Directions for Use

S410/DF K

Contents

1. Introduction

Nilfisk Food congratulates you on your new cleaning unit. The unit is used for rinsing, foaming and spraying of detergents and sanitisers. The formation of foam is achieved by mixing of water, detergent or sanitisers and air in a specially designed injector system. The units is made of corrosion resistant materials, mainly stainless steel and are therefore particularly suitable for use within in the food industry. If you require any information on further applications, please contact Ecolab.

	NOTICE
	*To use and operate the system this manual must be read carefully.*

1.1 Liability

The responsibility for the treatment and operation in an appropriate manner rests with each individual user. Thus it is of great importance that this manual is available to the sanitary employee at any time.

1.2 Warranty

Our guarantee is given for a period of 12 months from delivery on all parts which have provably become unfit for use due to material, construction or manufacturing defects as well as inadequate workmanship. The guarantee compensation will occur either as reimbursement, replacement or repair of the defective or damaged part at our works. Installation and freight costs are always on the purchaser's account. Any defective parts are to be placed at our disposal. Claims that may otherwise be raised for any legal reason will not be acknowledged. No liability will be accepted for damage occurred indirectly. The purchaser has no right to let any third party repair possible defects and our account.

All hoses rubber parts or synthetic materials, natural wear and tear as well as damage caused by negligent or improper handling, including transport damages are not covered by the guarantee. Further, the guarantee does not apply if the system has been subjected to sub-zero temperatures. The obligation to pay compensation under the warranty also ceases if changes or repairs are made by non-authorised persons. Claims under the guarantee will be acknowledged only when they are placed immediately after the defect has been discovered. The guarantee ceases in case of change of ownership.

The dealer cannot be held responsible for personal injury, damage to equipment, loss of earnings, including production loss, loss of profits, loss of stock or the like which may occur by imperfect of delayed delivery of the sold product, regardless of the reason, including manufacturing and material defects. Please see our standard terms of sale and delivery.

1.3 Directions for installation

The unit should be installed in frost free rooms only! Prior to being exposed to frost, the system must be emptied for water (frost protected). Even shorter periods of exposure to frost can damage the equipment.

1.4 Keeping safe

You are requested to store this manual in a place where it is at your disposal at any time, and it should be handed over to the person responsible for this product. Should the manual get lost, please don't hesitate to require another one from your dealer.

1.5 Special Warning

	*DANGER* *The threat of immediate danger exists.* *Possible consequences: Death or severe injury Prevention.*

	*WARNING* *A potentially dangerous situation.* *Possible consequences: Death or severe injury 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.*

	*NOTICE* *A potentially damaging situation.* *Possible consequences: the product or something in its vicinity could be damaged. Prevention.*

2 Safety

2.1 Safety instructions

Always depressurize the system after use. This is done by closing the valve for water supply and opening the low pressure valve or low pressure gun.

Repairs must only be carried out when the unit has been turned off and depressurized.

During operation of the system: ensure that the low pressure gun/valve is closed, before releasing the coupling and change the nozzle.

	*WARNING* *Burn hazard.* *The operation machine presents a danger of scalding from hot water at 70°C* *Suitable working clothes are recommended, e.g. goggles, respirators, and rubber gloves should always be used.*

	*WARNING* *Danger of slipping.* *Because due to water and foam the floor sometimes can get slippery* *The use of non-slip footwear is recommended.*

	*WARNING* *Risk of poisoning/risk of allergic reactions.* *Improper use of detergents can be dangerous, it can produce poisonous gas, severe chemical burns an allergic reactions.* *Do not connect or use detergent before having read the instructions from the Detergent supplier. Always consult the Detergent supplier to get instructions for correct use.*

	*NOTICE* *The system should not be started up before the operator using the system, has been instructed in the correct utilization, adjustment and maintenance of it.*

	*WARNING* *Risk of eye injuries, ear damage, danger of swallowing, loss of stability* *Directing a jet of water, cleaning fluid or liquid disinfectant at persons can lead to eye injury or ear damage, swallowing or the loss of stability.* *Never direct the water jet towards persons.*

