



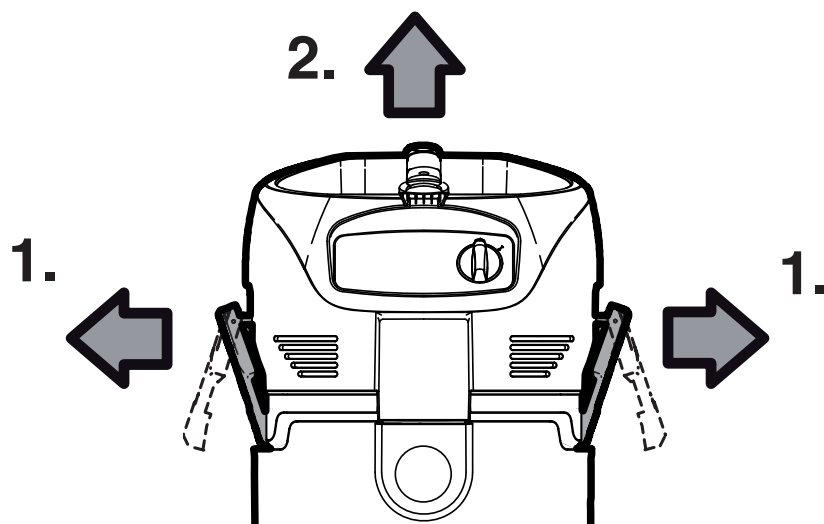
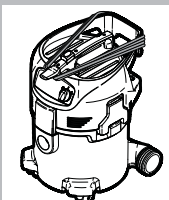
# ATTIX 40-0M PC TYPE 22

## Quick Start Guide

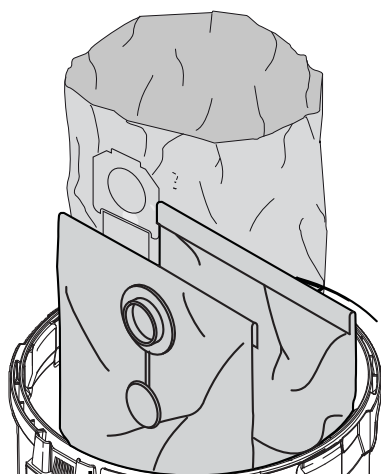


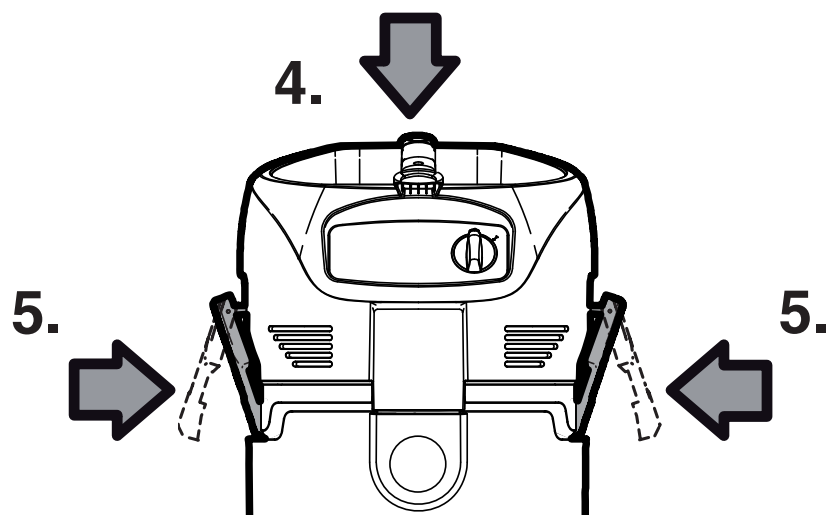
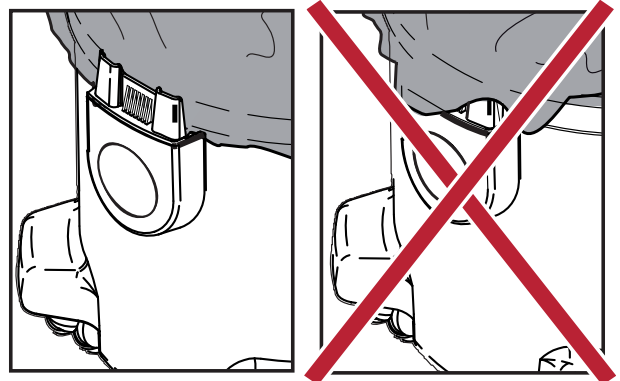
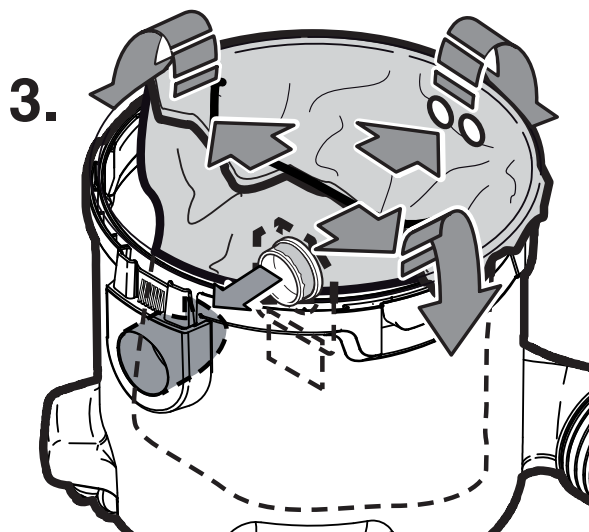
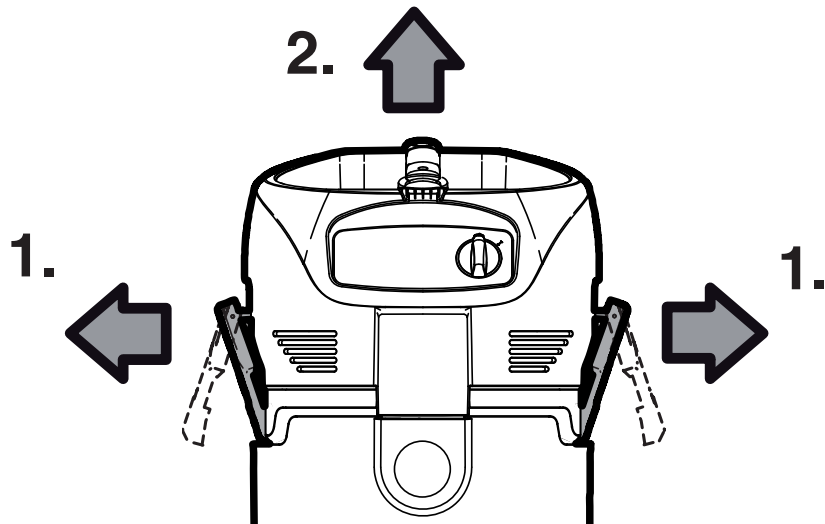
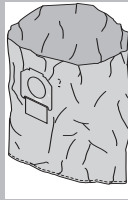
**Nilfisk**  
**ALTO**  
*Why Compromise*

