



Mobile Unit | Mobile Unit (AC)



EN

Installation and user manual

Part No.:
84630 | 84631 | 84634

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EN | ORIGINAL INSTRUCTION

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To improve comprehension for people whose first language is not English, we have written parts of this manual in Simplified Technical English (STE). STE is a controlled language originally developed for aerospace industry maintenance manuals. It offers a carefully limited and standardized subset of English, along with specific writing rules.

PREFACE

Using this manual

This manual is intended to be used as a work of reference for professional, well trained and authorised users to be able to safely install, use, maintain and repair the product mentioned on the cover of this document.

Pictograms and symbols

The following pictograms and symbols are used in this manual:

	TIP Suggestions and recommendations to simplify carrying out tasks and actions.
	ATTENTION A remark with additional information for the user. A remark brings possible problems to the user's attention.
	CAUTION! Procedures, if not carried out with the necessary caution, could damage the product, the workshop or the environment.
	WARNING! Procedures which, if not carried out with the necessary caution, may damage the product or cause serious personal injury.
	CAUTION! Denotes risk of electric shock.
	WARNING! Fire hazard! Important warning to prevent fire.
	WARNING! Explosion hazard! Important warning to prevent explosions.
	Personal protective equipment (PPE) Instruction to use respiratory protection when you do service, maintenance and repair jobs, as well as during functional testing. We recommend to use a half-face respirator according to EN 149:2001 + A1:2009, class FFP3 (Directive 89/686/EEC).
	Personal protective equipment (PPE) Instruction to use protective gloves when you do service, maintenance and repair jobs.

Text indicators

Listings indicated by "-" (hyphen) concern enumerations.

Listings indicated by "•" (bullet point) describe steps to perform.

Service and technical support

For information about specific adjustments, maintenance or repair jobs which are not dealt with in this manual, please contact the supplier of the product. He will always be willing to help you. Make sure you have the following specifications at hand:

- product name
- serial number

You can find these data on the identification plate.

Product indications

Unless specifically stated, the contents of this manual applies to the **Mobile Unit** as well as the **Mobile Unit (AC)**.

1 INTRODUCTION

1.1 Identification of the product

The identification plate contains, among other things, the following data:

- product name
- serial number
- supply voltage and frequency
- power consumption



1.2 General description

The Mobile Unit is a fume exhaust extractor with an integrated fan and an extraction arm. Thanks to the four transport wheels (two of which are swivel casters with brake), the Mobile Unit is suitable to be used in relatively small facilities or near sources of pollution without a fixed location. The Mobile Unit is available with two types of main filter:

Type of unit	Main filter cassette
Mobile Unit	EPA filter
Mobile Unit (AC)	Activated carbon filter

1.2.1 Intensity of use

Mobile Unit | We recommend to use the Mobile Unit for occasional welding¹ and TIG welding.

Mobile Unit (AC) | The Mobile Unit (AC) is specially developed for the adsorption of a wide range of volatile organic compounds (VOC) and for industrial odour removal.

1.3 Technical specifications



Physical dimensions and properties	
Material (housing)	electro-zinc coated steel
Weight (excl. arm)	84 kg
Filters (all disposable)	
Pre filter (cassette):	
- material	polyester
- filter surface	1 m ²
- filter classification	ISO Coarse 70% according to ISO 16890
EPA filter (cassette):	Mobile Unit
- material	glass fibre
- filter surface	15 m ²
- efficiency class	E12 according to EN 1822-1:2009
- washable	no
Activated carbon filter (cassette):	Mobile Unit (AC)
- type of carbon	coal based extruded
- carbon content	15 kg
- washable	no
Extraction arm	
Type	hose tube arm
Length	2 or 3 m
Diameter	Ø 160 mm
Weight:	
- 2 m arm	14,5 kg
- 3 m arm	16,5 kg

1. Approx. 1 coil of solid wire or 7,5 kg of electrodes per month

Fan	
Fan type	radial
Extraction capacity	max. 1000 m³/h
Fan speed	2800 rpm
Noise level	67 dB(A) according to ISO 3746
Electrical data	
Power consumption	1,1 kW
Connection voltage	230V/1ph/50Hz
Motor design	IEC
Energy efficiency	<i>n.a. for single phase motors</i>
Mains cord	5 m
Plug	type F
Welding fume class	
W3 compliant	according to EN-ISO 21904-2-2020

1.3.1 Dimensions

Refer to Fig. I on page 10.

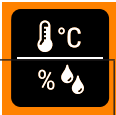


1.4 Working range

Refer to Fig. II on page 10.

1.5 Ambient and process conditions

Process temperature:	
- min.	5°C
- nom.	20°C
- max.	70°C
Max. relative humidity	90%
Suitable for outdoor use	no



1.6 Transport of the unit

You cannot hold the manufacturer liable for any transportation damage after delivery of the product.

- Handle the filter unit and the accompanying extraction arm with care.
- Completely dismount the extraction arm before transport. Dismount the arm by executing the mounting procedure in reverse order. Subsequently the filter unit and the arm can be transported on a pallet in the original packing.
- To prevent damage, make sure that the filter unit and the arm cannot shift on the pallet.

