Operating instructions

POSEIDON 5-6-7



Nilfisk
ALTO
works for you

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EN

DE

FR

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English **3**

Deutsch **32**

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Symbols used to mark instructions



Safety instructions in these operating instructions which must be observed to prevent risks to persons are marked with this danger symbol.



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



Before starting up your high-pressure washer for the first time, this instruction manual must be read through carefully. Save the instructions for later use.



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

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.

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!).

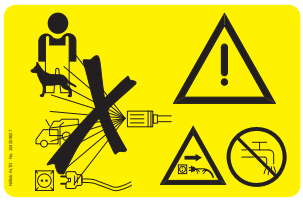
Check the rated voltage of the high-pressure cleaner before connecting it to the mains power supply. Ensure that the voltage shown on the rating plate corresponds to the voltage of the local mains power supply.
We strongly recommend that the power supply to the high pressure cleaner be connected via 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.

[1)] Options / model variants
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CAUTION!
High-pressure water jets can be dangerous if misused. The jet must not be directed at persons, animals, live electrical equip-



ment 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.

WARNING!
This machine has been designed for use with the cleaning agent supplied or recommended by the manufacturer. The use of other cleaning agents or chemicals may adversely affect the safety of the machine.
Risk of explosion – Do not spray flammable liquids.

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.
Switch off the cleaner after max. 3 minutes.

Water connection



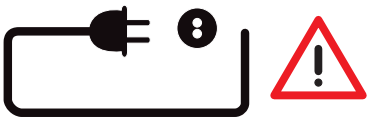
This high pressure washer is only allowed to be connected with the drinking water mains, when an appropriate backflow preventer has been installed, Type BA according to EN 1717. The backflow preventer can be ordered under number 106411177,106 411178,106411179,106411184. The length of the hose between 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.

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

[1] Options / model variants
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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 and this report must be saved.

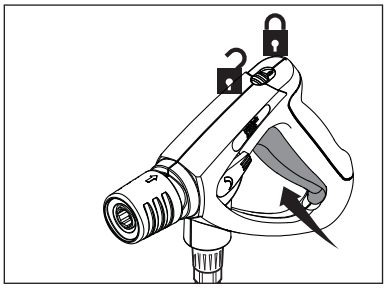
After all repairs or modifications to electrical equipment, the protective conductor resistance, the insulation resistance and the leakage current must be measured. Furthermore, a visual inspection of the mains power lead, a voltage and current measurement and a function test must be carried out. Our 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.

Safety devices
Thermal sensor:
A thermal sensor protects the motor against overloading. The machine will restart after a few minutes when the thermal sensor has cooled.
Locking device on spray gun:
The spray gun features a locking device. When the pawl is activated, the spray gun cannot be operated.

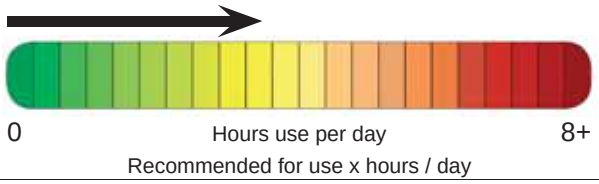
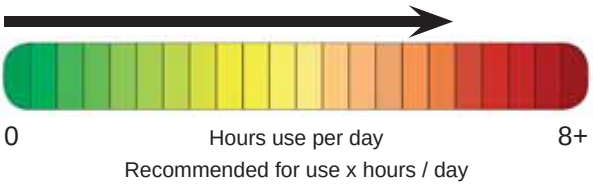
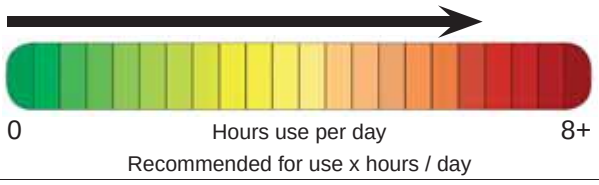


[1)] Options / model variants
Original instructions

2 Description

2.1 Use per day

We recommend these products for an optional use of approx. X-hours use per day.

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2.2 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.

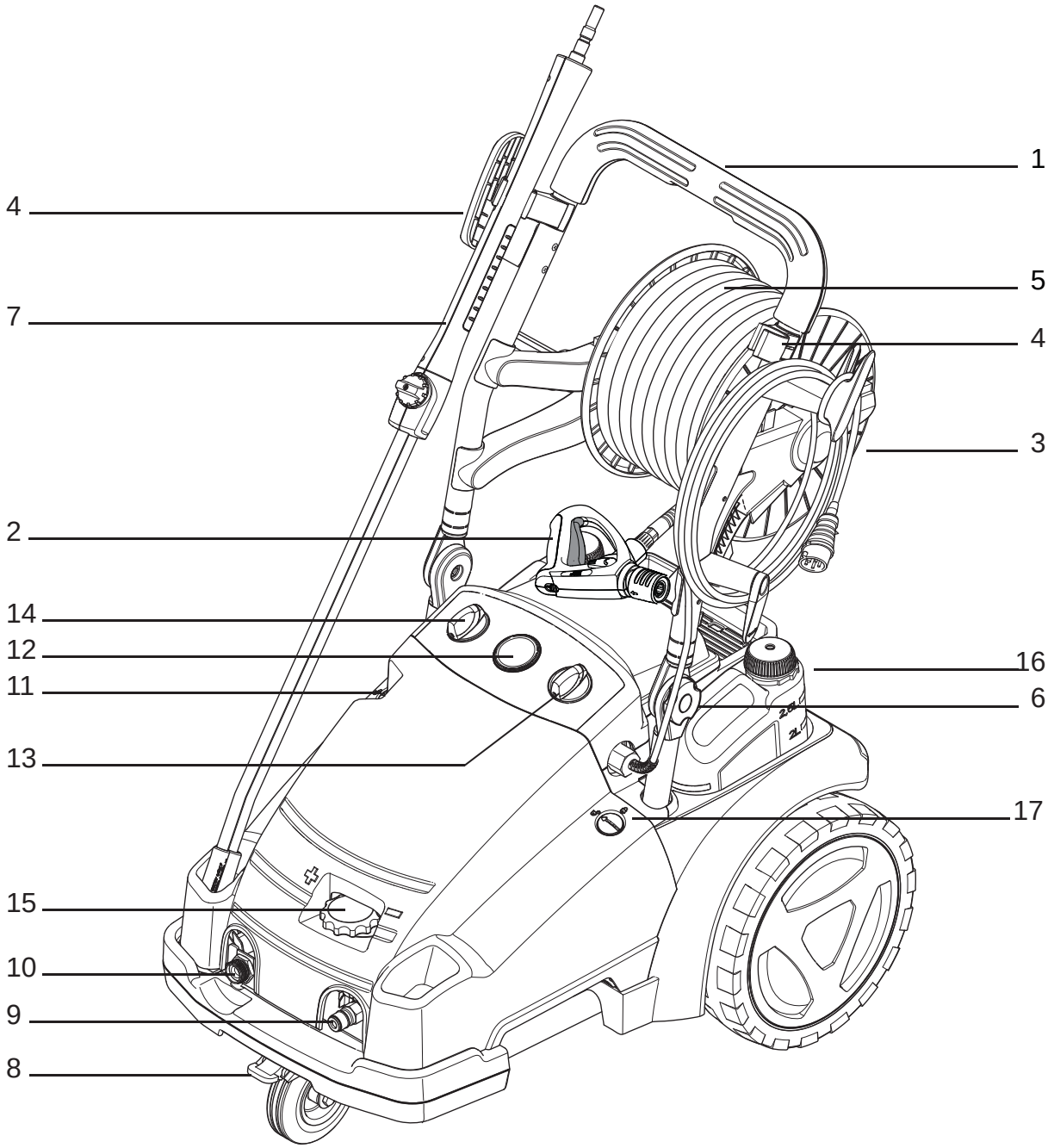
Always use the cleaner as described in these operating instructions. Any other use may damage the cleaner or the surface to be cleaned or may result in severe injury to persons.