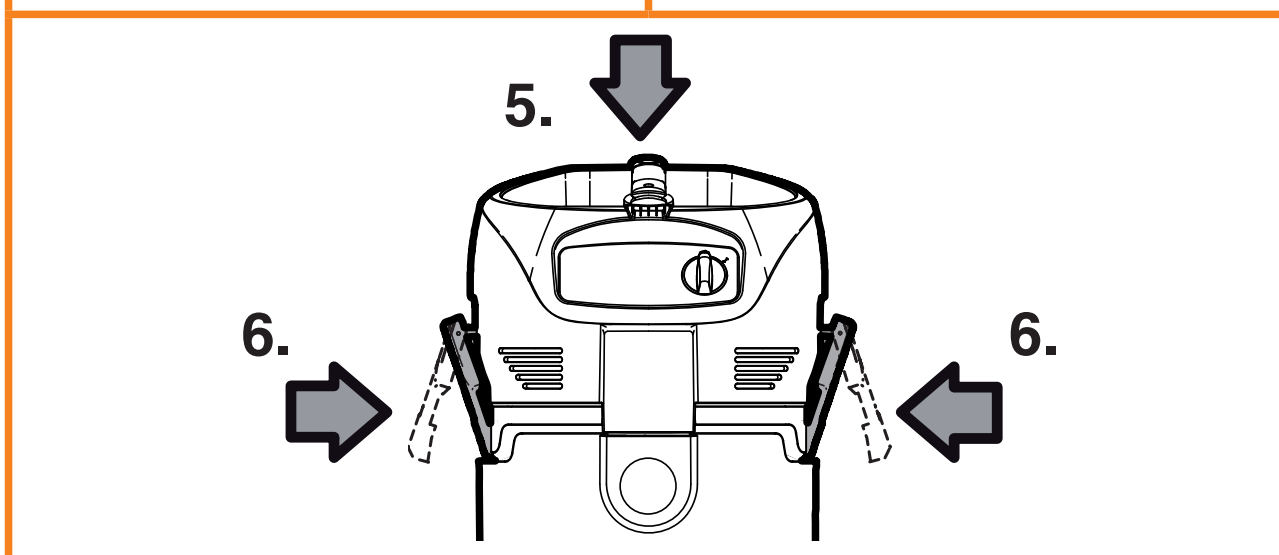
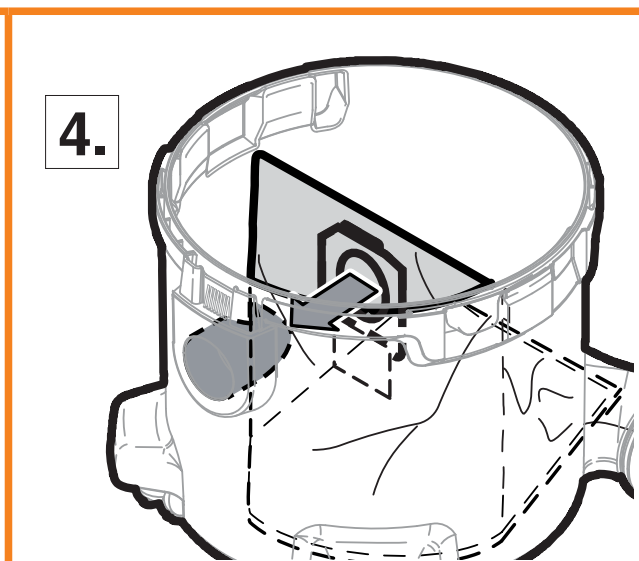
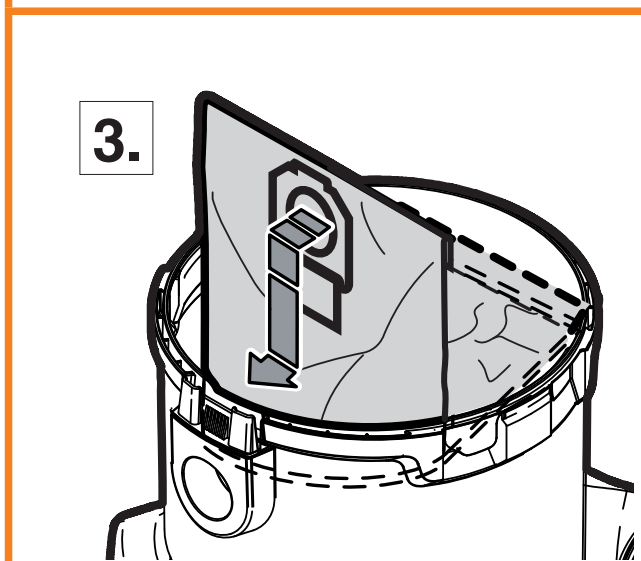
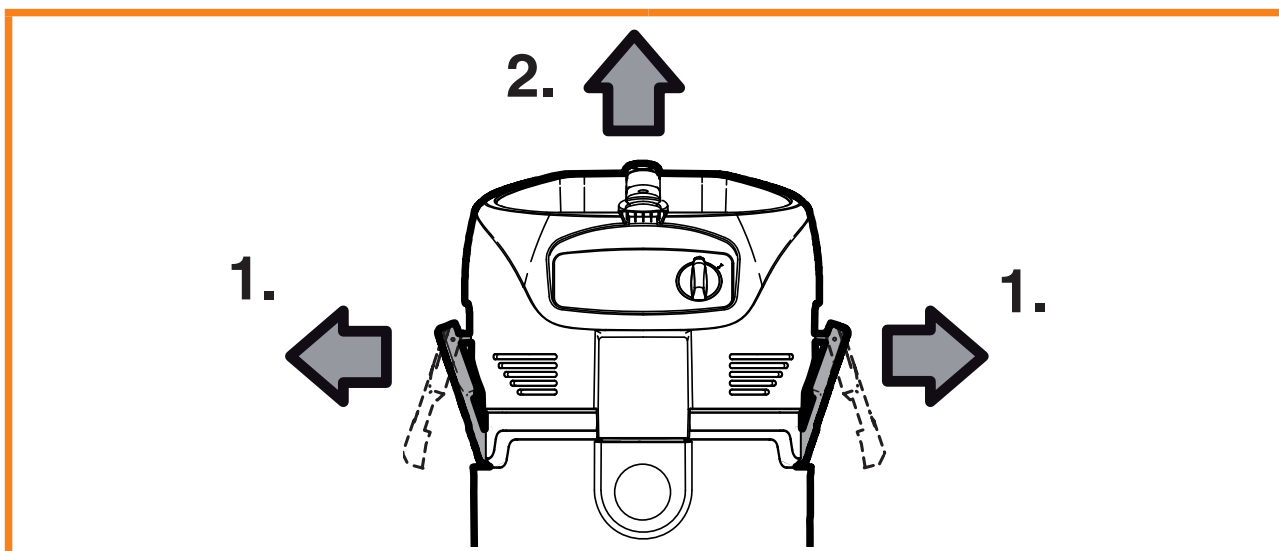
