

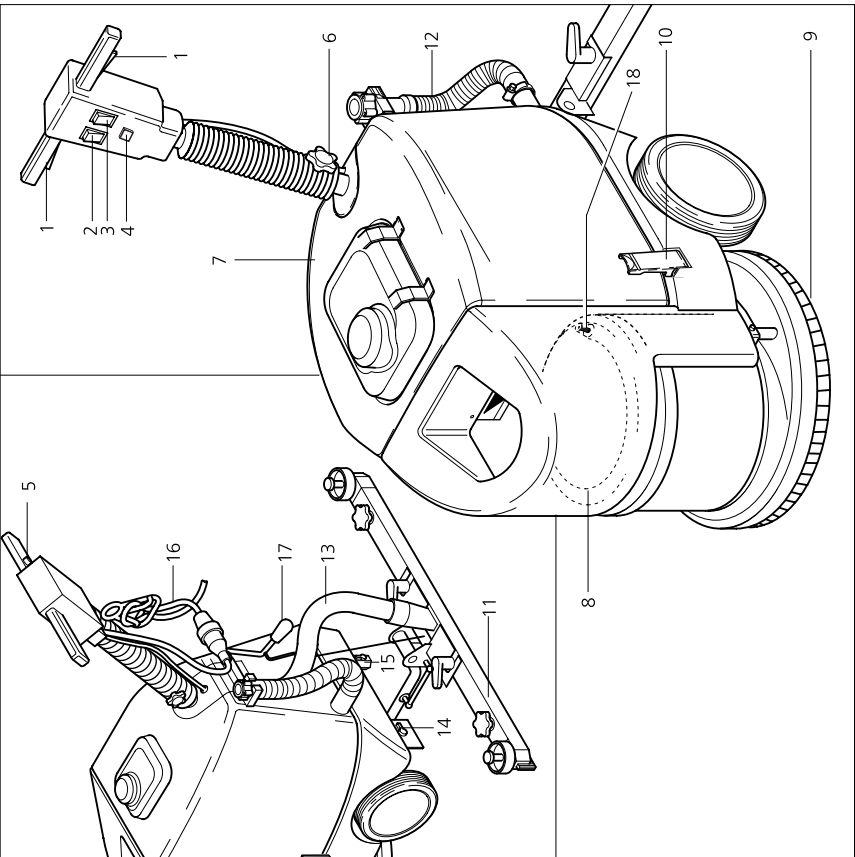
**SSB 430**

**SSE 430**



**ALTO®**  
Total Cleaning  
Confidence™

<b>(D)</b>	<b>Betriebsanleitung .....</b>	<b>3</b>
<b>(GB)</b>	<b>Operating Instructions .....</b>	<b>26</b>
<b>(F)</b>	<b>Notice d'utilisation .....</b>	<b>49</b>
<b>(NL)</b>	<b>Gebruiksaanwijzing .....</b>	<b>72</b>
<b>(I)</b>	<b>Istruzioni sull'uso .....</b>	<b>95</b>
<b>(N)</b>	<b>Driftsinstruks.....</b>	<b>118</b>
<b>(S)</b>	<b>Bruksanvisning .....</b>	<b>141</b>
<b>(DK)</b>	<b>Driftsvejledning .....</b>	<b>164</b>
<b>(SF)</b>	<b>Käyttöohje .....</b>	<b>187</b>
<b>(SLO)</b>	<b>Navodilo za uporabo .....</b>	<b>210</b>
<b>(HR)</b>	<b>Uputstvo za rad .....</b>	<b>233</b>
<b>(SK)</b>	<b>Prevádzkový návod .....</b>	<b>256</b>
<b>(CZ)</b>	<b>Provozní návod .....</b>	<b>279</b>
<b>(PL)</b>	<b>Instrukcja obsługi .....</b>	<b>302</b>
<b>(H)</b>	<b>Kezelési utasítás .....</b>	<b>325</b>
<b>(E)</b>	<b>Instrucciones de manejo .....</b>	<b>348</b>
<b>(P)</b>	<b>Instruções de operação .....</b>	<b>371</b>
<b>(GR)</b>	<b>Οδηγίες λειτουργίας .....</b>	<b>394</b>
<b>(TR)</b>	<b>İşletme kılavuzu .....</b>	<b>417</b>



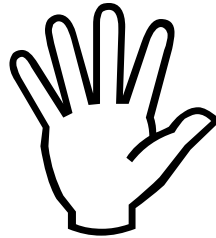
# Table of Contents

<b>Highlighting of notes</b>		.....	27
<b>1</b>	<b>Important safety notes</b>	.....	27
<b>2</b>	<b>Description</b>	2.1 Use for intended purpose .....	29
		2.2 Controls .....	30
<b>3</b>	<b>Before putting the automatic cleaning machine into operation</b>	3.1 Scope of delivery .....	30
		3.2 Assembling the automatic cleaning machine .....	30
		3.3 Attaching the suction nozzle .....	31
		3.4 SSB 430 Inserting and connecting battery .....	31
		3.5 SSE 430 Electrical connection .....	32
		3.6 Fitting the brush .....	32
		3.7 Filling the fresh water tank .....	33
<b>4</b>	<b>Control/Operation</b>	4.1 Brushing and vacuuming .....	34
		4.2 Monitoring operation .....	35
		4.2.1 Metering the quantity of cleaning agent .....	35
		4.2.2 Dirty water tank filling level .....	35
		4.2.3 SSB 430 Battery warning lamp .....	35
<b>5</b>	<b>Application areas and working methods</b>	5.1 Working methods .....	36
		5.2 Possible applications .....	36
		5.3 Application examples .....	36
		5.4 Accessories .....	36
		5.3 Application examples .....	37
		5.5 Cleaning agents (approx. pH value with 1% solution) .....	37
<b>6</b>	<b>After use</b>	6.1 Switching off .....	37
		6.2 Emptying and cleaning dirty water tank .....	38
		6.3 Emptying and cleaning fresh water tank .....	38
		6.4 Cleaning suction nozzles .....	38
		6.5 Removing and cleaning the cleaning tools .....	39
		6.5.1 SSE 430 .....	39
		6.5.2 SSB 430 .....	39
		6.6 SSB 430 Charging the battery .....	39
		6.7 Storage .....	40
<b>7</b>	<b>Maintenance</b>	7.1 Maintenance plan .....	40
		7.2 Maintenance work .....	41
		7.2.1 Flushing piping system with clean water .....	41
		7.2.2 Cleaning fresh water filter .....	41
		7.2.3 Cleaning dirty water filter .....	41
		7.2.4 Replacing suction lips .....	42
		7.2.5 Maintenance by Alto customer service .....	42
		7.3 Handling instructions for sealed, maintenance-free batteries and wet batteries .....	43
<b>8</b>	<b>Troubleshooting</b>	.....	46
<b>9</b>	<b>Other</b>	9.1 Taking machine for recycling .....	47
		9.2 Warranty .....	47
		9.3 Testing and certifications .....	47
		9.4 Technical Data .....	48
		9.5 EC Conformance Declaration .....	48

## Highlighting of notes



Safety notes that can result in danger to personnel if they are ignored are specially marked with this danger symbol.