[1)] Options / model variants
Original instructions

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2.3 Operating elements

1. Push/pull handle
2. Spray gun
3. Electrical lead
4. Holder for high pressure hose
5. High-pressure hose
6. Fastening screw
7. Lance[1)]
8. Parking brake[1)]
9. High-pressure hose connection (on standard models without hose reel)[1)]
10. Water connection and water inlet filter
11. Oil inspection slide
12. Pressure gauge[1)]
13. Main switch
14. Chemical dosing regulation[1)]
15. Water flow regulation[1)]
16. Chemical tank[1)]
17. Cover lock

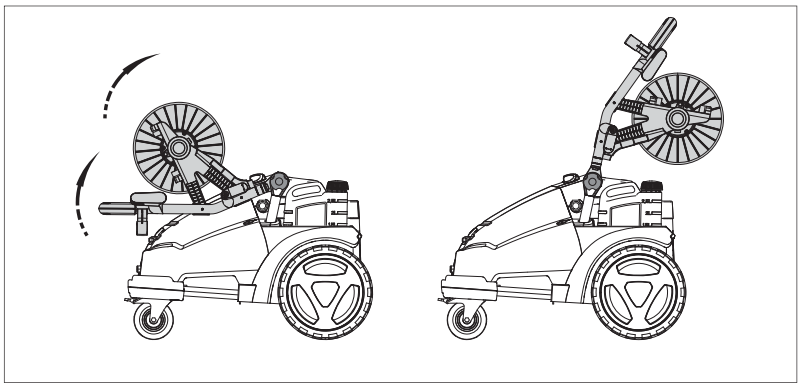


[1)] Options / model variants
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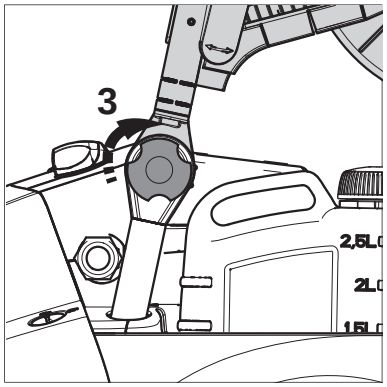
3 Before starting the cleaner

3.1 Setting up the cleaner



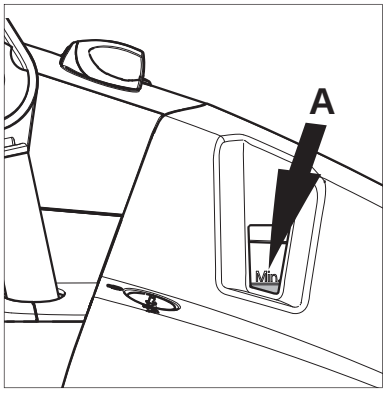
CAUTION!
Never lift the cleaner alone. Always ask a second person to help.

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. Unfold and lock the handle in working position.

3.2 Check the oil level

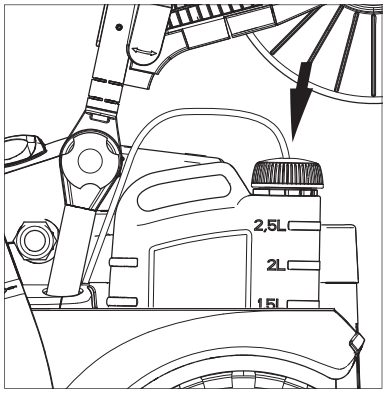


4. Check the oil level.
   On level ground, the oil should be above MIN level (A), when the oil is cold.

[1] Options / model variants
Original instructions

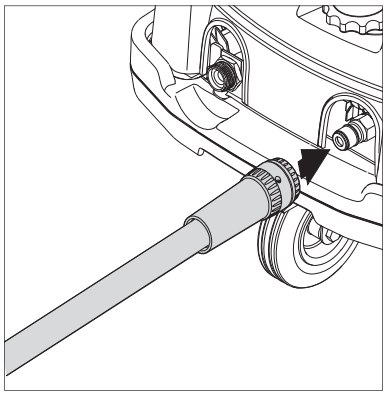
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3.3 Fill up detergent tank[1)]



1. Fill up detergent tank with prediluted Nilfisk-ALTO detergent.
2. Pull detergent hose and filter out of the storage and put it through the opening of the detergent tank filler cap.

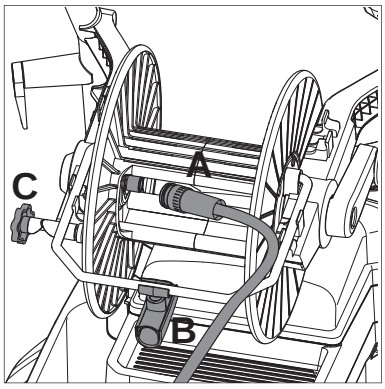
3.4 Connecting the high pressure hose
3.4.1 Machines without high pressure hose reel



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

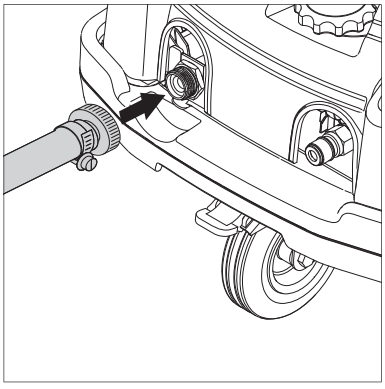
NOTE!
The maximum length of high pressure hose is 50 m.