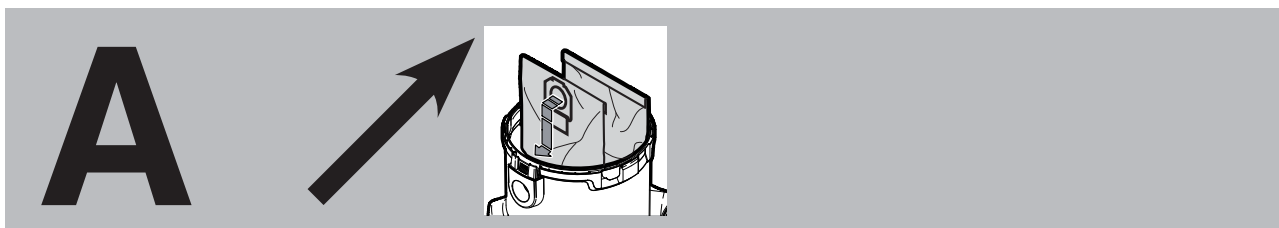
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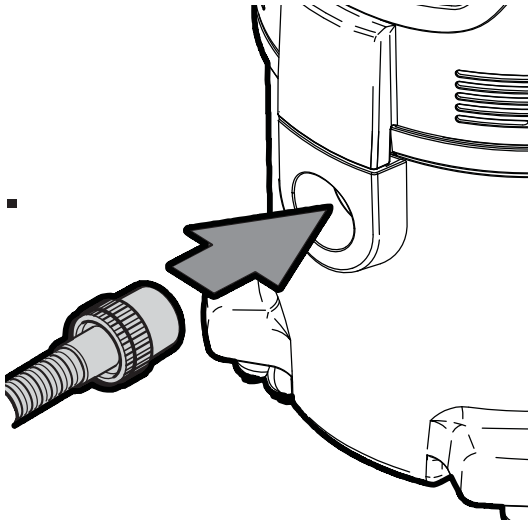
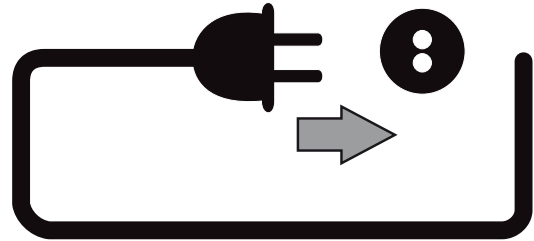