2 PRODUCT DESCRIPTION

2.1 Components

The product consists of the following main components and elements:

- Fig. 2.1
- A Shut-off damper
 - B Extraction arm
 - C Control panel
 - D Pre filter cassette
 - E Main filter cassette
 - F Fan + motor

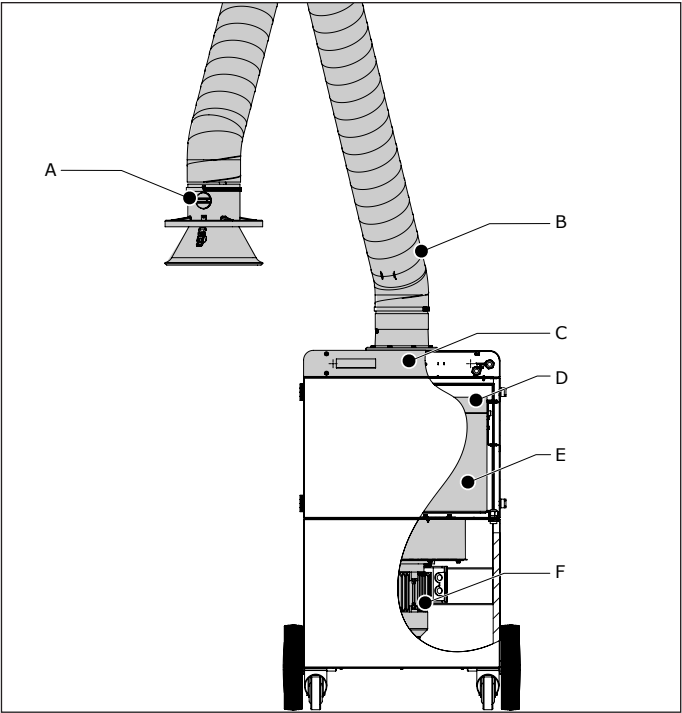


Fig. 2.1 Main components and elements

2.2 Operation

The Mobile Unit works in accordance with the recirculation principle. Welding fume² is extracted through the hood of the connected extraction arm by the built-in fan. The polluted air passes the pre filter cassette and is cleaned by the main filter cassette. The cleaned air is returned in the workshop through the outlet grid on the rear of the unit.



2.2.1 Indication of filter replacement

The Mobile Unit has a service indicator that monitors the airflow. It gives an acoustic signal to replace the filter(s).

3 SAFETY INSTRUCTIONS

General

The manufacturer does not accept any liability for damage to the product or personal injury caused by ignoring of the safety instructions in this manual, or by negligence during installation, use, maintenance, and repair of the product mentioned on the cover of this document and any corresponding accessories. Specific working conditions or used accessories may require additional safety instructions. Immediately contact your supplier if you detect a potential danger when using the product.



The user of the product is always fully responsible for observing the local safety instructions and regulations. Observe all applicable safety instructions and regulations.

User manual

- Everyone working on or with the product, must be familiar with the contents of this manual and must strictly observe the instructions therein. The management should instruct the personnel in accordance with the manual and observe all instructions and directions given.
- Do not change the order of the steps to perform.
- Keep the manual with the product.

2. In case of a Mobile Unit (AC): volatile organic compounds

Users

- The use of this product is exclusively reserved to authorised, trained and qualified users. Temporary personnel and personnel in training can only use the product under supervision and responsibility of skilled engineers.
- Stay alert and keep your attention to your work. Do not use the product when you are under the influence of drugs, alcohol or medicine.
- The product is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children must be supervised not to play with the product.

Intended use³

Mobile Unit | The product has been designed exclusively for extracting and filtering gases and particles which are released during the most common welding processes.

Mobile Unit (AC) | The product has been designed exclusively for the reducing of volatile organic compounds and for industrial odour removal.

Using the product for other purposes is considered contrary to its intended use. The manufacturer accepts no liability for any damage or injury resulting from such use. The product has been built in accordance with state-of-the-art standards and recognised safety regulations. Only use this product when in technically perfect condition in accordance with its intended use and the instructions explained in the user manual.

Technical specifications

Do not change the specifications given in this manual.

Modifications

Modification of (parts of) the product is not allowed.

Installation

- The installation of this product is exclusively reserved to authorised, trained and qualified engineers.
- The electric connection must be executed in accordance with the local codes and requirements. Ensure compliance with the EMC regulatory arrangements.
- During installation, always use Personal Protective Equipment (PPE) to avoid injury. This also applies to persons who enter the work area during installation.
- Make sure that the workspace is well illuminated.
- Stay alert and keep your attention to your work. Do not install the product when you are under the influence of drugs, alcohol or medicine.
- Air containing particles such as chromium, nickel, beryllium, cadmium, lead etc., should never be recycled. This air must always be brought outside the working area.

Use



WARNING!

Fire hazard! Do **not** use the product for:

- polishing applications in combination with grinding, welding or any other application that generate sparks (fibers from polishing or abrasive flap disks are highly flammable and pose a high risk of filter fires when exposed to sparks)
- arc-air gouging
- extracting and/or filtering flammable, glowing or burning particles or solids or liquids
- extracting and/or filtering of aggressive fumes (such as hydrochloric acid) or sharp particles
- extracting and/or filtering dust particles which are released when welding surfaces treated with primer
- sucking cigarettes, cigars, oiled tissues, and other burning particles, objects, and acids



WARNING!

Explosion hazard! Do **not** use the product for explosion-hazardous applications, e.g.:

- aluminium laser cutting
- grinding aluminium and magnesium
- explosive environments or explosive substances/gases



WARNING!

Do **not** use the product for:

- extraction of hot gases (more than 70°C continuously)
- flame spraying
- oil mist
- heavy oil mist in welding fume
- extraction of cement, saw dust, wood dust etc.

- Inspect the product and check it for damage. Verify the functioning of the safety features.
- Do not put the product in front of entrances and exits which must be used for emergency services.
- During use, always use Personal Protective Equipment (PPE) to avoid injury. This also applies for persons who enter the work area.
- Check the working environment. Do not allow unauthorised persons to enter the working environment.
- Protect the product against water and humidity.
- Make sure the room is always sufficiently ventilated; this applies especially to confined spaces.
- Make sure that the workshop, in the vicinity of the product, contains sufficient approved fire extinguishers (suitable for fire classes ABC).
- Do not leave any tools or other objects in or on the unit.
- The welding current return circuit between the workpiece and the welding machine has a low resistance. Thus avoid connection between the workpiece and the Mobile Unit, so that there is no possibility of the welding current flowing back to the welding machine via the protective earth conductor of the Mobile Unit.