	*CAUTION* *Risk of injury.* *Risk of injury by the sudden escape of pressurised fluid (cleaning fluid and disinfectant).* *Make sure that the couplings "lock" when the hose and nozzles are connected* *Always follow this procedure before use.*

	*CAUTION* *Risk of injury.* *When the low pressure gun/nozzle is opened, the water jet will cause a certain back pressure.* *Make sure to have a strong grip on the handle and a firm foothold.*

	*WARNING* *Risk of ear damage.* *The noise level from the equipment is less than 70dB (A). During rinsing, the operator is exposed to a higher noise level and can lead to loss of hearing. This is caused by the impact from the water jet on the surroundings.* *It is therefore recommended to use ear protection during cleaning.*

	*NOTICE* *The hand-arm vibration level, measured by using a low pressure gun mounted with a rotating nozzle is below 2.5 m/s2.*

	*DANGER* *Electrocution hazard.* *A jet of water directed towards electric equipment can lead to injury from electrocution or damage the equipment. Never direct the water jet towards electrical equipment*

	*WARNING* *Electric shock.* *Water on electric connections can lead to injury from electrocution or damage the electric equipment. Avoid water near electric plugs.*

	*DANGER* *Electrocution hazard.* *Unprofessional work on the electric equipment can result in severe injury and death. Switch of the power supply before connecting or removing a plug from electric outlets.*

	*NOTICE* *Use only original Nilfisk Food nozzles, hoses, couplings and spare parts.*

2.2 Precautions

The construction of the system is in accordance with the generally adopted, technical requirements and the stipulations concerning working environment and accident prevention. Therefore the equipment must be in its best technical state before being used, and must only be utilized according to its requirements and by observance of the precautionary measures and operational instructions. Disturbances, which might influence the safety in particular, must be rectified immediately.

2.3 Application

Nilfisk Food low-pressure system is manufactured with the purpose of: Rinsing with water, spreading foam and sanitizer within the stated boundaries. Any other kind of application or use beyond this is considered to be inappropriate and deviant concerning the requirements, and may lead to dangerous situations. Nilfisk Food is not liable for any sequential damages brought about by this. Appropriate utilization includes the following: The instructions, regulations, and recommendations given in this manual. The observance of the prescribed intervals for inspection and maintenance; the correct maintenance for good operational condition of the system; the observance of the prescribed conditions for the environment and operation.

	*DANGER* *Risk of chemical burns* *Improper handling of chemicals results in a risk of chemical burns.* *When handling chemicals, ensure that the information provided by the chemical supplier is strictly observed.*

The foam can be adjusted by means of maximum nozzles, be sure to observe recommendations of the respective chemical supplier.

3 Moving the unit

	*WARNING* *Property damage.* *Improper transport of the unit presents a danger of personal damage and damage to machines.* *The equipment shall only be moved with suitable hoists or by 2 persons.*

Always remove detergent from the pipes before moving the unit. Insert the suction probe in a container with clean water. Start up the cleaning process several times in order to rinse the pipes with clean water thoroughly.

Regarding the disposal of the unused detergent, observe the manufacturer’s instructions.

4 Installation

4.1 System Safety

	*CAUTION* *Personal injury and damage to property may result from the installation of damaged parts.* *The installation of damaged parts may cause personal injury and damage to property.* *Never install or apply damaged products. Claims concerning damages must be made to the carrier immediately.*

	*CAUTION* *Danger of damage to property and personal injury.* *In cases of irregular installations there is a risk for major damages on both material and people.* *Work in the connection with installations, start up, and maintenance on the cleaning systems should only be done by authorized electricians, because the valid national regulations concerning prevention of working accidents. E.g. high voltage regulations: EN 60204-1 (IEC 204-1), VBG4 DIN-VDE 0100/0113/0160 or other local regulations) must be respected.*