This symbol can be found next to safety notes that can put the device and the operation thereof at risk if they are ignored.



This symbol marks advice or notes that make work easier and ensure that the machine operates reliably.

# 1 Important safety notes



## For your own safety

Before the automatic cleaning machine is put into operation, these operating instructions must be read and kept within easy reach.

The automatic cleaning machine may only be used by persons who have been instructed in its handling and expressly entrusted with the operation thereof.

## General

The operation of automatic cleaning machines is subject to the current national regulations.

The automatic cleaning machine is suitable for commercial use, e.g. in hotels, schools, hospitals, factories, shops, offices and rental apartments.

In addition to the operating instructions and the accident prevention regulations applying in the user's country, the recognized trade rules for safety-conscious and proper working are to be observed.

Any manner of working that represents a safety hazard must be refrained from.

## Transport

The applicable user instructions and safety regulations, particularly those pertaining to load-bearing capacity, must be observed when transporting the machine in lifts.

Take care when moving the machine over thresholds and landings - this may damage the wheels and the suction lips. Please ensure that the brush unit and the suction nozzle are raised.

## Cleaning agents

Attention must be paid to the manufacturer's safety instructions when using cleaning and care agents. Wear protective goggles and clothing if necessary.



The dangers of using easily flammable, toxic, health-damaging, caustic or irritating substances is expressly pointed out.

Only use cleaning agents approved by Alto.

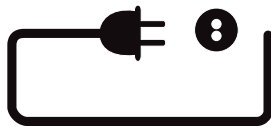
**Dust and liquids that are hazardous to health**

The automatic cleaning machine is not suitable for surfaces that can release dust and liquids that are hazardous to health.

**Gradients and steps**

The automatic cleaning machine must not be used on gradients exceeding 2% unless steeper gradients are approved in the operating instructions. Always exercise extreme caution when moving the automatic cleaning machine on ramps and gradients. Do not change direction on gradients. Do not park the automatic cleaning machine on gradients. Do not move the machine over steps.

**Electrical system**



Check the nominal voltage of the automatic cleaning machine before connecting to the power supply. Ensure that the voltage on the nameplate matches the local mains voltage.

Do not use any other versions than the ones specified by the manufacturer when using an extension cable or replacing the mains connection cable.

It is advisable to connect the power supply to the automatic

cleaning machine via a fault current protection switch. This cuts off the power supply if the leakage current to ground exceeds 30 mA for 30 ms or contains a ground testing current circuit.

Please pay attention to the minimum cross-section when using extension cables:

Cable length m	Cross-section mm <sup>2</sup>
Up to 20	1.5
20 to 50	2.5

Live parts (sockets, plugs and connectors) must be arranged and the extension cable routed in compliance with the protection class.

**CAUTION!**

Do not spray the automatic cleaning machine with water: danger to personnel from short-circuit.

The contents of the latest issue of the IEC regulations must be observed.

**Safety instructions for battery-operated machines**

Please observe the safety and accident prevention regulations pertaining to the handling and installation of batteries.

Check whether the operating instructions and the battery manufacturer's handling instructions are present. This regulation must be complied with.

Before charging, check the battery cable and the charger cable and replace them if necessary.

Smoking is prohibited when charging the battery.

Avoid naked flames, flying sparks and glowing objects.

Please ensure that the room is well ventilated. Highly explosive toxic gas is generated when the batteries are being charged.

All cavities, covers, hoods etc. in which the explosive gas can collect must be opened.

Open dirty water tank.

Fire prevention equipment must be easy to access.

Drinking and eating is prohibited in rooms where charging takes place.

Wash hands thoroughly immediately after working on the batteries.

Do not touch or pour away battery acid.

Risk of short circuit or fire! Do not place metal objects on the batteries.

**Before putting the automatic cleaning machine into operation**

Before putting the automatic cleaning machine into operation, check that the machine is in the proper condition.

All covers, hoods and lids must be correctly attached and closed.

Mains connecting cable plugs and connectors must at least have protection from spray water.

Check mains connecting cables for damage and signs of ageing at regular intervals. The automatic cleaning machine must only be put into operation if the mains connection is in perfect condition (risk of electric shock if cable is damaged!).

### During operation

Do not damage mains connecting cable (e.g. by driving over the cable, pulling the cable, crushing the cable). Always disconnect mains cable at plug (not by pulling out using the connecting cable).

When the machine is not being operated, switch brush unit off immediately in order to avoid damage to floor surfaces.

If either fluid or foam escapes from the machine unintentionally, switch automatic cleaning machine off immediately.

Check filling level at regular intervals and empty dirty water tank in good time.

Use brushes, pads and accessories as described in the operating instructions. Failure to comply with this can be hazardous.

When leaving the machine unattended, disconnect mains/ battery plug and safeguard machine from unauthorised use.

### Maintenance and repair

**WARNING!**  
**Always disconnect the mains/ battery plug before cleaning and maintaining the automatic cleaning machine.**

Only carry out the maintenance work described in the operating

instructions. Always use original spare parts.

**WARNING!**  
 Do not make technical alterations to the automatic cleaning machine. This can put your safety at risk.

Please contact the Alto customer service department or an authorised specialist workshop for other maintenance and repair work!

## 2 Description

### 2.1 Use for intended purpose

The automatic cleaning machine is exclusively intended for wet cleaning of water-resistant floor coverings in building interiors.

The automatic cleaning machine must not be used on public rights of way and roads.

Any other use is considered to be improper. The manufacturer is not liable for any resulting damage; all risks are the responsibility of the user.

Use for intended purpose also includes adherence to the manufacturer's operating, service and maintenance conditions.

Modifications made to the automatic cleaning machine by the user releases the

manufacturer from all liability for resulting damage.

Floor coverings must be checked for suitability for this cleaning method before using the automatic cleaning machine!

Please pay attention to surface pressure in case of point-elastic floors such as in gymnasiums!

The manufacturer does not accept liability for damage caused to the machine and the floor covering being cleaned if the wrong brushes and cleaning agents have been used.