Service, maintenance and repairs

- Obey the maintenance intervals given in this manual. Overdue maintenance can lead to high costs for repair and revisions and can render the guarantee null and void.
- Always use Personal Protective Equipment (PPE) to avoid injury. This also applies for persons who enter the work area.
- Make sure the room is sufficiently ventilated.
- Use tools, materials, lubricants and service techniques which have been approved by the manufacturer. Never use worn tools and do not leave any tools in or on the product.

3. "Intended use" as explained in EN-ISO 12100-1 is the use for which the technical product is suited as specified by the manufacturer, inclusive of his directions in the sales brochure. In case of doubt it is the use which can be deduced from the construction, the model and the function of the technical product which is considered normal use. Operating the machine within the limits of its intended use also involves observing the instructions in the user manual.

- Clean the area afterwards.

	ATTENTION Service, maintenance and repairs must be performed in accordance with directive TRGS 560 and TRGS 528 by authorised, qualified and trained persons (skilled) using appropriate work practices.
	ATTENTION Before you carry out service, maintenance and/or repair jobs: - fully disconnect the unit from the mains
 	Personal protective equipment (PPE) Wear respiratory protection and protective gloves during service, maintenance and repairs.
	WARNING The industrial vacuum cleaner that you use during service and maintenance must meet dust class H according to EN 60335-2-69.

- In case of a hose tube arm: put the hose tube over the internal rods of the arm.
- Move the hose clamp (C) and the arm swivel ring (incl. rubber collar) (D) over the hinge rod (B).
- Put the washer M20 (E) on the rotating flange (F).
- Put the hinge rod (B) in the rotating flange (F).
- Put the hose (A) over the arm swivel ring (D).
- Use the rubber collar to make the connection airtight.
- Attach the hose (A) to the swivel ring (D) with the hose clamp (C).

	ATTENTION! Make sure to install the washer M20 (E) between the rotating flange and the swivel ring to avoid damage.
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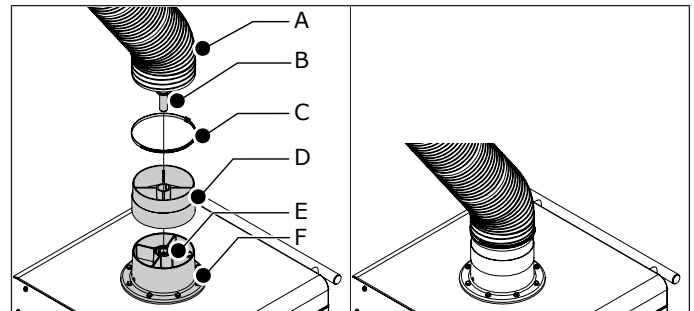


Fig. 4.2 Arm on mobile unit

4 INSTALLATION

4.1 Tools and requirements

You need the following tools and requirements to install the unit:

- basic tools



4.2 Unpacking

Make sure that the product is complete. The package contains:



Filter unit

- mobile filter unit
- washer M6 (8)
- bolt M6x25 (8)

Extraction arm

- extraction arm (pre-assembled; excl. hose tube)
- hose tube
- hose clamp (2)
- rotating flange
- arm swivel ring, incl. rubber collar
- extraction hood
- hood collar with safety mesh
- washer M20

4.3 Arm on mobile unit

To install the extraction arm, do the following.

	TIP Do a balance check of the arm before you fasten the hoses. Refer to § 6.3.
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- Install the rotating flange (C) on the filter unit with the 8 bolts M6x25 (A) + washers M6 (B).

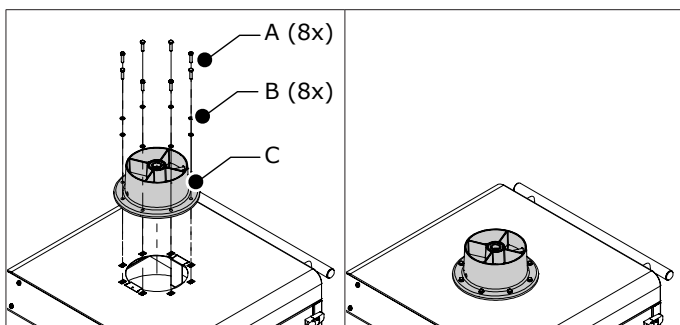


Fig. 4.1 Rotating flange

4.4 Mounting of the hood

To install the extraction hood, do the following.

Fig. 4.3

- Loosen the mounting material that is attached to the hood hinge.
- Install the extraction hood (G) with the bolt (F), 2 washers (E), 2 spring washers (D) and a locknut (C).
- Install the hood collar (H) to the hood (G). Fasten it with the clip.
- Install the hose tube (A) to the hood.
- Fasten the hose tube with a hose clamp (B).

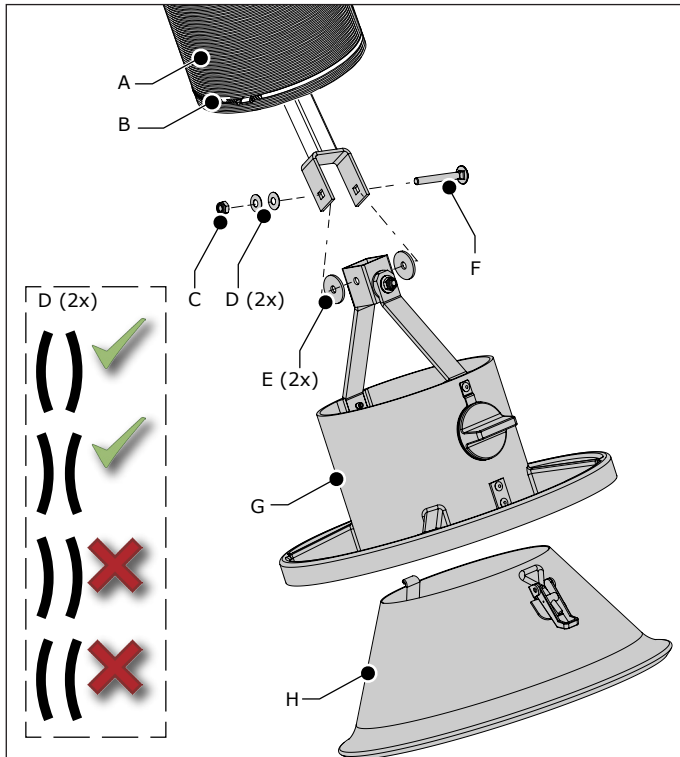


Fig. 4.3 Hood mounting

5 USE



WARNING!