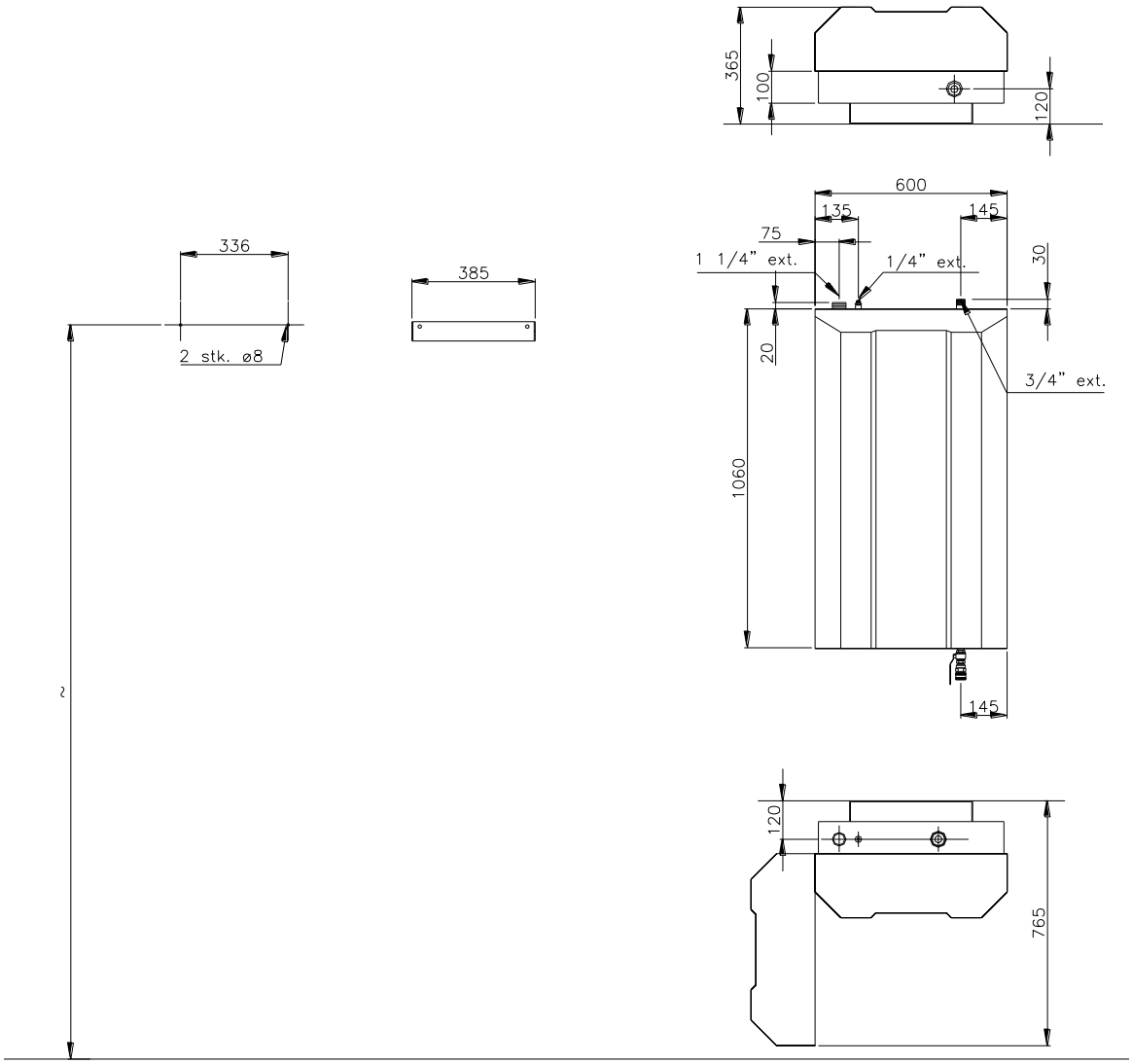
4.2 Mounting

The main station should be mounted in frost-free rooms only.
The station can be mounted on a wall or on a separate frame, which may be installed in production areas and anchored to the floor.

