# Nilfisk @

# Griff



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### IMPORTANT SAFETY INSTRUCTIONS

## WARNING

When using electric appliances, basic precautions should always be followed, including the following:

- 1. Read all the instructions before using the appliance.
- 2. To reduce the risk of injury, close supervision is necessary when an appliance is used near children.
- 3. Do not touch moving parts.
- 4. Only use attachments recommended or sold by the manufacturer.
- 5. Do not use outdoors.

Exception: This item is not required if the appliance has been evaluated for outdoor use.

- 6. For a cord-Connected appliance, the following shall be included:
  - To disconnect, turn all controls to the off ("O") position, then remove plug from outlet.
  - Do not unplug by pulling the cord. To unplug, grasp the plug, not the cord.
  - Unplug from outlet when not in use and before servicing or cleaning.
  - Do not operate any appliance, with a damaged cord or plug, after appliance malfunctions or if dropped or damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair, electrical or mechanical adjustment.
- 7. For a portable appliance To reduce the risk of electrical shock, do not put Griff in water or other liquid. Do not place or store appliance where it can fall or be pulled into a tub or sink.
- 8. For a grounded appliance connect to a properly grounded outlet only. See Grounding Instructions.

## SAVE THESE INSTRUCTIONS

## 2. Symbol



Instruction for Use - read before Use



Wear glasses when using the unit.



Wear gloves and suitable clothing when using the unit.



#### Note:

A potentially damaging situation.

Possible consequences: The product or something in its vicinity could be damaged. Prevention.



## Caution:

A dangerous situation. Possible consequences: light or minor injuries. Can also be used in warn against damage to property or other goods prevention.



## Warning:

A Potentially dangerous situation.

Possible consequences: Death or severe injury Prevention.



## Danger:

A dangerous situation. Possible consequences: Death or severe injury Prevention.



Danger of Electrocution Hazard and Electric shock.

## 3. Description

The Griff unit is a complete hygiene station for foaming, rinsing and desinfecting. The unit requires sufficient supply of water, compressed air and detergent or desinfectant.

The unit is tested and approved to operate with a wide range of chemical products.

## **Using Hygiene Chemicals:**

The Griff unit can be used with foam detergents and disinfectants.



Warning: Do not use the water from the unit for applications other than cleaning.

Do not change the settings made or recommended by the supplier of the hygiene chemicals.

The supply of detergents and disinfectants is done from cans with chemical products, mounted below the unit.

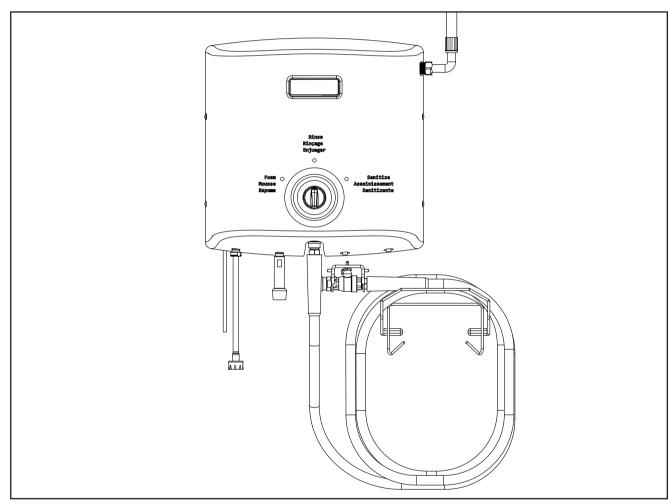
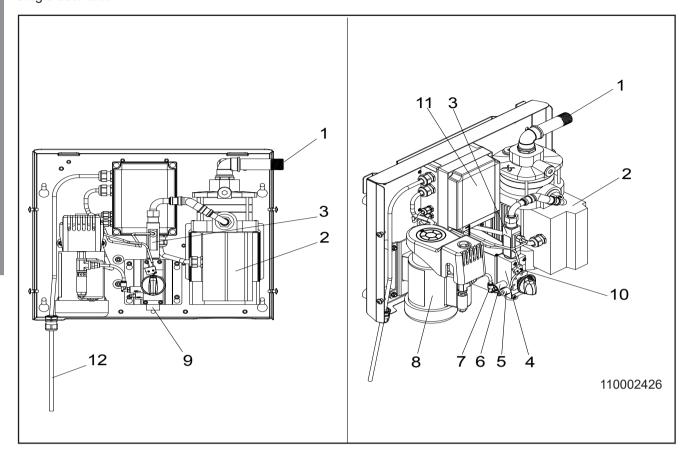