Fire hazard! Do **not** use the product for polishing applications in combination with grinding, welding or any other application that generate sparks.
Refer to chapter 3 / Safety instructions / Use.

5.1 Control panel

The unit contains the following controls and indicators:

Fig. 5.1

- A Tumbler switch 0-1 with green LED
- B Buzzer (service indicator)

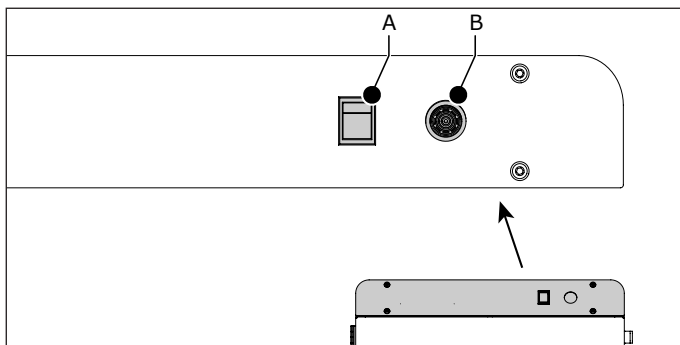


Fig. 5.1 Controls and indicators

5.2 Use

Since it concerns a mobile unit, you can use it at any desirable place. For optimal results you must place the unit as close as possible to the source of pollution.

- Position the hood of the connected extraction arm at max. 480 mm from the source of pollution. Refer to Fig. III on page 10 for the correct position.

- Make sure that the shut-off damper (ref. Fig. 2.1A) is open.
- Put the unit on (ref. Fig. 5.1A).
- Start welding / working.
- When the welding / working position changes, move the hood to the correct position in relation to the weld / source of pollution.



WARNING

To keep the welding fume / VOC / industrial odours away from the breathing zone of the worker, make sure that all fume is extracted through the hood.

- Put the unit off approx. 20 seconds after you have finished welding / working.

When the airflow is too low during use, the buzzer (ref. Fig. 5.1B) emits an acoustic alarm. Refer to chapter 7 to find the possible cause and the solution.



ATTENTION

If you do not replace any of the filter cassettes in time, the airflow (extraction capacity) further drops.

6 MAINTENANCE

6.1 Periodic maintenance



The product has been designed to function without problems for a long time with a minimum of maintenance. In order to guarantee this some simple, regular maintenance and cleaning activities are required which are described in this chapter. If you observe the necessary caution and carry out the maintenance at regular intervals, any problems occurring will be detected and corrected before they lead to a total breakdown.



WARNING

Overdue maintenance can cause fire.

The indicated maintenance intervals can vary depending on the specific working and ambient conditions. Therefore we recommend to thoroughly inspect the complete product once every year beside the indicated periodic maintenance. For this purpose contact your supplier.

Component	Action	Frequency: every X months	
		X=6	X=12
Filter unit			
Housing	Clean the outside with a non-aggressive detergent		X
	Clean the inside with an industrial vacuum cleaner and remove dust from the filter compartment		X
	Check sealing material of the door. Replace if necessary		X
Extraction fan	Check for encrusted particles. Clean if necessary		X
Mains cord	Check for damage. Repair or replace if necessary	X *)	
Extraction arm			
Tubes	Clean the outside with a non-aggressive detergent	X	
	Clean the inside thoroughly	X	
Flexible hoses	Check for cracks or damages. Replace if necessary	X	
Hood	Check the movement of the hood. If necessary, adjust the friction; refer to § 6.3	X	

Component	Action	Frequency: every X months	
		X=6	X=12
Arm movement	Check horizontal, vertical and diagonal arm movement. If necessary, adjust the friction; refer to § 6.3	X	

*) Before every use

6.2 Filter replacement

The buzzer emits an acoustic signal when the airflow is too low.



Make sure that:

- the shut-off damper is open
- the extraction arm is not fully folded

When the buzzer still continues, you must replace the filter cassette(s).

As the pre filter is smaller and becomes more quickly saturated than the main filter, you can replace the pre filter cassette several times before you finally need to replace the main filter cassette.



Personal protective equipment (PPE)

Wear respiratory protection and protective gloves when you replace the filter cassettes.



WARNING

Do **not** replace the filter cassettes while the fan is running.



WARNING

Do **not** shake out or (vacuum) clean the used filter cassettes to avoid the release of particles.

6.2.1 Pre filter cassette

To replace the pre filter cassette, do the following.

Fig. 6.1

- De-energize the unit.
- Open the back door (B).
- Remove the pre filter cassette (A).
- Dispose of the used filter cassette in accordance with state or local regulations.
- Put a new pre filter cassette in the unit. Make sure that the arrow on the frame points downwards⁴.
- Close and lock the door.

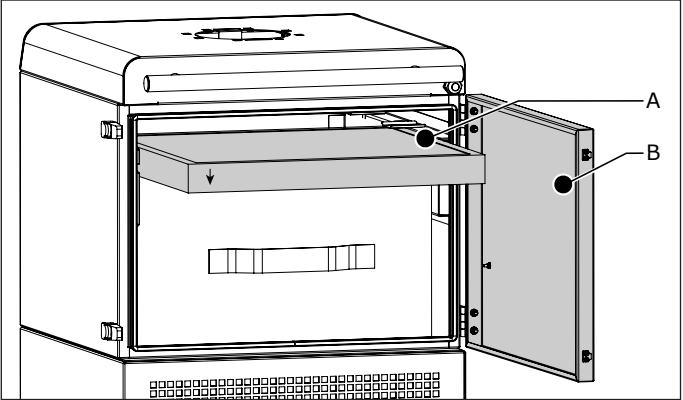


Fig. 6.1 Replacement of the pre filter cassette



When the buzzer continues to beep after you have replaced the pre filter cassette, it is time to replace the main filter cassette.