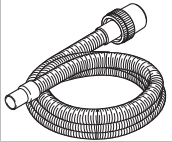

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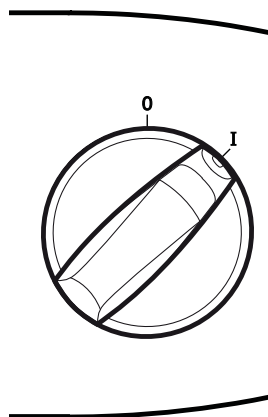


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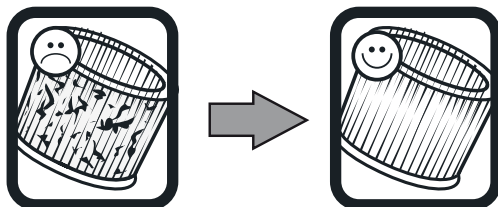


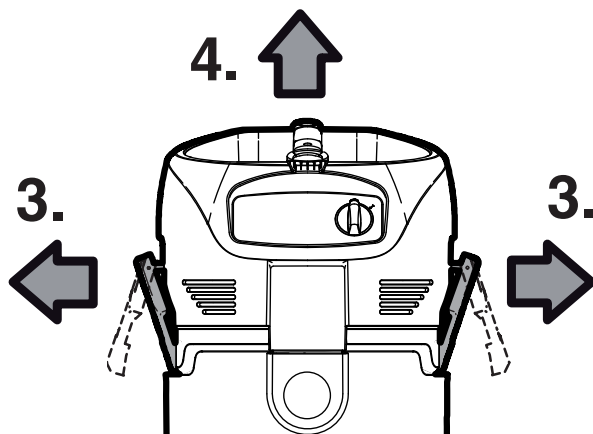
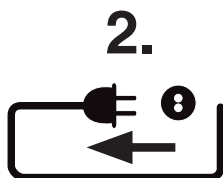
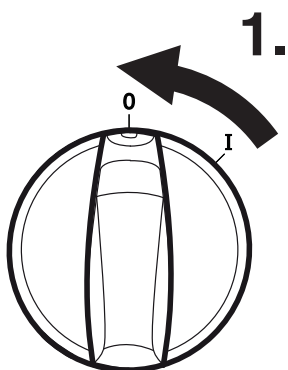
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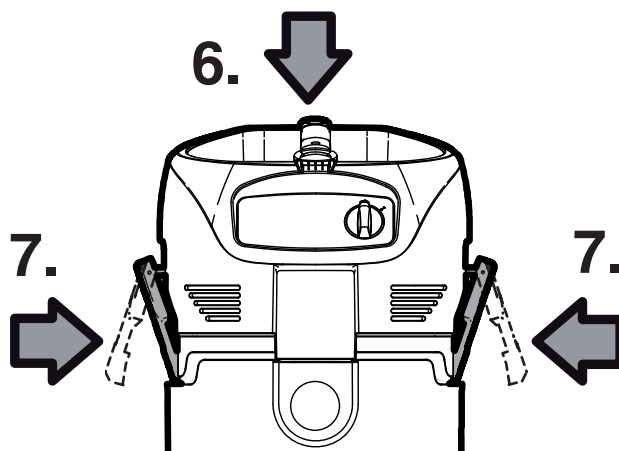
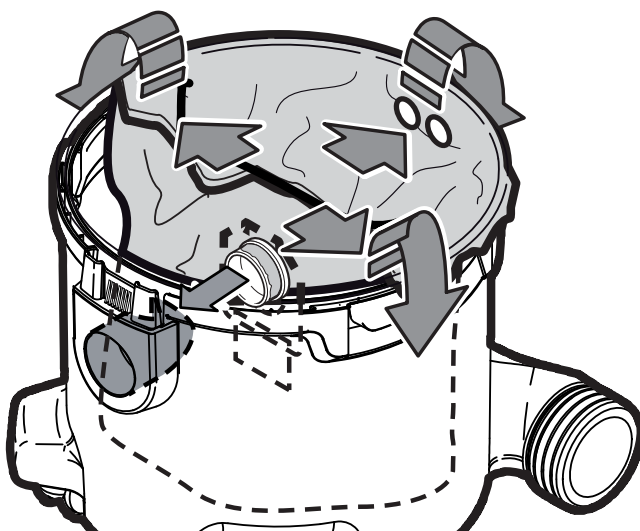
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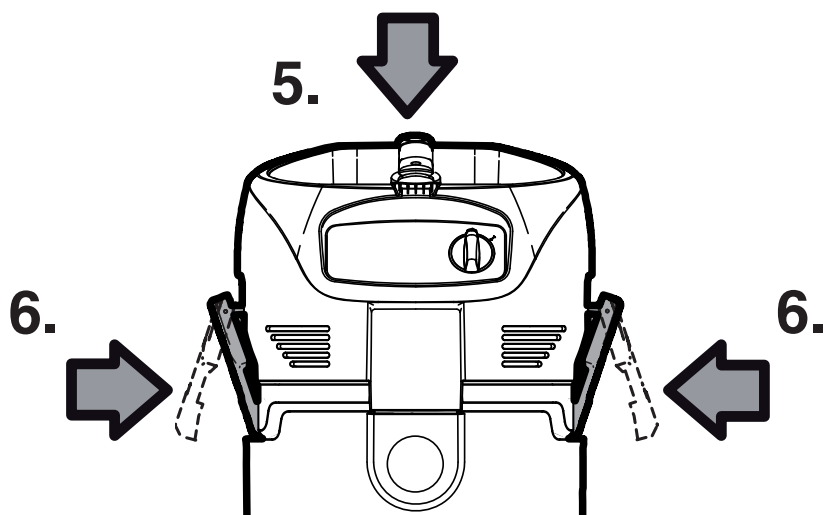
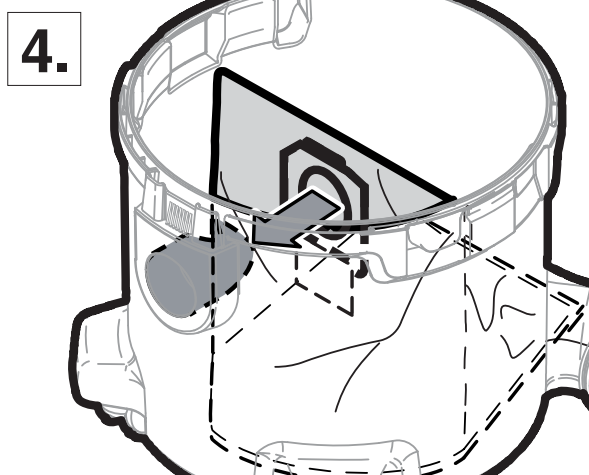
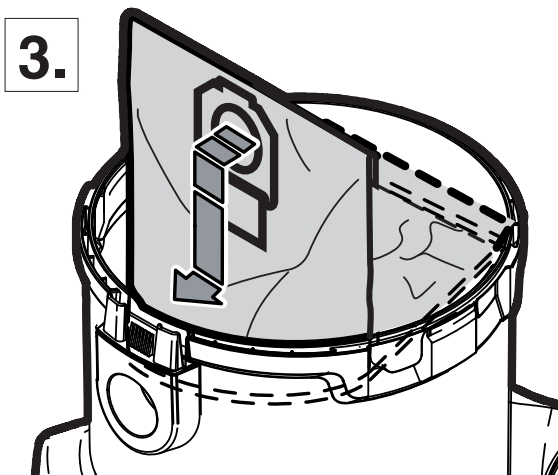
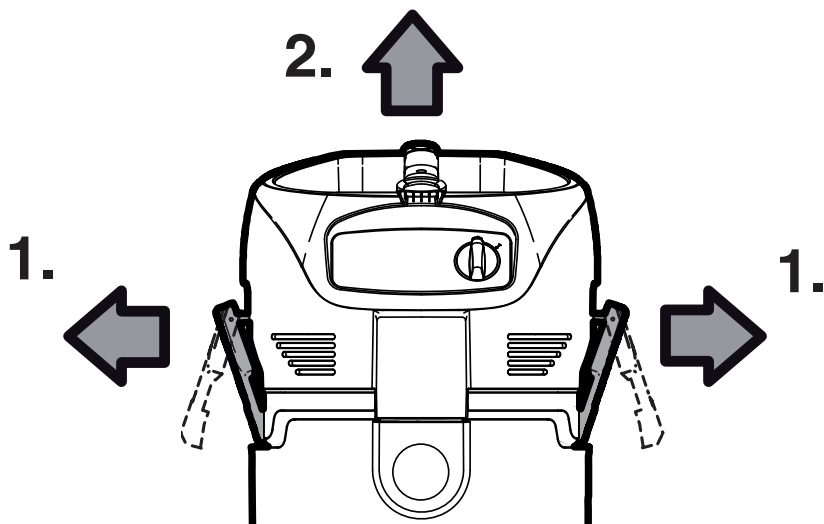
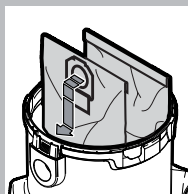