Fig. 1 110003056-1

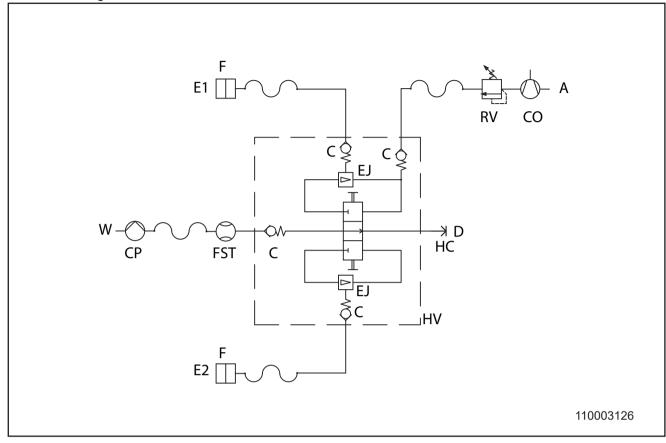
**3.1. Layout for Griff.** Single user unit



- 1. Water inlet
- 2. Pump
- 3. Flow Switch
- 4. Injector block
- 5. Chemical inlet, block
- 6. Sanitizer inlet, block
- 7. Air inlet, block
- 8. Compressor
- 9. Water outlet
- 10. Switch, Compressor
- 11. Control box
- 12. Power supply

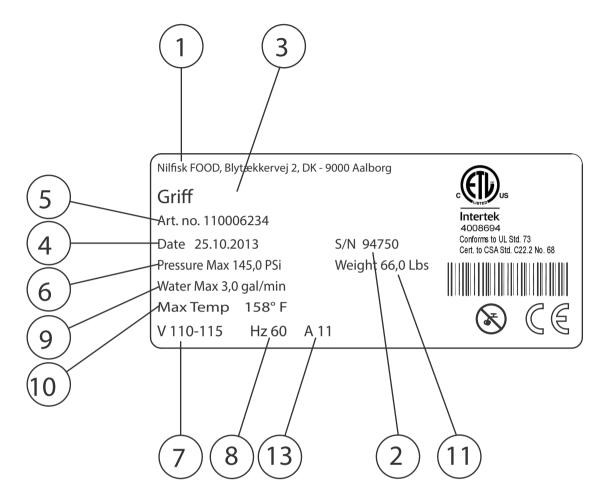
## 3.2. Operating Diagrams

according to ISO14617



- F. Filter.
- FST. Flow-switch and -trigger.
- C. Check valve.
- CP. Centrifugal pump.
- EJ. Ejector.
- HV. Hydraulic valve.
- HC. Hose connection.
- A. Air supply.
- D. Outlet.
- E. Inlet, detergent.
- W. Water inlet.
- CO. Compressor
- RV. Regulating valve

#### 3.3. Identification Plate



- 1. Producer
- 2. Serial no.
- 3. Type
- 4. Date
- 5. Article No.
- 6. Maximum pressure
- 7. Supply voltage
- 8. Frequency
- 9. Maximum water consumption
- 10. Maximum water temperature
- 11. Weight

## 4. General information

For safety reasons it is important to read this manual before mounting the equipment. In addition, the legislation in force at the time of purchase must always be considered in connection with the installation and mounting of this equipment, no matter the contents of this manual. If there are matters of dispute please contact your dealer. This equipment is produced and tested by specially qualified personnel, following approved instructions to ensure our high level of product quality. After the product is finished and tested it is manually inspected just before the product is released for shipping. To obtain our high level of quality and long life we use stainless steel parts. These parts, in defiance of our manual inspections may still have some sharp edges, which can present a cutting hazard. Therefore it is advised always to use protective gloves and show caution when installing the equipment. The unit is UL/CSA listed.

