Contents

1 Important safety instructions ................................................................. 2

2 Description
   2.1 Purpose .......................................................................................... 4
   2.2 Operating elements ...................................................................... 4

3 Before starting the cleaner
   3.1 Setting up the cleaner .................................................................. 5
   3.2 Fill up detergent tank\(^1\) ............................................................. 5
   3.3 Connecting the high pressure hose .............................................. 5
   3.4 Connecting the water supply ....................................................... 6
   3.5 Electrical connection .................................................................. 6

4 Control / Operation
   4.1 Connections ................................................................................ 7
   4.2 Switching on the cleaner ............................................................ 7
   4.3 Pressure regulation (Tornado Lance) ......................................... 8
   4.4 Pressure regulation with the FlexoPowerJet nozzle ................. 8
   4.5 Using cleaning agents ............................................................... 8

5 Applications and methods
   5.1 Techniques ................................................................................ 9
   5.2 Some typical cleaning tasks ....................................................... 10

6 After using the cleaner
   6.1 Switching off the cleaner .......................................................... 11
   6.2 Disconnecting supply lines ....................................................... 11
   6.3 Rolling up the electrical lead and storing accessories ......... 12
   6.4 Storing the cleaner (below 0°C) ................................................. 12

7 Maintenance
   7.1 Maintenance plan ....................................................................... 12
   7.2 Maintenance work ..................................................................... 13

8 Troubleshooting .................................................................................. 14

9 Further information
   9.1 Recycling the cleaner ............................................................... 15
   9.2 Guarantee .................................................................................. 15
   9.3 EU Declaration of Conformity ................................................... 15
   9.4 Technical Data .......................................................................... 16

\(^1\) Options / model variants
1 Important safety instructions

For your own safety

The high-pressure cleaner may only be used by persons instructed in its use and who have been expressly authorised to do so.

Although extremely easy to operate, children should not be allowed to use the cleaner.

General

Use of the high-pressure cleaner is subject to the applicable local regulations. Besides the operating instructions and the binding accident prevention regulations valid in the country of use, observe recognised regulations for safety and proper use. Do not use any unsafe work techniques.

Transport

Transport of the high-pressure cleaner is easy on its large wheels.

For safe transport in and on vehicles we recommend to prevent the equipment from sliding and tilting by fixing it with belts.

Transport (when tilted):
– do not tilt the machine on the front with the water connections.
– remove suction hose from the detergent tank and close tank filler with the cap provided with the machine.
– before putting the cleaner into operation: pay attention to allow the pump oil to run back into the pump housing. Check oil level, top up if necessary.

For transport at temperatures around or below 0°C, anti-freeze should be drawn into the pump beforehand (see chapter 6).

Before starting the cleaner

If your 3-phase cleaner was supplied without a plug, have it fitted with a suitable 3-phase plug with earth conductor, by an electrician.

Before use, check that the high-pressure cleaner is safe and in proper condition. Regularly check whether the power cord is damaged or shows signs of ageing. Use the high-pressure cleaner only when the mains power lead is in a safe condition. (risk of electric shock if damaged!).

Check the rated voltage of the high-pressure cleaner before connecting it to the mains power supply. Ensure that the voltage shown on the rating plate corresponds to the voltage of the local mains power supply. We strongly recommend that the power supply to the high-pressure cleaner be connected via a residual current circuit breaker. This device stops the supply of...
electricity if the leakage current to earth exceeds 30 mA for 30 ms or it has an earth tester circuit.

Operate the cleaner only in an upright position!

Please observe the regulations and provisions applicable in your country. Before putting the high-pressure cleaner into service, carry out a visual check of all the major components.

CAUTION!
High-pressure water jets can be dangerous if misused. The jet must not be directed at persons, animals, live electrical equipment or the cleaner itself. Wear appropriate protective clothing and eye protectors.

Do not direct the jet towards yourself or towards other persons in order to clean clothes or footwear.

During operation of the cleaner, recoil forces are produced at the spraying device and, when the spray lance is held at an angle, a torque is also created. The spraying device must therefore be held firmly in both hands.

Do not use the cleaner when other people without protective clothing are in the working area.