The mounting holes for the wall bracket, the hose holder should be drilled according to the dimensional sketch on page 12

The wall bracket should be mounted on the wall according to the above description hereafter the station is hung on to the bracket. Afterwards, the delivered angle hinges on the rear part of the pump plate should be mounted so that the lower part of the frame is fastened. The hose and can holders should thereafter be mounted.

The station is delivered with two transport fittings which are removed when the station has been mounted on the wall bracket.



4.3 Water Supply

	***NOTICE***
	Connection to water supply should always be done in according to local or national standards. *If the legislation in your country requests safeguards for reverse current, this must be provide for.*

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

	*CAUTION*
	Damage to equipment caused by blockage. *Any wastewater entering the machine may severely damage the equipment.* *At the supply pipe to the main station a valve and filter must be installed. We recommend using Original Nilfisk Food installations set.*

	*CAUTION*
	Damage to equipment caused by blockage *Any wastewater entering the machine may severely damage the equipment.* *Before the satellite a valve and filter must be installed. We recommend using Original Nilfisk Food installations set.*

	*CAUTION*
	Property damage *If the pump runs dry it may be damaged. The pump must be filled with water and vented. Open the nut/thermo switch Pos. I page 20, until all air is out of the pump.*

4.4 Electric Connection

	DANGER
	*Electric shock, electrocution* *Unprofessional work on the electric equipment of the main station can result in severe injury and death.* *The user or the installer is responsible for the installation of correct grounding and protection according to current national and local standards. All operations must be carried out by qualified personnel.* *Connection to the power supply must only been made by authorized electrician's´. The connection has to be done to a main switch installed next to the station. Always consult the pump manual before making the connections.*

	DANGER
	*Electric shock, electrocution* *Any work being carried out on the electric parts of the pump without it having been disconnected from the electrical supply can lead to severe injury and death.* *Never make any connections in the pump terminal box unless electric supply circuits have been switched off for at least 5 minutes.*

	NOTICE
	*The voltage and frequency is marked on the main station's and the pumps Name plates. Make sure they are suitable for the electricity supply of the installation site.*

Electric connections are only to be carried out by authorised engineers.
The electric requirements are specified on the identification plate.

The pump must be connected so that the correct direction of rotation is ensured (please see the arrow on the pump).

Supply voltage and mains: 3 x 380-480 V. -10%/ + 10 %, 50/60 Hz, PE.

4.5 Air

	***NOTICE***
	Connection to air supply should always be done in according to local or national standards.

	*CAUTION*
	Damages on pneumatic parts *The cleaning system shall always have its own air supply system. Failure in the cleaning system could accidentally lead to water and/or detergent can flow back in the air system. To avoid damage on other installations.* *It is mandatory to make a separate air supply system for the cleaning equipment.*

Before the main station is connected to the air supply, the pipe must be carefully rinsed in order to remove coarse impurities.

The air should be connected to the inlet on top of the unit in case of external air supply.
K-models have its own air supply in form of a compressor.

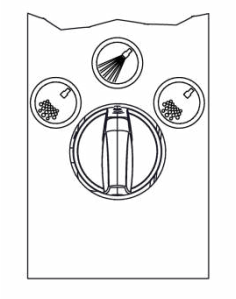
4.6 Detergent and Sanitizer

	*WARNING*
	Risk of poisoning / risk of allergic reactions *Improper handling of cleaning agents can cause skin irritation and allergies. The handling and connection should be done according to description from the Detergent supplier. Always follow the safety instructions for the detergents. They should always be available together with the detergents.*

5. Operation

5.1 start and Stop procedure

	CAUTION
	Equipment damage caused by dry running. *If the system runs dry or partly filled the pump and other components may be damaged.* *Do not start the main station until the pipe system has been filled with water and vented. Do not start the main station until the pump has been filled with water and vented.*



Start:

	CAUTION
	Damage to the environment from water escaping. *The water escaping from the equipment may damage the environment.* *Make sure that all outlets are closed before starting the main station.*

Turn the switch Pos. D. Page 20 into Rinse (see above). The system is now ready. The pump will automatically start when one of the described operations is performed. When there is now activity the pump will stop automatically and be in standby as long as the switch is in position Rinse.