3.4.2 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[1)].
3. Release the brake (C) on the hose reel guide[1)] and wind up the high pressure hose.

3.5 Connecting the water supply



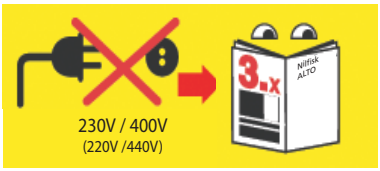
1. Rinse the water supply hose briefly in order to prevent sand and other dirt particles entering into the machine.
2. Connect water supply hose to the machine.
3. Open water tap.

[1)] Options / model variants
Original instructions

NOTE!
In the case of poor water quality (sand, etc.), we recommend that a fine water filter is fitted to the machine. Max 50 Micron filter.

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

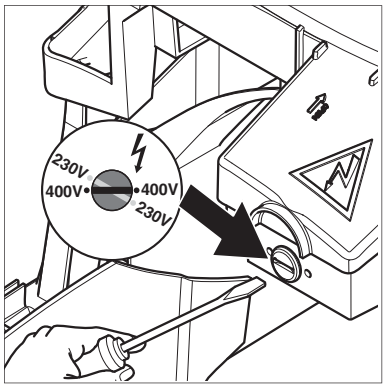
3.6 Electrical connection



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 [1].

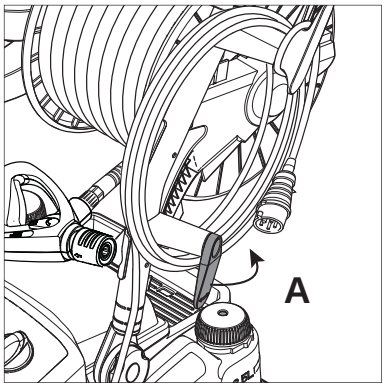
CAUTION!
When using a cord reel:
Unwind the cord completely.

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

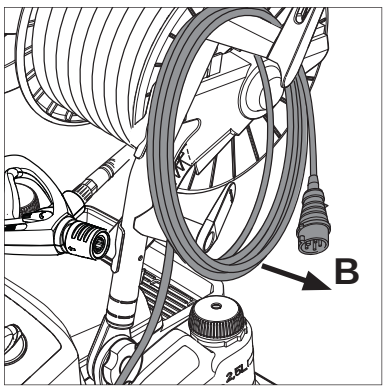


1. Observe safety instructions in chapter 1.
2. Put the plug into the electrical socket.

3.6.1 Releasing the cable



1. Turn the cable hook (A).



2. Release the cable (B).
3. Turn back the cable hook.

[1] Options / model variants

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3.7 BA valve

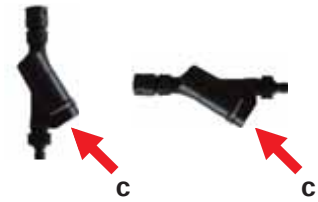


This high pressure washer/cleaner is only allowed to be connected with the drinking water mains, when an appropriate backflow preventer has been installed, Type BA according to EN 1717.

The BA valve can be ordered under number:
- BA valve including GARDENA couplings: 106411177
- BA valve including NITO couplings: 106411178
- BA valve including GEKA couplings: 106411179
- BA valve without couplings: 106411184

The couplings can be ordered under number:
- 3/4” GARDENA (a): 1608629
- 3/4” GARDENA (b): 32541
- 3/4” NITO (a): 1602945
- 3/4” NITO (b): 1600659
- 1/2” NITO (b): 1604669
- 3/4” GEKA (a): 1718
- 3/4” GEKA (b): 1311

Installation guide



1. Mount a male coupling on the water tap.
2. Connect (a) on the BA valve to the water tap.
3. Mount a female coupling on the water inlet hose.
4. Connect (b) on the BA valve to the water inlet hose.
5. Connect the water inlet hose to the high pressure washer.
6. Turn on the water and start the machine.

CAUTION

- The backflow preventer can be mounted either vertically or horizontally, and the drain opening (c) must be mounted pointing downwards.
- Water flowing from the drain opening (c) must be able to flow freely.
- If there is a risk of running sands in the inlet water (i.e. from your own well), an additional filter should be mounted between the water tap and backflow preventer.
- 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.
- As soon as water has flown through the BA valve, this water is not considered to be drinking water any more.
- Protect the backflow preventer to any exposure to frost.
- Keep the backflow preventer clean, and free of dirt.

Maintenance

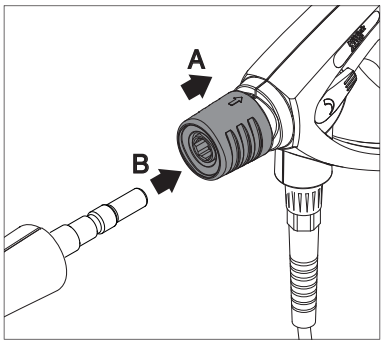
At least once a year, check the function as follows:
1. After work, switch off the high pressure cleaner.
2. Close the water tap valve.
3. Release the pressure in water the supply hose by triggering the spray pistol.
4. Dismount the backflow preventer. Water has to come out of the drain opening (c) (max. 100ml) to ensure separation of the potable water.
5. If this is not the case, try cleaning the BA valve or contact your Nilfisk-ALTO representative.

[1)] Options / model variants
Original instructions

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4 Control / Operation

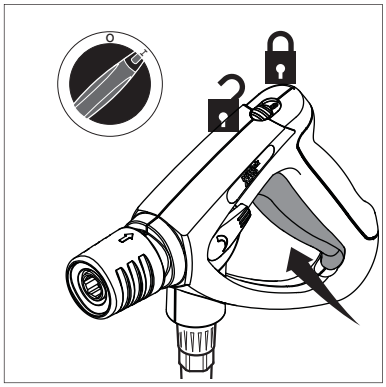
4.1 Connecting the spray lance to the spray gun



1. Pull back the blue quick-release grip (A) of the spray gun.
2. Insert the nipple of the spray lance (B) into the quick-release connection and release the coupling (A).
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 when it is connected to a water supply



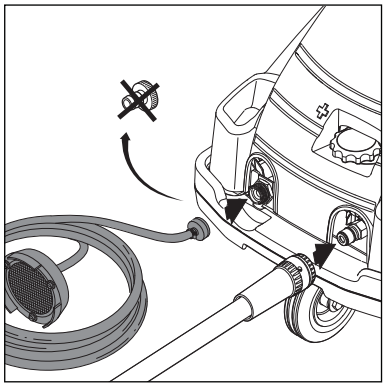
1. Main switch
   Turn the switch to position " **I** ".
2. Unlock the spray gun and operate it.
3. Lock the spray gun even during short pauses.

