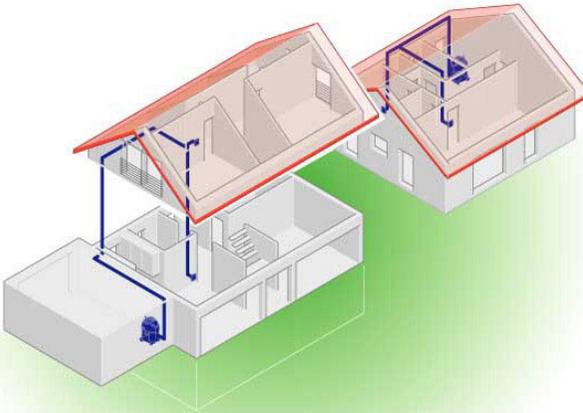




## CENTIX 60 CENTIX 60 PREMIUM

**ALTO**<sup>®</sup>  
Why  
Compromise<sup>™</sup>



english	<b>Installation Instructions</b> .....	<b>1</b>
deutsch	<b>Installationsanleitung</b> .....	<b>18</b>
français	<b>Notice d'installation</b> .....	<b>35</b>
nederlands	<b>Installatie-instructies</b> .....	<b>52</b>
norsk	<b>Installasjonsveiledning</b> .....	<b>69</b>
svensk	<b>Innehållsförteckning</b> .....	<b>86</b>
dansk	<b>Installationsvejledning</b> .....	<b>103</b>
suomi	<b>Asennusohje</b> .....	<b>120</b>

# Contents

	<b>Important safety instructions</b>	.....	2
<b>1</b>	<b>Contents of installation kit</b>	.....	3
<b>2</b>	<b>Planning the installation</b>	2.1 Selecting a location for the CENTIX vacuum unit.....	4
		2.2 Selecting a location for the vacuum sockets .....	5
<b>3</b>	<b>Installation</b>	3.1 Suction tube installation .....	6
		3.1.1 General rules when installing suction tubes.....	6
		3.1.2 Installing the suction tubes.....	7
		3.2 Installing the control cable.....	11
		3.3 Installing the vacuum sockets.....	12
		3.4 Installing the vacuum unit .....	13
		3.4.1 Assembling and positioning the vacuum cleaner wall mounting .....	14
		3.4.2 Installing the suction hose.....	14
		3.4.3 Installing the exhaust pipe.....	14
		3.4.4 Operation / start-up .....	15
		3.4.5 Assembling and positioning the hose holder.....	15
<b>4</b>	<b>Maintenance</b>	4.1 Vacuum unit maintenance .....	15
		4.2 Suction tube system maintenance .....	15
<b>5</b>	<b>Troubleshooting</b>	.....	16
<b>6</b>	<b>Accessories</b>	6.1 List of optional accessories .....	17
		6.2 Spare parts.....	17

# Important safety instructions

## Vacuum unit



Always read the operating instructions before starting up the CENTIX vacuum unit, and keep them readily available.

Do not cover vacuum unit motor air inlet (on rear of cover), otherwise motor may overheat and shut off.

## Installing the vacuum unit

### Fire protection

Do not place vacuum unit in rooms in which there is risk of fire!

When routing the tube system in fire lobbies, observe national building regulations and install suitable fire protection equipment if necessary.

### Expansion joints

When the tube system is being routed through expansion joints, ensure that the tubes are 'slideable' by installing protective insulation at both sides of the expansion joint. Route control cable in a cable protection tube.

### Gluing the tubes

Follow instructions on safe handling and use of adhesives (inscription on tube).

### Installing the vacuum unit above vacuum sockets

Installing the vacuum unit above vacuum sockets may prevent heavy particles from being sucked up. Check interior of vacuum sockets for residue at regular intervals.

## Operating the suction tube system

The following materials must not be sucked up, since they are a threat to persons or can damage the equipment:

- Liquids and wet dirt
- Dust that is hazardous to health
- Flammable, explosive dust (e.g. magnesium dust, aluminium dust etc.)
- Hot materials (glowing cigarettes, hot ash etc.)

The following items must not be sucked up because they may block the tube system:

- Long items
- Cleaning rags, cloths or the like.

# 1 Contents of installation kit

Picture	Item no.	Description	Inst. kit 2	Inst. kit 3
			302001193	302001194
			Quantity	Quantity
	1	PVC tubes, 1.2 m diam. 50.8	10	15
	2	90° elbow, long	4	9
	3	45° elbow	2	6
	4	Tube holder	4	6
	5	Tube connecting pieces	8	12
	6	90° elbow with 90° branch	1	2
	7	12V control cable	25	25
	8	Cable tie, 22.5 cm long	15	30
	9	Assembly frame cover for plastering	2	3
	10	Vacuum socket	2	3
	11	Installation frame	2	3
	12	90° elbow, short	2	3
	13	PVC adhesive, 125g	1	1
	14	Connector block	1	2
	15	Junction box 90x43x48 IP54 VDE grey	1	1
	16	12V connecting cable for CENTIX vacuum unit	1	1

## 2 Planning the installation

Before installing the system you should answer the following questions:

1. What condition is the property in?
  - In the planning phase
  - Carcass complete
  - Finished
2. How do you wish to install the suction tubes?
  - On the surface
  - Concealed
  - Are empty shafts available?
3. What material are the walls made of?
4. Where do you wish to locate the vacuum unit?
5. Where do you wish to locate the vacuum sockets?

### **Tips + Tricks:**

*Use the ground plan of your property as a planning basis if possible.*

### 2.1 Selecting a location for the CENTIX vacuum unit

#### **Location**

Place the vacuum unit in your house in a location

- Where the sound of the motor causes the least disturbance
- That is central so that the tubes are as short as possible
- That is easy to access for emptying dirt containers

Do not install your vacuum unit in

- Rooms in which there is risk of fire
- Laundry rooms and store rooms

Recommended installation sites are:

- Cellars
- Garages
- Workshops

A socket with a voltage of 230 V/50 Hz is required to connect the vacuum unit.

Place the unit in a room with an external wall so that the turbine exhaust can be led to the outside (see section 3.4.3 Exhaust pipe installation).

## 2.2 Selecting a location for the vacuum sockets

The vacuum sockets should be located as follows:

- In easily accessible locations
- Near light switches or door frames
- Never behind a door
- At a height of approx. 30-40 cm
- At a height of approx. 90-100 cm
  - Beyond the reach of children
  - Similar height to sockets and light switches
- As a floor vacuum socket; ensure that the vacuum socket is located near the wall in order to minimise the risk of tripping

Take care not to damage electrical cables when drilling the holes that are required in the wall.

Additional vacuum sockets are always available from your ALTO dealer if required.

### Measure action radius

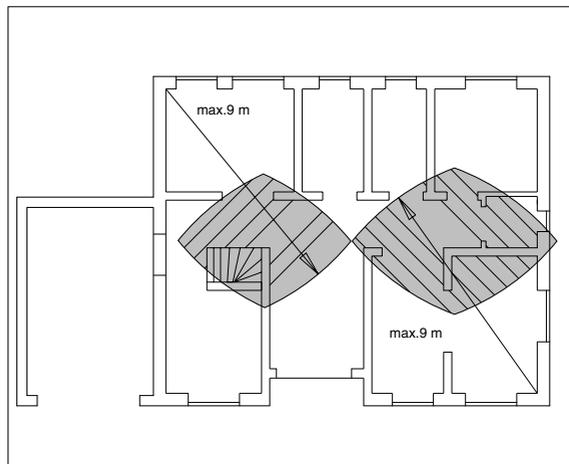
The suction hose and the telescopic tube are approximately 10m long when combined. Please assume a working distance of 9 m for safety.

1. Draw circles to scale on the ground plan of your property with a compass (radius of 9m), starting at the corners. Select a location for a vacuum socket in the wall or the floor within the area inside the arcs.
2. If you have a large property, divide the area of your ground plan into several sections and use the same method.

When selecting the locations of the vacuum sockets, consider the fact that furniture or other fixed installations may have a considerable influence on the distances that the hoses have to travel!