Foam:

Turn the switch Pos. D. Page 20 into Foam (see above, but only for K-models). The system is now ready for foaming. The pump and compressor will automatically start when the described operations is performed. When there is now activity the pump and compressor will stop automatically and be in standby as long as the switch is in position Foam.

For models with external air supply; the air should be connected to the inlet on top of the unit.

Stop:

	***NOTICE***
	When the system is not used it is recommended to turn the switch into stop position "0".

The main station is stopped by turning the switch Pos. D page 20 into 0 (see above, page on 16).

	***NOTICE***
	In case of service the main switch shall always be turn off and locked.

5.2 Setting before Rinsing

	*CAUTION*
	Equipment damage caused by continuous pressure. Danger of equipment damage caused by continuous pressurization. After rinsing the hose must be depressurized.

Rinsing operation

1. Connect the hose to the coupling Pos. F. page 20 make sure the valve is closed.
2. Make sure the low-pressure valve/ gun at the end of the hose is closed
3. Mount the rinsing nozzle or rinsing pipe in the coupling at the low pressure valve/gun (marked with blue or green protection)
4. Set the handle Pos. E page 20 in rinse position and switch in rinse position.
5. Open the ball valve Pos. K page 20.
6. The system is now ready for rinsing. Rinse by open the low pressure valve/gun.
7. Close the valve Pos. K page 20 and open the low pressure valve/gun. The hose can now be disconnected.

5.3 Setting before foaming

	***NOTICE*** *In case of external air supply the air supply must always be closed when foaming is stopped.*

1. Connect the hose to the coupling pos. F. page 20 - make sure the valve is closed.
2. Make sure the low-pressure valve/gun at the end of the hose is closed.
3. Mount the foam nozzle in the coupling at the low-pressure valve/gun.
4. Set the handle pos. E page 20 in foam position and turn the switch Pos. D page 20 in position Foam.
5. Open the Valve for air pos. B page 20. (Only for external air supply)
6. Adjust the air pressure to 4-6 bar on the regulator Pos. H page 20 (different from detergent to detergent. Often has to be fine-tuned during first time foaming).
7. The system is now ready to foam. Apply foam open the low pressure valve/gun.
8. After foaming the system must be rinsed with clean water. Close the valve for air Pos. B page 20 in case of external air supply; the hose for detergent is placed in a container with clean water. The low pressure valve/gun is then opened for minimum 15 sec.
9. Close the Valve for air pos. B page 20. (Only for external air supply)

5.4 Setting before spray sanitizing

	*CAUTION* *Equipment damage caused by continuous pressure.* *Danger of equipment damage caused by continuous pressurization.* *After rinsing the hose must be depressurized.*

1. Connect the hose to the coupling Pos. L page 20 - make sure the valve is closed
2. Make sure the low pressure valve/ gun at the end of the hose is closed
3. Mount the sanitizer nozzle in the coupling at the low pressure valve / gun (marked with yellow protection)
4. Open the ball valve Pos L page 20.
5. The system is now ready for sanitizing. Sanitize by open the low pressure valve / gun.
6. After sanitizing the system must be rinsed with clean water. Place the hose for sanitizer in a container with clean water. Open the low pressure valve/ gun for minimum 15 sec.
7. Close the valve Pos. L page 20 and open the low pressure valve/gun. The hose can now be disconnected.