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.
DSS-models switch off with a delay of 20 seconds[1)].

[1)] Options / model variants

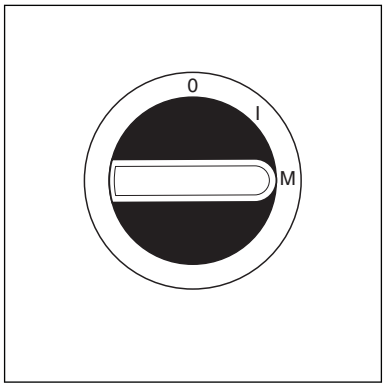
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4.2.1 Switching on the cleaner when it is connected to open tanks in suction mode[1] (Pressure activated model)



1. Before connecting the suction set: 61256 to the cleaner, fill the hose with water.
2. Turn the main switch to posi tion " **I** ".
3. Unlock the spray gun and operate it.

4.2.2 Switching on the cleaner when it is connected to open tanks in suction mode[1] (Flow activated model)

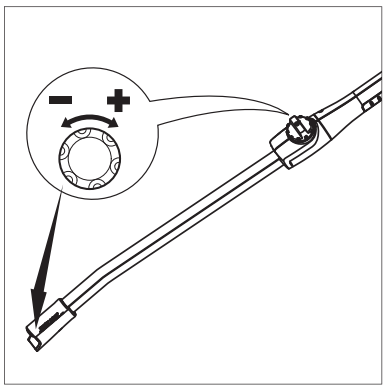


1. Before connecting the suction set: 61256 to the cleaner, fill the hose with water.
2. Turn the main switch to posi tion " M ".
3. Unlock the spray gun and operate it.
4. To start the cleaner again, operate the main switch again.

NOTE!
The cleaner automatically switches off after pauses of more than a few minutes.
See chapter 9.4 for max. suction height.

[1] Options / model variants
Original instructions

4.3 Pressure regulation with Tornado Plus lance and PowerSpeedVario Plus lance.

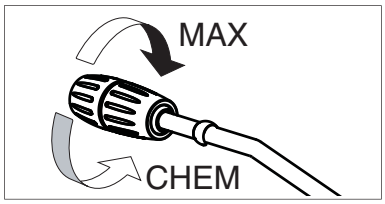


1. Turn the twist grip on the lance:

– **High pressure** = clockwise **(+)**

– **Low pressure** = anticlockwise **(–)**

4.4 Pressure regulation with the FlexoPowerPlus nozzle head and the PowerSpeedVario Plus lance.

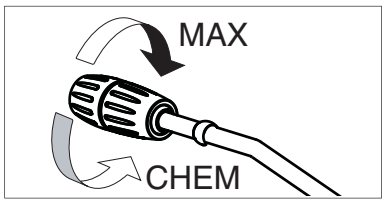


1. Twist cap of the FlexoPower-Plus nozzle head:

– **High pressure** = **MAX.**

– **Low pressure** = **MIN. (CHEM)**

4.5 Using cleaning agents

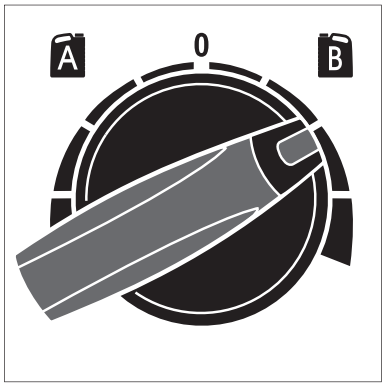


Cleaning agent can be drawn in via the injector installed as standard only in low-pressure mode:

1. Dilute cleaning agent according to the manufacturer‘s instructions.
2. Tornado Plus lance and PowerSpeedVario Plus lance[1)]:
   Set pressure regulation on spray lance to low pressure (–), or FlexoPowerPlus nozzle head[1)]:
   Turn cap of the FlexoPowerPlus nozzle head towards „CHEM“ up to the stop.
3. The intaken volume of cleaning agent can be regulated by turning the metering valve.
4. Select tank A by turning the merering valve on "A-side". Select tank B by turning the metering valve on "B-side"
5. Main switch
   Turn the switch to position " **I** ".
6. Operate the spray gun.



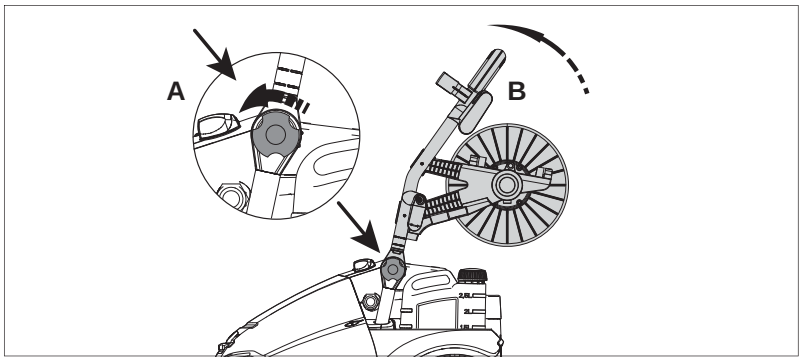
NOTE!
Never allow cleaning agent to dry on the surface to be cleaned. The surface may be damaged.



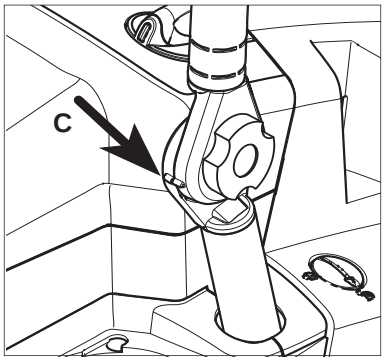
[1)] Options / model variants
Original instructions