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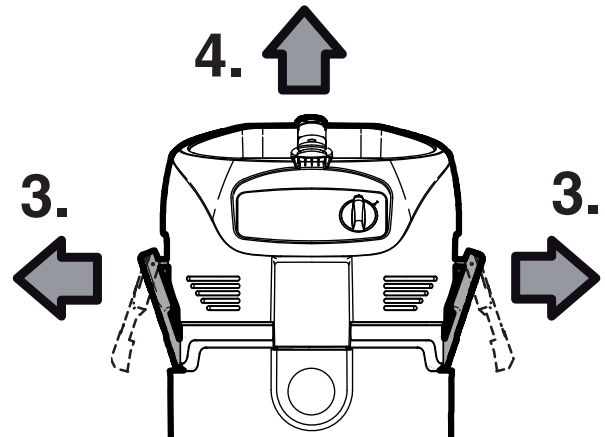
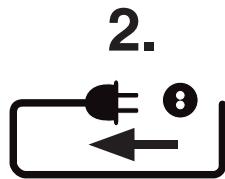
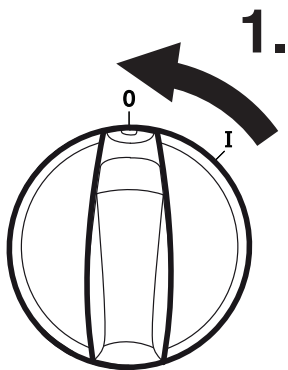
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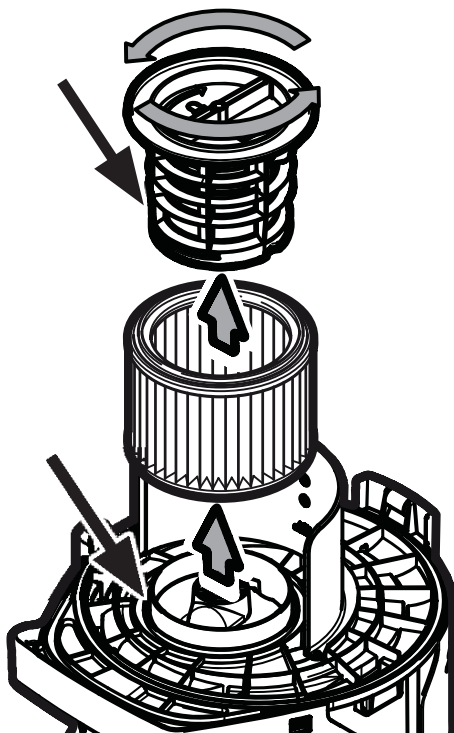
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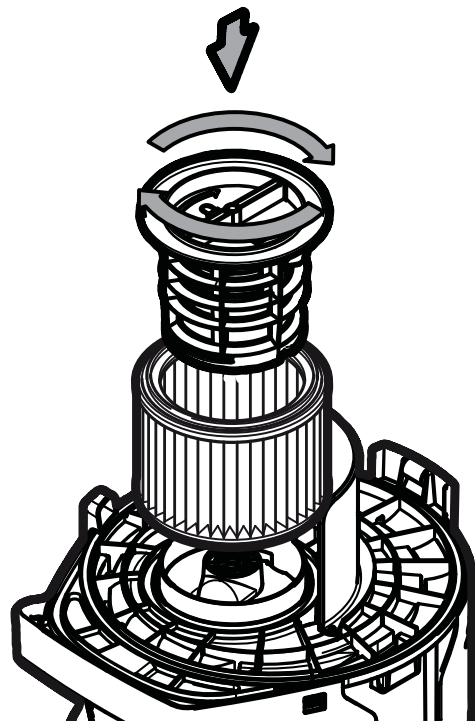
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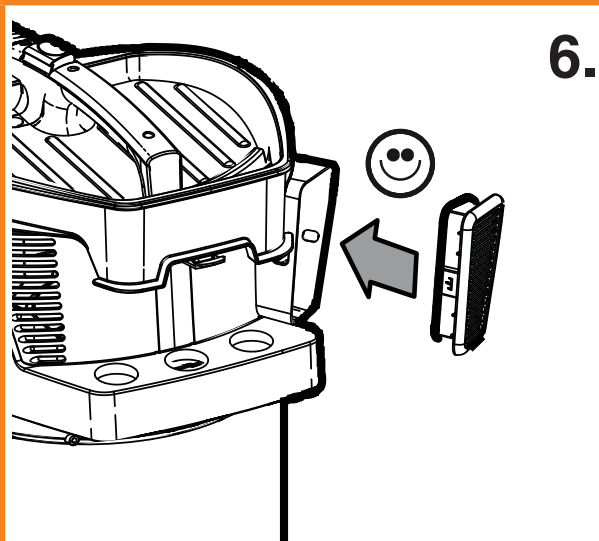
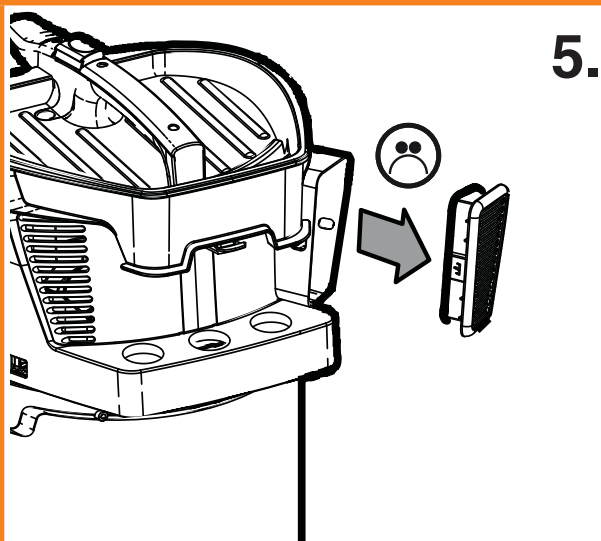
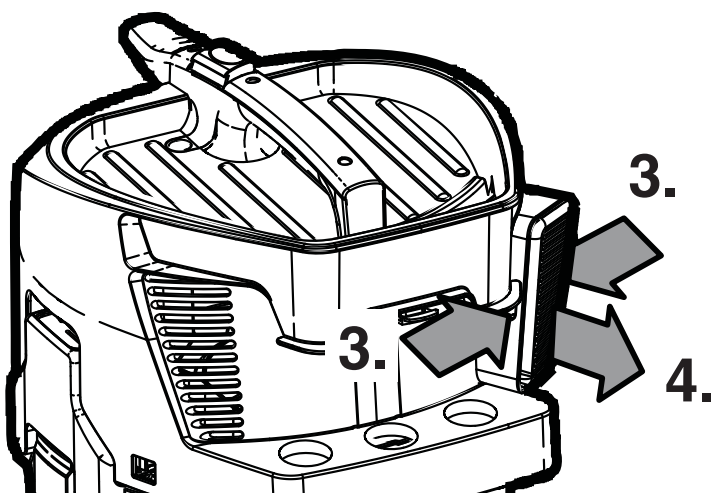
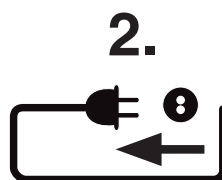
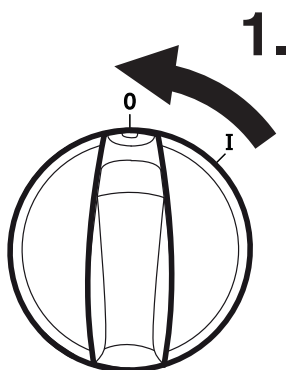
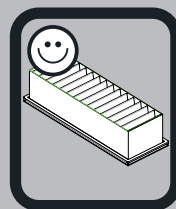
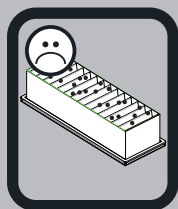
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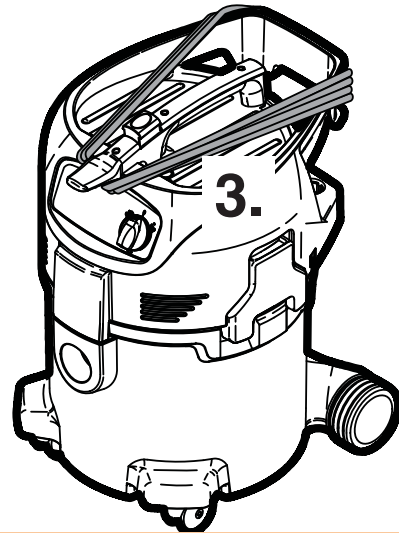
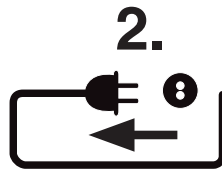
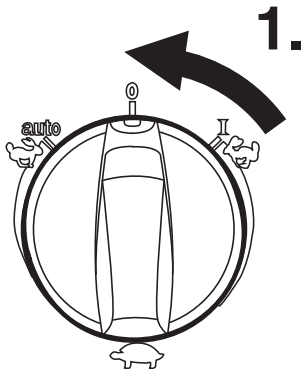
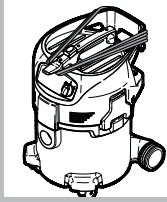
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# C