4. The arrow indicates the airflow direction

6.2.2 Main filter cassette⁵

To replace the main filter cassette, do the following.

Fig. 6.2

- De-energize the unit.
- Open the back door (C).
- Remove the pre filter cassette.
- Slightly lift and remove the main filter cassette (D).
- Dispose of the used main filter cassette in accordance with state or local regulations.
- Put a new main filter cassette in the unit. The side pins (A) exactly fit in the slits (B).
- Put the pre filter cassette back in the unit. Make sure that the arrow on the frame points downwards⁶.
- Close and lock the door.

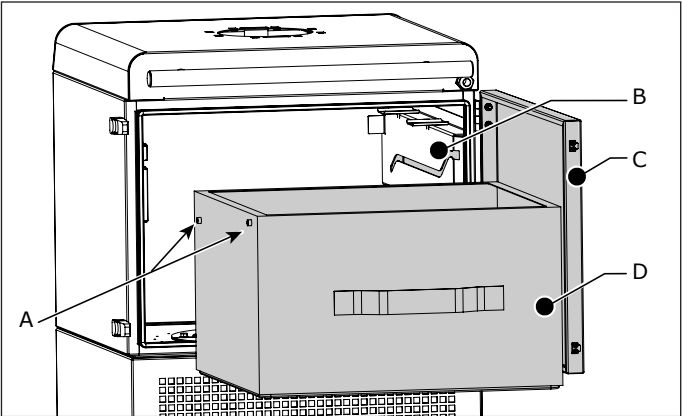


Fig. 6.2 Replacement of the main filter cassette

6.3 Arm adjustment

If the extraction arm, or a part of it, does not stay in the desired position, you must adjust the friction.

To adjust the friction, do the following.

- Determine which joint needs more or less friction.
- Loosen the hose tube to get access to the hinges.
- Pull the arm in a horizontal position.
- Adjust the friction; refer to Fig. V on page 11 for the adjustment points.

7 TROUBLESHOOTING

If the unit does not function (correctly), consult the checklist below to see if you can remedy the error yourself. Should this not be possible, contact your supplier.



WARNING

Obey the safety regulations that are written in chapter 3 when you carry out the activities below.

5. Mobile Unit: EPA filter cassette | Mobile Unit (AC): activated carbon cassette

6. The arrow indicates the airflow direction. An incorrectly placed pre filter cassette affects the filter lifetime.

Symptom	Problem	Possible cause	Solution
The fan does not start	The unit does not function	No mains voltage	Connect the mains voltage
		Thermal overload protection is activated	- Examine the fan and motor to find the cause and remedy the problem - Push the red button behind the front panel to reset. Refer to Fig. IV on page 10
		The mains cord is defective	Repair or replace the mains cord
		Loose contacts	Repair the contacts
		Motor defective	Repair or replace the motor
The green LED is on but the fan does not run	The unit does not function	Relay is defective	Replace the relay
		Thermal relay is defective	Replace the thermal relay
		Motor defective	Repair or replace the motor
Poor extraction capacity	The unit does not function properly	The shut-off damper in the hood of the extraction arm is (partly) closed	(Fully) open the shut-off damper
		Clogged filters & loose connection of pressure sensor	Repair the connection of the pressure tubes
		Clogged filters & defective pressure sensor	Replace the pressure sensor & the pre filter cassette
			Replace the main filter cassette as well
The buzzer emits an acoustic signal	Poor extraction capacity	The pre filter is clogged	Replace the pre filter cassette
		The EPA filter is clogged	Replace the EPA filter cassette
		The activated carbon filter is saturated	Replace the activated carbon filter cassette
The extraction arm does not stay in the desired position	Escape of fume; no proper extraction	Friction setting is not correct	Adjust the friction; refer to Fig. V on page 11 for the adjustment points
You cannot get the arm in the desired position			

8 SPARE PARTS

8.1 Filter unit

The following spare parts are available for the filter unit;
- refer to exploded view [Fig. VI on page 12](#)



8.2 Extraction arm

The following spare parts are available for the extraction arms;
- refer to exploded view [Fig. VII on page 13](#)

9 ELECTRICAL DIAGRAM

Refer to the electrical diagram. [Fig. VIII on page 14.](#)



10 DISPOSAL

Dismantling and disposal of the unit must be done by qualified persons.



Personal protective equipment (PPE)
Wear respiratory protection and protective gloves when you dismantle and dispose of the unit.

10.1 Dismantling

To safely dismantle the unit, obey the safety instructions that follow.

Before dismantling of the unit:

- disconnect it from the mains
- clean the outside

During dismantling of the unit:

- make sure that the area is sufficiently ventilated, e.g. by a mobile ventilation unit

After dismantling of the unit:

- clean the dismantling area

10.2 Disposal

Dispose of the pollutants and dust, together with the used filters, in a professional manner in accordance with federal, state or local regulations.

