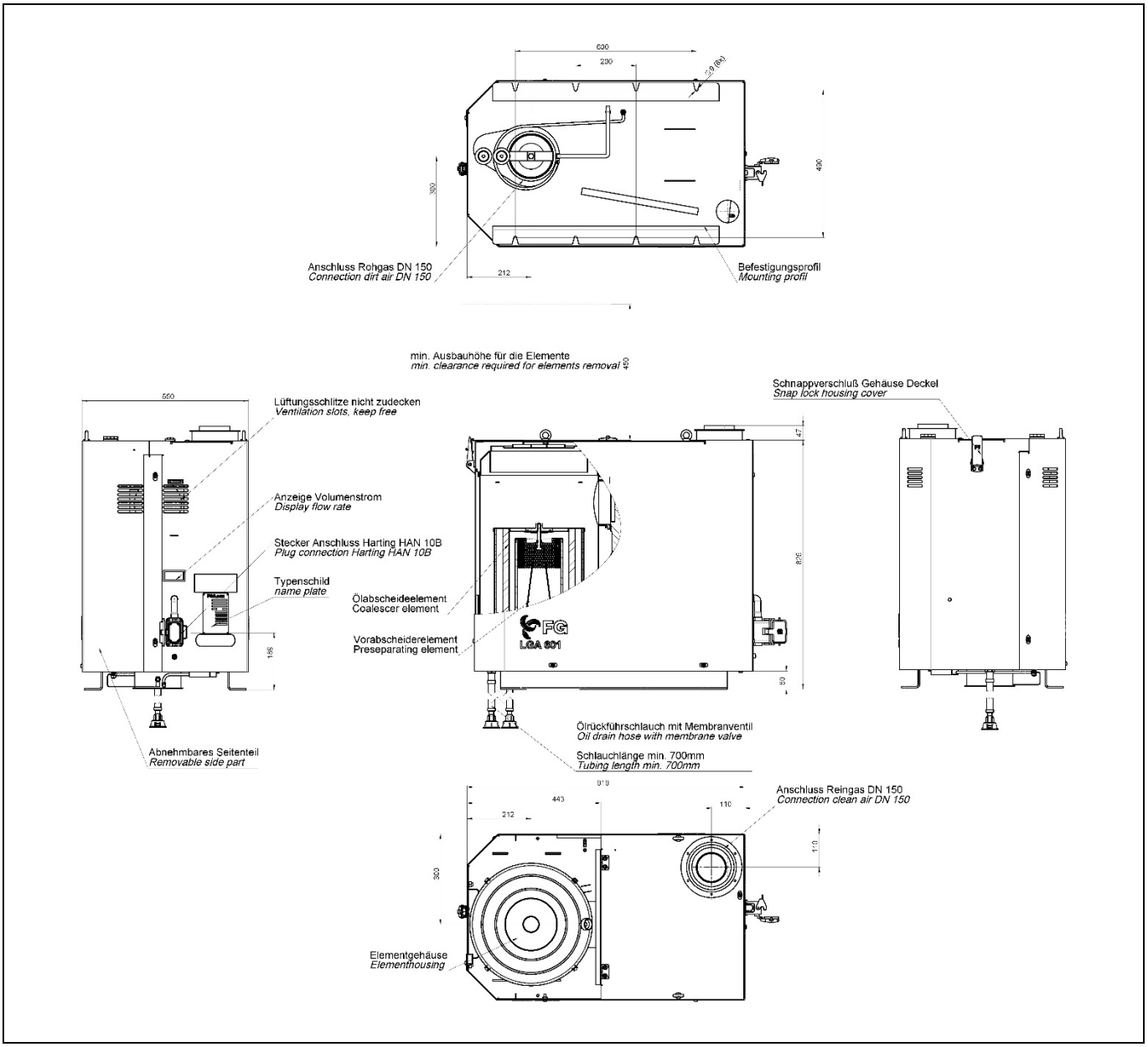


Fig. 12: Dimension drawing of the LGA 601 FU / FUW

16 List of spare parts

No.	Benennung	Material no.	Designation
1	Vorabscheideelement (nur LGA 601 FUW)	70515630	Preseparating element (LGA 601 FUW only)
2	Ölabscheideelement	79354390	Coalescer element
3	Schalldämpfer	76326227	Silencer
4	Ölrückführschlauch	76326268	Oil drain hose
5	Membranventile LPO 7120	78769697	Membrane valve LPO 7120
6	Befestigungsmutter Ölabscheideelement	76302996	Fastening nut
7	Differenzdrucktransmitter	72404747	Differential pressure transmitter
8	Volumenstromanzeige	70593410	Volumetric flowrate display
9	Befestigungsmutter Vorabscheideelement (nur LGA 601 FUW)	76302996	Fastening nut (LGA 601 FUW only)
10	Ventilator mit frequenzgeregeltem Motor	72374884	Fan with frequency controlled motor