# D



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## This document

This document contains the safety information relevant for the appliance along with a quick reference guide.



Prior to using the appliance for the first time, be sure to read this document through and keep it ready to hand.

### Further support

Detailed information on the appliance can be found in the operating instructions, which you can download from our web site at [www.nilfisk-alto.com](http://www.nilfisk-alto.com).

For further queries, please contact the Nilfisk-Alto service representative responsible for your country. See reverse of this document.

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## Important safety instructions

### Symbols used to mark instructions



#### DANGER

Danger that leads directly to serious or irreversible injuries, or even death.



#### WARNING

Danger that can lead to serious injuries or even death.



#### CAUTION

Danger that can lead to minor injuries and damage.

The appliance must

- only be used by persons, who have been instructed, trained and informed in its correct usage and explicitly commissioned with the task of operating it
- only be operated under supervision
- not be used by children
- not be used by mentally or physically disabled persons.

Before starting work, the operating staff must be informed on and trained within:

- use of the vacuum cleaner
- risks associated with the material to be picked up

- safe disposal of the picked up material

1. Do not use any unsafe work techniques.
2. Never use the vacuum cleaner without the filter element.
3. Switch off the appliance and disconnect the mains plug in the following situations:
  - Prior to cleaning and servicing
  - Prior to replacing components
  - Prior to changing over the appliance
  - If foam develops or liquid emerges

Besides the operating instructions and the binding accident prevention regulations valid in the country of use, observe recognised regulations for safety and proper use.

### Purpose and intended use

Since 1997, there is a new division of hazardous dusts and their assigned vacuum machines. These are regulated by IEC 60335-2-69 (world wide) and by EN 60335-2-69 (European wide).



Dust Class M (medium). The dusts which belong to this class are: dusts with OEL values<sup>1)</sup>  $\geq 0.1 \text{ mg/m}^3$  as well as saw dust. The machine is tested in its entirety by vacuums for this dust class. The maximum degree of permeability is 0.1% and the disposal must be low dust.

Machines to be used in Zone 22 are marked as Type 22 vacuums.

- These machines may be used for picking up dust from dust class L, M or H.
- Zone 22 is defined as environments where flammable dusts are present for short periods only (e.g. less than 10 hours per year).
- Type 22 machines are suitable for use as dust extractors.



The air flow in Safety Vacuum systems has to be strictly controlled to achieve a minimum flow rate of  $V_{\min} = 20 \text{ m/s}$  in the suction hose.

The vacuum cleaner ATTIX 40-0M PC TYPE 22 is suitable for picking up:

- Non flammable liquids (flashpoint 55 °C or higher)

- Sawdust and dusts hazardous to health, including dusts with OEL values  $\geq 0.1 \text{ mg/m}^3$
- Flammable, dry dust in Zone 22

Use the cleaner only if it is certain that no active sources of ignition can be sucked in.