#### Tips + Tricks:

- In most cases it is advisable not to install vacuum sockets in isolated rooms. Instead, buy a suction hose extension from the ALTO accessory range, which will increase your working range considerably.
- To check your distances cut a length of thread to scale (hose length) and place on your plan. Check whether you can comfortably reach every corner, taking furniture positions into consideration.
- In existing buildings, cut a piece of string to the original length and simulate the hose when selecting vacuum socket positions.



# 3 Installation

The text figures in brackets relate to the table in section 1 “Contents of installation kit”.

## 3.1 Suction tube installation

### 3.1.1 General rules when installing suction tubes

#### Rule 1

The tubes (1) can be installed vertically or horizontally. If the tubes are installed horizontally, ensure that they slope downwards toward the vacuum unit.

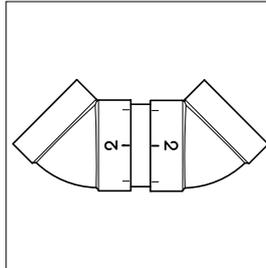
#### Rule 2

Always install a short 90° elbow (12) after the socket (10) and the installation frame (11). This prevents long items from being sucked in. Note: attach long limb to tube system, and short limb to installation frame.

#### Rule 3

Fit the tubes together without adhesive (13) first and check the distances and flow directions. If possible, route entire tube system, connect up and check. Start gluing the vacuum sockets when everything is correct.

#### Rule 4

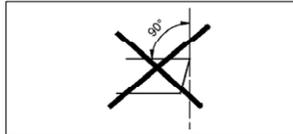


When checking as described in rule 3:

Mark the tube connecting positions

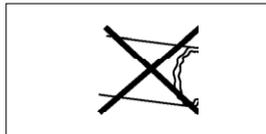
- At the end of each tube
- On tube elbows that are different relative angles. If the elbows are to be at a relative angle of exactly 45° or 90°, the marks that are stamped into the tube elbows can be used.

#### Rule 5



Always cut tubes at right angles. Use a tube cutter or a mitre.

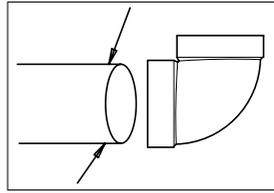
#### Rule 6



Trim sawn or cut edges. Use a burr-removing knife or sharp penknife.

**Rule 7**

Always apply adhesive to the tube, never put into the socket end.

**Rule 8**

The tubes must always slope downwards from the vacuum sockets to the vacuum unit.

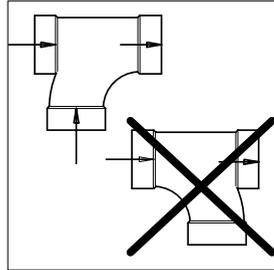
**Rule 9**

It is advisable to install the vacuum socket that is furthest away from the vacuum unit first.

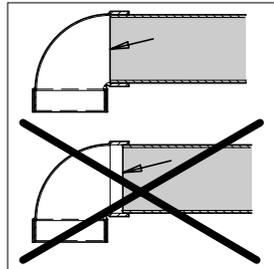
**Rule 10**

Tube branch-offs must be assembled in the airflow direction, which prevents

- Heavy dust particles from falling back
- Air turbulence, which leads to loss of suction power

**Rule 11**

Always insert tube into fitting as far as it will go.

**Rule 12**

If the tubes are being sealed in the ceiling of a new building, ensure that

- The tubes are prevented from slipping when sealing takes place
- The vacuum socket connecting pieces come out in the exact position where the wall will be later.

### 3.1.2 Installing the suction tubes

After the vacuum socket locations have been selected, the tube spider must be installed in the property.

The following tube routing options are available:

- 1) In new building
- 2) In existing buildings
  - a) Concealed
  - b) Surface mounted / wood construction type
  - c) Use of empty shafts or unused chimneys

english 1) **New buildings**

**Tips + Tricks:**

- Do not glue the vertical suction tube to the horizontal suction tubes in the ceiling immediately.
- When the piece of tube is being sealed into the ceiling it must be protected with a casing so that the tube can be replaced with a longer one after the ceiling has been cast if necessary.
- Create slits for the suction tubes in the finished wall. This makes the masonry work easier.

Special attention must be paid to planning in a new building. Changes cannot be made once the tubes have been sealed in.

Example: two-storey house with cellar.

As soon as cellar is ready in the carcass:

1. Decide where the ascending tube is going to enter the upper floors.
2. Route the suction tubes to the locations where the vacuum sockets are going to be installed in a spider pattern in the casing or on the finished ceiling.
3. Let suction tube sections protrude from where the ceiling is going to be. Ensure that the tube also protrudes from the ceiling in locations where a wall will subsequently be built.

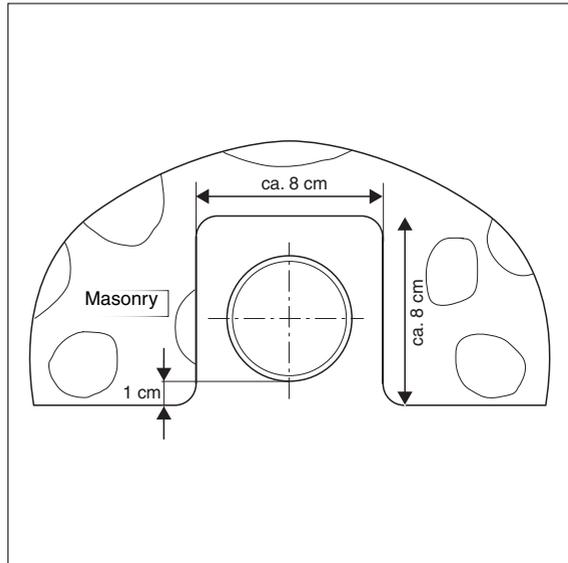
Before casting the entire ceiling:

4. Prevent suction tubes from slipping. Otherwise vacuum socket connection can move.
5. Build walls around the ascending tubes.

2a) **Existing houses, concealed routing**

In existing buildings the best method to use is not to conceal the tubes but install them beneath the plaster in the ceilings or walls like conventional sewage pipes. Breakthroughs and wall slits of approx. 8 cm x 8 cm are required to do this.

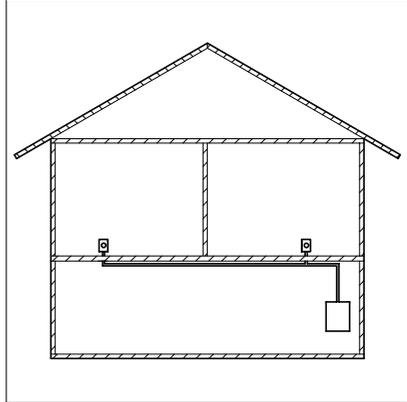
1. Knock a slit (dimensions: 8 cm x 8 cm) in the wall.
2. Insert suction tube into slit approx. 1 cm below edge.



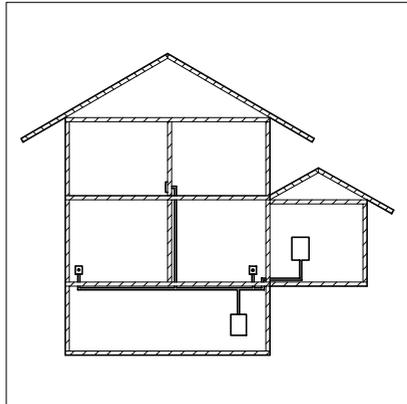
## 2b) Existing houses, surface installation

The suction tubes can also be surface mounted. Experience has shown the following to be advisable:

- I. Properties with cellar, single storey
  - II. Properties with cellar, multiple storeys
  - III. Properties without cellar
- I. Route tubes along cellar ceiling. Makes holes in the ceiling at the locations in which the vacuum sockets will subsequently be fitted. The vacuum sockets can be conveniently installed as floor vacuum sockets in the first storey.



- II. In properties with a cellar and multiple storeys you can proceed as described in section I. Route an ascending tube to the second floor. The ascending tube should be as central as possible so that the suction tubes can be routed from it in a spider pattern. If you only wish to use one vacuum socket in the second storey, this can be installed as floor vacuum socket. **Tips + Tricks** contains a few suggestions as to how tubes laid beneath plaster can be covered in an elegant way. If you have double-layer wooden walls, the ascending tube can be installed in the cavity between the wooden walls.