For illustration see fold-out page at front of these operating instructions

- |   |   |
|---|---|
| 1 Hand switch                           | 11 Suction nozzle                       |
| 2 Switch for cleaning agent supply      | 12 Discharge hose                       |
| 3 Suction unit switch                   | 13 Suction hose                         |
| 4 Battery warning lamp (SSB 430 only)   | 14 Cleaning agent metering lever        |
| 5 Release switch                        | 15 Fresh water drain tap (SSE 430 only) |
| 6 Star knob for adjusting handle height | 16 Power cable (SSE 430 only)           |
| 7 Dirty water tank                      | 17 Lever for lifting suction nozzle     |
| 8 Fresh water tank                      | 18 Brush motor protection switch        |
| 9 Disk brush                            |   |
| 10 Closing clamp (SSB 430 only)         |   |

## 3 Before putting the automatic cleaning machine into operation

### 3.1 Scope of delivery

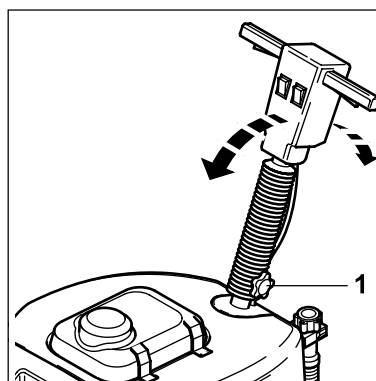
#### SSB 430

- Basic machine
- Suction nozzle with suction lips
- Standard scrubbing brush
- Battery connecting cables
- Operating instructions

#### SSE 430

- Basic machine
- Suction nozzle with suction lips
- Standard scrubbing brush
- Extension cable (20 m)
- Operating instructions

### 3.2 Assembling the automatic cleaning machine

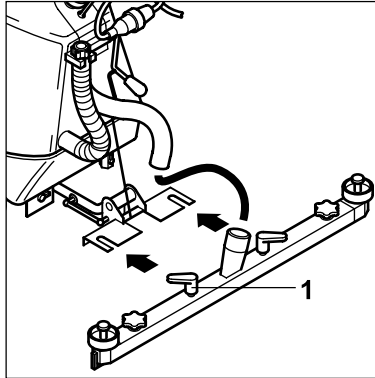


The automatic cleaning machine is delivered ready assembled, with the exception of the following parts:

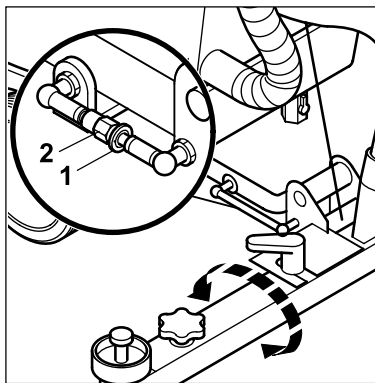
- Suction nozzle
- Brushes
- 20m extension cable (SSE 430 only)

1. Loosen star knob (1).
2. Move handle to working position.
3. Tighten star knob.

**3.3 Attaching the suction nozzle**



1. Insert suction nozzle into rotating fork.
2. Red suction lip at front.
3. Attach suction nozzle by turning the quick-locking lever (1) clockwise.
4. Push suction hose onto suction nozzle fitting.



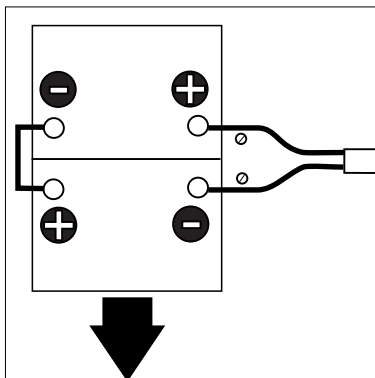
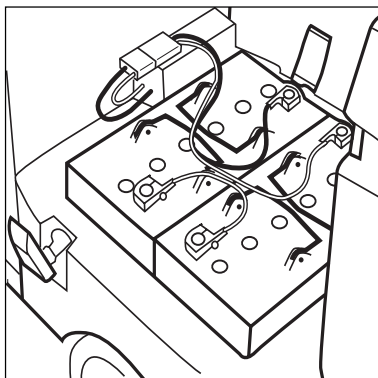
- Adjust suction nozzle angle to suit type of floor surface:
6. Unscrew knurled nut (1) away from adjusting screw.
  7. Turn adjusting screw (2) until required angle has been reached.
  8. Screw knurled nut up against adjusting screw.

**3.4 SSB 430  
Inserting and connecting battery**

**CAUTION!**  
**Risk of electric shock!**  
**Do not place tools or other parts on battery or battery terminals and do not touch with wet hands.**

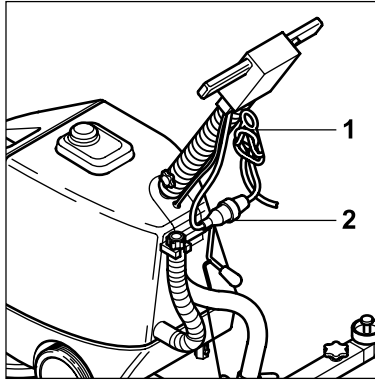
**WARNING!**  
The fresh water and dirty water tanks must not contain any water.

1. Move „cleaning agent supply“ and „suction unit“ switches to OFF.
2. Observe battery handling instructions (chapter 7.3).
3. Slacken locking clamps and swivel up dirty water tank.
4. Insert batteries into battery compartment.  
(↓ = direction of travel)
5. Connect terminals as shown in connecting plan.
6. Attach connectors.
7. Swivel down dirty water tank.
8. Close locking clamps.



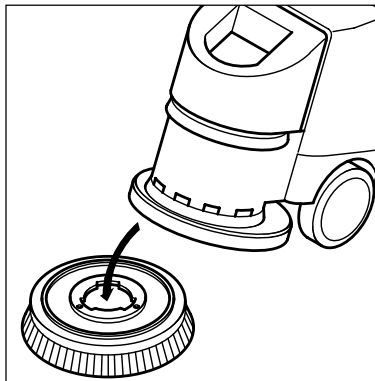


**3.5 SSE 430  
Electrical connection**

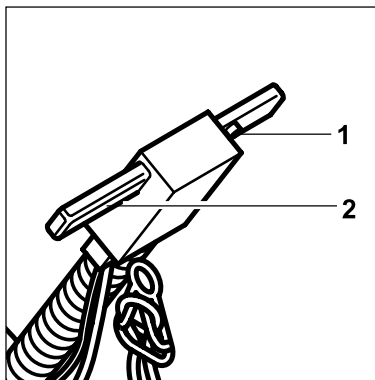


1. Move „cleaning agent supply“ and „suction unit“ switches to OFF.
2. Pull loop of extension cable (20m) through ring and attach to strain relief (1).
3. Insert machine plug into plug socket (2).
4. Connect mains plug to mains socket, ensuring that voltage indicated on rating plate of machine matches mains voltage.