CE & UKCA declaration of conformity for machinery

We, Alentec & Orion AB, Grustagsvägen 4, SE-138 40 Älta, Sweden, herewith declare, on our own responsibility, that the products:

- Mobile Unit
- Mobile Unit (AC)

which this declaration refers to, are in accordance with the conditions of the following Directives:

- Machine Directive 2006/42 EC
- EMC 2014/30 EU
- LVD 2014/35 EU
- ErP Directive 2009/125 EC
- W3 compliant (EN-ISO 21904-2:2020)

Älta, Sweden, 1st December 2025

Johan Norman

Fig. I Dimensions

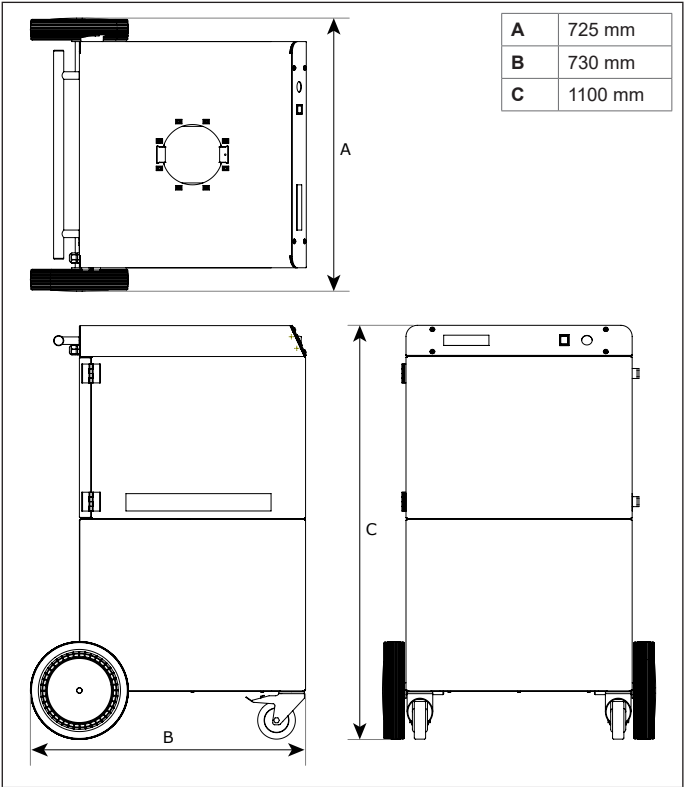


Fig. II Working range

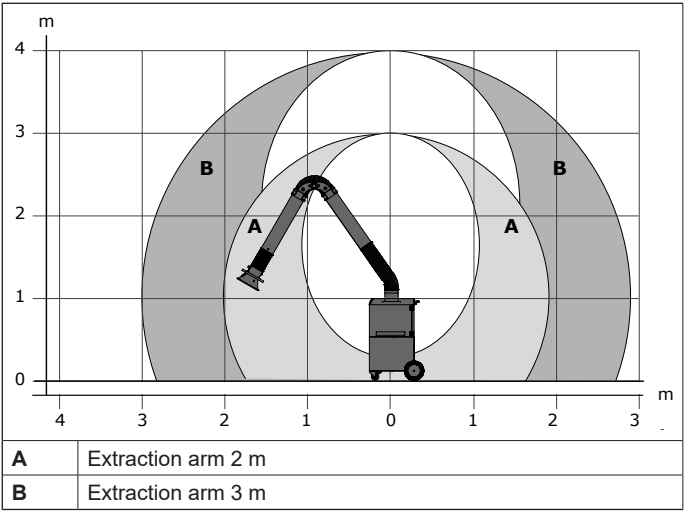


Fig. III Positioning of the extraction arm

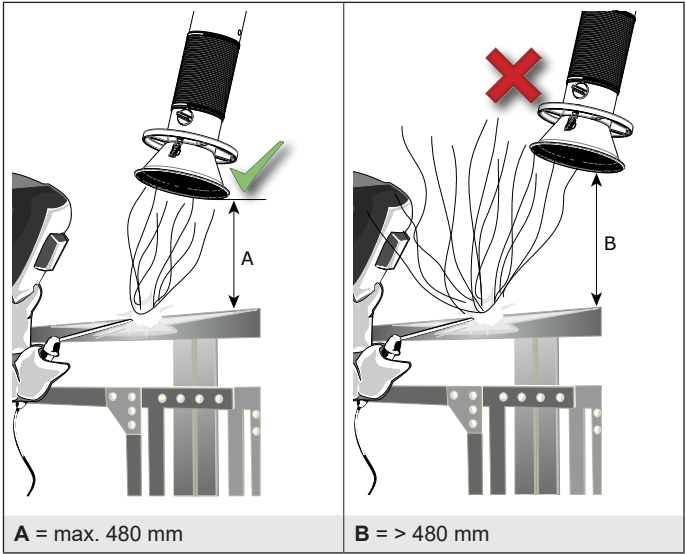


Fig. IV Reset

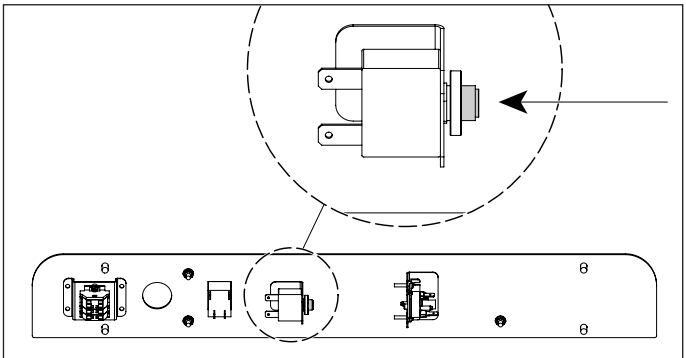


Fig. V Adjustment of the extraction arm | Adjustment points

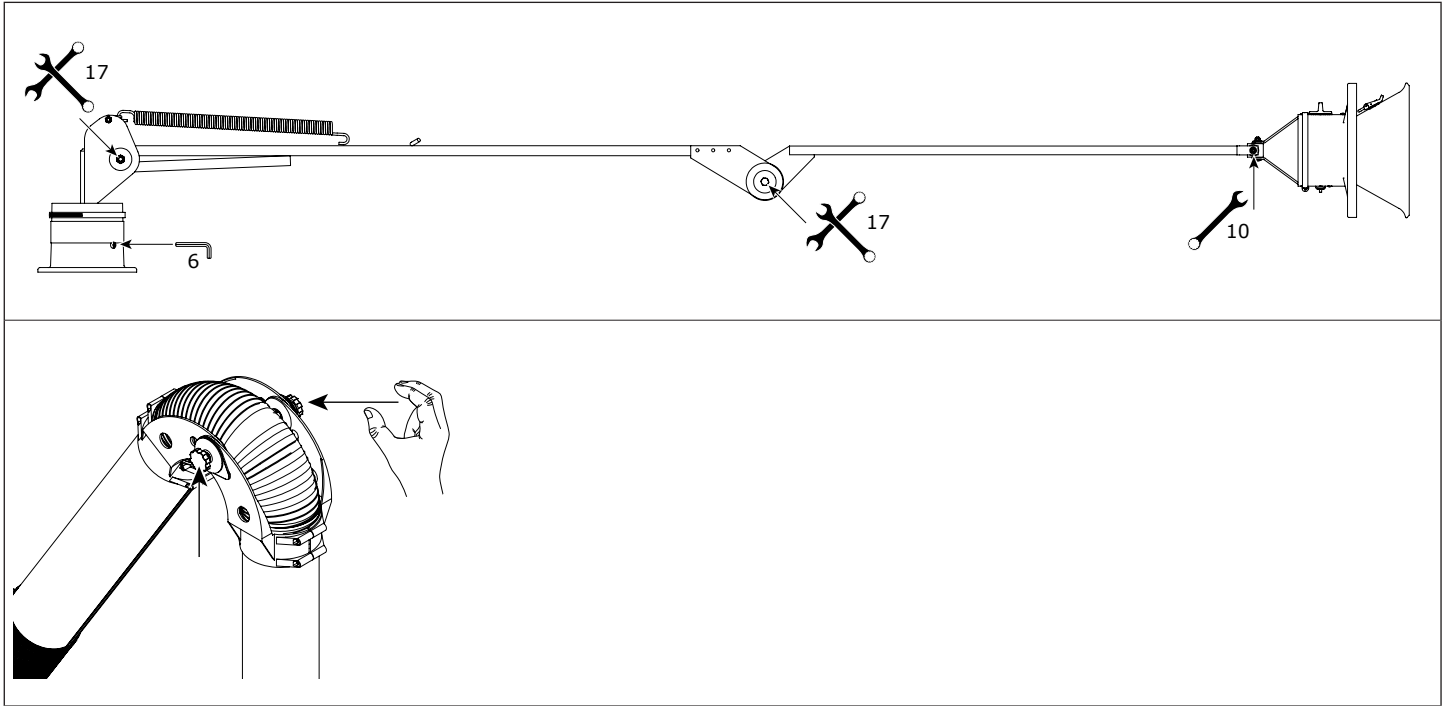
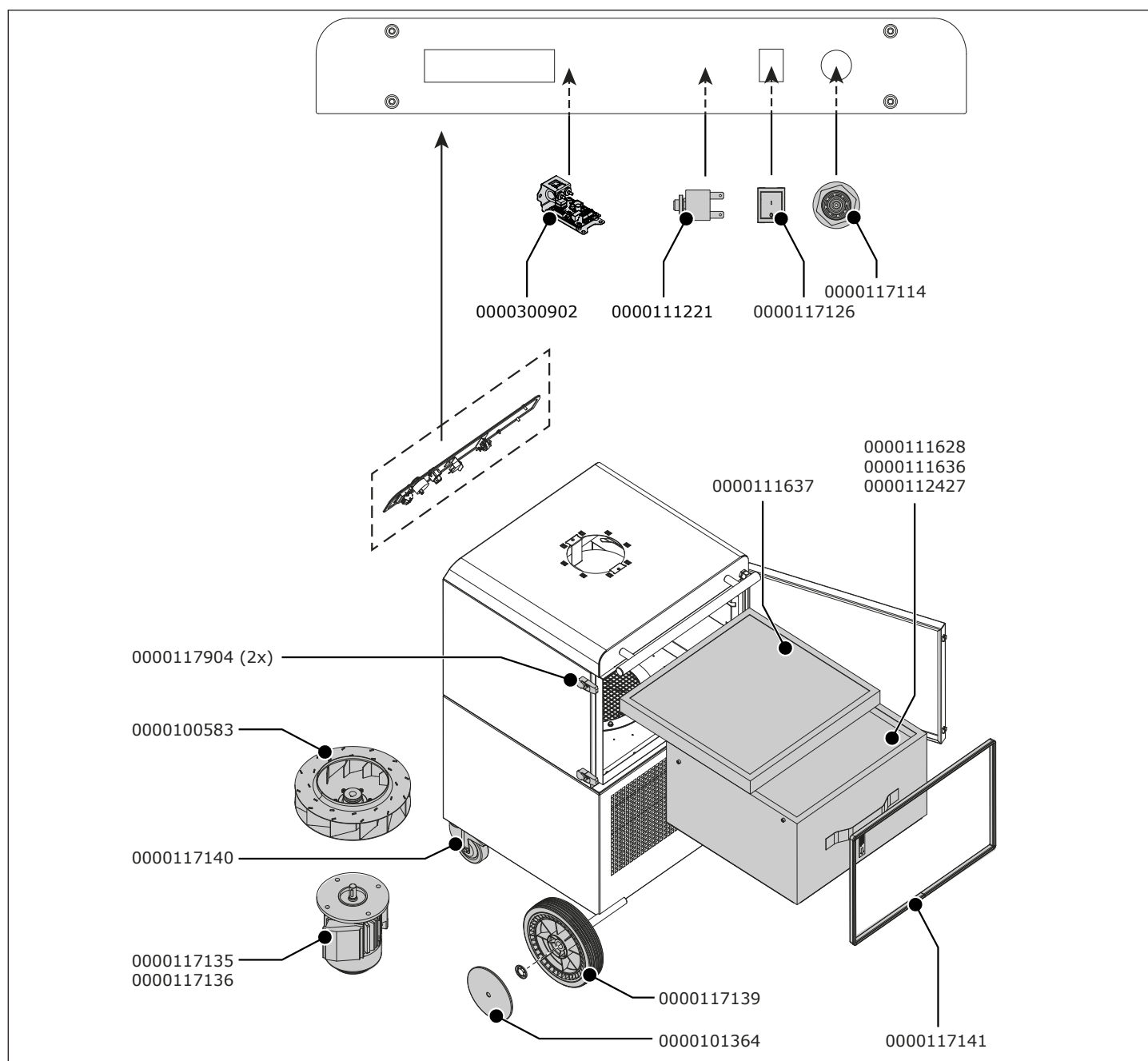