Check that cleaning will not result in dangerous substances (e.g. asbestos, oil) being washed off the object to be cleaned and harming the environment.

Do not clean delicate parts made of rubber, fabric, etc. with the 0° jet. Keep some distance between high pressure nozzle and surface in order to prevent the surface from damage.

Do not use the high-pressure hose for lifting loads.

NOTE!
The maximum permissible working pressure and temperature are printed on the high-pressure hose.

Do not continue to use the cleaner if the mains power lead or high-pressure hose is damaged.

Ensure adequate air circulation. Do not cover the cleaner or operate it in inadequately ventilated rooms!

Store the cleaner where it will not be exposed to frost!

Never operate the cleaner without water. Even brief shortages of water result in severe damage to the pump seals.

Water connection
This high pressure washer is only allowed to be connected with the drinking water mains, when an appropriate backflow preventer has been installed, Type BA according to EN 1717. The backflow preventer can be ordered under number 10641117, 106411178, 106411179, 106411184. The length of the hose between the backflow preventer and the high pressure washer must be at least 12 metres (min diameter 3/4 inch) to absorb possible pressure peaks. Operation by suction (for example from a rainwater vessel) is carried out without backflow preventer. Recommended suction set: 61256. As soon as water has flown through the BA valve, this water is not considered to be drinking water any more.

Operation
CAUTION!
Unsuitable extension leads can represent a source of danger. Always unwind cord from the reels completely to prevent the power cord overheating.

Plugs and connectors of mains power leads must be at least splash water-proof.

When using an extension cord, check the minimum cross-sections of the cable:

<table>
<thead>
<tr>
<th>Cable length m</th>
<th>Cross section</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;16 A</td>
</tr>
<tr>
<td>up to 20</td>
<td>ø1.5mm²</td>
</tr>
<tr>
<td>20 to 50</td>
<td>ø2.5mm²</td>
</tr>
</tbody>
</table>

Do not damage the mains power lead (e.g. by driving over it, pulling or crushing it). Disconnect the power cord by pulling the plug only (do not pull or tug the power cord).

Electrical equipment

CAUTION!
Never spray electrical equipment with water: danger for persons, risk of short-circuiting.

The cleaner may only be connected to a correctly installed plug socket.

Switching on the cleaner may cause voltage fluctuations. Voltage fluctuations should not occur if the impedance at the transfer point is less than 0.15Ω. If in doubt ask your local electricity supplier.

Maintenance and repair

CAUTION!
Always remove the plug from the mains plug socket before cleaning or carrying out maintenance work on the cleaner.

Carry out only the maintenance operations described in the operating instructions. Use only original Nilfisk-Alto spare parts. Do not make any technical modifications to the high-pressure cleaner.

Ensure that the machine is regularly serviced by Authorised
2 Description

2.1 Purpose

This high-pressure cleaner has been designed for professional use in:

- agriculture
- industry
- transport industry
- automotive cleaning
- municipal facilities
- cleaning trade
- construction industry
- food industry
- etc.

Chapter 5 describes the use of the high-pressure cleaner for various cleaning jobs.

Always use the cleaner as described in these operating instructions. Any other use may damage the cleaner or the surface to be cleaned or may result in severe injury to persons.

2.2 Operating elements

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

1 Handle
2 Hose reel
3 Mains power lead
4 Tank filler for detergent
5 Filling of pump oil and check of oil level
6 Detergent tank
7 High pressure hose connection
8 Supply water connection with water inlet filter
9 Pressure gauge
10 Detergent metering knob
11 Main switch
12 Pressure regulation on spray lance
13 Spray lance
14 Receptacle for Spray lance
15 Spray gun
16 Detergent intake hose
17 Receptacle for electrical lead

Nilfisk-Alto dealers in accordance with the maintenance plan. Failure to do so will invalidate the warranty.

CAUTION!

High-pressure hoses, fittings and couplings are important for the safety of the cleaner. Use only high-pressure parts approved by the manufacturer!

The mains power lead must not differ from the version specified by the manufacturer and may only be changed by an electrician.

Please contact the Nilfisk-Alto service department or an authorised specialist work-shop for all other maintenance or repair work!