EN DE FR NL

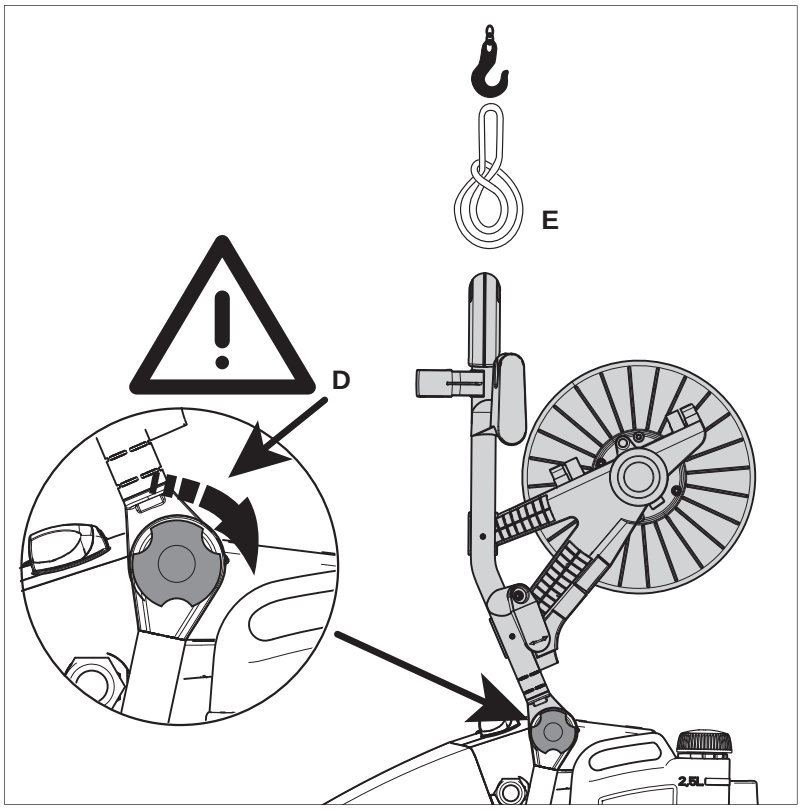
4.6 Lifting with crane



1. Before crane lifting the machine should be in balance. Loosen the screw (A), push the handle (B) a little forward.



2. When the two marks are aligned (C), the handle is in crane-lifting -position.



3. Be carefull to fasten the screw (D) in the lifting position.

4. Wrap a belt strop around center of the handle (E) for the crane to hook in.

WARNING!
Do not stand under the machine hanging in the air.

[1)] Options / model variants
Original instructions

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 10 - 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 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.

[1)] Options / model variants
Original instructions

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5.2 Some typical cleaning tasks

5.2.1 Agriculture

Task	Accessories	Method
Stables Pig Pens, Sties Cleaning of walls, floors and equipment. Detergents	Chemical Foam Injectors Foam lance Powerspeed lance Floor Cleaner Universal Alkafoam Disinfectant DES 3000 DES 4000	1. Soaking – apply foam to all surfaces (bottom to top) and wait for approx. 10 - 30 minutes. 2. Remove the dirt from surfaces with the high pressure lance or chosen accessory. Again, clean from bottom to top on vertical surfaces. 3. To flush away large quantities of dirt, change to low pressure mode and use the higher flow to push away the dirt. 4. Use recommended disinfectant products and methods to ensure hygiene. Apply DES 3000 disinfectant once the surfaces are perfectly clean.
Machinery Tractors ploughs etc.	Detergent injection Powerspeed lances Curved lances and underchassis washers Brushes	1. Apply detergent to vehicle or equipment surfaces in order to soften up dirt and grime. Apply from bottom to top. 2. Proceed with cleaning using the high pressure lance. Clean again from bottom to top. Use accessories to clean in difficult to reach places. 3. Clean fragile areas such as motors, rubber at lower pressure levels to avoid damage.

5.2.2 Vehicle

Task	Accessories	Method
Vehicle bodywork Detergents	Standard lance Detergent injection Curved lances and underchassis washers brushes Aktive Shampoo Aktive Foam Sapphire Super Plus Aktive Wax Allosil RimTop	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. 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. 3. Clean fragile areas such as motors, rubber at lower pressure levels to avoid damage. 4. Apply a liquid wax using the pressure washer in order to protect the bodywork from pollution.

[1)] Options / model variants
Original instructions

5.2.3 Buildings and Equipment

Task	Accessories	Method
General surfaces Metallic equipment Detergents	Foam injectors Standard lance Curved lances Tank cleaning head Intensive J25 Multi Combi Aktive Alkafoam Disinfectant DES 3000	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 10 - 30 minutes for the optimal effect. 2. Proceed with cleaning using the high pressure lance. Use applicable accessories. Use high pressure to dislodge large amounts of incrusted dirt or grime. Use lower pressure and high water volume in order to rapidly flush away loose dirt and rinse surfaces. 3. Apply DES 3000 disinfectant once the surfaces are perfectly clean. 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.
Rusted or damages surfaces prior to treatment	Wet Sandblasting equipment	1. Connect the sandblasting lance to the pressure washer and place the suction tube in the sand. 2. Always wear protective equipment during sandblasting. 3. Spray the surfaces to be treated with the mix of water and sand. Rust, paint etc will be stripped off.

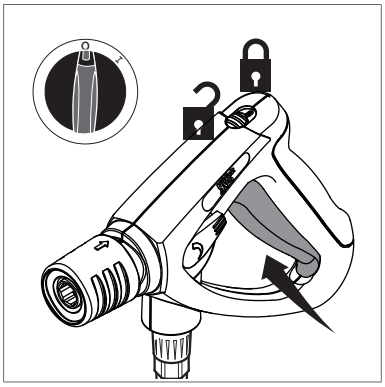
These are merely several examples of cleaning tasks that can be solved by a pressure washer in association with accessories and detergents. Each cleaning task is different. Please consult your local dealer or Nilfisk-ALTO representative in order to discuss the best solution for your own cleaning tasks.

[1)] Options / model variants
Original instructions

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6 After using the cleaner

6.1 Switching off the cleaner

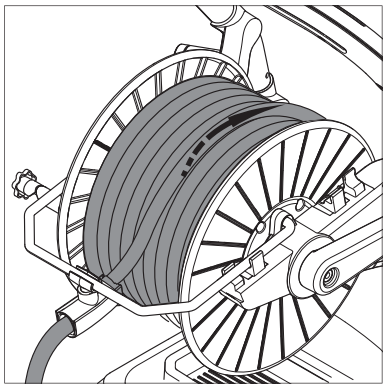


1. Turn the main switch to position „**OFF**“.
2. Close water tap.
3. Squeeze the spray gun handle until the cleaner is depressurised.
4. Lock the safety catch on the spray gun.

6.2 Disconnecting supply lines

1. Remove the water hose from the cleaner.
2. Pull out the plug from the electrical socket.

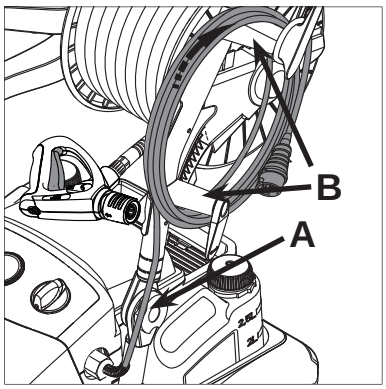
6.3 Rolling up the hose and storing of lance



Risk of tripping!
To prevent accidents, always carefully roll up the hose.