**3.6 Fitting the brush**

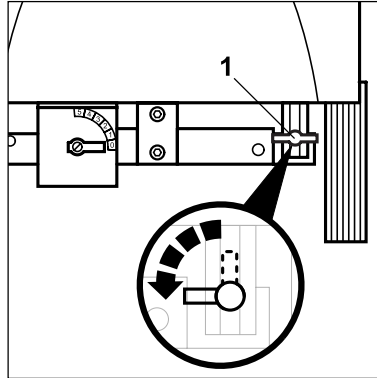


1. Place brush on floor in working position.
2. Tilt machine to rear and drive over brush.
3. Move machine backwards and forwards slightly until brush is audibly centred.

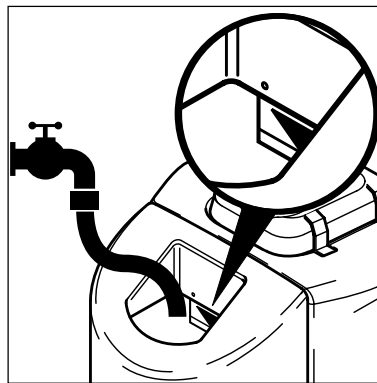


4. Press release switch (1) and briefly operate hand switch (2).
5. Brush drive rotates.
6. Brush engages audibly.
7. Release hand switch. Brush motor switches off.

### 3.7 Filling the fresh water tank



1. Empty dirty water tank before filling fresh water tank. (Chapter 6.2)
2. **SSE 430:** Close fresh water drain tap (1).

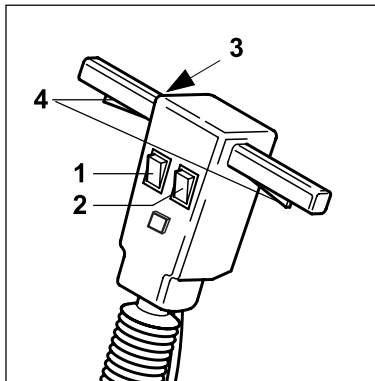
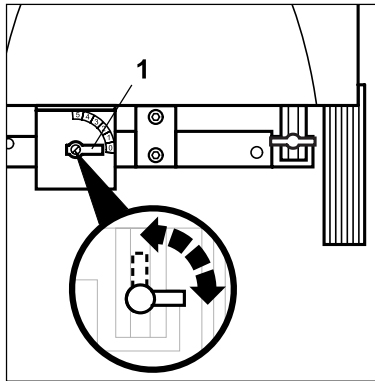
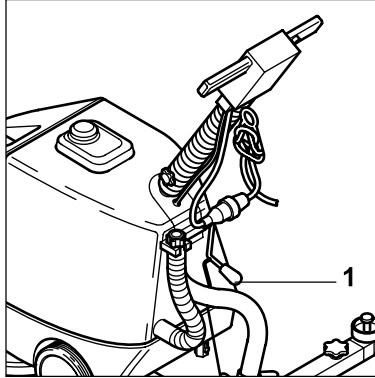


3. Fill clean water into fresh water tank. Max. temperature 40°C.
4. Add cleaning agent as per metering instructions.
5. Maximum tank filling levels:  
**SSE 430:** 35 litres  
**SSB 430:** 30 litres
6. Observe maximum filling level on indicator.

Only use cleaning agents approved by Alto (chapter 5.5).

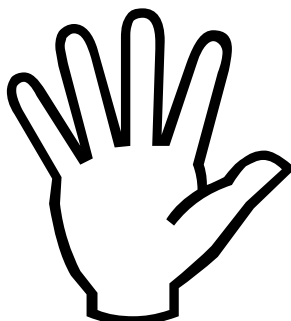
## 4 Control/Operation

### 4.1 Brushing and vacuuming



1. **SSB 430:** Battery should be fully charged.  
**SSE 430:** Connect to power supply.
2. Lower suction nozzle using lever (1).
3. Set fresh water metering rate using metering lever (1). Swivel lever to position 4 = max. metering rate. Swivel lever to position 1 = min. metering rate.
4. Move „cleaning agent supply“ switch (1) to ON. Supply is ready for operation, but cleaning agent does not flow until hand switch (4) is operated.
5. Move „suction unit“ switch (2) to ON. Suction unit begins to operate.
6. Press release switch (3) and operate hand switch (4). Brush begins to rotate and cleaning agent flows to brush.
7. Automatic cleaning machine is moved by pushing.
8. Forward movement is assisted by disk brush rotation.

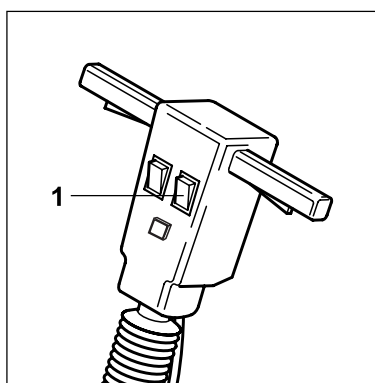
**4.2 Monitoring operation**  
**4.2.1 Metering the quantity of cleaning agent**



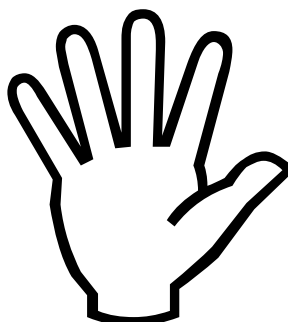
**WARNING!**

Brush must never be allowed to run dry in order to prevent damage to the floor or the machine. Add sufficient cleaning fluid during machine operation.

**4.2.2 Dirty water tank filling level**



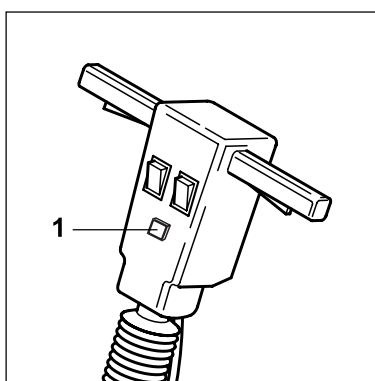
If the dirty water tank is full, the suction unit must be switched off. To do this, move „suction unit“ switch (1) to OFF.