5.5 Stop procedures

	***NOTICE***
	The main station must be stopped.

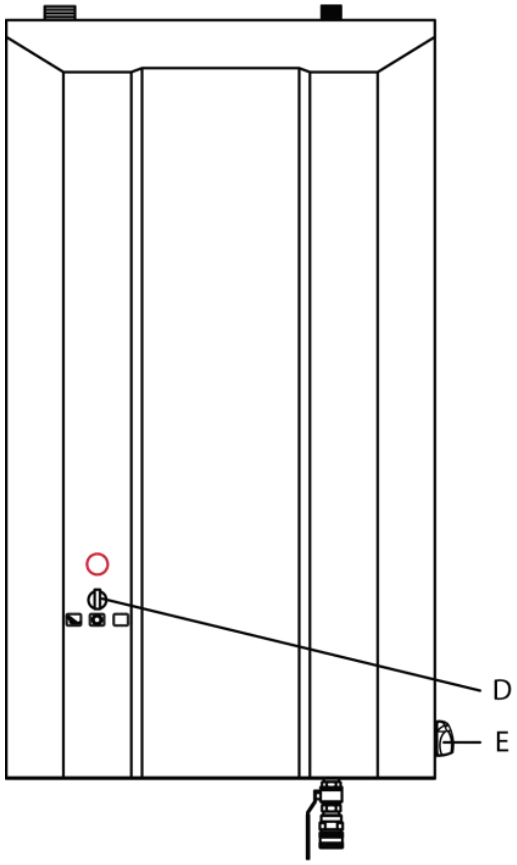
	***NOTICE***
	The selector handle has to be set in rinse position Pos. E page 20.

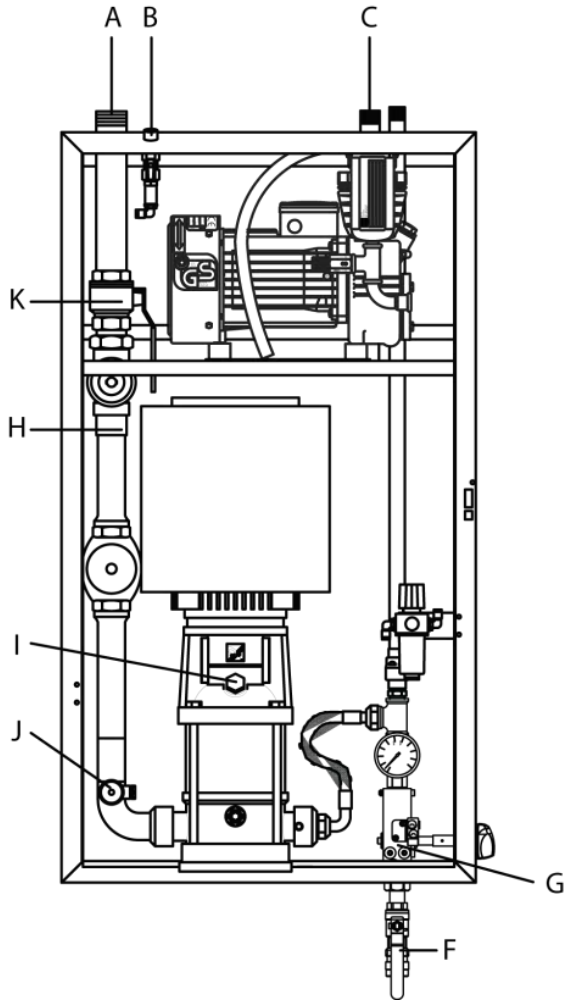
Be sure that the injector has been rinsed with clean water.

Turn the switch Pos. D page 20 into 0. Close the valve mounted before Pos. A page 20. Close the valves at Pos. K, F and L page 20.

Depressurize the hose by opening the low pressure valve/gun.

Disconnect the hose.