## 5. Preparation

#### Wall version:

Identify what type of wall the unit will be mounted on. The installation procedure for the most common wall types is described in the installation guide.

Make sure that the walls carrying capacity is sufficient.

#### Mobile version:

Identify a suitable place for the unit within the reach of the inlet hose.

Make sure the floor is level.



#### Note:

The pipeline must be rinsed through before the system is connected.



#### Note

Remove cover before the system is mounted on the wall.



#### Note:

The weight of the unit is listed in the specification section.

#### 5.1. Transportation

For secure transportation of the unit, we recommend always to ensure, that the unit can not slide or tip. The unit might have to be secured with straps. Transportation of the unit only in vertical position: In case the unit is moved at a temperature of approx or below 0°C (32°F), you must always make sure that the unit has been fully emptied for water. If this is not the case, you may damage the unit.

## 6. Placing/application

- · Do not use the unit outdoors.
- · The unit must be placed in frost-free rooms only.
- The free space around unit should be as much as possible to make operation of the unit as easy as possible.
- Max. ambient temp. 104°F/40°C.
- · Non vibrating surface.

## 7. Water supply

Min. inlet pressure	2 bar/29 psi@ 3 gal/min/11 l/min.	
Max. inlet pressure	72 psi/5 bar	
Max. water	158°F - 70°C	
temperature		



Before the unit is connected to the water supply pipe, the supply line should be rinsed carefully in order to remove coarse impurities and metal shavings.

The supply line must be sized so that it can supply the minimum indicated pressure and water volume when connected to this equipment.

When dimensioning the water supply, it is recommended to increase the available volume with 15-20 % compared to the minimum requirements listed in the table.



#### Note:

Recomented water hardness 100 - 129 PPM / 14 - 18 °dH.

The equipment will operate with water hardness exceeding this level. However, descaling of pump system, injectors and like must be expected depending on use pattern and water quality. Futhermore, wear of the mechanical parts will increase as well. If not supplied, filter should be mounted.



#### Note:

Descaling frequency - see section 15.

## 8. Air supply

The unit is equipped with an internal compressor.

## 8.1. Adjustment of air

Normally the Air will not need adjustment on the unit. If adjustment is necessary.

Do not attempt to adjust the air your self always contact an authorised service company.



#### **WARNING**:

When working on the compressor be care full, several parts of the Compressor may be very hot.

## 9. Power supply

The power installation must allways be in accordance with local legislation regardless what this manual says.

The 60 HZ version is equipped with a GFCI plug that must be connected to a power outlet.

Voltage:	1x110-115 Vac ±10%
Frequency:	60 Hz 62 +0%
Power consumption:	1 kW
Nominal current:	11.1 A
Security of electircal wiring	12 A

## 10. Installation Guide

a) For all grounded, cord-connected appliances:

#### **GROUNDING INSTRUCTIONS**

This appliance must be grounded. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

If there is any doubt whether the outlet box is properly grounded a qualified electrician must be consulted.

**DANGER** - Improper connection of the equipmentgrounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the appliance is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Exception: For products employing date code marking on power supply cord attachment plug blade in accordance with 70.1.19, the instructions above shall be replaced with the following:

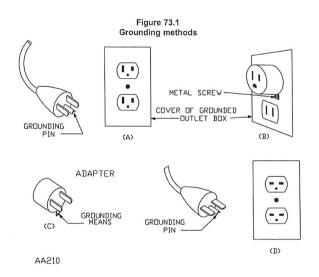
DANGER - Improper connection of the equipmentgrounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the appliance is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

b) For grounded, cord-connected appliances rated less than 15 A and intended for use on a nominal 120 V supply circuit:

This appliance is for use on a nominal 120 V circuit, and has a grounding plug that looks like the plug illustrated in sketch A in Figure 73.1. A temporary adaptor, which looks like the adaptor illustrated in sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid ear, lug, and the like, extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by the metal screw.

c) For grounded, cord-connected appliances other than as mentioned in (b)

To reduce the Risk of Electric Shock, this appliance has a polarized plug. This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.