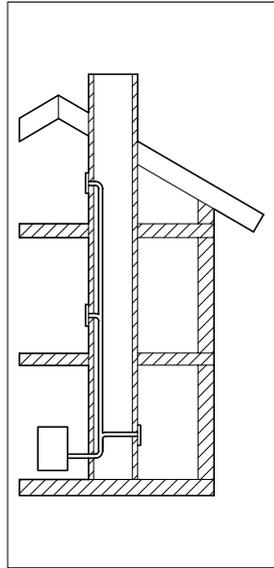


- III. In properties without a cellar the vacuum unit can be placed in a storage room and the tubes laid either on the surface or in double-layer wooden walls. If you wish to put the vacuum unit in the attic, the tubes can be routed downward in the required position either on the surface or in double-layer wooden walls.

english **2c) Use of empty shafts or unused chimneys**

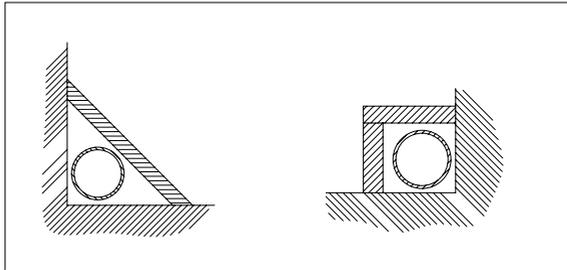
In a property with an unused chimney or empty shafts, the tubes can be vertically routed from the vacuum sockets to the vacuum unit inside the chimney through the floors.

1. Determine the positions of the vacuum sockets. Ensure that the vacuum sockets are not directly opposite each other but have a height difference of at least 17 cm.
2. Then draw a diagram showing the socket arrangement with exact distances and lengths.
3. The tubes can now be assembled without using adhesive.
4. If everything is correct, mark the tubes as described in 3.1.1 "General rules".
5. Glue the tubes to smaller elements so that they can be conveniently inserted into the chimney.
6. Now glue the elements to each other, paying attention to the marks and directions.
7. Secure the tubes and attach the vacuum socket connections to the tube system.



**Tips + Tricks when installing in existing houses:**

- Install suction tube along base of wall or in a corner.
- Install the suction tube system behind furniture. You can then make a vacuum socket breakthrough behind the furniture so that a vacuum socket can be installed in the adjacent room.
- Please note that floor vacuum sockets must always be located near the wall in order to minimise the risk of tripping.



### 3.2 Installing the control cable

You can route and connect the control cables yourself, since the control signals are transferred with a low voltage of 12V.

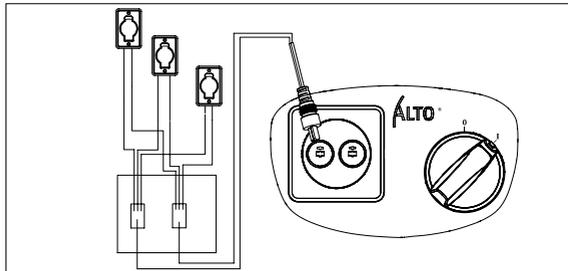
english

1. The two-wire control cable (7) must be routed from each vacuum socket along the tubes to the vacuum unit. The control cable is attached to the tubes using the supplied cable ties (8).
2. The cable is connected to the branching point using a connector block (14). Please ensure that the connections are fitted with long-term protection from dirt and moisture. The branching socket can be surface mounted or concealed.
3. Gather all the cables in the junction box (15) and connect them to the control cable (16) with the aid of the connector block (14).
4. Check the continuity of the control cable before plastering.

The vacuum unit control cable is inserted into the vacuum unit socket during stationary operation. The right or left connection can be used (see also CENTIX operating instructions).

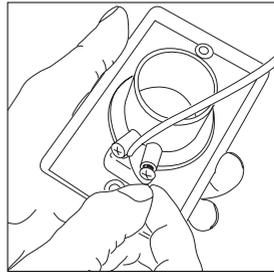
#### Tips + Tricks:

- The control cable can also be routed in empty tubes (diam. 13.5 mm). The branching point can be concealed in an empty socket/branch socket. This keeps the access to the contact points open after plastering.



Connecting control cable (7) to vacuum socket:

5. To connect vacuum socket: allow control cable (7) to protrude from wall by approx. 20 cm for problem-free vacuum socket (10) connection later. The polarity is unimportant when making the connection.



english **3.3 Installing the vacuum sockets**

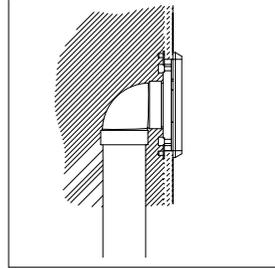
The vacuum sockets consist of the following components:

1. Vacuum socket (10)
2. Installation frame (11)
3. Short 90° elbow (12)

**Vacuum socket installed beneath plaster**

The installation frame (11) is installed flush with the plaster.

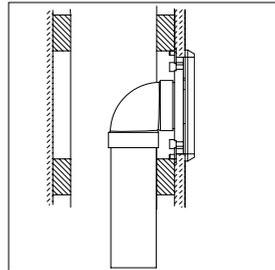
1. Before plastering: fit access cover (9) to installation frame so that installation frame is not damaged or soiled.
2. Remove access cover when wall covering is complete.
3. Slide connecting piece of vacuum socket (10) far enough into the O-ring seal to make a perfect seal.
4. Attach vacuum socket to control cable.
5. Screw vacuum socket (10) to installation frame (11) using special screws with coloured tops.



**Vacuum socket installed in wooden walls**

If you wish to install the suction tubes in double-layer wooden walls, proceed as follows:

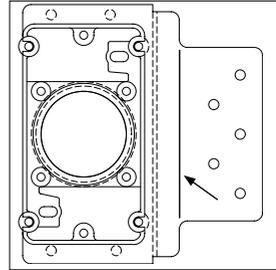
1. Saw a hole in the wooden wall with dimensions of 61 mm x 109 mm.
2. Break off the side part of the installation frame as described in Tips + Tricks.
3. Glue the 90° elbow (12) to the installation frame (11), paying attention to correct elbow position.
4. Now insert the installation frame through the hole in the wall.
5. Attach the 90° elbow to the prepared tube (1).
6. Screw the vacuum socket (10) to the installation frame (11).



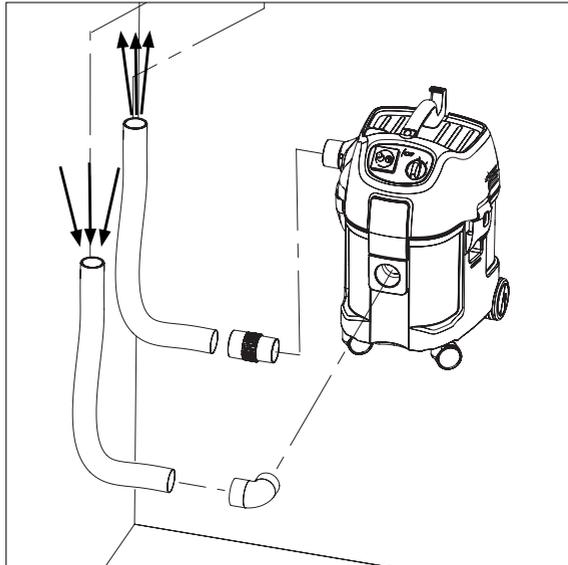
If you have access into the double-layer wooden walls, install the vacuum socket first and then slide the suction tube onto the 90° elbow.

**Tips + Tricks:**

- **IMPORTANT:** The socket will subsequently be in the same location as the installation frame. Please ensure that the frame is aligned in a perpendicular position.
- To prevent the tube system from being blocked by long objects:
  - Use short 90° elbow (12) immediately after vacuum socket.
  - Connect short limb to installation frame and long limb to vacuum socket.
  - If you cannot use a short 90° elbow (12), e.g. with surface installations, avoid sucking up long objects.
- If the tops of the screws on the rear of the installation frame interfere with flush fitting, simply saw them off carefully and slowly with a handsaw so that the frame does not disintegrate.
- The side section of the installation frame (11) can also be removed at the break-off point if it interferes because of the installation dimensions.
- For ease of installation, grease rubber seals of socket.