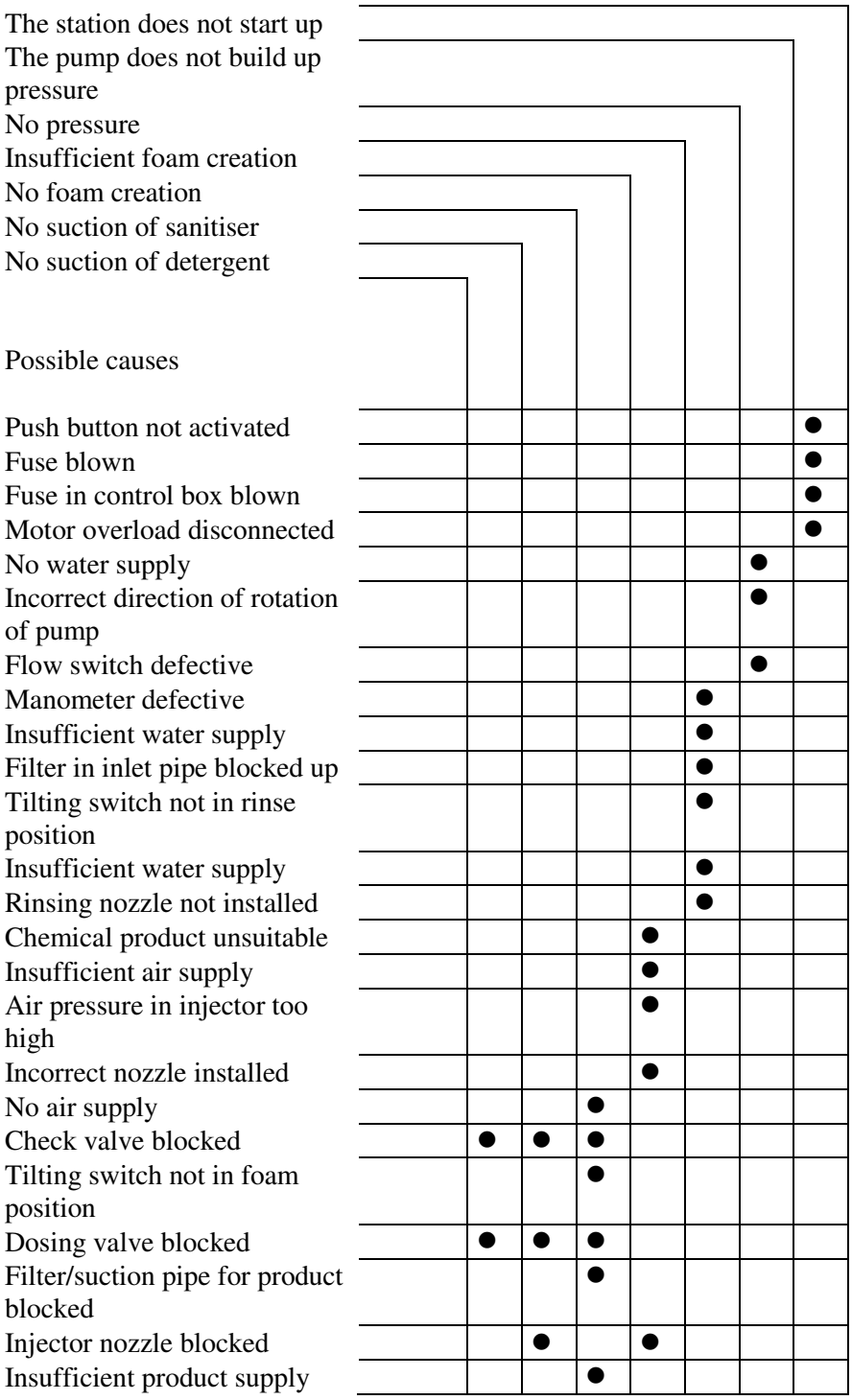




A. Connection for water supply
B. Connection for air supply
C. Satellite connection (not mounted)
D. On/off switch
E Selector handle rinse/foam
F Connection for hose, rinse/foam
G. Adjusting of concentration, detergent
H. Pressure regulator for air
I. Bleeding nut/thermo switch
J. Dry run protection
K. Closing valve for water
L. Connetion for hose, sanitiser
M. Adjusting of concentration, sanitiser