17 Circuit diagram

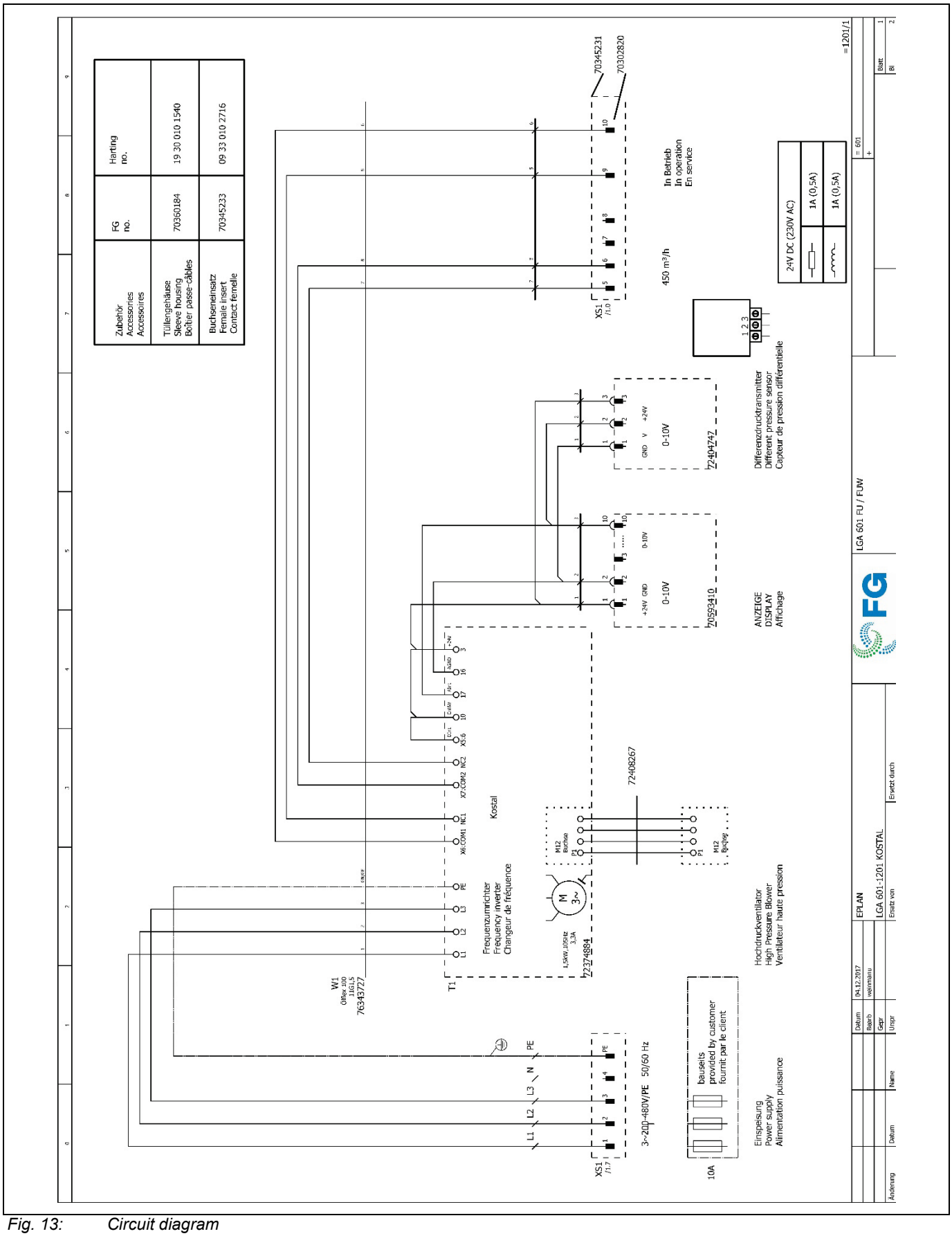


Fig. 13: Circuit diagram

18 Accessories and optional equipment

18.1 HEPA after-filter

A FG HEPA after-filter can be additionally installed in order to meet particularly high air purity requirements in recirculating systems. HEPA after-filters have a very long service life owing to the excellent filtration efficiency of the LGA unit. FG HEPA after-filters (class H13) are supplied with a filter surface of 3.5 m² as standard.
Material no. 72381952