## 11. Connecting the unit

Before the unit can be put into operation Water, Cleaning products and Electricity must be connected to the unit.

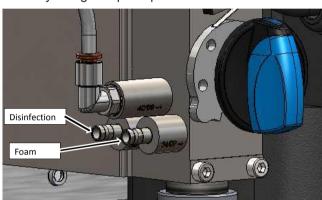
#### 11.1. Connections

#### 11.1.1. Water:

Connect the inlet water hose to the unit, a 3/4" GHT male connector is required for connection.

#### 11.1.2. Products:

Install pick up hoses on both check valves and use appropriate color-coded limiting nozzles depending on the needed concentration. See table for guide line below. Connect the pick up hoses to the product cans by using a cap adaptor.





Tests have been made with water.

Nozzle color	Concentration in % Foam	Concentration in % Desinfection
Purple	1,83	1,98
Turquoise	1,90	1,98
Yellow	2,44	2,44
Brown	3,04	2,74
Orange	3,57	3,64
Green	4,38	4,45
Tan	6,10	6,07
Blue dark	7,15	7,15
White	8,17	8,31
No limiting nozzle	9,17	9,17

## 11.1.3. Electricity:



#### **WARNING:**

ALLWAYS CONNECT ELECTRICITY LAST.

Connect the plug to the wall socket, make sure the plug is properly connected.



#### NOTE:

Red LED will illuminate.

If not, press red re-set button.

## 12. Preparing the unit



#### NOTE

Before use, the unit must be filled with water.



#### NOTE:

Make sure the power supply to the unit is not connected.

Turn on the water supply to the unit.

Open the ball walve on the outlet hose until no air or dirt comes out. The unit is now ready for use, reconnect the power supply.

Bleed the piping system.

## 13. Testing the unit

- Make sure water, product and electricity are connected to the unit.
- 2. Pull the outlet to the desired length.
- 3. Connect the desired nozzle foam (white), rinse (blue).
- Connecting the nozzle is done by pulling back the quick connector/coupler (Fig. 11). Connect the nozzle by pushing the nozzle into the opening of the quick connector.



#### NOTE:

Make sure the nozzle is "clicked" properly into the coupling, you will hear a small click when the nozzle slips into place.

#### 13.1. Testing the Rinse function:

Hold the ball valve / pistol over sink for testing.

- 1. Turn the selector knob on the unit to rinse position
- 2. Connect the rinse nozzle to the ball valve / pistol.
- 3. Open the ball valve / pistol and the pump will start. It may take several seconds for the outlet hose to be filled completely with water.
- 4. The unit is now rinsing.
- 5. Close the ball valve / pistol to stop rinsing, the unit will automatically stop a few seconds after the ball valve / pistol is closed.

#### **13.2.Testing the Foam function:**

Hold the ball valve / pistol over sink for testing.

- 1. Turn the selector knob on the unit to foam position.
- 2. Connect the foam nozzle to the ball valve / pistol.
- Open the ball valve / pistol. First the pump and then the compressor will start. It will take about 10-15 seconds for the outlet hose to be filled completely with foam.
- 4. The unit is now foaming.

- 5. Close the ball valve / pistol to stop foaming, the unit will automatically stop, it can take up to 10 20 seconds after the Ball valve / Pistol is closed before the unit stops.
- We recommend maximum 20 min. continuous operation of the compressor (foam mode). After 20 min. operation a 20 min break must follow before foam operation is continued.