**WARNING!**

Suction unit does not automatically switch off when dirty water tank is full! Always empty dirty water tank when filling fresh water tank for this reason.

**4.2.3 SSB 430**  
**Battery warning lamp**



If the red battery warning lamp (1) illuminates, the battery has low charge and the machine switches off after approx. 3 minutes.

1. Pick up remaining water and stop working.
2. Charge battery.

# 5 Application areas and working methods

## 5.1 Working methods

Effective cleaning is achieved by following a few guidelines, combined with your own experience in particular areas.

Correct use of special accessories will increase the cleaning effect. Some basic instructions can be found below.

## 5.2 Possible applications

The machine is suitable for:

- Cleaning water-resistant hard floor coverings up to an area of approx. 850 m<sup>2</sup>.
- Maintenance cleaning (MC). Daily wet cleaning of floor coverings.
- Basic cleaning (BC). Removal of dirt layers and protective films.

## 5.3 Application examples

Floor covering	Tool	Cleaning agent
PVC coated floor covering (BC)	Driving disk and pad, dark brown	Alto Tornado/Alto Combi Active
PVC coated floor covering (MC)	Standard scrubbing brush	Alto Top Wash
Linoleum (BC)	Driving disk and pad, blue	Alto Intensive
Linoleum (MC)	Standard scrubbing brush	Alto Top Wash
Polishing coated hard floors	Driving disk and pad, white/red	Alto Pro Gloss
Polishing natural stone	Standard scrubbing brush	Alto Quick Fresh

## 5.4 Accessories

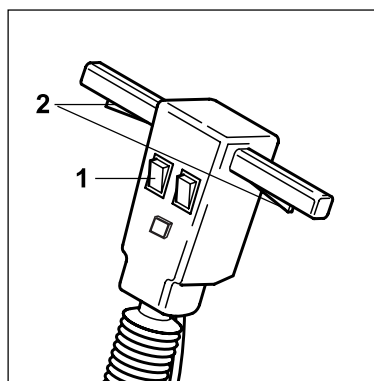
	No.
Standard scrubbing brush	63239
Combination abrasive brush	63238
Driving disk	63240
Pad, white	976052
Pad, red	976053
Pad, blue	976054
Pad, bark brown	976055
Batterie 70 Ah (maintenance-free)(SSB 430)	2 x 7116162
Battery charger 70 Ah (SSB 430)	7116105
Batterie 95 Ah (semitraction) (SSB 430)	7116006
Battery charger 95 Ah (SSB 430)	7116106

## 5.5 Cleaning agents (approx. pH value with 1% solution)

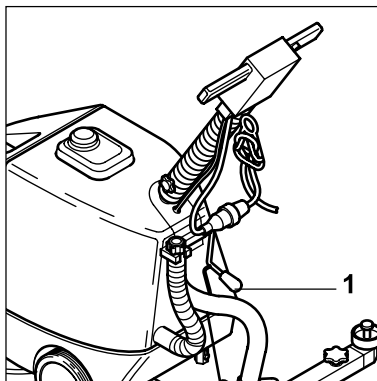
Packaging		No.
Alto Tornado, alkaline cleaner	10 l, pH value 11	80940
	25 l, pH value 11	81230
	220 kg, pH value 11	80491
Alto Combi Active, alkaline cleaner	10 l, pH value 13	81172
	25 l, pH value 13	81229
	220 kg, pH value 13	8316
	1000 kg, pH value 13	81053
Alto Top Wash, universal cleaner for hard and textile surfaces for regular MC	6 x 1 l, pH value 8	8467
	10 l, pH value 8	80937
Alto Pro Gloss; produces self-glossing protective layer after drying	10 l, pH value 7	81078
Alto Quick Fresh, alcohol cleaner for MC	10 l, pH value 7	81074
	25 l, pH value 7	81226
Alto Intensive, weak alkaline cleaner	10 l, pH value 9.3	81137
	25 l, pH value 9.3	81227
	220 kg, pH value 9.3	80804
	1000 kg, pH value 9.3	80840
Alto Odour Stop, biologically based neutral anti-odour agent	1 l	81176
	25 l	29813

## 6 After use

### 6.1 Switching off

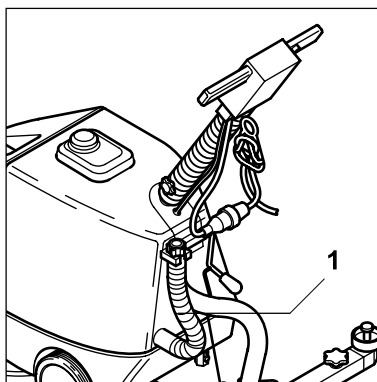


1. Move „Cleaning agent supply“ (1) switch to OFF.
2. Continue to move 5-6 m until remaining water has been picked up from floor.
3. Release hand switch (2), and brush drive switches off.



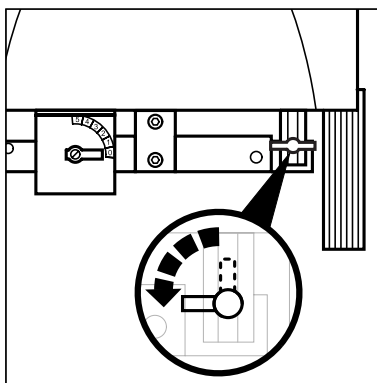
4. Raise suction nozzle using lever (1).
5. Allow suction unit to run for an additional **3 minutes** with tank lid open. Dry ambient air increases service life.
6. Move „suction unit“ switch to OFF.
7. Disconnect mains/battery plug.

**6.2 Emptying and cleaning dirty water tank**



1. Empty dirty water via drain hose (1).
2. Flush out dirty water tank with clean water (max. 40°C).
3. Firmly close drain hose after emptying and hook into bracket.

**6.3 Emptying and cleaning fresh water tank**



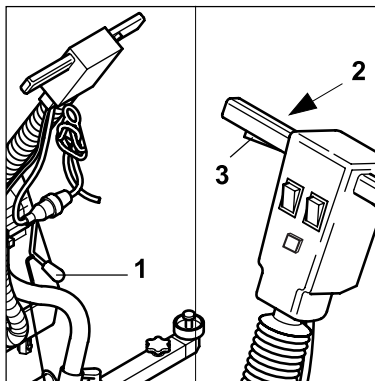
1. Empty fresh water tank using drain tap (SSE 430 only).
2. Flush out fresh water tank with clean water (max. 40°C).
3. Close drain tap after emptying.