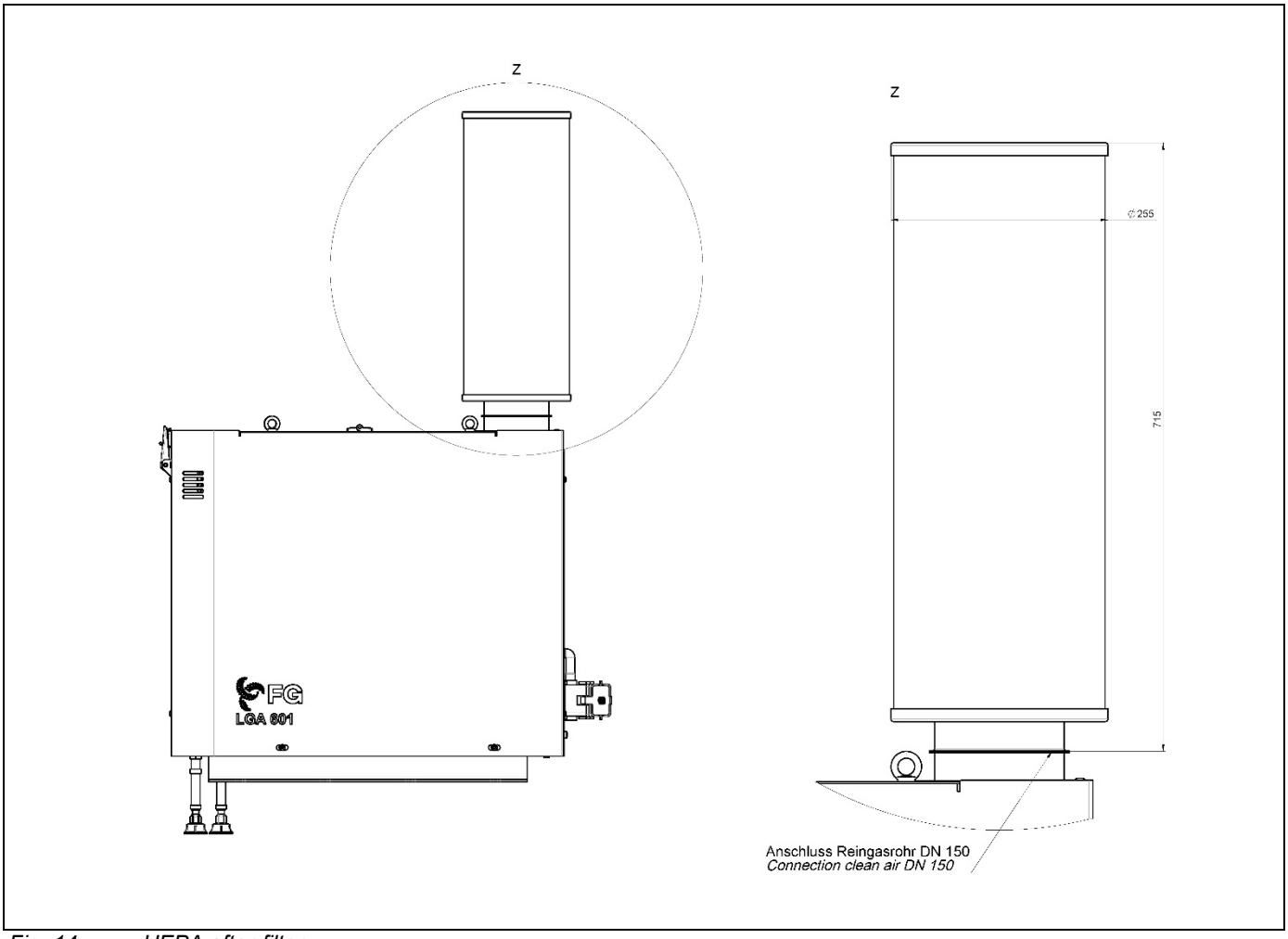


Fig. 14: HEPA after-filter

18.2 Frame

For installing the LGA unit next to a machine tool.
Material no. 70539323

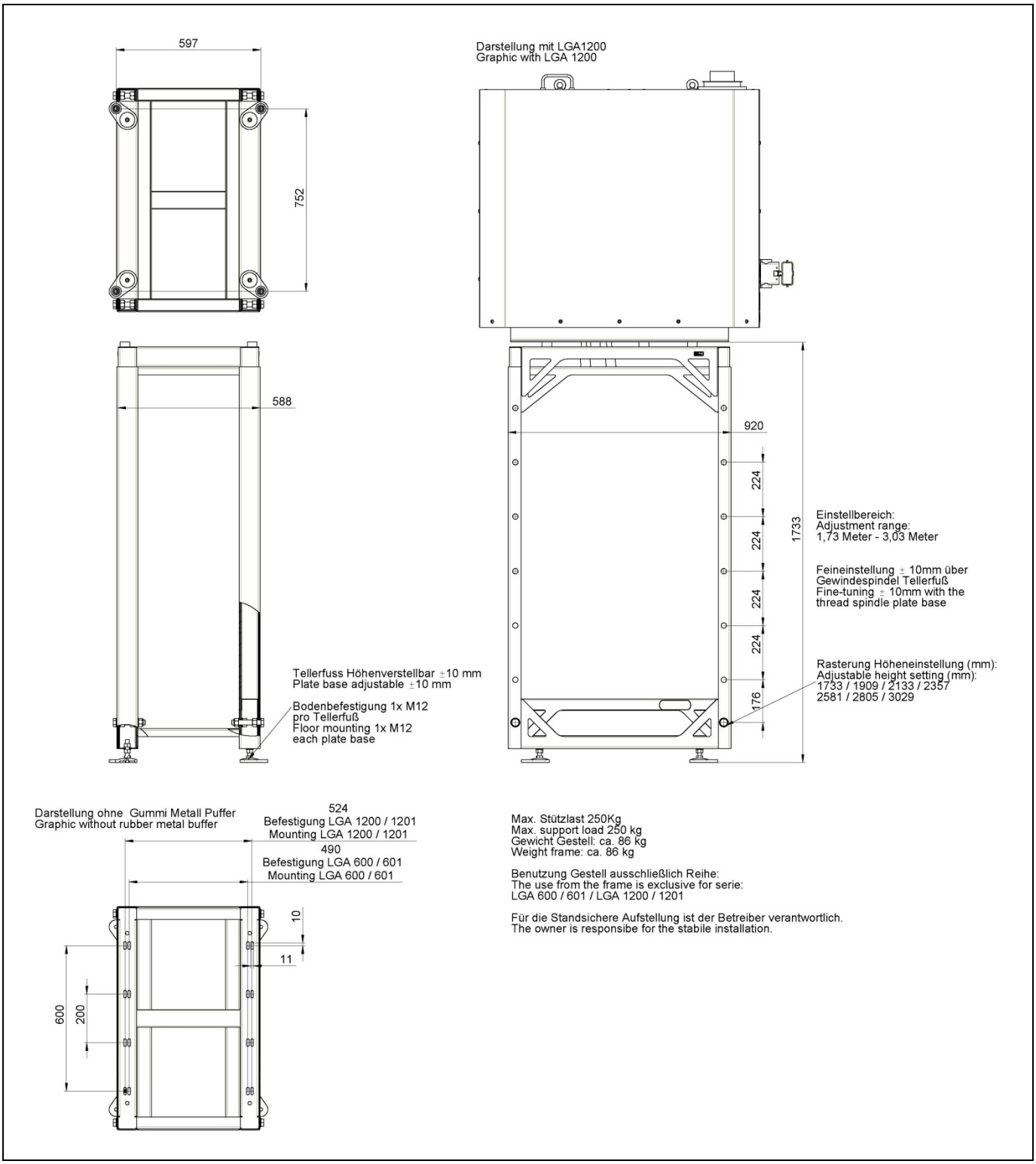


Fig. 15: Schematic diagram of the frame

18.3 External preseparation with an impact separator (MIO filter plate)

Protects the prefilter and main filter installed in the unit from impurities such as entrained metal parts, dust particles or macro emulsions.
MIO filter plates are cleanable coarse filters which can achieve class G4 (EN 779) depending on the inflow velocity.