Testing

The cleaner conforms to the German „Guidelines for Liquid Spray Jet Devices“. The high-pressure cleaner must be subjected to a safety examination in accordance with the „Accident Prevention Regulations for Working with Liquid Spray Jet Devices“ as required, but at least every 12 months, by an authorised inspector.

After all repairs or modifications to electrical equipment, the protective conductor resistance, the insulation resistance and the leakage current must be measured. Furthermore, a visual inspection of the mains power lead, a voltage and current measurement and a function test must be carried out. Our after-sales service technicians are at your disposal as authorised inspectors.

The complete „Accident Prevention Regulations for Working with Liquid Spray Jet Devices“ are available from the Carl Heymanns Verlag KG, Luxemburger Strasse 449, 50939 Cologne or from the appropriate association of employers’ liability insurances.

Unloader valve

Unacceptably high pressure is fed back without residual pressure via a bypass line into the intake line of the pump when the safety device is tripped.

The unloader valve is set and sealed at the factory and must not be adjusted.
3 Before starting the cleaner

3.1 Setting up the cleaner

CAUTION!
Never lift the cleaner alone. Always ask a second person to help.

1. Before using the cleaner for the first time, check it carefully to detect any faults or damage.
2. In the event of any damage contact your Nilfisk-Alto dealer immediately.
3. Check the oil level by lifting off the cap. On level ground, the oil should be just visible. If necessary, add oil (see chapter 9.4 for type of oil).

3.2 Fill up detergent tank

1. Fill up detergent tank with prediluted Nilfisk-Alto detergent. Capacity see chapter 9.4 Technical Data.
2. Pull detergent filter out of the storage and put it through the opening of the detergent tank filler cap.

3.3 Connecting the high pressure hose

3.3.1 Machines without high pressure hose reel

1. Put the quick connector of the high pressure hose onto the nipple on the cleaner.

NOTE!
The maximum length of high pressure hose is 50m.

3.3.2 Machines with high pressure hose reel

1. Put the quick connector of the high pressure hose (A) onto the nipple on the axle.
2. Put the high pressure hose into the hose guide (B) and fix it with the clip.
3. Release the brake (C) on the hose reel and wind up the high pressure hose.

1) Options / model variants
3.4 Connecting the water supply

1. Rinse the water supply hose briefly in order to prevent sand and other dirt particles entering into the machine.
2. Connect water supply hose to the machine.
3. Open water tap.

NOTE!
See chapter 9.4 Technical Data for required quantity of water and water pressure. In the case of poor water quality (sand, etc.), we recommend that a fine water filter is fitted in the water inlet.

We recommend the use of a textile-reinforced water hose with a nominal diameter of min. 3/4" (19 mm).

3.5 Electrical connection

CAUTION!
Before connecting devices with voltage changeover: Check that the pre-selected voltage on the machine corresponds with the voltage of the electrical installation. Otherwise the electrical devices of the machine can be destroyed.

CAUTION!
When using a cord reel:
1. Release brake of the cord reel.
2. Unwind the cord completely.

CAUTION!
The cleaner may only be connected to a correctly installed electrical installation.

1. Observe safety instructions in chapter 1.
2. Put the plug into the electrical socket.
4 Control / Operation

4.1 Connections
4.1.1 Connecting the spray lance to the spray gun

1. Pull the blue quick-release grip (A) of the spray gun forwards and lock it by turning it to the left.
2. Insert the nipple of the spray lance (C) into the quick-release connection and turn the blue quick-release grip to the right (B).
3. Pull the spray lance (or other accessory) forwards to check that it is securely attached to the spray gun.

NOTE!
Always remove any dirt from the nipple before connecting the spray lance to the spray gun.

4.2 Switching on the cleaner
4.2.1 Switching on the cleaner when it is connected to a water supply

1. Main switch
   Turn the switch to position „I“.
2. Unlock the spray gun and operate it.
3. Lock the spray gun even during short pauses.

NOTE!
Operate the spray gun several times at short intervals to vent the system.

The cleaner switches off automatically after the spray gun has been closed. To start the cleaner again, operate the spray gun.

NOTE!
DSS-models switch off with a delay of 20 seconds.