## WARNING:

When opening the ball valve / pistol after the unit has stopped in foam position, a burst of Foam/Air/Water will come out. as the outlet hose is filled with foam. The burst will disappear after 3-5 seconds. Point the ball valve towards the floor when opening.

### 13.3. Testing the Sanitise function:

Hold the ball valve / pistol over sink for testing.

- 1. Turn the selector knob on the unit to sanitise position.
- 2. Connect the blue sanitise nozzle to the ball valve / pistol.
- 3. Open the ball valve / pistol and the pump will start. It may take several seconds for the outlet hose to be filled completely with sanitiser.
- 4. The unit is now sanitising.
- 5. Close the ball valve / pistol to stop sanitising. The unit will automatically stop a few seconds after the ball valve / pistol is closed.

If all 3 tests perform correctly the unit is ready for use.

#### 13.4. Checking the unit for leaks

- 1. Remove the cover by loosening the 4 screws on both sides of the unit using a 4mm Allen key.
- 2. Check all connections and hoses for leaks.
- 3. Once you have determined that there are no leaks, remount the cover and tighten the 4 screws.

# 14. Service / Maintenance instructions



#### WARNING:

Service / Maintenance may only be carried out by authorized and qualified personnel.

### 14.1. Recycling and scrapping

Recycle the wrapping and scrap the unit according to recommendations from the local authorities.

## 15. Descaling

The following descaling intervals must be observed to prevent lime build up in the unit, that can discontinue operation of the unit

°dH	ppm	Time between Descaling
0-5	18-90	12 months
5-10	90-180	6 to 12 months
10-15	180-270	3 to 6 months
15-20	270-360	3 to 6 months
>20	>360	1 to 3 months

## 16. Troubleshooting

For details regarding troubleshooting see troubleshooting guide.



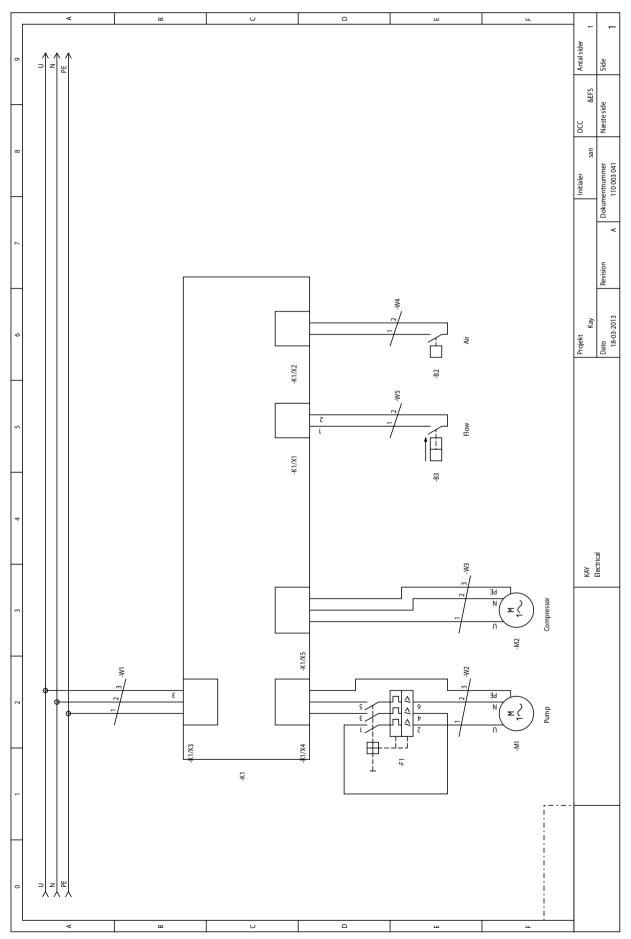
## WARNING:

Service / Maintenance may only be carried out by authorized and qualified personnel.