18.3.1 Installation in the machine tool

The MIO filter plate (material no. 70569965) can be installed in the machine tool directly in front of the air inlet nozzle of the LGA 601 using the fixing set (material no. 70571759).

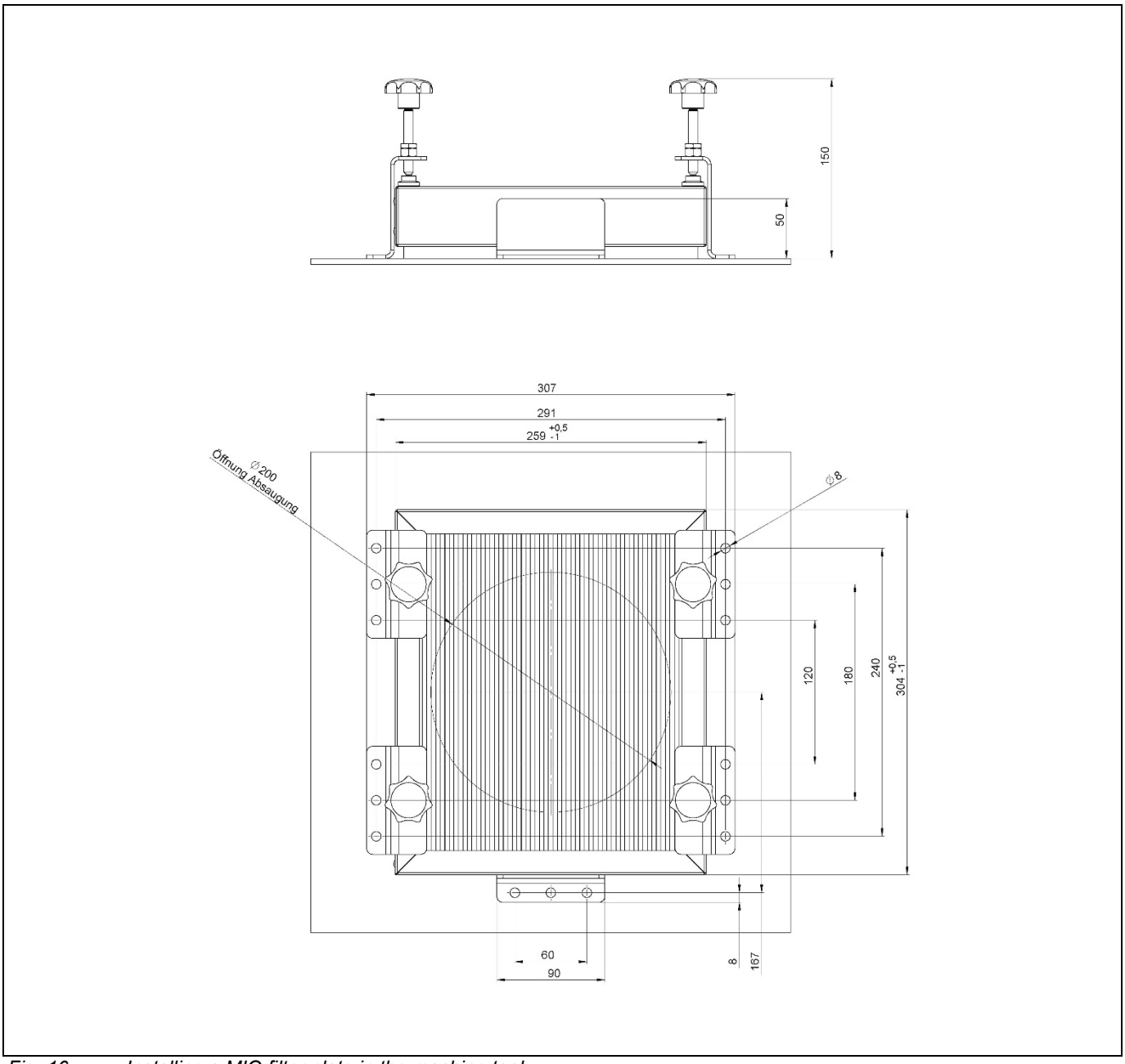


Fig. 16: Installing a MIO filter plate in the machine tool

18.3.2 Installation outside the machine tool

The MIO filter plate (material no. 70569965) can be installed outside the machine tool in the sheet metal housing (material no. 70579167) in front of the oil aerosol separator device.