4.2.2 Switching on the cleaner when it is connected to open tanks (suction mode)

1. Before connecting the suction hose to the cleaner, fill the hose with water.
2. Main switch
   Turn the switch to position „I“.
3. Unlock the spray gun and operate it.
   Max. suction height (primed) = 2.5 m.
### 4.3 Pressure regulation (Tornado Lance)

1. Turn the twist grip on the spray unit:
   - **High pressure** = clockwise (+)
   - **Low pressure** = anticlockwise (−)

### 4.4 Pressure regulation with the FlexoPowerJet nozzle

1. Twist cap of the FlexoPowerJet nozzle:
   - **High pressure** = MAX.
   - **Low pressure** = MIN. (CHEM)

### 4.5 Using cleaning agents

Cleaning agent can be drawn in via the injector installed as standard only in low-pressure mode:

1. Dilute cleaning agent according to the manufacturer’s instructions. Capacity see chapter 9.4 Technical Data.
2. Tornado lance:
   - Set pressure regulation on spray lance to low pressure (−), or
   - FlexoPowerJet nozzle:
     - Turn cap of the FlexoPowerJet nozzle towards „CHEM“ up to the stop.
3. The intaken volume of cleaning agent can be regulated by turning the metering valve.
4. Main switch
   - Turn the switch to position „I“.
5. Operate the spray gun.

**CAUTION!**
Never allow cleaning agent to dry on the surface to be cleaned. The surface may be damaged.
# 5 Applications and methods

## 5.1 Techniques

Efficient high pressure cleaning is achieved by following a few guidelines, combined with your own personal experience of specific cleaning tasks. Accessories and detergents, when correctly chosen, can increase the efficiency of your pressure washer. Here is some basic information about cleaning.

### 5.1.1 Soaking

Encrusted or thick layers of dirt can be loosened or softened up by a period of soaking. This is for example an ideal method within agriculture – for example, within pig sties. The ideal soaking method can be achieved via use of foam or simple alkaline detergent. Let the product lie on the dirty surfaces for around 30 minutes before pressure washing. The result will be a much quicker high pressure cleaning process.

### 5.1.2 Detergent and Foam

Foam or detergent should be applied onto dry surfaces so that the chemical product is in direct contact with the dirt. Detergents are applied from bottom to top, for example on a car bodywork, in order to avoid “super clean” areas, where the detergent collects in higher concentration and streams downwards. Let the detergent work for several minutes before rinsing before rinsing but never let it dry on the surface being cleaned.

### 5.1.3 Temperature

Detergents are more effective at higher temperatures. Greases, oils and fats can be broken down more easily at higher temperatures also. Proteins can be cleaned at temperatures of around 60°C. Oils, traffic film around 70°C, and grease can be cleaned at 80°C - 90°C.

### 5.1.4 Mechanical Effect

In order to break down tough layers of dirt, additional mechanical effect may be required. Special lances and rotary or wash brushes offer this supplementary effect that cuts through dirt.

### 5.1.5 High Water Flow or High Pressure

High pressure is not always the best solution and high pressure may damage surfaces. The cleaning effect also depends upon water flow. Pressure levels of around 100 bar may be sufficient for vehicle cleaning (in association with hot water). Higher flow levels give the possibility to rinse and flush away large amounts of dirt easily.