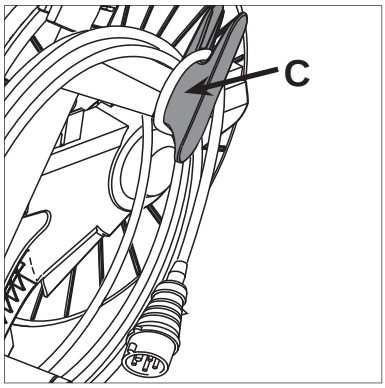
1. Wind up the hose as illustrated.
2. Place the spray lance into the spray lance storage.

6.4 Winding up the cable



1. Winding up the cable from front over the fastening screw (A) and clock-wise around the cable hooks (B).

[1)] Options / model variants
Original instructions



2. At last turn, lock the cable end in the cable lock (C).

6.5 Storing the cleaner (below 0°C)

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

[1)] Options / model variants
Original instructions

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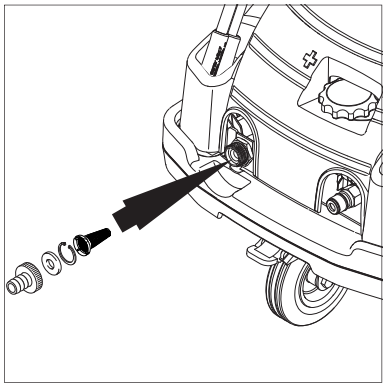
7 Maintenance

7.1 Maintenance plan

		Weekly	First time after 50 operating hours	Every 500 operating hours	As required
7.2.1	Cleaning water inlet filter	●			●
7.2.2	Checking pump oil level	●			
7.2.3	Changing pump oil			●	
7.2.4	First change - and cleaning of magnet on drain plug		●		

7.2 Maintenance work

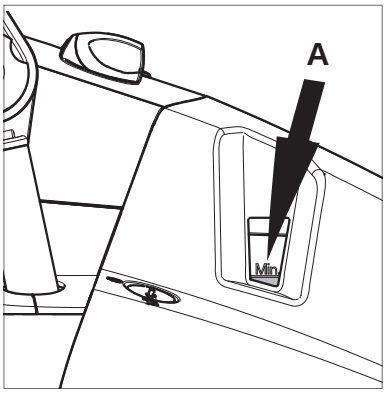
7.2.1 Cleaning water inlet filter



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

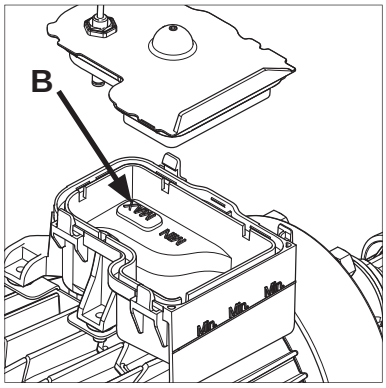
1. Unscrew the quick-release connection if mounted.
2. Remove the filter and rinse it. Replace damaged filter.

7.2.2 Checking the pump oil level



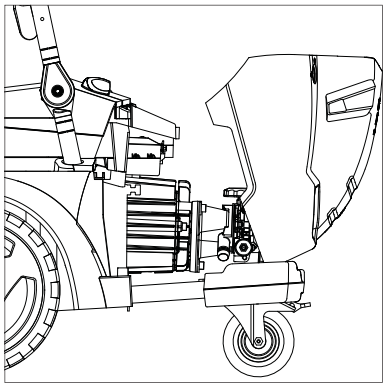
1. Check the oil level.
   On level ground, the oil should be above MIN. level (A), when the oil is cold.

[1)] Options / model variants
Original instructions



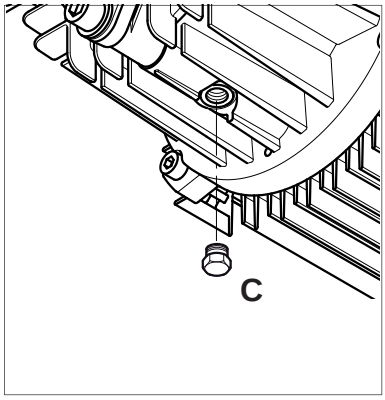
2. If necessary, add oil. Fill to MAX level (B).

7.2.3 Changing the pump oil



1. Before changing the oil, allow the cleaner to become warm.

2. Remove cabinet.



3. Loosen and remove drain plug (C).The plug magnet has to be cleaned with a piece of cloth/napkin to remove metal particles. 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.

NOTE!
Special pump oil is required if the cleaner is used near food. Please consult your Nilfisk-ALTO dealer.

5. Oil should be over the MIN. level in the oil container at level ground. Fill to MAX (B).

6. Fit the cabinet again.

[1)] Options / model variants
Original instructions

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8 Troubleshooting

Fault	Cause	Remedy
Pressure drop	• Air in the system	• 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.
	• High pressure nozzle blocked worn	• Clean/replace the high pressure nozzle
	• Detergent tank empty	• Top up detergent tank or set detergent to “0”
Pressure fluctuations	• Pump draws in air (only possible in suction mode)	• Check that the suction set is air-tight
	• Lack of water	• Open water tap
	• Water inlet hose is too long or its cross-section too small	• Use a water inlet hose that can provide the water flow (Q_{max}) defined for the machine
	• Lack of water caused by blocked water filter	• Clean the water filter in the water connection (never work without water filter)
	• Lack of water because max. permissible suction height has not been heeded	• See instructions
The motor does not start when the cleaner is switched on	• The plug is not inserted properly, i.e. there is no current	• Check the plug, lead and switch and if necessary have them replaced by a skilled electrician
	• The mains fuse is switched off	• Switch on the mains fuse
When the cleaner is switched on the motor buzzes without starting	• The mains voltage is too low or there is a phase failure.	• Have the electrical connection checked
	• The pump is blocked or frozen	• Contact the Nilfisk-ALTO customer service
	• Incorrect cross-section or length of the extension lead	• Use lead with correct cross section or length
The motor switches off	• The overload protection has been activated due to overheating or overloading of the motor	• 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
	• High-pressure nozzle is dirty	• Change the high-pressure nozzle

[1)] Options / model variants
Original instructions

Fault	Cause	Remedy
No detergents drawn in	• Detergent tank empty	• Top up detergent tank
	• The cap on the FlexoPower-Plus nozzle head is not set to low pressure	• Set to low pressure
	• Double lance are not adjusted to low pressure.	• Set to low pressure
	• Injector is dirty or suction hose is blocked.	• Clean

9 Further information

9.1 Recycling the cleaner

Make the old cleaner unusable immediately.