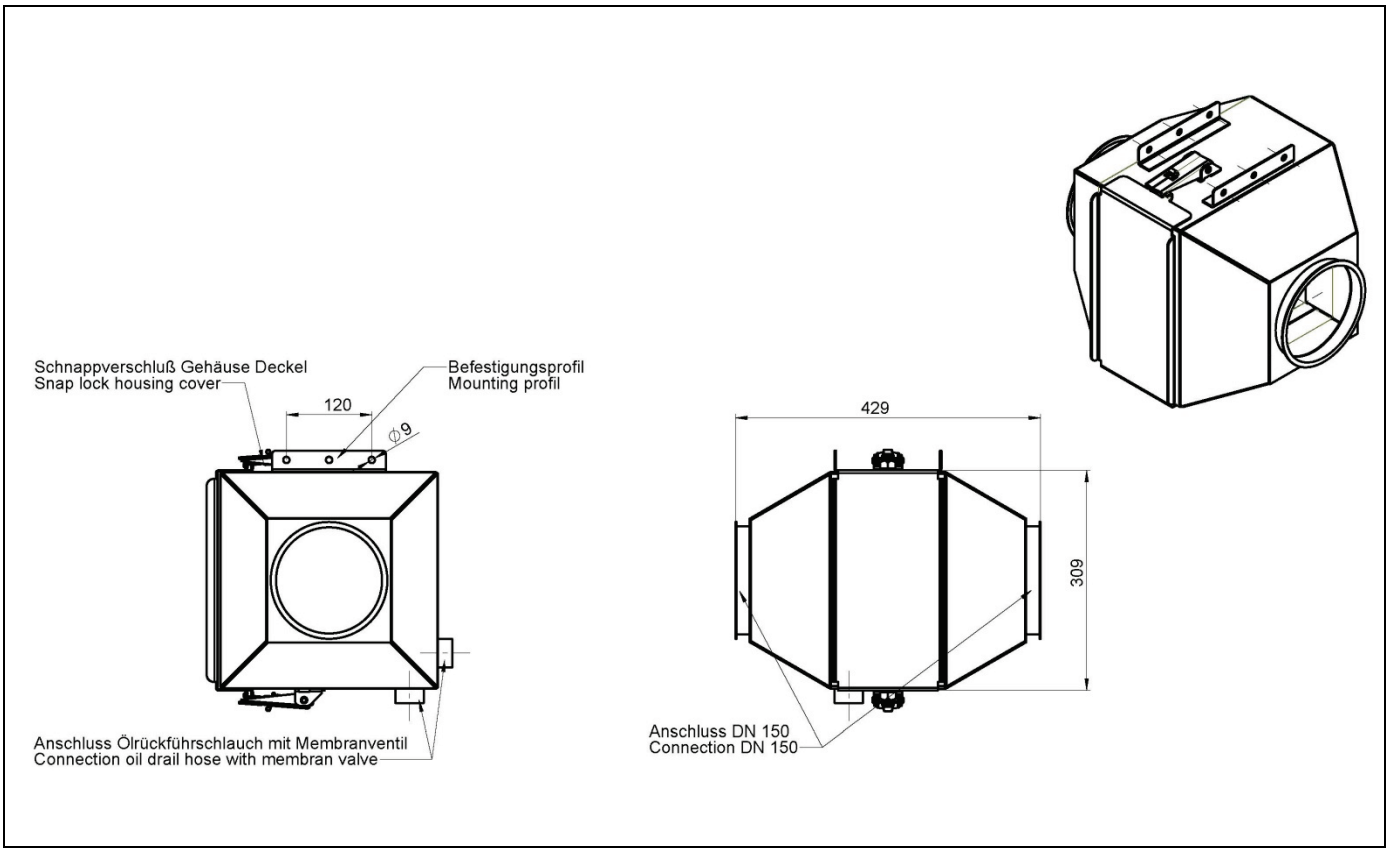


Fig. 17: Installing a MIO filter plate outside the machine tool

18.4 Tubing package

DN150 tubing package with a total length of approx. 5 m.
Includes: 2x 90° bend, tube sections and clamps, incl. seals.
Material no.:70549566