---

*Options / model variants*
5.2 Some typical cleaning tasks

5.2.1 Agriculture

<table>
<thead>
<tr>
<th>Task</th>
<th>Accessories</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stables</td>
<td>Chemical Foam Injectors</td>
<td>1. Soaking – apply foam to all surfaces (bottom to top) and wait for approx. 30 minutes.</td>
</tr>
<tr>
<td>Pig Pens, Sties</td>
<td>Foam lance</td>
<td>2. Remove the dirt from surfaces with the high pressure lance or chosen accessory. Again, clean from bottom to top on vertical surfaces.</td>
</tr>
<tr>
<td>Cleaning of walls, floors and equipment</td>
<td>Powerspeed lance Floor Cleaner</td>
<td>3. To flush away large quantities of dirt, change to low pressure mode and use the higher flow to push away the dirt.</td>
</tr>
<tr>
<td></td>
<td>Detergents</td>
<td>4. Use recommended disinfectant products and methods to ensure hygiene. Apply DES 3000 disinfectant once the surfaces are perfectly clean.</td>
</tr>
<tr>
<td></td>
<td>Universal Alkafoam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disinfectant DES 3000</td>
<td></td>
</tr>
<tr>
<td>Machinery</td>
<td>Detergent injection</td>
<td>1. Apply detergent to vehicle or equipment surfaces in order to soften up dirt and grime. Apply from bottom to top.</td>
</tr>
<tr>
<td>Tractors ploughs etc.</td>
<td>Powerspeed lances</td>
<td>2. Proceed with cleaning using the high pressure lance. Clean again from bottom to top. Use accessories to clean in difficult to reach places.</td>
</tr>
<tr>
<td></td>
<td>Curved lances and underchassis washers Brushes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detergents</td>
<td>3. Clean fragile areas such as motors, rubber at lower pressure levels to avoid damage.</td>
</tr>
<tr>
<td></td>
<td>Aktive Shampoo</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aktive Foam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sapphire</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Super Plus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aktive Wax</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allosil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RimTop</td>
<td></td>
</tr>
</tbody>
</table>

5.2.2 Vehicle

<table>
<thead>
<tr>
<th>Task</th>
<th>Accessories</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle bodywork</td>
<td>Standard lance</td>
<td>1. Apply detergent to vehicle or equipment surfaces in order to soften up dirt and grime. Apply from bottom to top. In cases of particularly dirty vehicles, pre-spray with a product such as Allosil in order to remove traces of insects etc, then rinse at low pressure and apply normal car cleaning detergent. Let detergents settle for 5 minutes before cleaning off. Metallic surfaces can be cleaned using RimTop.</td>
</tr>
<tr>
<td></td>
<td>Detergent injection</td>
<td>2. Proceed with cleaning using the high pressure lance. Clean again from bottom to top. Use accessories to clean in difficult to reach places. Use brushes in order to add a mechanical cleaning effect. Short lances can help for cleaning of motors and wheel arches. Curved lances or undercarriage washers can be valuable for the cleaning of car underchassis and wheel arches.</td>
</tr>
<tr>
<td></td>
<td>Curved lances and underchassis washers brushes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detergents</td>
<td>3. Clean fragile areas such as motors, rubber at lower pressure levels to avoid damage.</td>
</tr>
<tr>
<td></td>
<td>Aktive Shampoo</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aktive Foam</td>
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<tr>
<td></td>
<td>Sapphire</td>
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<tr>
<td></td>
<td>Super Plus</td>
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<tr>
<td></td>
<td>Aktive Wax</td>
<td></td>
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<tr>
<td></td>
<td>Allosil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RimTop</td>
<td></td>
</tr>
</tbody>
</table>
## 5.2.3 Buildings and Equipment

<table>
<thead>
<tr>
<th>Task</th>
<th>Accessories</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>General surfaces</td>
<td>Foam injectors</td>
<td>1. Apply thick foam over the surfaces to be cleaned. Apply on dry surfaces. Apply from top to bottom on vertical surfaces. Let the foam act for up to 30 minutes for the optimal effect.</td>
</tr>
<tr>
<td>Metallic equipment</td>
<td>Standard lance</td>
<td>2. Proceed with cleaning using the high pressure lance. Use applicable accessories. Use high pressure to dislodge large amounts of incrustated dirt or grime. Use lower pressure and high water volume in order to rapidly flush away loose dirt and rinse surfaces.</td>
</tr>
<tr>
<td></td>
<td>Curved lances</td>
<td>3. Apply DES 3000 disinfectant once the surfaces are perfectly clean.</td>
</tr>
<tr>
<td></td>
<td>Tank cleaning head</td>
<td>Areas covered by amounts of loose dirt, such as animal remains in slaughterhouses, can be removed by using high water flow to flush away the dirt to evacuation pits or drains. Tank cleaning heads can be used to clean barrels, vats, mixing tanks etc. Cleaning heads may be hydraulically or electrically powered and give the possibility for automatic cleaning without a constant user.</td>
</tr>
<tr>
<td></td>
<td>Detergents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intensive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J25 Multi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Combi Aktive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alkafoam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disinfectant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DES 3000</td>
<td></td>
</tr>
<tr>
<td>Rusted or damages surfaces</td>
<td>Wet Sandblasting equipment</td>
<td>1. Connect the sandblasting lance to the pressure washer and place the suction tube in the sand.</td>
</tr>
<tr>
<td>prior to treatment</td>
<td></td>
<td>2. Always wear protective equipment during sandblasting.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Spray the surfaces to be treated with the mix of water and sand. Rust, paint etc will be stripped off.</td>
</tr>
</tbody>
</table>