Conductive extraction equipment, e.g. extraction hoods on machines and conductive parts of machining equipment (e.g. equipment in protective class II) that are not earthed through the cleaner, must be earthed in some other way to prevent electrostatic charges.

When picking up flammable dust in Zone 22, the dirt tank must be emptied as required, but always after use.

It must be assured that dust not accumulate on the appliance by regular cleaning.

The vacuum cleaner must be used only, if all filters, as well as the filter for the motor cooling air, are attached and without damage.

The cleaner is not suitable for extraction on machining equipment in operation that could produce sources of ignition.

When dust removers are used, the rate at which air is exchanged in the room must be adequate if the exhaust air from the vacuum cleaner is blown into the room (please observe regulations valid in your country).

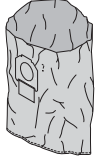
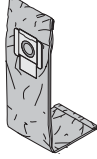



The appliance is suitable for commercial use, such as e.g. in

- Hotels, Schools, Hospitals, Factories, Shops, Offices, Hire shops

Any other use is considered as improper use. The manufacturer accepts no liability for any damage resulting from such use. The risk for such use is borne solely by the user. Proper use also includes proper operation, servicing and repairs as specified by the manufacturer. See operating instructions.

### Operation

Depending on how hazardous the dust is, the cleaner must be fitted with appropriate filters:

Type of dust	Filter bag/waste bag/ filter element	
<ul style="list-style-type: none"> <li>• Dusts with OEL values <math>\geq 0.1 \text{ mg/m}^3</math> (observe any additional national regulations)</li> <li>• Explosive dust, dust explosion class St1, St2, St3 in Zone 22</li> <li>• Wood dusts &amp; concrete dusts</li> </ul>		Waste bag (5 pcs.) Order No. 30200804
<ul style="list-style-type: none"> <li>• Dusts with OEL values <math>\geq 0.1 \text{ mg/m}^3</math> (observe any additional national regulations)</li> <li>• Explosive dust, dust explosion class St1, St2, St3 in Zone 22</li> <li>• Wood dusts &amp; concrete dusts</li> </ul>		Filter bag Order No. 302004004
<ul style="list-style-type: none"> <li>• Dusts with OEL values <math>\geq 0.1 \text{ mg/m}^3</math> (observe any additional national regulations)</li> <li>• Explosive dust, dust explosion class St1, St2, St3 in Zone 22</li> <li>• Wood dusts &amp; concrete dusts</li> </ul>		Filter element "M": Order No. 302000490
<ul style="list-style-type: none"> <li>• Dusts with OEL values <math>\geq 0.1 \text{ mg/m}^3</math> (observe any additional national regulations)</li> <li>• Explosive dust, dust explosion class St1, St2, St3 in Zone 22</li> <li>• Wood dusts &amp; concrete dusts</li> </ul> 		Motor cooling filter "TYPE 22" Order No. 107400453

Before picking up dust with occupational exposure limit values:

1. Check that all the filters are present and properly fitted.

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- Do not use the cleaner with damaged or missing antistatic clamp. Risk of explosion due to static discharge in explosive atmospheres.
- The hose diameter and the setting for the suction hose diameter must be the same.
- When the motor is running, hold the suction hose shut. For safety reasons, an acoustic warning sounds if the air speed in the suction hose drops to below 20 m/s.

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## Transport

- Before transporting the dirt tank, close all the locks.
- Do not tilt the cleaner if there is liquid in the dirt tank.
- Do not use a crane hook to lift the cleaner.

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## Storage

- Store the appliance in a dry place, protected from frost.

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## Electrical connection

- It is recommended that the vacuum cleaner should be connected via a residual current circuit breaker.
- When picking up flammable dust in zone 22, extension lines, couplings and adapters must not be used.
- Arrange the electrical parts (sockets, plugs and couplings) and lay down the extension lead so that the protection class is maintained.
- Connectors and couplings of power supply cords and extension leads must be water-tight.

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## Extension lead

- As an extension lead, only use the version specified by the manufacturer or one of a higher quality. See operating instructions.
- When using an extension lead, check the minimum cross-sections of the cable:

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## Maintenance, cleaning and repair

During the following work, ensure that dust is not unnecessarily spread around. Wear a P2 breathing mask.

Only carry out maintenance work described in

the operating instructions.

Always pull out the mains plug before cleaning and maintenance of the vacuum cleaner.

During maintenance and cleaning, handle the vacuum cleaner in such a manner that there is no danger for maintenance staff or other persons.

In the maintenance area

- Use filtered compulsory ventilation
- Wear protective clothing
- Clean the maintenance area so that no harmful substances get into the surroundings.

Before removing the vacuum cleaner from the area contaminated with harmful substances:

- Clean the outside of the vacuum cleaner, wipe it clean or pack the vacuum cleaner in well sealed packaging
- and avoid spreading deposited harmful dust.

During maintenance and repair work all contaminated parts that could not be cleaned satisfactorily must be:

- packed in well sealed bags
- disposed of in a manner that complies with valid regulations for such waste removal.

A dust test must be performed at least once every year by Nilfisk-Alto service or a trained person. This test includes, for example, whether there is damage to the filter, the vacuum cleaner is sealed to the air and the control equipment works properly.

## Warranty

Our general conditions of business are applicable with regard to the guarantee.




Unauthorised modifications to the appliance, the use of incorrect brushes in addition to using the appliance in a way other than for the intended purpose exempt the manufacturer from any liability for the resulting damage.

## Tests and approvals


Electrical tests must be performed in accordance with the provisions of safety regulations (BGV A3) and to DIN VDE 0701 Part 1 and Part 3. In accordance with DIN VDE 0702 these tests must be performed at regular intervals and after repairs or modifications.