18.5 Keypad for frequency converter and display

Allows the volume flow (350 to 700 m³/h) to be optimally adapted to the operating conditions (must be installed by a qualified electrician or FG Customer Service). Energy efficiency is significantly improved as a result.
Material no. 72415282

19 Declaration of Incorporation

EU – Einbauerklärung
EU Declaration of incorporation
Déclaration relative au montage UE

Der Hersteller
The manufacturer
Le producteur

Filtration Group GmbH
Schleifbachweg 45
74613 Öhringen
Telefon 07941 6466-0
Telefax 07941 6466-429

erklärt hiermit, dass das folgende Produkt
hereby declares that the following product
déclare par la présente que le produit suivant

Produktbezeichnung: **Product designation:** **Désignation du produit :**	**Ölaerosolabscheidegerät** **Oil mist separation** **Sèparation d'aérosols d'huile**
Typenbezeichnung: **Type designation:** **Désignation du type :**	**LGA 601 FU, LGA 601 FUW,** **LGA 1201 FU, LGA 1201 FUW**
Funktionsbeschreibung: **Machine description:** **Description du fonctionnement :**	**Abscheidung von Kühlschmierstoffaerosolen** **separation of coolant** **séparer les fluides de coupe**

den in der Anlage dargestellten grundlegenden Anforderungen der Richtlinie 2006/42/EU entspricht.
conforms to the essential requirements of the Machinery Directive 2006/42/EU pursuant to the annex.
répond aux exigences fondamentales de la directive 2006/42/UE, décrites en annexe.

Die unvollständige Maschine darf erst dann in Betrieb genommen werden, wenn festgestellt wurde, dass die Maschine, in die die unvollständige Maschine eingebaut werden soll, den Bestimmungen der Richtlinie 2006/42/EU über Maschinen, sowie der EMV 2014/30/EU entspricht.
The partly completed machinery must not be put into service until the relevant machinery into which this partly completed machinery is to be incorporated has been declared in conformity with the Machinery Directive 2006/42/EU and EMV 2014/30/EU.
La machine incomplète ne doit être mise en service qu'après avoir déterminé que la machine, dans laquelle la machine incomplète doit être montée, correspond aux dispositions de la directive machines 2006/42/UE , EMV 2014/30/UE .

Folgende harmonisierten Normen wurden angewandt: **The following harmonised standards have been used:** **Les normes harmonisées ci-dessous ont été appliquées :**	**DIN EN ISO 12100:2011-03, DIN EN ISO 4414:2011-04** **EN 61800-3**

Der Hersteller verpflichtet sich, die speziellen Unterlagen zur unvollständigen Maschine, einzelstaatlichen Stellen auf Verlangen schriftlich zu übermitteln. Die zur Maschine gehörenden speziellen technischen Unterlagen nach Anhang VII Teil B wurden erstellt.
The manufacturer undertakes to transmit any specific documentation on the partly completed machinery to the appropriate national authorities in writing on request. All specific technical documentation belonging to the machinery has been compiled pursuant to Annex VII Section B.
Le fabricant s'engage à transmettre les documents spécifiques à la machine incomplète par écrit aux administrations nationales respectives sur leur demande. Les documents techniques spécifiques selon Annexe VII partie B faisant partie de la machine ont été établis.

Dokumentationsverantwortlicher/Abteilung: Responsible for documentation/department: Responsable de la documentation/Service :	Filtration Group GmbH Schleifbachweg 45 74613 Öhringen
Unterzeichner: Signatory: Signataire :	Wolfram Zuck Dipl.-Ing. (FH) Industrial Engineering Managing Director, Plant Manager Öhringen

Öhringen,

28.4.17
Datum/Date/Date

Unterschrift/Signature/Signature

Anlage/Annex/Annexe

2 Seiten/pages/pages

Anlage zur Einbauerklärung gemäß Richtlinie 2006/42/EU für Ölaerosolabscheidegeräte
Annex to the Declaration of Incorporation pursuant to the Machinery Directive 2006/42/EU for oil mist separation
Annexe à la déclaration de montage selon la directive 2006/42/UE pour les sèparation d'aérosols d'huile

Beschreibung der grundlegenden Sicherheits- und Gesundheitsschutzanforderungen (soweit zutreffend) gemäß 2006/42/EU, Anhang 1, die zur Anwendung kommen und eingehalten wurden.
List of the essential health and safety requirements (where applicable) pursuant to 2006/42/EU, Annex 1, applied and fulfilled.
Description des exigences fondamentales relatives à la sécurité et à la protection de la santé (si applicables) selon 2006/42/UE, annexe 1, appliquées et respectées.