### 3.4 Installing the vacuum unit



english

### 3.4.1 Assembling and positioning the vacuum cleaner wall mounting

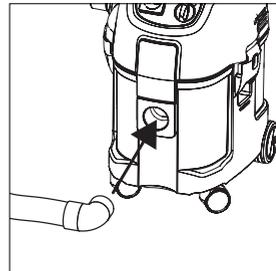
**Tips + Tricks:**

- Ensure that the top of the vacuum cleaner is easy to remove and that the filter bag can be disposed of without problems.

1. Position the vacuum at a maximum height of approx. 90 cm (see Tips + Tricks). Adapt the location to your requirements.
2. Notes on installing wall mount: see CENTIX 60 operating instructions.

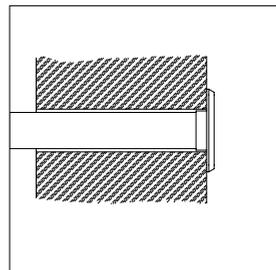
### 3.4.2 Installing the suction hose

1. Insert suction hose into inlet fitting with 90° sleeve.
2. Attach other end of suction hose to suction tube system. If suction hose is not long enough, lengthen the suction tube system.



### 3.4.3 Installing the exhaust pipe

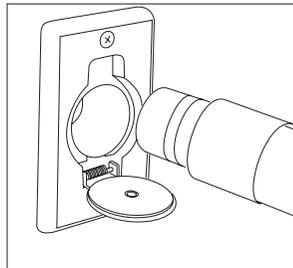
1. Install exhaust fitting to vacuum unit as described in installation guide provided with exhaust fitting.
2. Attach exhaust hose to exhaust fitting.
3. Attach other end to exhaust tube system. Route tube system to external wall taking the shortest route.
4. Drill hole on external wall (diameter 60 mm).
5. Affix blow-out valve to tube system.
6. Attach blow-out valve to outside of house with plugs through the provided holes.



### 3.4.4 Operation / start-up

#### Stationary operation:

1. Insert end of connecting tube (16) that is attached to the vacuum sockets into one of the two sockets of the CENTIX vacuum unit.
2. Move switch on CENTIX vacuum unit to position I. Vacuum unit must not start.
3. Insert suction hose (diam. 32 x 9m) into one of the installed vacuum sockets.  
The vacuum unit starts up.  
Removing the suction hose from the socket stops the vacuum unit.



#### Mobile operation:

See CENTIX vacuum unit operating instructions for description of mobile operation.

### 3.4.5 Assembling and positioning the hose holder

1. Position the hose holder in a location to which you have quick access, but where the suction hose does not interfere with your daily work.

## 4 Maintenance

### 4.1 Vacuum unit maintenance

See vacuum unit operating instructions.

### 4.2 Suction tube system maintenance

- Check vacuum sockets for residue and clean at regular intervals.
- If the safety instructions in this installation guide and the operating instructions of the CENTIX vacuum unit are followed, the system will not normally require any other maintenance.

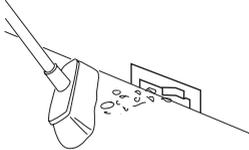
# 5 Troubleshooting

Faults that affect the vacuum unit and its accessories are described in the CENTIX vacuum unit operating instructions.

Fault	Cause	Remedy
‡ Motor will not start	<ul style="list-style-type: none"> <li>&gt; Control cable disconnected</li> </ul>	<ul style="list-style-type: none"> <li>• Check control cable (7) connection to vacuum socket (10).</li> <li>• Check connection of 12V control cable (7) coming from vacuum sockets to connector blocks (14) with connecting cable (16) to the CENTIX vacuum unit.</li> </ul>
‡ Motor starts, but system does not operate at original power	<ul style="list-style-type: none"> <li>&gt; Vacuum sockets not sealed</li> <li>&gt; Tube system damaged</li> <li>&gt; Glued connections to suction tubes not tight</li> <li>&gt; Test vacuum unit in mobile operation. If full suction power is available the tube system is blocked.</li> <li>&gt; Vacuum unit not providing full suction power</li> </ul>	<ul style="list-style-type: none"> <li>• Check alignment of vacuum socket and seals</li> <li>• Replace damaged tubes or elbows</li> <li>• Re-glue the suction tubes</li> <li>• See CENTIX operating instructions</li> <li>• Contact Alto customer service</li> </ul>

# 6 Accessories

## 6.1 List of optional accessories

Picture	Item number	Description
	302001288	9 m suction hose, auto S/S
	302001263	Vac Pan, white
	302001257	Vacuum socket, SET, white
	54118	Turbo Nozzle
	63990	Filter element
	30200449	Filter bag, pack of 5

## 6.2 Spare parts

Contact your friendly ALTO dealer or see spare part list at [www.alto-online.com](http://www.alto-online.com)

**INTERNET**

<http://www.alto-online.com>

**ALTO HEADQUARTERS**

Incentive International A/S  
Kongens Nytorv 28  
P.O.Box 2064  
1013 Copenhagen K  
Tel.: +45 72 18 10 00  
Fax: +45 72 18 1164  
E-mail: [incentive@incentive-dk.com](mailto:incentive@incentive-dk.com)

**SUBSIDIARIES****AUSTRALIA**

ALTO Overseas Inc.  
1B/8 Resolution Drive  
P.O.Box 797  
Caringbah, N.S.W. 2229  
Tel.: +61 2 95 24 61 22  
Fax: +61 2 95 24 52 56

**AUSTRIA**

ALTO Österreich GmbH  
Metzgerstr. 68  
5101 Berghem/Salzburg  
Tel.: +43 6624 5 64 00-14  
Fax: +43 6624 5 64 00-55  
E-mail: [wap@salzburg.co.at](mailto:wap@salzburg.co.at)

**BRAZIL**

Wap do Brasil Ltda.  
Rua 25 de Agosto, 608  
83323-260 Pinhais/Paraná  
Tel.: +55 4 12 10 67 40 0  
Fax: +55 4 12 10 67 40 3  
E-mail: [wap@wapdobrazil.com.br](mailto:wap@wapdobrazil.com.br)

**CANADA**

ALTO Canada  
24 Constellation Road  
Rexdale  
Ontario M9W 1K1  
Tel.: +1 416 6 75 58 30  
Fax: +1 416 6 75 69 89

**CROATIA**

Wap ALTO Strojevi za čišćenje, d.o.o.  
Siget 18a  
10020 Zagreb  
Tel.: +385 1 65 54 144  
Fax: +385 1 65 54 112  
E-mail: [admin.wap@wap-sistemi.hr](mailto:admin.wap@wap-sistemi.hr)

**CZECH REPUBLIC**

ALTO Česká Republika s.r.o.  
Zateckých 9  
14000 Praha 4  
Tel.: +420 2 41 40 84 19  
Fax: +420 2 41 40 84 39  
E-mail: [wap\\_p@mbox.vol.cz](mailto:wap_p@mbox.vol.cz)  
Web: [www.wap-alto.cz](http://www.wap-alto.cz)

**DENMARK**

ALTO Danmark A/S  
Industrikvarteret  
9560 Hadsund  
Tel.: +45 7218 21 00  
Fax: +45 7218 21 05  
E-mail: [salg@alto-dk.com](mailto:salg@alto-dk.com)

**FRANCE**

ALTO France S.A.  
B.P. 44, 4 Place d'Ostwald  
67036 Strasbourg Cedex 2  
Tel.: +33 3 88 28 84 00  
Fax: +33 3 88 30 05 00  
E-mail: [info@alto-fr.com](mailto:info@alto-fr.com)

**GERMANY**

ALTO Deutschland GmbH  
Guido-Oberdorfer-Straße 2-8  
89287 Bellenberg  
Tel.: +49 0180 5 37 37 37  
Fax: +49 0180 5 37 37 38  
E-mail: [info@wap-online.de](mailto:info@wap-online.de)