These are merely several examples of cleaning tasks that can be solved by a pressure washer in association with accessories and detergents. Each cleaning task is different. Please consult your local dealer or Nilfisk-Alto representative in order to discuss the best solution for your own cleaning tasks.

### 6 After using the cleaner

#### 6.1 Switching off the cleaner

1. Turn the main switch to position „OFF“.
2. Close water tap.
3. Squeeze the spray gun handle until the cleaner is depressurised.
4. Lock the safety catch on the spray gun.

#### 6.2 Disconnecting supply lines

1. Remove the water hose from the cleaner.
2. Pull out the plug from the electrical socket.
6.3 Rolling up the electrical lead and storing accessories

**Risk of tripping!**
To prevent accidents, always carefully roll up the electrical lead.

1. Wind up the high pressure hose as illustrated.
2. Place the spray lance into the spray lance storage.

6.4 Storing the cleaner (below 0°C)

1. Store the cleaner in a dry room without danger of frost or protect as below:

**CAUTION!**
If the high-pressure cleaner is stored in a room with temperatures around or below 0°C, anti-freeze should be drawn into the pump beforehand:

1. Remove the water inlet hose from the cleaner.
2. Remove the spray lance.
3. Switch on the cleaner with the main switch in position “I” and activate trigger on the spray gun.
4. Switch off the cleaner after max. 3 minutes.
5. Connect the suction hose to the water inlet of the cleaner and place it in a tank containing anti-freeze.
6. Switch on the cleaner with the main switch in position “I”.
7. Hold the spray gun over the tank containing anti-freeze and operate it to start suction.
8. During suction operate the spray gun two or three times.
9. Switching off the cleaner
10. To avoid any risks, store the cleaner temporarily in a heated room before using it again.

7 Maintenance

7.1 Maintenance plan

<table>
<thead>
<tr>
<th></th>
<th>Weekly</th>
<th>Every 500 operating hours</th>
<th>As required</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.2.1 Cleaning water inlet filter</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>7.2.2 Checking pump oil level</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>7.2.3 Changing pump oil</td>
<td></td>
<td></td>
<td>●</td>
</tr>
</tbody>
</table>

1) Options / model variants
7.2 Maintenance work
7.2.1 Cleaning water inlet filter

A water filter is fitted on the water inlet to prevent large particles of dirt from entering into the pump.

1. Unscrew the quick-release connection if mounted.
2. Remove the filter and rinse it. Replace damaged filter. Replace damaged filter.

7.2.2 Checking the pump oil level

1. Check the oil level by lifting off the cap. On level ground, the oil should be just visible. If necessary, add oil (see chapter 9.4 for type of oil).

7.2.3 Changing the pump oil

1. Before changing the oil, allow the cleaner to become warm.
2. Remove cap.
3. Loosen and remove drain plug. Drain the oil into a suitable container (min. 1 litre) and dispose the oil in compliance with regulations.
4. Fit drain plug and refill with oil according to chapter 9.4 Technical Data.
5. Oil should just be visible in the oil container at level ground.
6. Fit the cap.

CAUTION!
Special pump oil is required if the cleaner is used near food. Please consult your Nilfisk-Alto dealer.
## 8 Troubleshooting