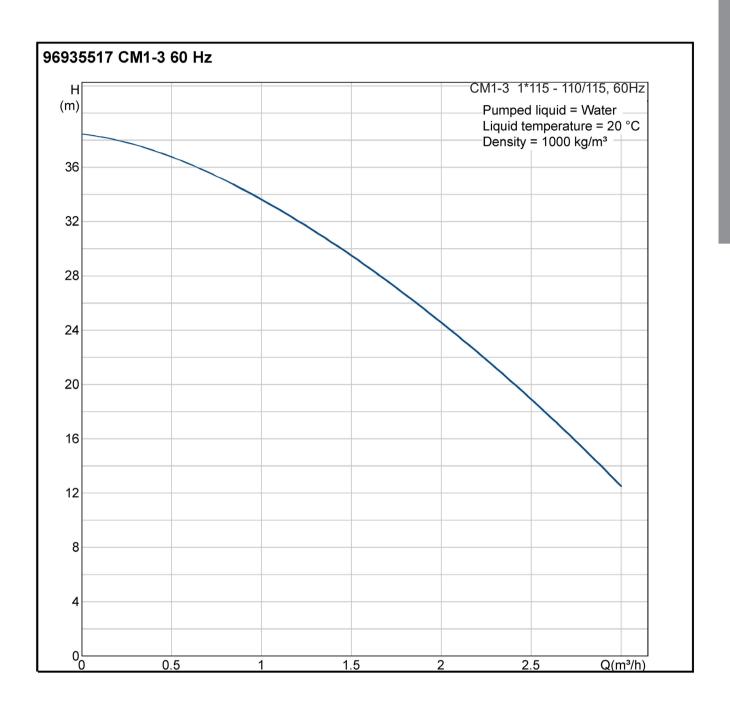
# 17. Specifications

Technical Data			
Water	110Vac 60 Hz version		
Connection type inlet	3/4" GHT (ASME B1.20.7 3/4" - 11,5-NH)		
Recommended inlet pipe dimensions (min)	3/4"		
Local outlet	1/2" quick coupler		
Pump pressure	52 psi / 3,7 bar		
Operational pressure	82-116 psi / 5,7-8 bar		
Operational flow range	1,5-3 gal/min / 5-11 l/min		
Water consumption - foaming	1,5 gal/min / 5 l/min		
Water consumption - spraying	1,5 gal/min / 5 l/min		
Water consumption - rinsing	3 gal/min / 11 l/min		
Min. inlet pressure	29 psi/4 gal/min / 2 bar @ 11 l/min		
Max. inlet pressure	72 psi/5 bar		
Max. water temperature	158°F/70°C		
Electricity			
Power consumption	1 kW		
Nom. current	11,1 A		
Supply	1/PE 110 Vac ±10% 60 Hz		
Security of electrical wiring	12A		
Electrical cable; L1, L2, L3, PE	1,5 mm²		
Nozzles (recommended)			
Rinsing nozzle	15/12		
Foam nozzle	Foam lance 100 mm		
Spray nozzle	15/12		
General			
Number of products	2		
IP class	IP54		
Max. hose length (recommended)	82 ft/25 m (50 ft/15 m)		
Sound level ISO 11202	Below 70 dB		
Weight	66 lbs/30 kg		
Dimensions H x W x D	19,7 x 19,7 x 10,2 inch / 500 x 500 x 260 mm		
Dimensions are without cart/trolley			