**6.4 Cleaning suction nozzles**

1. Check suction nozzle wiper lips for contamination (paper, cigarette ends, sand etc.)
2. Clean wiper lips with water and cloth.

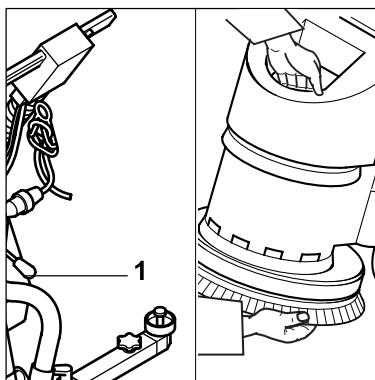
**6.5 Removing and cleaning the cleaning tools**

**6.5.1 SSE 430**



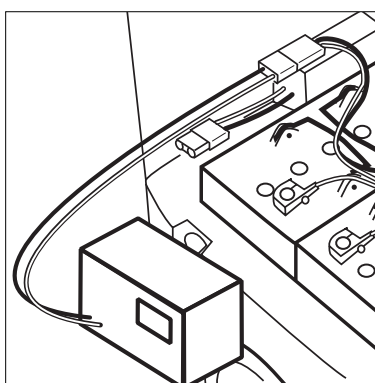
1. Connect to power supply.
2. Lift suction nozzle using lever (1).
3. Tilt machine backward until brush or pad is no longer touching the floor.
4. Press release switch (2) and briefly press hand switch (3).
5. Cleaning tool is released automatically from its mounting.
6. Disconnect from mains.
7. Clean cleaning tool (brush or pad) with clean water.

**6.5.2 SSB 430**



1. Lift suction nozzle using lever (1).
2. Reach into fresh water tank through opening and lift automatic cleaning machine.
3. Release brush/pad by turning firmly in a clockwise direction and remove.
4. Clean cleaning tool (brush or pad) with clean water.

**6.6 Charging the battery (SSB 430)**



1. Tilt up dirty water tank.
2. Disconnect battery connecting plug.
3. Attach battery connecting plug to charger.
4. Connect charger to power supply and switch on.



**6.7 Storage**

1. Wash visible soiling from machine using fresh water.
2. Store machine in a dry place, protected from frost.
3. Safeguard from unauthorised use.

**WARNING!**

Protect machine from frost at temperatures near freezing point:

1. Pour antifreeze into tank and briefly operate machine so that antifreeze flows through all piping.
2. Completely drain the tanks.

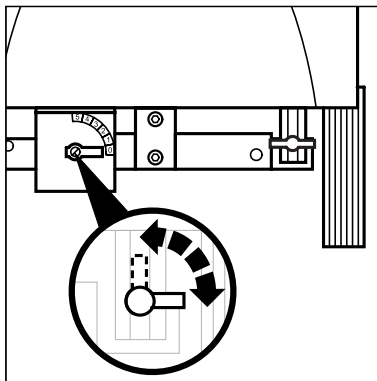
# 7 Maintenance

**7.1 Maintenance plan**

	After every use	Weekly	When required
Flush piping system thoroughly with clean water	●		
Flush fresh water and dirty water tanks with clean water	●		
Clean fresh water filter		●	
Clean dirty water filter	●		
Inspect suction lips for wear, clean and replace if necessary	●		
Replace disk brush			●
Check electric cables for wear	●		
Charge battery			●

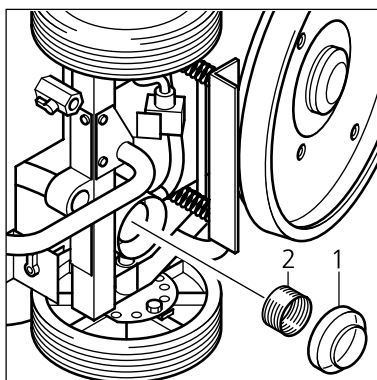
**7.2 Maintenance work**

**7.2.1 Flushing piping system with clean water**



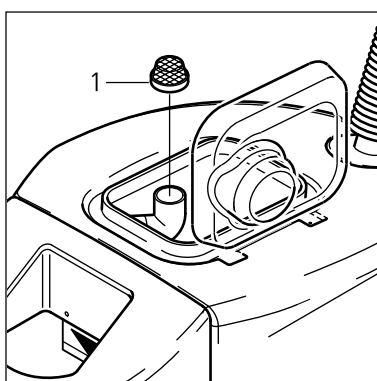
1. Pour approx. 3 l of clean water into empty fresh water tank.
2. Connect to power supply.
3. Fit disk brush.
4. Set „cleaning agent supply“ switch to ON.
5. Move metering lever to position „4“.
6. Operate machine briefly, collect escaping water or pick up using the machine.

**7.2.2 Cleaning fresh water filter**



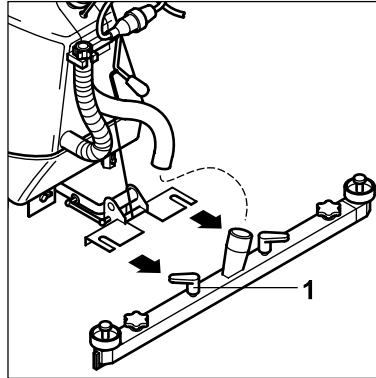
1. Empty dirty water tank.
2. Empty fresh water tank.
3. SSB 430: Remove battery.
4. Remove suction nozzle.
5. Put machine on its side.
6. Unscrew lid (1).
7. Remove filter (2) and flush out with fresh water.
8. After cleaning, replace filter and screw lid on.
9. Place machine in upright position.
10. Fit suction nozzle.

**7.2.3 Cleaning dirty water filter**

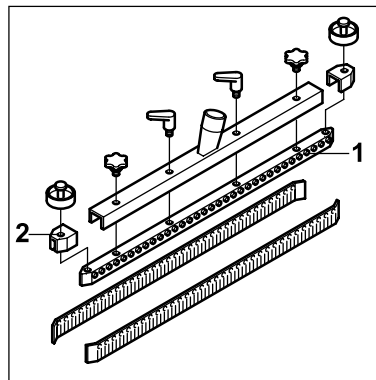


1. Open tank lid.
2. Remove filter (1) and rinse with fresh water.
3. Replace after cleaning and gently press into position.