## Risks



### Electrical components

	<p style="text-align: center;"><b>DANGER</b></p> <p>Electric shock due to faulty mains connecting lead.</p> <p>Touching a faulty mains connecting lead can result in serious or even fatal injuries.</p> <ol style="list-style-type: none"> <li>1. Do not damage the mains power lead (e.g. by driving over it, pulling or crushing it).</li> <li>2. Regularly check whether the power cord is damaged or shows signs of ageing.</li> <li>3. Have the faulty mains connecting lead replaced by your Nilfisk-Alto service representative or a qualified electrician prior to using the appliance again.</li> </ol>
	<p style="text-align: center;"><b>DANGER</b></p> <p>The upper section of the vacuum cleaner contains live components.</p> <p>Contact with live components leads to serious or even fatal injuries.</p> <ol style="list-style-type: none"> <li>1. Never spray water on to the upper section of the vacuum cleaner.</li> </ol>
	<p style="text-align: center;"><b>CAUTION</b></p> <p>Damage due to unsuitable mains voltage.</p> <p>The appliance can be damaged as a result of being connected to an unsuitable mains voltage.</p> <ol style="list-style-type: none"> <li>1. Ensure that the voltage shown on the rating plate corresponds to the voltage of the local mains power supply.</li> </ol>

### Picking up liquids

	<p style="text-align: center;"><b>CAUTION</b></p> <p>Picking up liquids.</p> <p>Do not pick up flammable liquids.</p> <ol style="list-style-type: none"> <li>1. Before liquids are picked up, always remove the filter bag/waste bag and check that the float or the water level limit works properly.</li> <li>2. The use of a separate filter element or filter screen is recommended.</li> <li>3. If foam appears, stop work immediately and empty the tank.</li> </ol>
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### Hazardous materials

	<p style="text-align: center;"><b>WARNING</b></p> <p>Hazardous materials.</p> <p>Picking up hazardous materials can lead to serious or even fatal injuries.</p> <ol style="list-style-type: none"> <li>1. The following materials must not be picked up by the vacuum cleaner: <ul style="list-style-type: none"> <li>- hot materials (burning cigarettes, hot ash, etc.)</li> <li>- flammable, explosive, aggressive liquids (e.g. petrol, solvents, acids, alkalis, etc.)</li> <li>- mixtures of flammable dusts with liquids</li> <li>- explosive substances or substances considered to be similar in §1 of the law on explosives</li> <li>- flammable dusts with an extremely low minimum ignition energy &lt;1 mJ (also observe national regulations).</li> <li>- Highly reactive dusts or dusts with a high affinity to oxygen</li> </ul> </li> </ol>
	<p style="text-align: center;"><b>WARNING</b></p> <p>For dusts like titanium and magnesium additional requirements apply, consult your national labour authorities or the manufacturer of the vacuum cleaner.</p>

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**Spare parts and accessories****CAUTION**

Spare parts and accessories.

For picking up flammable dust in Zone 22: Only use accessories which are certified by the manufacturer of the Type 22 machine. The use of other accessories can cause danger of explosion.

The use of non-genuine spare parts and accessories can impair the safety of the appliance.

1. Only use spare parts and accessories from Nilfisk-Alto.
2. Use only the brushes supplied with the vacuum cleaner or specified in the operating manual.



As specified in European Directive 2002/96/EC on old electrical and electronic appliances, used electrical goods must be collected separately and recycled ecologically. Contact your local authorities or your nearest dealer for further information.

**Quick reference guide**

Pages 2 – 11 feature a pictorial quick reference guide, which is designed to help you when starting up, operating and storing the appliance.

This quick reference guide does not replace the separate operating instructions, which describes the appliance in detail. The operating instructions also contain further information on the operation, maintenance and repair of the appliance.

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**Inserting the disposal bag****WARNING**

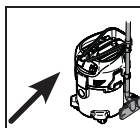
On a Type 22 machine the earth connection between the head and the container should be kept at any times to prevent static build up.

The earth connection is kept through a brass clamp on the machine head when touching the inlet fitting on the container.

When inserting the disposal bag make sure the bag is placed so it does not interfere with the anti-static clamp.

**Meaning of the symbols**

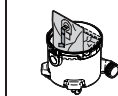
The instructions for actions are subdivided into 7 sections, which are represented by symbols.



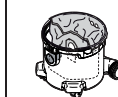
A Before starting



B Control / Operation



C Replacement of filter bag



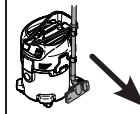
C Replacement of disposal bag



C Replacement of filter element



C Replacement of motor cooling filter



D After finishing work

**Emptying dirt tank****CAUTION**

Picking up environmentally hazardous materials.

Materials picked up can present a hazard to the environment.

1. Dispose of the dirt in accordance with legal regulations.

**Recycling the cleaner**

Make the old cleaner unusable immediately.


1. Unplug the cleaner.
2. Cut the power cord.
3. Do not discard of electrical appliances with household waste.

		ATTIX 40-0M PC TYPE 22 - EU -
Voltage	V	230
Mains frequency	Hz	50
Fuse	A	16
Power consumption <sub>IEC</sub>	W	1100

		ATTIX 40-0M PC TYPE 22
Total connected load	W	1100
Air flow rate	m³/h l/min	192 3200
Vacuum	hPa/mbar kPa	230 23
Sound pressure level at a distance of 1 m, EN 60704-1	dB(A)	63 ± 2
Working sound level	dB(A)	60 ± 2
Power cord: Type		H07RN-F 3G1,5
Protection class		I
Type of protection		IP 54
CAUTION! Only use the cable mentioned		



### EC conformity declaration

NILFISK-ADVANCE A/S Sognevej 25 DK-2605 Brøndby	
<b>Product:</b>	Vacuum cleaner for wet and dry operation
<b>Model:</b>	ATTIX 40-0M PC TYPE 22
<b>Description:</b>	230-240V~, 50-60Hz Dust Class M ATEX Zone 22 Ⓔ II 3D Ex tD A22 T135 °C IP54
<b>The design of this appliance complies with the following provisions:</b>	EC - Machine directive 2006/42/EC EC - Directive EMC 2004/108/EC EC - Explosive Atmosphere directive 94/9/EC „ATEX“
<b>Applied harmonized standards:</b>	EN ISO 12100-1 (2004), EN ISO 12100-2 (2004), EN 55014-1 (2006), EN 55014-2 (2001), EN 61000-3-2 (2006), EN 1127-1 (2007), EN 61241-10 (2004)
<b>Applied national standards and technical specifications:</b>	EN 60335-2-69 (2009) IEC 60335-2-69 (2008)
 Anton Sørensen General Manager EAPC Technical Operations	Brøndby, 02.10.2009