# 18. Electric diagram



## 19. Pump curve

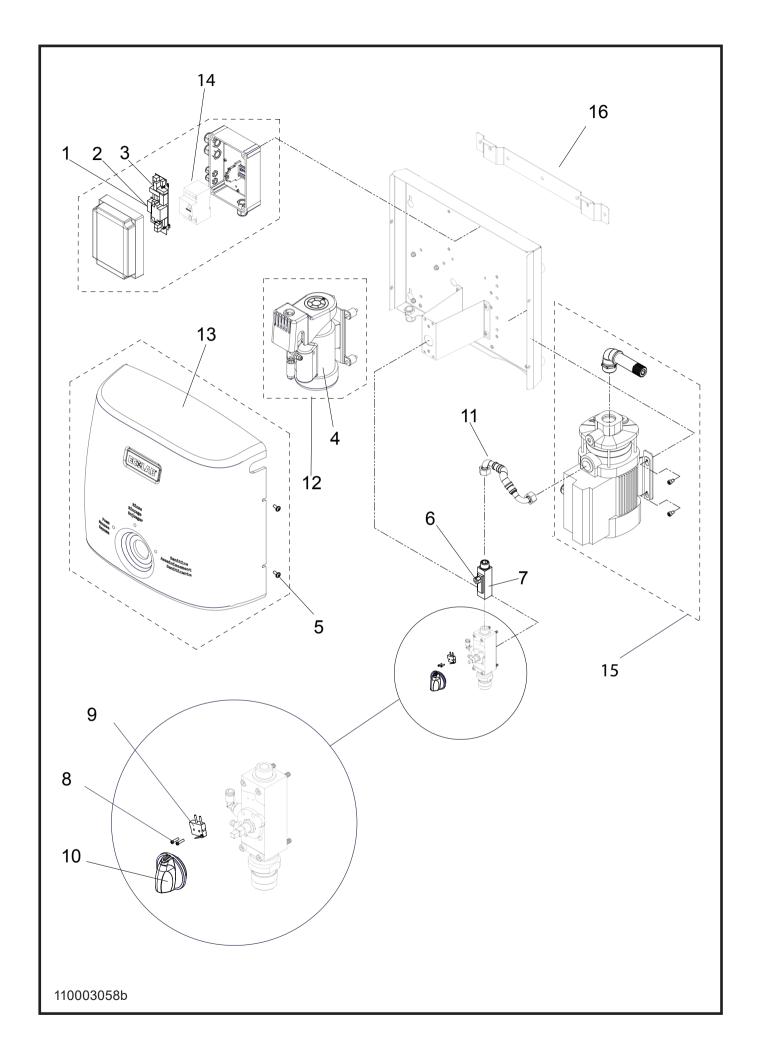


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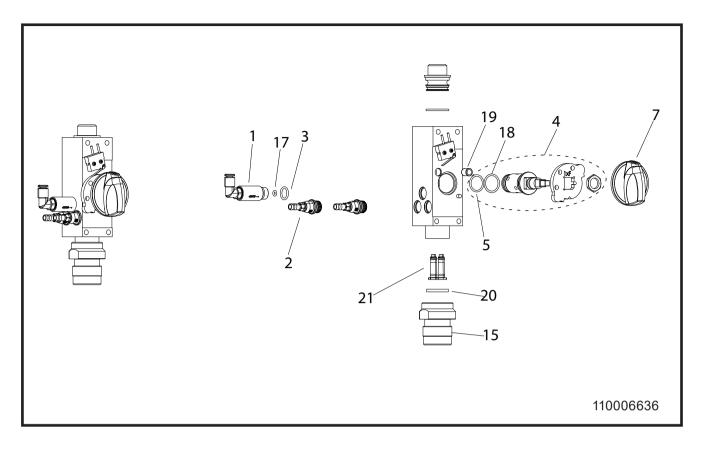
# Nilfisk 6000

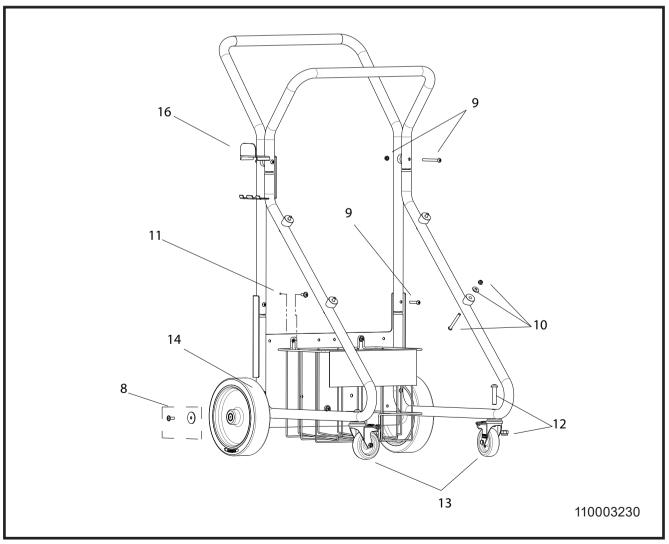
Item no: 110006232C

Recommended spare parts Pièces de rechange conseillées Piezas de recambio recomendadas