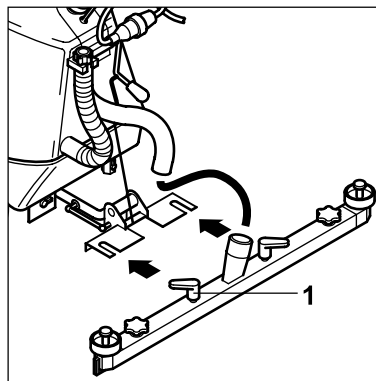
### 7.2.4 Replacing suction lips



1. Pull suction hose from suction nozzle.
2. Open quick-release lever at suction nozzle.
3. Remove suction nozzle.



4. Slacken 6 screws at both sides.
5. Remove side covers (2)
6. Pull out suction lip holder (1)
7. Place new suction lips on the pins.
8. Insert suction lip holder into suction nozzle and assemble in reverse order.



9. Insert suction nozzle into suction nozzle holder.
10. Tighten quick-release lever (1).
11. Push suction hose onto suction nozzle fitting.

### 7.2.5 Maintenance by Alto customer service

Maintenance service after approx. 200 hours of operation.

General service every 600-1000 hours of operation, depending on condition and deployment of machine.

Safety inspection of electrical components.

**7.3 Handling instructions for sealed, maintenance-free batteries and wet batteries**

Only carry out work on batteries in accordance with instructions from specialists.

Wear protective goggles and clothing when working on batteries.

Observe the accident prevention regulations and DIN VDE 0510 and DIN VDE 0105, part 1.

Smoking is prohibited. Keep battery away from naked flames, glowing objects and sparks, as otherwise there is a danger of explosion or fire.

Rinse any acid splashed into eyes or onto skin out or off with plenty of clean water. Then consult a doctor immediately.

Wash out clothing contaminated with acid with water.

Avoid short circuits!  
Explosion and fire hazard!

**WARNING!**

Metal parts in the battery cells are always live. Therefore, do not lay objects or tools on the battery.

Electrolyte is extremely caustic. Contact with the electrolyte is not possible during normal operation.

In the event of destruction of the casing of maintenance-free batteries, the bound electrolyte released is just as caustic as liquid electrolyte.

Acid and/or batteries filled with acid must not be handled by children.

Use only approved lifting and transport equipment, e.g. lifting tackle in accordance with VDI 3616.

Lifting hooks must not cause damage to cells, connectors or connection cables.

**Putting into operation**

The batteries are to be checked to ensure proper mechanical condition.

Connection leads and charging plugs are to be connected to the proper terminals, as otherwise the batteries and the charging set may be destroyed.

The connection with the connecting leads of the machine and/or the charging set may take place only with the mains switch and/or with the charging set switched off.

**Maintenance-free, sealed batteries**

The batteries are to be recharged before being put into operation.

**Wet batteries**

For reasons of durability unfilled, pre-charged wet batteries should be filled only immediately before insertion. Following this recharging is to be carried out.

Observe the respective manufacturer's instructions when doing so.

**Operation**

DIN VDE 0510 part 3 applies to the operation of batteries for powering vehicles.



## Discharging

The vent apertures in the machine must not be closed or covered.

Opening or closing of electrical connections (e.g. plugs, connection leads) may take place only in the currentless state with the mains switch switched off.

In order to reach an optimum service life, discharges are permissible only up to the point at which a certain residual capacity is reached.

In order to avoid total discharges, the controls of the machine contain an automatic switch-off device which switches off the main consumer in good time when the cut-off voltage is reached and signals this by means of a red warning lamp.

Discharged batteries are to be charged immediately and must not be left in the discharged state. This also applies after partial discharging.

## Charging

### WARNING!

Only used chargers approved by Alto for charging.

## Maintenance

### Maintenance-free, sealed batteries

### Wet batteries

### Daily

- Charge battery after every discharge.

### Weekly

- Visual inspection for dirt and mechanical damage.
- Grease terminals with terminal grease (Vaseline) and check to ensure firm fit.

In the case of maintenance-free batteries, no topping up with water is required for the entire service life.

In the case of wet batteries, the water consumption is influenced by the operating conditions and the charging set used. The water level should not fall below the minimum mark (top edge of separator). If necessary, top-up with distilled water again after charging.

## Care

The battery is to be kept clean and dry at all times in order to avoid leak currents and sparking.

For cleaning, remove batteries, wear protective goggles and protective clothing. Select the place of installation so that dirty rinsing water produced during cleaning is channelled to a suitable waste water treatment plant.

The cell plugs must not be unscrewed. The plastic parts of the batteries may only be cleaned with water or cleaning cloths soaked in water without additives. After cleaning, the surface of the battery is to be dried (compressed air, cleaning cloths).

**Storage**

If batteries are taken out of service for any length of time, they are to be stored fully charged in a frost-free room. Due to the batteries' spontaneous discharging, recharging must be carried out at regular intervals.

**Maintenance-free, sealed batteries**

Maintenance-free batteries are to be recharged at quarterly intervals.

**Wet batteries**

Wet batteries are to be recharged at least once a month.

**Faults**

If faults are found, the customer service staff must be informed immediately.

**Disposal**

Old batteries bearing recycling symbols are re-usable commercial goods and must be channelled to the recycling process. All other batteries are to be disposed of as hazardous waste in accordance with regulations.

**Warranty**

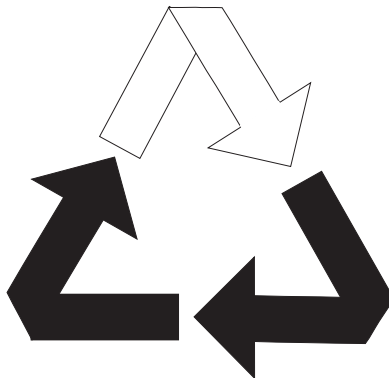
Failure to comply with handling instructions, carrying out repairs using non-original spare parts and attempts to carry out the repairs by the user lead to a loss of the right to make claims under the warranty.