**GREAT BRITAIN**

ALTO Cleaning Systems  
(UK) Ltd.  
Bowerbank Way  
Gilwilly Industrial Estate, Penrith  
Cumbria CA11 9BN  
Tel.: +44 1 7 68 86 89 95  
Fax: +44 1 7 68 86 47 13  
E-mail: [sales@alto-uk.com](mailto:sales@alto-uk.com)

**NETHERLANDS**

ALTO Nederland B.V.  
Postbus 65  
3370 AB Hardinxveld-  
Giessendam  
Tel.: +31 18 46 77 20 0  
Fax: +31 18 46 77 20 1  
E-mail: [info@alto-nl.com](mailto:info@alto-nl.com)

**NEW ZEALAND**

ALTO Overseas Inc.  
5A Tamdale Grove  
Albany Auckland  
Tel.: +64 9 414 4520  
Fax: +64 9 414 4521  
E-mail: [altonz@ihug.co.nz](mailto:altonz@ihug.co.nz)

**NORWAY**

ALTO Norge A/S  
Bjørnerudveien 24  
1266 Oslo  
Tel.: +47 22 75 17 70  
Fax: +47 22 75 17 71  
E-mail: [info@alto-no.com](mailto:info@alto-no.com)

**SINGAPORE**

ALTO DEN-SIN Singapore Pte Ltd.  
No. 17 Link Road  
Singapore 619034  
Tel.: +65 62 68 10 06  
Fax: +65 62 68 49 16  
E-mail: [densin@singnet.com.sg](mailto:densin@singnet.com.sg)  
Web: [www.densin.com](http://www.densin.com)

**SLOVENIA**

Wap ALTO čistilni sistemi, d.o.o.  
Letališka 33  
SLO-1110 Ljubljana  
Tel.: +368 15 20 62 00  
Fax: +368 15 20 62 10  
E-mail: [wap@siol.net](mailto:wap@siol.net)

**SLOWAKIA**

Wap ALTO čistiace systémy s.r.o.  
Remeselnícka 42  
83106 Bratislava-Rača  
Tel.: +421 2 44 881 402  
Fax: +421 2 44 881 395  
E-mail: [wap@gtinet.sk](mailto:wap@gtinet.sk)  
Web: [www.wap-alto.sk](http://www.wap-alto.sk)

**SPAIN**

ALTO Ibérica, S.L.  
Torre Europa  
Paseo de la Castellana, 95  
Planta 15  
28046 Madrid  
Tel.: +34 902 36 21 24  
Fax: +34 914 18 69 99  
E-mail: [info@alto-es.com](mailto:info@alto-es.com)

**SWEDEN**

ALTO Sverige AB  
Aminogatan 18  
431 04 Mölndal  
Tel.: +46 3 17 06 73 00  
Fax: +46 3 17 06 73 41  
E-mail: [info@alto-se.com](mailto:info@alto-se.com)

**USA**

ALTO Cleaning Systems, Inc.  
12249 Nations Ford Road  
28134 Pineville  
Tel.: +1 704 971 1240  
Fax: +1 704 971 1241  
E-mail: [info@altocsi.com](mailto:info@altocsi.com)



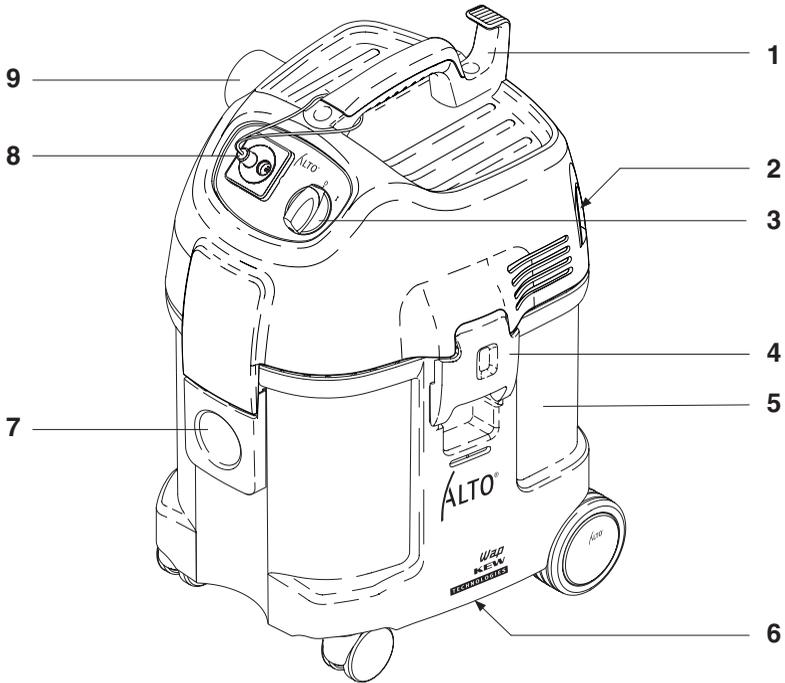
# CENTIX 60 CENTIX 60 PREMIUM



**ALTO**<sup>®</sup>  
Why  
Compromise<sup>™</sup>

english	<b>Operating Instructions</b> .....	<b>1</b>
deutsch	<b>Betriebsanleitung</b> .....	<b>13</b>
français	<b>Notice d'utilisation</b> .....	<b>25</b>
nederlands	<b>Gebruiksaanwijzing</b> .....	<b>37</b>
norsk	<b>Driftsinstruks</b> .....	<b>49</b>
svensk	<b>Bruksanvisning</b> .....	<b>61</b>
dansk	<b>Driftsvejledning</b> .....	<b>73</b>
suomi	<b>Käyttöohje</b> .....	<b>85</b>

# CENTIX 60 CENTIX 60 PREMIUM



# Contents

<b>1</b>	<b>Important safety instructions</b>	.....	2
<b>2</b>	<b>Description</b>	2.1 Operating elements .....	4
<b>3</b>	<b>Before start-up</b>	3.1 Assembling the cleaner .....	4
		3.2 Fixing wall bracket .....	4
		3.3 Fitting suction hose and waste air hose .....	5
<b>4</b>	<b>Operation</b>	4.1 Connections .....	5
		4.1.1 Electrical connection .....	5
		4.1.2 Connection diagram for central extraction system .....	5
		4.2 Operation with central extraction system .....	6
		4.3 Mobile operation .....	6
		4.3.1 Changing suction hose for mobile operation .....	6
		4.3.2 Switching on cleaner .....	6
<b>5.</b>	<b>Applications and techniques</b>	5.1 Techniques .....	7
		5.1.1 Picking up dry substances .....	7
<b>6</b>	<b>After finishing work</b>	6.1 Storing suction hose and accessories .....	7
		6.2 After mobile operation of the cleaner .....	7
<b>7</b>	<b>Maintenance</b>	7.1 Maintenance plan .....	8
		7.2 Maintenance work .....	8
		7.2.1 Emptying dirt tank .....	8
		7.2.2 Replacing the filter bag .....	8
		7.2.3 Replacing the filter element .....	9
<b>8</b>	<b>Troubleshooting</b>	.....	9
<b>9</b>	<b>Further information</b>	9.1 Recycling the vacuum cleaner .....	10
		9.2 Guarantee .....	10
		9.3 Tests and approvals .....	10
		9.4 Technical data .....	11
		9.5 Accessories .....	11
		9.6 EC declaration of conformity .....	12

# 1 Important safety instructions

## Symbols used to mark instructions



Before using the vacuum cleaner, **always read the operating instructions** and keep them readily available.



This symbol is used to mark safety instructions that must be observed to prevent **damage to the vacuum cleaner and its performance**.



This symbol is used to mark safety instructions that must be observed to prevent **damage to persons**.



This symbol indicates tips and instructions **to simplify work and to ensure safe operation**.

## For your own safety

Only allow the vacuum cleaner to be used by persons who have been trained in its use and who have been explicitly authorized to use it.

Despite its simple handling the vacuum cleaner is not suitable for children.

The use of the vacuum cleaner is subject to valid national regulations.

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

Do not use any unsafe work techniques.

## Purpose and intended use

The cleaners described in these operating instructions are designed for use in dry conditions and should not be used or stored outside in wet conditions.