<table>
<thead>
<tr>
<th>Fault</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure drop</td>
<td>&gt; Air in the system</td>
<td>• Vent the system by operating the spray gun several times at short intervals. If necessary, operate the cleaner for a short time without the high-pressure hose connected.</td>
</tr>
<tr>
<td></td>
<td>&gt; High pressure nozzle blocked</td>
<td>• Clean/replace the high pressure nozzle</td>
</tr>
<tr>
<td></td>
<td>worn</td>
<td>• Top up detergent tank or set detergent metering to “0”</td>
</tr>
<tr>
<td></td>
<td>&gt; Detergent tank empty</td>
<td></td>
</tr>
<tr>
<td>Pressure fluctuations</td>
<td>&gt; Pump draws in air (only possible in suction mode)</td>
<td>• Check that the suction set is air-tight</td>
</tr>
<tr>
<td></td>
<td>&gt; Lack of water</td>
<td>• Open water tap</td>
</tr>
<tr>
<td></td>
<td>&gt; Water inlet hose is too long or its cross-section too small</td>
<td>• Use specified water inlet hose</td>
</tr>
<tr>
<td></td>
<td>&gt; Lack of water caused by blocked water filter</td>
<td>• Clean the water filter in the water connection (never work without water filter)</td>
</tr>
<tr>
<td></td>
<td>&gt; Lack of water because max. permissible suction height has not been heeded</td>
<td>• See instructions</td>
</tr>
<tr>
<td>The motor does not start when the cleaner is switched on</td>
<td>&gt; The plug is not inserted properly, i.e. there is no current</td>
<td>• Check the plug, lead and switch and if necessary have them replaced by a trained electrician</td>
</tr>
<tr>
<td></td>
<td>&gt; The mains fuse is switched off</td>
<td>• Switch on the mains fuse</td>
</tr>
<tr>
<td>When the cleaner is switched on the motor buzzes without starting</td>
<td>&gt; The mains voltage is too low or there is a phase failure.</td>
<td>• Have the electrical connection checked</td>
</tr>
<tr>
<td></td>
<td>&gt; The pump is blocked or frozen</td>
<td>• Contact the Nilfisk-Alto customer service</td>
</tr>
<tr>
<td></td>
<td>&gt; Incorrect cross-section or length of the extension lead</td>
<td>• Use lead with correct cross section or length</td>
</tr>
<tr>
<td>The motor switches off</td>
<td>&gt; The overload protection has been activated due to overheating or overloading of the motor</td>
<td>• Check that the mains voltage and the cleaner voltage are the same. Switch off the cleaner and allow it to cool for at least 3 minutes</td>
</tr>
<tr>
<td></td>
<td>&gt; High-pressure nozzle is dirty</td>
<td>• Change the high-pressure nozzle</td>
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</table>
### 9 Further information

#### 9.1 Recycling the cleaner

Make the old cleaner unusable immediately.

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

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

#### 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 EU Declaration of Conformity

**EU Declaration of Conformity**

<table>
<thead>
<tr>
<th>Product:</th>
<th>High Pressure Cleaner</th>
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<tbody>
<tr>
<td>Type:</td>
<td>POSEIDON 5</td>
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<tr>
<td>Description:</td>
<td>400 V 3~, 50 Hz, IP X5</td>
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<tr>
<td>The design of the unit corresponds to the following pertinent regulations:</td>
<td>EC Machine Directive 98/37/EEG</td>
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<tr>
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<td>EC Low-voltage Directive 73/23/EEG</td>
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<td>EC EMV Directive 89/336/EEG</td>
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<td>Applied harmonised standards:</td>
<td>EN 12100, EN 60335-2-79</td>
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<td></td>
<td>EN 55014-1, EN 55014-2, EN 61000-3-2</td>
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<tr>
<td>Applied national standards and technical specifications:</td>
<td>DIN EN 60335-2-79</td>
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<tr>
<td>Dipl. Ing. Wolfgang Nieuwkamp</td>
<td>ALTO Deutschland GmbH</td>
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<tr>
<td>Tests and approvals</td>
<td>Guido-Oberdorfer-Straße 2-8</td>
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<td></td>
<td>Bellenberg, 01.06.2006</td>
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1) Options / model variants
### Technical Data

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<tr>
<th>Poseidon 5</th>
<th>5-30</th>
<th>5-31</th>
<th>5-31 XT</th>
<th>5-32</th>
<th>5-41</th>
<th>5-47</th>
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<th>5-59</th>
<th>5-61</th>
<th>5-61 DSS</th>
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<tbody>
<tr>
<td>Voltage 220 V / 1~ / 60 Hz</td>
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<td>Vibration ISO 5349 m/s²</td>
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