• 1. Unplug the cleaner and cut the power cord.

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

Product:	High Pressure Washer
Type:	Poseidon 5-6-7
Description:	1~ph/230V/50Hz, 3~ph/230V/50Hz, 3~ph/400V/50Hz, 3~ph/220;440/60Hz, 1~ph/230V/60Hz, 3~ph/230;400/50Hz
The design of the unit corresponds to the following pertinent regulations:	EC Machine Directive 2006/42/EC EC Low-voltage Directive 2006/95/EC EC EMC Directive 2004/108/EC
Applied harmonised standards:	EN ISO 12100-1, EN ISO 12100-2, EN 60335-2-79 EN, 55014-1(2002), EN 55014-2(2001), EN 61000-3-2 (2006)
Applied national standards and technical specifications:	IEC 60335-2-79
Name and address of the person authorised to compile the technical file:	Anton Sørensen General Manager, Technical Operations EAPC Nilfisk-Advance A/S Sognevej 25 DK-2605 Brøndby
Identity and signature of the person empowered to draw up the declaration on behalf of the manufacturer:	Anton Sørensen General Manager, Technical Operations EAPC Nilfisk-Advance A/S Sognevej 25 DK-2605 Brøndby
Place and date of the declaration:	Hadsund, October 1, 2011

[1)] Options / model variants
Original instructions

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9.4 Technical Data

POSEIDON		5-41 PA	5-41 PAXT	5-53 PA	5-53 PAXT	5-56 FA	5-56 PA
Country variant		EU	EU	EU	EU	EU	EU
Possible voltage, V/ph/Frez.	V/ph/Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz
Fuse	A	16	16	16	16	16	16
Power rating	kW	4,8	4,8	6,1	6,1	6,1	6,1
Working pressure p_{IEC}	bar (MPa)	180 (18)	180 (18)	200 (20)	200 (20)	200 (20)	200 (20)
Water flow Q_{IEC}	l/h	760	760	940	940	960	960
Max. water pressure p_{max}	bar (MPa)	250 (25)	250 (25)	250 (25)	250 (25)	250 (25)	250 (25)
Water flow Q_{max}	l/h	840	840	1000	1050	1050	1050
Max. water inlet temperature Intake-Pressure operation	°C (°F)	60 (140)	60 (140)	60 (140)	60 (140)	60 (140)	60 (140)
Max. water inlet pressure	bar (MPa)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)
Max. dry suction height	m	1	1	1	1	1	1
Dimensions, l x w x h	mm	735x570x1020	890x570x1020	735x570x1020	890x570x1020	735x570x1020	735x570x1020
Weight of cleaner	kg	66	72	71	76	73	73
Sound pressure level L_{PA} at a distance of 1 m	dB(A)	75	75	76	76	76	76
Guarantied sound power level L_{WA}	dB(A)	88	88	89	89	89	89
Vibration ISO 5349	m/s²	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1
Recoil forces, lance1 / lance 2	N	34,4 / 36	34,9 / 36,5	44,7 / 46,7	45,4 / 47,4	46 / 46,7	46 / 46,7
Oil quantity	l	0,73	0,73	0,73	0,73	0,73	0,73
Oil type		BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220

Specifications and details are subject to change without prior notice.

[1)] Options / model variants

POSEIDON		5-56 PAXT	5-62 FA	5-62 PA	5-62 PAXT	5-47 PA	5-47 PA
Country variant		EU	EU	EU	EU	JP	JP
Possible voltage, V/ph/Frez.	V/ph/Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz	200V/3ph/50Hz	200V/3ph/60Hz
Fuse	A	16	16	16	16	20	20
Power rating	kW	6,1	7,4	7,4	7,4	4,9	4,9
Working pressure p_{IEC}	bar (MPa)	200 (20)	220 (22)	220 (22)	220 (22)	170 (17)	170 (17)
Water flow Q_{IEC}	l/h	960	1040	1040	1040	890	890
Max. water pressure p_{max}	bar (MPa)	250 (25)	250 (25)	250 (25)	250 (25)	250 (25)	250 (25)
Water flow Q_{max}	l/h	1050	1130	1130	1130	980	980
Max. water inlet temperature Intake-Pressure operation	°C (°F)	60 (140)	60 (140)	60 (140)	60 (140)	60 (140)	60 (140)
Max. water inlet pressure	bar (MPa)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)
Max. dry suction height	m	1	1	1	1	1	1
Dimensions, l x w x h	mm	890x570x1020	735x570x1020	735x570x1020	890x570x1020	735x570x1020	735x570x1020
Weight of cleaner	kg	78	79	78	85	71	71
Sound pressure level L_{PA} at a distance of 1 m	dB(A)	76	75	75	75	75	75
Guarantied sound power level L_{WA}	dB(A)	89	88	88	88	88	88
Vibration ISO 5349	m/s²	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1
Recoil forces, lance1 / lance 2	N	46,5 / 47,2	52,8 / 53,6	52,8 / 53,6	54 / 54,8	39,6 / 40,2	39,6 / 40,2
Oil quantity	l	0,73	0,73	0,73	0,73	0,73	0,73
Oil type		BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220

Specifications and details are subject to change without prior notice.

POSEIDON		5-56 PA	5-56 PAXT	5-32 PA	5-32 PAXT	5-41 PA	5-56 PA
Country variant		NO,BE	NO,BE	UK	UK	exp	exp
Possible voltage, V/ph/Frez.	V/ph/Hz	230/400V/3ph/50Hz	230/400V/3ph/50Hz	230V/1ph/50Hz	230V/1ph/50Hz	220/440V/3ph/60Hz	220/440V/3ph/60Hz
Fuse	A	25	25	13	13	30	20
Power rating	kW	6,1	6,1	2,6	2,6	4,8	6,1
Working pressure p_{IEC}	bar (MPa)	200 (20)	200 (20)	100 (10)	100 (10)	180 (18)	200 (20)
Water flow Q_{IEC}	l/h	960	960	640	640	760	960
Max. water pressure p_{max}	bar (MPa)	250 (25)	250 (25)	150 (15)	150 (15)	250 (25)	250 (25)
Water flow Q_{max}	l/h	1050	1050	770	770	840	1050
Max. water inlet temperature Intake-Pressure operation	°C (°F)	60 (140)	60 (140)	60 (140)	60 (140)	60 (140)	60 (140)
Max. water inlet pressure	bar (MPa)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)
Max. dry suction height	m	1	1	1	1	1	1
Dimensions, l x w x h	mm	735x570x1020	890x570x1020	735x570x1020	890x570x1020	735x570x1020	735x570x1020
Weight of cleaner	kg	75	80	68	73	69	74
Sound pressure level L_{PA} at a distance of 1 m	dB(A)	76	76	68	68	75	76
Guarantied sound power level L_{WA}	dB(A)	89	89	82	82	88	89
Vibration ISO 5349	m/s²	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1
Recoil forces, lance1 / lance 2	N	46 / 46,7	46,5 / 47,2	21,5 / 21,8	21,8 / 22,2	33,9 / 35,4	45,6 / 46,3
Oil quantity	l	0,73	0,73	0,73	0,73	0,73	0,73
Oil type		BP Energol GR-XP220	BP Energol GR-XP220	Castrol ALPHASyn 150	Castrol ALPHASyn 150	BP Energol GR-XP220	BP Energol GR-XP220

Specifications and details are subject to change without prior notice.