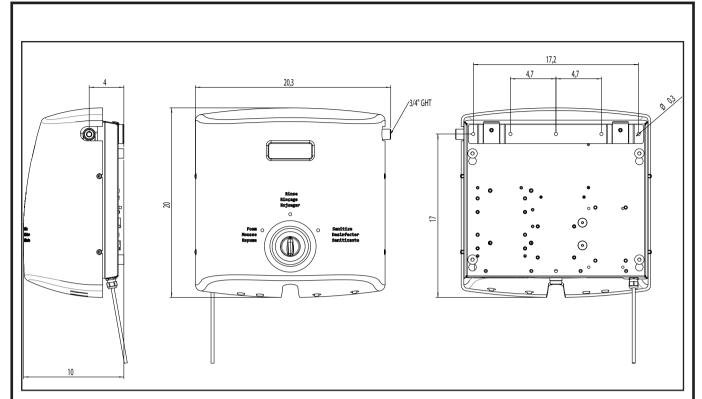
!	Pos./Ref.	Nr. No.	Kay Nr. No.	Description Désignation Designación
	1	110003166	Fuse 83900071 Fusibl Fusibl	e 12 A
	2	110003167	83900070 Fusibl	D,315 A e D,315 A e D,315 A
	3	110002644	92214059 Carte	oller board processeur controladora
	4	110003159		Teflon de flexible icto de Teflon
	5	110003168	88020017 Vis du	s for Cover couvercle os para la cubierta
	6	110003165	83050051 Interru	switch for Flow switch opteur rouge du régulateur de débit optor de lámina para el interruptor de caudal
	7	110002638		switch ateur de débit ptor de caudal
	8	110003170	88020018 Vis po	s for compressor switch ur l'interrupteur du compresseur os para el interruptor del compresor
	9	110002636	83055100 Interru	ressor switch pteur du compresseur ptor del compresor
	10	110003156	92214011 Bouto	or knob n de sélection a selectora
	11	110005172	85032013 Tuyaเ	aided hose tressé acier inoxydable uera de acero inoxidable trenzado
	12	110002632		ressor resseur resor
	13	110006336	Cover 92214058 Couve Cubie	ordle
	14	110002622	83000800 Surch	ad overload arge thermique carga térmica
	15	110002650	Pump 8460087 Pomp Bomb	e cpl. e, complète a completa
	16	110002629	92213793 Suppo	racket ort mural ta para pared





!	Pos./Ref.	Nr. No.	Kay Nr. No.	Description Désignation Designación
*	1	110003096	Air Check valve	
*	2	110004434	Product check valve	
*	3	110005516 (110002952)	O-ring kit	
	4	110002501	Selector valve axel	
*	5	110005516 (110002956)	O-ring kit	
	6	110005516 (110003172)	O-ring kit	
	7	110003156	Selector knob	
		110002633	Block cpl.	
	8	110003205	Mounting kit for cart	
	9	110003204	Mounting kit for unit on cart	
	10	110003197	Mounting kit productholder	
	11	110003207	Mounting kit for caster	
	12	110003206	Mounting kit for wheels	
	13	110003177	Castor cpl.	
	14	110003176	Back wheel cpl.	
	15	110002985	Coupler Coupleur Acoplador	
	16	110004658	Bracket for nozzles and cal	les
	17	110005516 (0635021)	O-ring kit	
	18	110005516 (110002955)	O-ring kit	
	19	110002392	Flexible pressure piece	
	20	110005516 (110002961)	O-ring kit	
_	21	110004219	Injector kit	

## Installation



110004860A:USA