The following materials should not be picked up by the vacuum cleaner:

- hazardous dust
- hot materials (burning cigarettes, hot ash, etc.)
- flammable, explosive dust (e.g. magnesium or aluminium dust, etc.)
- liquids

## Precautions and safety regulations when using the vacuum cleaner

### Before start-up

Inspect power cord regularly to detect signs of damage, e.g. cracks or ageing.

If the power cord is damaged, it must be replaced by Alto-Service or an electrician to avoid danger before use of the vacuum cleaner is continued.

Use only the type of power cord specified in the operating manual. Do not damage the power cord (e.g. by moving over it or pulling or crushing it). Disconnect the power cord by pulling the plug only (do not pull or tug the power cord).

Inspect the vacuum cleaners to ensure that they are in proper condition. Plugs and couplings in power cords must at least have splash protection.

Never use the vacuum cleaner if the filter element is damaged.

### **Electrical components**

Check the rated voltage of the vacuum cleaner before connecting it to the mains supply system. Ensure that the voltage shown on the rating plate corresponds to the voltage of the local mains power supply.

If you are using an extension cord, use only those specified by the manufacturer or higher quality ones (see section 9.4 „Technical data“).

It is recommended that the vacuum cleaner should be connected via a residual current circuit breaker. This stops the supply of electricity if the leakage current to earth exceeds 30 mA for 30 ms or it has an earth tester circuit.

Arrange the electrical parts (sockets, plugs and couplings) and lay down the extension lead so that the protection class is maintained.

Never spray water on to the upper section of the vacuum cleaner. Danger for persons, risk or short-circuiting.

Observe the latest edition of the IEC regulations.

### **Maintenance, cleaning and repair**

Only carry out maintenance work described in the operating instructions.

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

### **Accessories and spare parts**

Use only the brushes supplied with the vacuum cleaner or specified in the operating manual. The use of other brushes can adversely affect safety.

Use only original Alto accessories and spare parts (see section 9.5). The use of other parts can adversely affect safety.

## 2 Description

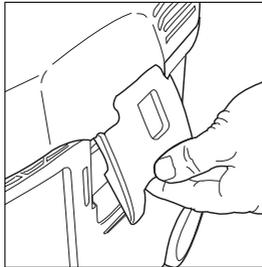
### 2.1 Operating elements

See fold-out page at the front of these operating instructions.

- 1 Handle with cable hook
- 2 Accessory holder
- 3 Cleaner switch
- 4 Retaining clamp
- 5 Dirt tank
- 6 Grip to empty tank
- 7 Inlet fitting
- 8 Plug for mobile operation
- 9 Waste air connection

## 3 Before start-up

### 3.1 Assembling the cleaner



1. The mains plug should not be inserted into a socket.
2. Open the retaining clamps (1) and lift off the upper section of the cleaner.

3. Take the accessories out of the dirt tank and the packaging.

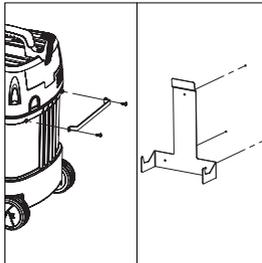
4. Place a filter bag into the tank as described in the instructions (printed on the filter bag).

**IMPORTANT:** Press the filter bag connection firmly on to the inlet fitting.

5. Fit the upper section of the cleaner and close the retaining clamps, taking care not to damage the filter bag.

**NOTE:** Ensure that the retaining clamps fit properly.

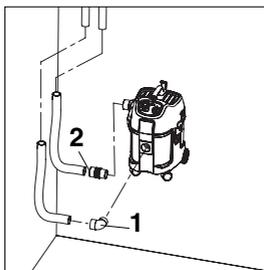
### 3.2 Fixing wall bracket



At the installation site:

1. Screw the holding bar on to the rear of the suction unit.
2. Fix the wall bracket on the wall.
3. Hang the cleaner on the wall bracket.

### 3.3 Fitting suction hose and waste air hose



1. Suction hose, 1 m:  
Screw 90° bush (1) on to one end of the suction hose (left thread).
2. Waste air hose, 1 m:  
Screw rotatable bush  $\varnothing 50$  mm (2) on to one end of the suction hose.
3. Connect the hoses to the cleaner and the system as shown in the diagram.

## 4 Operation

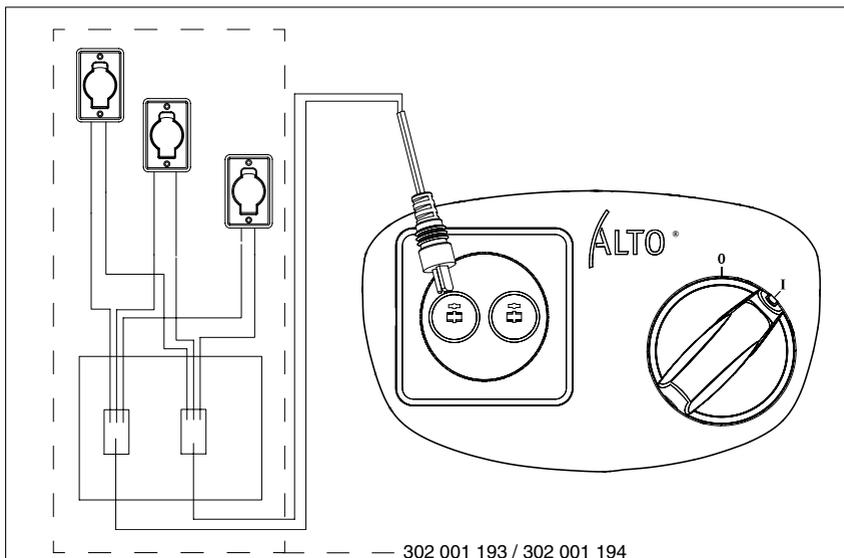
### 4.1 Connections

#### 4.1.1 Electrical connection

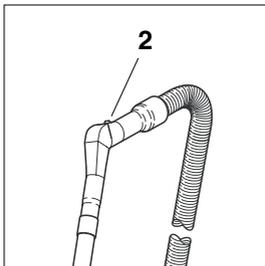
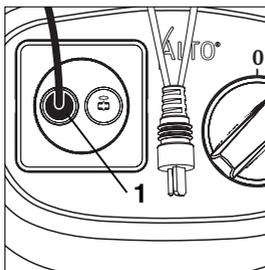
The operating voltage shown on the rating plate must correspond to the voltage of the mains power supply.

1. Ensure that the vacuum cleaner is switched off.
2. Insert the power cord into a properly installed and fused socket with an earthing contact.

#### 4.1.2 Connection diagram for central extraction system



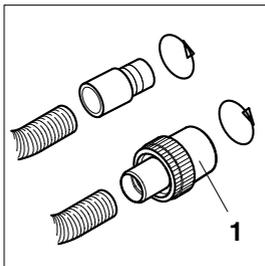
english **4.2 Operation on central extraction system**



Connect only plugs to the cleaner socket that have been approved by Alto.

1. Ensure that
  - the cleaner is switched off
  - the suction sockets are not activated.
2. Connect the plug of the central extraction system (1) to the control panel.
3. Turn the switch to position „I“.
4. Insert the suction hose in the suction socket.  
CENTIX 60:  
The vacuum cleaner motor starts.
5. CENTIX 60 PREMIUM:  
Switch the suction motor on and off at the switch (2) on the suction pipe handle.

**4.3 Mobile operation**  
**4.3.1 Changing suction hose for mobile operation**



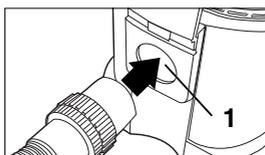
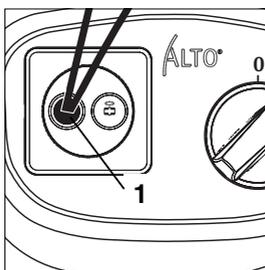
CENTIX 60:

1. Unscrew suction hose bush ( $\varnothing$  32 mm) from the suction hose (left thread).
2. Screw  $\varnothing$ 32/50 mm bush (1) on to one end of the suction hose (left-handed thread).

CENTIX 60 PREMIUM:

1. Use the suction hose supplied for mobile operation.

**4.3.2 Switching on cleaner**



Connect only plugs to the cleaner socket that have been approved by Alto.