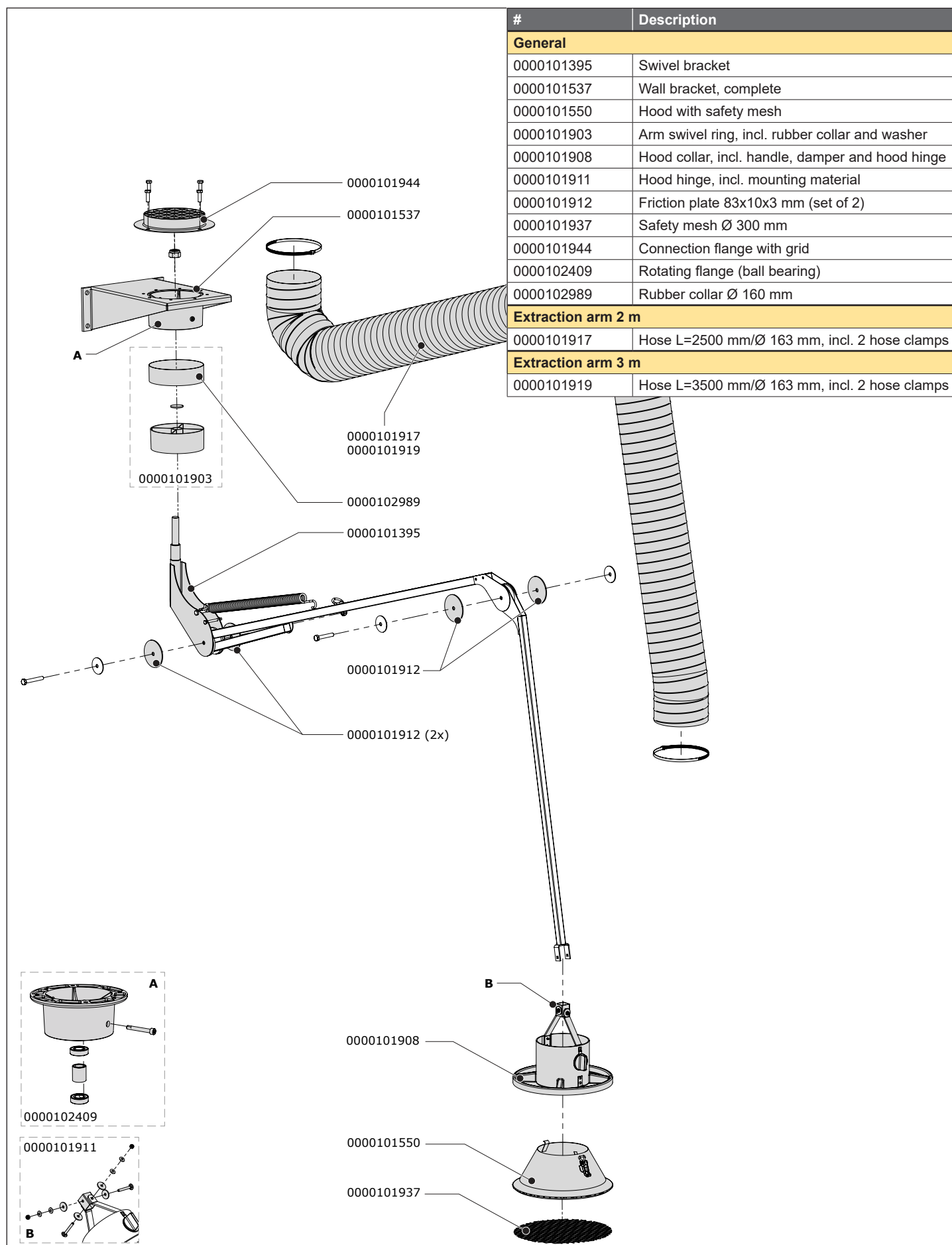
Fig. VI Exploded view | Spare parts



#	Description
General	
0000100583	Fan wheel FUA-3000 (IEC)
0000101364	Wheel covers grey (set of 2)
0000111221	Circuit breaker ST-1 10A
0000111637	Pre filter cassette 1 m ²
0000117114	Buzzer 230V
0000117126	Tumbler switch 0-I (230V)
0000117136	Motor 1,1 kW; 230V/1ph/50Hz (IEC)
0000117139	Wheel Ø 250 mm
0000117140	Swivel castor Ø 100 mm with brake
0000117141	Sealing L=1,9 m for door
0000117904	Draw latch (set of 2)
0000300902	Digital pressure switch 100-240 VAC

#	Description
Mobile Unit	
0000111628	EPA filter cassette 15 m ²
0000111636	EPA filter cassette 26 m ²
Mobile Unit (AC)	
0000112427	Activated carbon filter cassette 15 kg

Fig. VII Exploded view | Spare parts



1	2	3	4	5	6	7	8	9	10
+L2 - Filter unit +L3 - Control panel									
MobileGo 1 phase IEC Electrical scheme							REVISION A		
LOCATION: Goline IEC							19032 MdB 0 23-6-2016 NAME RFC Document Status RELEASED		
NEW pressure switch							CHANGES Article number 0000111442		
							SCHEME 01		

Document realized with version : 2.0.24 - 4.0.0074



352183/B | Mobile Unit | Mobile Unit (AC)