# 8 Troubleshooting

Fault	Cause	Remedy
<b>Machine will not work</b>	<ul style="list-style-type: none"> <li>&gt; Machine not connected to power supply.</li> <li>&gt; Internal fuse or FI protection switch has activated.</li> <li>&gt; Power supply interrupted.</li>   <li>&gt; Brush motor protection switch has activated.</li>   <li>&gt; SSB 430: Discharge signal transmitter has activated.</li> </ul>	<ul style="list-style-type: none"> <li>• Plug machine into power supply.</li> <li>• Check internal fuse and FI protection switch.</li> <li>• Have supply checked by authorised specialist.</li> <li>• Allow motor to cool, press motor protection switch pushbutton, put less fresh water into the tank.</li> <li>• Charge battery.</li> </ul>
<b>Inadequate suction force</b>	<ul style="list-style-type: none"> <li>&gt; Suction hose and suction nozzle is blocked with dirt residue or hose is not securely inserted into suction nozzle.</li> <li>&gt; Filter in dirty water tank is blocked.</li> <li>&gt; Tank lid not closed or lid seals defective.</li> <li>&gt; Dirty water drain hose not closed.</li> <li>&gt; Wrong suction nozzle angle.</li> </ul>	<ul style="list-style-type: none"> <li>• Attach suction hose, remove blockage.</li>   <li>• Clean filter.</li>   <li>• Close tank lid or replace seals.</li> <li>• Close fastener.</li>   <li>• Adjust suction nozzle angle. (see chapter 3.3)</li> </ul>
<b>Insufficient cleaning agent supply</b>	<ul style="list-style-type: none"> <li>&gt; Cleaning agent residue in piping system.</li> <li>&gt; Fresh water filter blocked.</li> <li>&gt; Water metering lever (pos. 0) closed.</li> <li>&gt; Fresh water supply hoses kinked.</li> </ul>	<ul style="list-style-type: none"> <li>• Flush fresh water tank and piping.</li> <li>• Clean filter.</li> <li>• Move lever to pos. 1 to 4.</li>   <li>• Inspect hoses.</li> </ul>
<b>Suction nozzle making stripes</b>	<ul style="list-style-type: none"> <li>&gt; Worn suction lips.</li> <li>&gt; Dirt residue under suction lips.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace suction lips.</li> <li>• Clean suction lips.</li> </ul>

# 9 Other

## 9.1 Taking machine for recycling



Make decommissioned machine unusable immediately.

1. Disconnect mains/battery plug and cut off connecting cable.

The machine contains valuable substances that should be recycled. Please therefore use your communal disposal point when disposing of the machine. If you have questions, please contact your local administration or your nearest dealer.

## 9.2 Warranty

Our general business terms and conditions apply regarding the warranty and guarantee. Right reserved to make modifications due to technical developments.

## 9.3 Testing and certifications



Electrotechnical testing must be performed in accordance with the accident prevention regulations (VBG4) and DIN VDE 0701 parts 1 and 3. These tests are required at regular intervals in accordance with DIN VDE 0702 and after repairs or modifications.

Observe national regulations!



## 9.4 Technical Data

		SSE 430	SSB 430
Voltage	Volt	230	24 DC
Mains frequency	Hz	50/60	-
Power consumption	Watt	2000	1300
Total rating/protection	Watt/A	2000/16	-
Suction width	cm	70	70
Working width	cm	43	43
Vacuum max.	mbar	180	110
Fresh water sack	l	35	33
Dirty water tank	l	35	33
Brush speed	1/min	180	180
Number of brushes		1	1
Mains connecting cable	m	1	-
Protection class		I	-
Protection type		IP X4	IP X3
Radio interference level		EN 50081	-
Length	mm	930	1100
Width	mm	475	480
Height	mm	810	1050
Weight	kg	62	122

## 9.5 EC Conformance Declaration

 <b>EC Conformance Declaration</b>	
ALTO Deutschland GmbH Guido-Oberdorfer-Straße 2-8 D-89287 Bellenberg	
<b>Product:</b>	Automatic scrubbing and vacuum cleaning machine
<b>Type:</b>	SSE 430                      SSB 430
<b>Description:</b>	220-240 V~ / 50 Hz      24 V=
<b>The design of the equipment conforms to the following relevant regulations:</b>	EC Machine Directive    98/37/EWG EC Low Voltage Directive 73/23/EWG EC EMC Directive         89/336/EWG
<b>Harmonised standards applied:</b>	EN 292-1, EN 292-2 EN 60335-2-72 EN 55014-1, EN 55014-2
<b>National standards and technical specifications applied:</b>	DIN EN 60335-2-72 IEC 335-2-72
 Dipl.-Ing. Wolfgang Nieuwkamp Testing and Certification	
Bellenberg, 22.04.2002	

**INTERNET**

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

**ALTO HEADQUARTERS**

Incentive International A/S  
Kongens Nytorv 28  
P.O.Box 2064  
1013 Copenhagen K  
Tel.: +45 33 11 11 42  
Fax: +45 33 93 46 36  
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 16 67 40 26  
Fax: +55 4 16 67 47 99  
E-mail: [wap@wapltda.com.br](mailto:wap@wapltda.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  
Industrivarveret  
9560 Hadsund  
Tel.: +45 7218 21 00  
Fax: +45 7218 21 05  
E-mail: [salg@alto-dk.com](mailto:salg@alto-dk.com)

ALTO Danmark A/S (food division)  
Blytækervej 2  
9000 Aalborg  
Tel.: +45 7218 21 00  
Fax: +45 7218 20 99  
E-mail: [scanio.technology@alto-dk.com](mailto:scanio.technology@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**

Wap ALTO Group  
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)

**JAPAN**

ALTO Danmark A/S Japan  
Representative Office  
5-2, Sakyo 1-Chome  
631-0801 Nara City  
Tel.: +81 742 72 0555  
Fax: +81 742 72 0555  
E-mail: [alto-jpn@nifty.com](mailto:alto-jpn@nifty.com)

**NETHERLANDS**

ALTO Nederland B.V.  
Postbus 65  
3370 AB Hardinxveld-  
Giessendam  
Tel.: +31 18 46 67 72 00  
Fax: +31 18 46 67 72 01  
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 2 68 10 06  
Fax: +65 2 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 24 23 42  
Fax: +368 15 40 42 94  
E-mail: [wap.prodaja@siol.com](mailto:wap.prodaja@siol.com)

**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 Iberica S.L.  
Calle de la Majada No. 4  
28760 Tres Cantos - Madrid  
Tel.: +34 91 8 04 62 56  
Fax: +34 91 8 04 64 63  
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 U.S.Inc  
16253 Swingley Ridge Road  
Suite 200  
Chesterfield, MO 63017-1544  
Tel.: +1 636 5 30 08 71  
Fax: +1 636 5 30 08 72  
E-mail: [info@alto-us.com](mailto:info@alto-us.com)

ALTO U.S.Inc  
2100 Highway 265  
Springdale, Arkansas 72764  
Tel.: +1 479 7 50 10 00  
Fax: +1 479 7 56 07 19  
E-mail: [info@alto-us.com](mailto:info@alto-us.com)

ALTO U.S.Inc  
1100 Haskins Road  
Bowling Green, Ohio 43402  
Tel.: +1 419 3 52 75 11  
Fax: +1 419 3 53 71 87  
E-mail: [info@alto-us.com](mailto:info@alto-us.com)