1. Ensure that the tool is switched off.
2. Insert the plug for mobile operation (1) into the cleaner socket.
3. Connect the suction hose to the inlet fitting (1).
4. Turn the switch to position „I“.

The vacuum cleaner motor starts.

## 5 Applications and techniques

### 5.1 Techniques

If used correctly, additional accessories, suction nozzles and suction hoses can enhance the cleaning action and reduce the cleaning effort.

Effective cleaning is achieved if you follow just a few guidelines in combination with your own practical experience in special fields.

Here are some basic tips.

#### 5.1.1 Picking up dry substances

**CAUTION:**

The following materials should not be picked up by the vacuum cleaner:

- hazardous dust
- hot materials (burning cigarettes, hot ash, etc.)
- flammable, explosive dust (e.g. magnesium or aluminium dust, etc.)
- liquids

Before picking up dry substances, always ensure that a filter bag is inserted in the tank (see section 9.5 „Accessories“ for order number). Disposal of the picked up material is then simple and hygienic.

## 6 After finishing work

### 6.1 Storing suction hose and accessories

**CAUTION:** Danger of tripping.

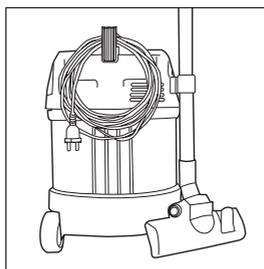
To prevent accidents:

1. Wind up the suction hose and hang it up on the wall

bracket supplied.

2. Store the suction pipe/nozzle and other accessories in a suitable place.

### 6.2 After mobile operation of the cleaner



1. Switch off the vacuum cleaner and pull the mains plug out of the socket.
  2. Empty the tank and clean the vacuum cleaner.
  3. Wind up the suction hose and store the suction pipe/nozzle and other accessories in a suitable place.
  4. Wind up the power cord and hang it on the handle.
- or
5. Reconnect the cleaner to the central extraction system.

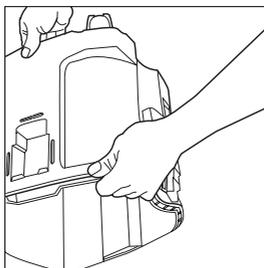
# 7 Maintenance

## 7.1 Maintenance plan

	As required
7.2.1 Emptying dirt tank	●
7.2.2 Replacing the filter bag	●
7.2.3 Replacing the filter element	●
7.2.4 Check that the hose of the level indicator and accessories are not blocked and clean them.	●

## 7.2 Maintenance work

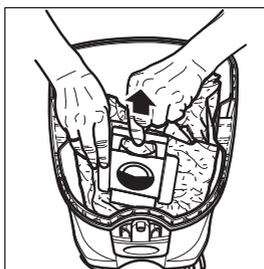
### 7.2.1 Emptying dirt tank



Empty the dirt tank if you use the vacuum cleaner without a filter bag:

1. Remove the upper section of cleaner from the dirt tank.
2. Using one hand, take hold of the dirt tank underneath and tip out the dirt.
3. Dispose of the dirt in accordance with legal regulations.
4. Clean the rim of the tank.
5. Attach the upper section of the cleaner.
6. Clean the inlet fitting and hose collar.
7. Re-insert the suction hose.

### 7.2.2 Replacing the filter bag

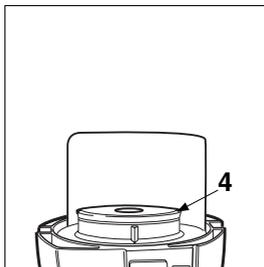
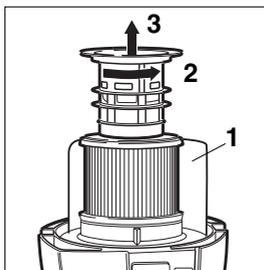


1. Remove the upper section of cleaner from the dirt tank.
2. Carefully remove the filter bag connection from the inlet fitting.
3. Close the filter bag connection with the slide.
4. Dispose of the filter bag in accordance with legal regulations.
5. Place a new filter bag into the cleaned tank as described in the instructions (printed on the filter bag).

#### **IMPORTANT:**

Press the filter bag connection firmly on to the inlet fitting.

### 7.2.3 Replacing the filter element



1. Remove the upper section of the cleaner from the dirt tank and deposit it with the filter element facing upwards. Do not place the upper section of the cleaner on the guard (1).
2. Turn the filter holder anticlockwise (2) and remove it (3).
3. Carefully remove the filter element.
4. Clean the filter seal (4). Check it for damage and replace it if necessary.
5. Fit a new filter element.
6. Fit the filter holder and turn it clockwise to secure it.
7. Dispose of the used filter element in accordance with legal regulations.

**CAUTION:**  
Never use the vacuum cleaner without a filter.

## 8 Troubleshooting

Fault	Cause	Remedy
‡ Motor does not start.	<ul style="list-style-type: none"> <li>&gt; Fuse of the mains socket has blown</li> <li>&gt; Plug not inserted for operation on the central extraction system/mobile operation</li> <li>&gt; Overload protection switch has tripped</li> </ul>	<ul style="list-style-type: none"> <li>• Reset the fuse</li> <li>• Insert the plug into the cleaner socket. See sections 4.1.3 and 4.1.4</li> <li>• Switch off the vacuum cleaner and allow it to cool for approx. 5 minutes. If the cleaner cannot be started again, contact the Alto service department.</li> </ul>
‡ Motor runs continuously	<ul style="list-style-type: none"> <li>&gt; Plugs for mobile operation and for central extraction system are both inserted</li> </ul>	<ul style="list-style-type: none"> <li>• Insert only one of the two plugs into the cleaner socket</li> </ul>
‡ Reduced suction power	<ul style="list-style-type: none"> <li>&gt; Clogged suction hose/nozzle</li> <li>&gt; Seal/tank rim between the upper section of the cleaner and the dirt tank is dirty/defective</li> <li>&gt; Filter bag is full</li> <li>&gt; Filter element is clogged</li> </ul>	<ul style="list-style-type: none"> <li>• Clean suction hose/nozzle</li> <li>• Clean/replace seal</li> <li>• See section 7.2.2 „Replacing filter bag“</li> <li>• See section 7.2.3 „Replacing filter bag“</li> </ul>

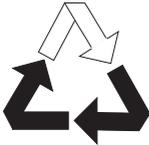
--&gt;

english

Fault	Cause	Remedy
‡ Voltage fluctuations	> Impedance of power supply is too high	<ul style="list-style-type: none"><li>• Use a suitable extension cord (see sections 1, „Safety instructions“, and 9.4, „Technical data“)</li><li>• Connect the cleaner to another socket closer to the fuse box. Voltage fluctuations over 7% should not occur if the impedance at the transfer point is <math>\leq 0.15 \Omega</math>.</li></ul>

## 9 Further information

### 9.1 Recycling the vacuum cleaner



Make the old cleaner unusable immediately.

1. Unplug the cleaner and cut the power cord.

The cleaner contains valuable materials that should be recycled. Therefore, make use of your local waste disposal site.

Contact your local authorities or your nearest dealer for further information.

### 9.2 Guarantee

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

Subject to change as a result of technical advances.

### 9.3 Tests and approvals

The vacuum cleaners must be inspected regularly in accordance with national accident prevention regulations (in Germany as specified in VBG 4 and DIN VDE 0701 Part 1 and Part 3, at regular intervals and after repairs or modifications).

The vacuum cleaner has been approved in accordance with IEC/EN 60336-2-2.