POSEIDON		5-62 PA	5-52 FA	5-41 PA	5-56 PAXT	7-67 FA	7-67 FA
Country variant		exp	US	EU	EU	EU,DK	EU
Possible voltage, V/ph/Frez.	V/ph/Hz	220/440V/3ph/60Hz	220-240V/1ph/60Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz
Fuse	A	30	30	16	16	16	16
Power rating	kW	7	6	4,8	6,1	8	8
Working pressure p_{IEC}	bar (MPa)	220 (22)	2300 PSI	180 (18)	200 (20)	195 (19,5)	195 (19,5)
Water flow Q_{IEC}	l/h	1040	4,5 gal/min	760	960	1180	1180
Max. water pressure p_{max}	bar (MPa)	250 (25)	238,5 (23,85)	250 (25)	250 (25)	250 (25)	250 (25)
Water flow Q_{max}	l/h	1130	4,9 gal/min	840	1050	1280	1280
Max. water inlet temperature Intake-Pressure operation	°C (°F)	60 (140)	60 (140)	60 (140)	60 (140)	85 (185)	85 (185)
Max. water inlet pressure	bar (MPa)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)
Max. dry suction height	m	1	1	1	1	1	1
Dimensions, l x w x h	mm	735x570x1020	735x570x1020	735x570x1020	890x570x1020	775x570x1020	775x570x1020
Weight of cleaner	kg	80	84	68	81	89	89
Sound pressure level L_{PA} at a distance of 1 m	dB(A)	75	75	75	76	75	75
Guarantied sound power level L_{WA}	dB(A)	88	88	88	89	88	88
Vibration ISO 5349	m/s²	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1
Recoil forces, lance1 / lance 2	N	52,8 / 53,6	46 / 46,7	34,5 / 36,1	46,5 / 47,3	57,8 / 58,7	57,8 / 58,7
Oil quantity	l	0,73	0,73	0,73	0,73	1,1	1,1
Oil type		BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	BP Energol GR-XP220	Castrol ALPHASyn 150	Castrol ALPHASyn 150

Specifications and details are subject to change without prior notice.

POSEIDON		7-67 FAXT	7-67 FBFA	7-67 FFA	7-67 FA	7-67 FA	7-67 FA
Country variant		EU	EU	EU	JP	JP	NO, BE
Possible voltage, V/ph/Frez.	V/ph/Hz	400V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/50Hz	200V/3ph/50Hz	200V/3ph/60Hz	230/400V/3ph/50Hz
Fuse	A	16	16	16	28	28	25
Power rating	kW	8	8	8	8	8	8
Working pressure p_{IEC}	bar (MPa)	195 (19,5)	195 (19,5)	195 (19,5)	195 (19,5)	195 (19,5)	195 (19,5)
Water flow Q_{IEC}	l/h	1180	1180	1180	1180	1180	1180
Max. water pressure p_{max}	bar (MPa)	250 (25)	250 (25)	250 (25)	250 (25)	250 (25)	250 (25)
Water flow Q_{max}	l/h	1280	1280	1280	1280	1280	1280
Max. water inlet temperature Intake-Pressure operation	°C (°F)	85 (185)	85 (185)	85 (185)	85 (185)	85 (185)	85 (185)
Max. water inlet pressure	bar (MPa)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)	10 (1)
Max. dry suction height	m	1	1	1	1	1	1
Dimensions, l x w x h	mm	930x570x1020	775x649x1020	775x570x1020	775x570x1020	775x570x1020	775x570x1020
Weight of cleaner	kg	95	94	89	91	91	90
Sound pressure level L_{PA} at a distance of 1 m	dB(A)	75	75	75	75	75	76
Guarantied sound power level L_{WA}	dB(A)	88	88	88	88	88	89
Vibration ISO 5349	m/s²	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1	<1,5 +/- 1
Recoil forces, lance1 / lance 2	N	58,6 / 59,5	57,8 / 58,7	57,8 / 58,7	57,8 / 58,7	58,4 / 59,3	57,8 / 58,7
Oil quantity	l	1,1	1,1	1,1	1,1	1,1	1,1
Oil type		Castrol ALPHASyn 150	Castrol ALPHASyn 150	Castrol ALPHASyn 150	Castrol ALPHASyn 150	Castrol ALPHASyn 150	Castrol ALPHASyn 150

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POSEIDON		7-67 FA	7-52 FA
Country variant		exp	US
Possible voltage, V/ph/Frez.	V/ph/Hz	220/440V/3ph/60Hz	220-240V/1ph/60Hz
Fuse	A	30	30
Power rating	kW	8	6,5
Working pressure p_{IEC}	bar (MPa)	195 (19,5)	2200 PSI
Water flow Q_{IEC}	l/h	1180	4,6 gal/min
Max. water pressure p_{max}	bar (MPa)	250 (25)	225 (22,5)
Water flow Q_{max}	l/h	1280	5,1 gal/min
Max. water inlet temperature Intake-Pressure operation	°C (°F)	85 (185)	85 (185)
Max. water inlet pressure	bar (MPa)	10 (1)	10 (1)
Max. dry suction height	m	1	1
Dimensions, l x w x h	mm	775x570x1020	775x570x1020
Weight of cleaner	kg	93	94
Sound pressure level L_{PA} at a distance of 1 m	dB(A)	75	75
Guarantied sound power level L_{WA}	dB(A)	88	88
Vibration ISO 5349	m/s²	<1,5 +/- 1	<1,5 +/- 1
Recoil forces, lance1 / lance 2	N	60 / 60,9	48,4 / 49,2
Oil quantity	l	1,1	1,1
Oil type		Castrol ALPHASyn 150	Castrol ALPHASyn 150

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