Grundlegende Anforderung **Essential requirements** **Exigence fondamentale**	**Erfüllt** **Fulfilled** **Remplie**
Grundsätze für die Integration der Sicherheit Principles of safety integration Principes d'intégration de la sécurité	ja yes oui
Materialien und Produkte Materials and products Matériaux et produits	ja yes oui
Konstruktion der Maschine im Hinblick auf die Handhabung Design of machinery to facilitate its handling Construction de la machine au regard de sa manipulation	ja yes oui
Steuerungen und Befehlseinrichtungen Control systems Commandes et dispositifs de commande	nein no non
Risiko des Verlusts der Standsicherheit Risk of loss of stability Risque de perte de la stabilité statique	ja yes oui
Bruchrisiko beim Betrieb Risk of break-up during operation Risque de rupture en fonctionnement	ja yes oui
Risiken durch herabfallende oder herausgeschleuderte Gegenstände Risks due to falling or ejected objects Risques dus à la chute ou à l'éjection d'objets	ja yes oui
Risiken durch Oberflächen, Kanten und Ecken Risks due to surfaces, edges or angles Risques dus aux surfaces, arêtes et angles	ja yes oui
Risiken durch Änderung der Verwendungsbedingungen Risks related to variations in operating conditions Risques dus à la modification des conditions d'utilisation	ja yes oui
Risiken durch bewegliche Teile Risks related to moving parts Risques dus à des parties mobiles	ja yes oui
Wahl der Schutzeinrichtung gegen Risiken durch bewegliche Teile Choice of protection against risks arising from moving parts Choix du dispositif de protection contre les risques dus à des parties mobiles	ja yes oui
Anforderungen an Schutzeinrichtungen Required characteristics of guards and protective devices Exigences relatives aux dispositifs de protection	ja yes oui
Elektrische Energieversorgung Electricity supply Alimentation électrique	ja yes oui
Statische Elektrizität Static electricity Electricité statique	ja yes oui

Montagefehler Errors of fitting Erreurs de montage	ja yes oui
Extreme Temperaturen Extreme temperatures Températures extrêmes	ja yes oui
Brand Fire Incendie	ja yes oui
Explosion Explosion Explosion	ja yes oui
Lärm Noise Bruit	ja yes oui
Vibrationen Vibrations Vibrations	ja yes oui
Strahlung Radiation Rayonnement	ja yes oui
Strahlung von außen External radiation Rayonnement depuis l'extérieur	ja yes oui
Emission gefährlicher Werkstoffe und Substanzen Emissions of hazardous materials and substances Emission de substances et matériaux dangereux	ja yes oui
Blitzschlag Lightning Foudre	nein no non
Wartung der Maschine Machinery maintenance Entretien de la machine	ja yes oui
Zugang zu den Bedienungsständen und den Eingriffspunkten für die Instandhaltung Access to operating positions and servicing points Accès aux postes de commande et aux points d'intervention pour la maintenance	nein no non
Trennung von den Energiequellen Isolation of energy sources Séparation des sources d'énergie	ja yes oui
Eingriffe des Bedienungspersonals Operator intervention Interventions des opérateurs	ja yes oui
Reinigung innen liegender Maschinenteile Cleaning of internal parts Nettoyage de parties internes de la machine	ja yes oui
Informationen und Warnhinweise an der Maschine Information and warnings on the machinery Informations et avertissements sur la machine	nein no non
Warnung vor Restrisiken Warning of residual risks Avertissement quant aux risques résiduels	ja yes oui
Kennzeichnung der Maschinen Marking of machinery Marquage des machines	ja yes oui
Betriebsanleitung Instructions Mode d'emploi	ja yes oui

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