## 9.4 Technical data

CENTIX 60 / CENTIX 60 PREMIUM		
		<b>EU</b>
Voltage	V	230
Mains frequency	Hz	50/60
Power consumption	W	1200
Fuse	A	16
Volume flow (air)	max. l/min	3600
Negative pressure	max. Pa	23000
Sound pressure level	dB(A)	62
Operating noise	dB(A)	59
Power cord length	m	7,5
Power cord type		H05VV-F 2 x 0,75
Protection class		II
Radio interference level		EN 50014-1
Tank volume	l	27
Width	mm	380
Depth	mm	390
Height	mm	570
Weight	kg	10

## 9.5 Accessories

Name	Order No.
Filter bag (5 pcs.)	302000449
Filter element	11753
Telescopic pipe	302001206
Floor nozzle	302000962
Suction brush	5146
Crevice nozzle, ø35 x 200 mm	29541
Universal nozzle	14295
Wall bracket	302001265
Hose bracket	302001210
Blow-out flap	302001242
Suction hose, ø32 x 1800 mm	60897
Suction hose, ø32 x 9000 Auto S/S	302001209
Waste air fitting ø50 mm	302001158
Suction hose, ø50 x 1,000 mm	302001005
Angle bush, ø50 mm	48731
Bush, ø50 mm, rotatable	15101
Bush, ø32/50 mm, rotatable	15103

## 9.6 EC declaration of conformity

		<b>EC declaration of conformity</b>	
ALTO Deutschland GmbH Guido-Oberdorfer-Strasse 2-8 D-89287 Bellenberg			
<b>Product:</b>	<b>Cleaner for dry conditions</b>		
<b>Model:</b>	CENTIX 60 CENTIX 60 PREMIUM		
<b>Description:</b>	230 V, 50 Hz, 1200 W		
<b>The design of the appliance corresponds to the following pertinent regulations:</b>	EC Machine Directive	98/37/EC	
	EC Low Voltage Directive	73/23/EC	
	EC EMC Directive	89/336/EC	
<b>Applied harmonized standards:</b>	EN 292-1, EN 292-2		
	EN 60335-1		
	EN 60335-2-2		
	EN 55014-1, EN 55014-2, EN 61000-3-2		
<b>Applied national standards and technical specifications:</b>	DIN EN 60335-1		
	DIN EN 60335-2-69		
			
Dipl.-Ing. Wolfgang Nieuwkamp Tests and approvals		Bellenberg, 16.10.2003	



**INTERNET**  
<http://www.alto-online.com>

#### **ALTO HEADQUARTERS**

Incentive International A/S  
Kongens Nytorv 28  
P.O.Box 2064  
1013 Copenhagen K  
Tel.: +45 72 18 10 00  
Fax: +45 72 18 1164  
E-mail: [incentive@incentive-dk.com](mailto:incentive@incentive-dk.com)

#### **SUBSIDIARIES**

##### **AUSTRALIA**

ALTO Overseas Inc.  
1B/8 Resolution Drive  
P.O.Box 797  
Caringbah, N.S.W. 2229  
Tel.: +61 2 95 24 61 22  
Fax: +61 2 95 24 52 56

##### **AUSTRIA**

ALTO Österreich GmbH  
Metzgerstr. 68  
5101 Bergheim/Salzburg  
Tel.: +43 6624 5 64 00-14  
Fax: +43 6624 5 64 00-55  
E-mail: [wap@salzburg.co.at](mailto:wap@salzburg.co.at)

##### **BRAZIL**

Wap do Brasil Ltda.  
Rua 25 de Agosto, 608  
83323-260 Pinhais/Paraná  
Tel.: +55 4 12 10 67 40 0  
Fax: +55 4 12 10 67 40 3  
E-mail: [wap@wapdobrazil.com.br](mailto:wap@wapdobrazil.com.br)

##### **CANADA**

ALTO Canada  
24 Constellation Road  
Rexdale  
Ontario M9W 1K1  
Tel.: +1 416 6 75 58 30  
Fax: +1 416 6 75 69 89

##### **CROATIA**

Wap ALTO Strojevi za čišćenje, d.o.o.  
Siget 18a  
10020 Zagreb  
Tel.: +385 1 65 54 144  
Fax: +385 1 65 54 112  
E-mail: [admin.wap@wap-sistemi.hr](mailto:admin.wap@wap-sistemi.hr)

##### **CZECH REPUBLIC**

ALTO Česká Republika s.r.o.  
Zateckých 9  
14000 Praha 4  
Tel.: +420 2 41 40 84 19  
Fax: +420 2 41 40 84 39  
E-mail: [wap\\_p@mbox.vol.cz](mailto:wap_p@mbox.vol.cz)  
Web: [www.wap-alto.cz](http://www.wap-alto.cz)

##### **DENMARK**

ALTO Danmark A/S  
Industrikvarteret  
9560 Hadsund  
Tel.: +45 7218 21 00  
Fax: +45 7218 21 05  
E-mail: [salg@alto-dk.com](mailto:salg@alto-dk.com)

##### **FRANCE**

ALTO France S.A.  
B.P.44, 4 Place d'Ostwald  
67036 Strasbourg Cedex 2  
Tel.: +33 3 88 28 84 00  
Fax: +33 3 88 30 05 00  
E-mail: [info@alto-fr.com](mailto:info@alto-fr.com)

##### **GERMANY**

ALTO Deutschland GmbH  
Guido-Oberdorfer-Straße 2-8  
89287 Bellenberg  
Tel.: +49 0180 5 37 37 37  
Fax: +49 0180 5 37 37 38  
E-mail: [info@wap-online.de](mailto:info@wap-online.de)

##### **GREAT BRITAIN**

ALTO Cleaning Systems  
(UK) Ltd.  
Bowerbank Way  
Gilwilly Industrial Estate, Penrith  
Cumbria CA11 9BN  
Tel.: +44 1 7 68 86 89 95  
Fax: +44 1 7 68 86 47 13  
E-mail: [sales@alto-uk.com](mailto:sales@alto-uk.com)

##### **NETHERLANDS**

ALTO Nederland B.V.  
Postbus 65  
3370 AB Hardinxveld-  
Giessendam  
Tel.: +31 18 46 77 20 0  
Fax: +31 18 46 77 20 1  
E-mail: [info@alto-nl.com](mailto:info@alto-nl.com)

##### **NEW ZEALAND**

ALTO Overseas Inc.  
5A Tarndale Grove  
Albany Auckland  
Tel.: +64 9 414 4520  
Fax: +64 9 414 4521  
E-mail: [altonz@ihug.co.nz](mailto:altonz@ihug.co.nz)

##### **NORWAY**

ALTO Norge A/S  
Bjørnerudveien 24  
1266 Oslo  
Tel.: +47 22 75 17 70  
Fax: +47 22 75 17 71  
E-mail: [info@alto-no.com](mailto:info@alto-no.com)

##### **SINGAPORE**

ALTO DEN-SIN Singapore Pte Ltd.  
No. 17 Link Road  
Singapore 619034  
Tel.: +65 62 68 10 06  
Fax: +65 62 68 49 16  
E-mail: [densin@singnet.com.sg](mailto:densin@singnet.com.sg)  
Web: [www.densin.com](http://www.densin.com)

##### **SLOVENIA**

Wap ALTO čistilni sistemi, d.o.o.  
Letališka 33  
SLO-1110 Ljubljana  
Tel.: +368 15 20 62 00  
Fax: +368 15 20 62 10  
E-mail: [wap@siol.net](mailto:wap@siol.net)

##### **SLOWAKIA**

Wap ALTO čistiace systémy s.r.o.  
Remeselnícka 42  
83106 Bratislava-Rača  
Tel.: +421 2 44 881 402  
Fax: +421 2 44 881 395  
E-mail: [wap@gtinet.sk](mailto:wap@gtinet.sk)  
Web: [www.wap-alto.sk](http://www.wap-alto.sk)

##### **SPAIN**

ALTO Ibérica, S.L.  
Torre Europa  
Paseo de la Castellana, 95  
Planta 15  
28046 Madrid  
Tel.: +34 902 36 21 24  
Fax: +34 914 18 69 99  
E-mail: [info@alto-es.com](mailto:info@alto-es.com)

##### **SWEDEN**

ALTO Sverige AB  
Aminogatan 18  
431 04 Mölndal  
Tel.: +46 3 17 06 73 00  
Fax: +46 3 17 06 73 41  
E-mail: [info@alto-se.com](mailto:info@alto-se.com)

##### **USA**

ALTO Cleaning Systems, Inc.  
12249 Nations Ford Road  
28134 Pineville  
Tel.: +1 704 971 1240  
Fax: +1 704 971 1241  
E-mail: [info@altocsi.com](mailto:info@altocsi.com)