6 Troubleshooting

Measures at trouble shooting



Symptoms / Possible causes	The station does not start up	The pump does not build up pressure	No pressure	Insufficient foam creation	No foam creation	No suction of sanitiser	No suction of detergent	Remedy
Push button not activated							●	Activate push button
Fuse blown							●	Replace fuse
Fuse in control box blown							●	Replace fuse
Motor overload disconnected							●	Search error
No water supply						●		Ensure water supply
Incorrect direction of rotation of pump						●		Connect pump correctly
Flow switch defective						●		Call for skilled persons
Manometer defective					●			Replace manometer
Insufficient water supply					●			Ensure water supply
Filter in inlet pipe blocked up					●			Clean filter
Tilting switch not in rinse position					●			Set tilting switch in rinse position
Insufficient water supply					●			Open supply water valve
Rinsing nozzle not installed					●			Place rinsing nozzle
Chemical product unsuitable				●				Choose suitable product
Insufficient air supply				●				Provide sufficient air supply
Air pressure in injector too high				●				Adjust air pressure setting
Incorrect nozzle installed				●				Place foam nozzle 50/200
No air supply			●					Ensure air supply
Check valve blocked	●	●	●					Clean or replace valve
Tilting switch not in foam position			●					Set tilting switch in foam position
Dosing valve blocked	●	●	●					Clean or replace valve
Filter/suction pipe for product blocked			●					Clean filter/suction pipe
Injector nozzle blocked		●		●				Clean injector nozzle
Insufficient product supply			●					Ensure product supply

7 Maintenance

7.1 Rinsing Hose

WARNING

Risk of chemical burns.
Damaged hoses can lead to injury from chemical burns.
The rinsing hose should be checked for any damage or week point before taking it into use every day.
Do not drive across the hose. Be careful not to damage the hose on any sharp edged or corners.

WARNING

Danger of poisoning.
A damaged hose can cause injury from poisoning or harmful vapors.
The rinsing hose should be checked for any damage or week point before taking it into use every day.
Do not drive across the hose. Be careful not to damage the hose on any sharp edged or corners.

After use clean the outside of the hose. Store it on a hose hanger.
For security reasons it is recommended to change the hose at least once every 12 month.

7.2 Nozzles

Nozzles are warned over time. And warned out nozzle is less effective. It can result in less rinsing power, higher water usage, higher chemical consumption. Check the nozzles on a regular basis. 1 to 2 times every month is recommended. Change the nozzle if they are damaged. To be sure you will get the optimized result we recommend using Nilfisk Food nozzles.

7.3 Low pressure valves / guns

They must be checked regular. The nut on the handle has to tighten regularly. Check couplings, swivels, handles for any damaged. A damaged part must be changed for security reasons.

7.4 Couplings

Couplings should be cleaned and greased on a regularly basis. Use only approved grease. This will extend the life time of the couplings. Always make sure there is a nozzle or lance mounted in the coupling before opening. Rinsing through an open coupling can damage the O-rings.

7.5 Ball valves

Every ball valve on the inlet for water inlet for air outlet for water/foam and outlet for sanitizer must be adjusted First time, after one week, and then, once every month. Tighten the nut on the handle to avoid leakage.

7.6 Check valves

Check valves for air: The system has two check valves for air. The purpose of these is to prevent water running back into the air system. Due to the potential risk, the air system for the cleaning system must be separate from other air systems.

	***NOTICE*** *Check valves are very important to secure a correct function of the system.*

	*CAUTION* *Property damage to on-site pneumatic equipment.* *The cleaning system shall always have its own air supply system. Failure in the cleaning system could accidentally lead to water and/or detergent can flow back in the air system. To avoid damage on other installations.* *It is mandatory to make a separate air supply system for the cleaning equipment.* *Never leave the valve for air open. Always secure it is closed when not foaming!*

If leakage of water is observed anywhere in the airline, both check valves must be changed. Check valve for chemical: The system has one for each chemical inlet. The purpose is to prevent water running back into to chemicals. It will dilute the chemical and result in none or bad foam quality and to low concentration.

Use only original Nilfisk Food check vales.

	***NOTICE*** *Check valves should be checked once every week. It is recommended to change every 1-2 year.*

7.7 Suction filter/chemical hose

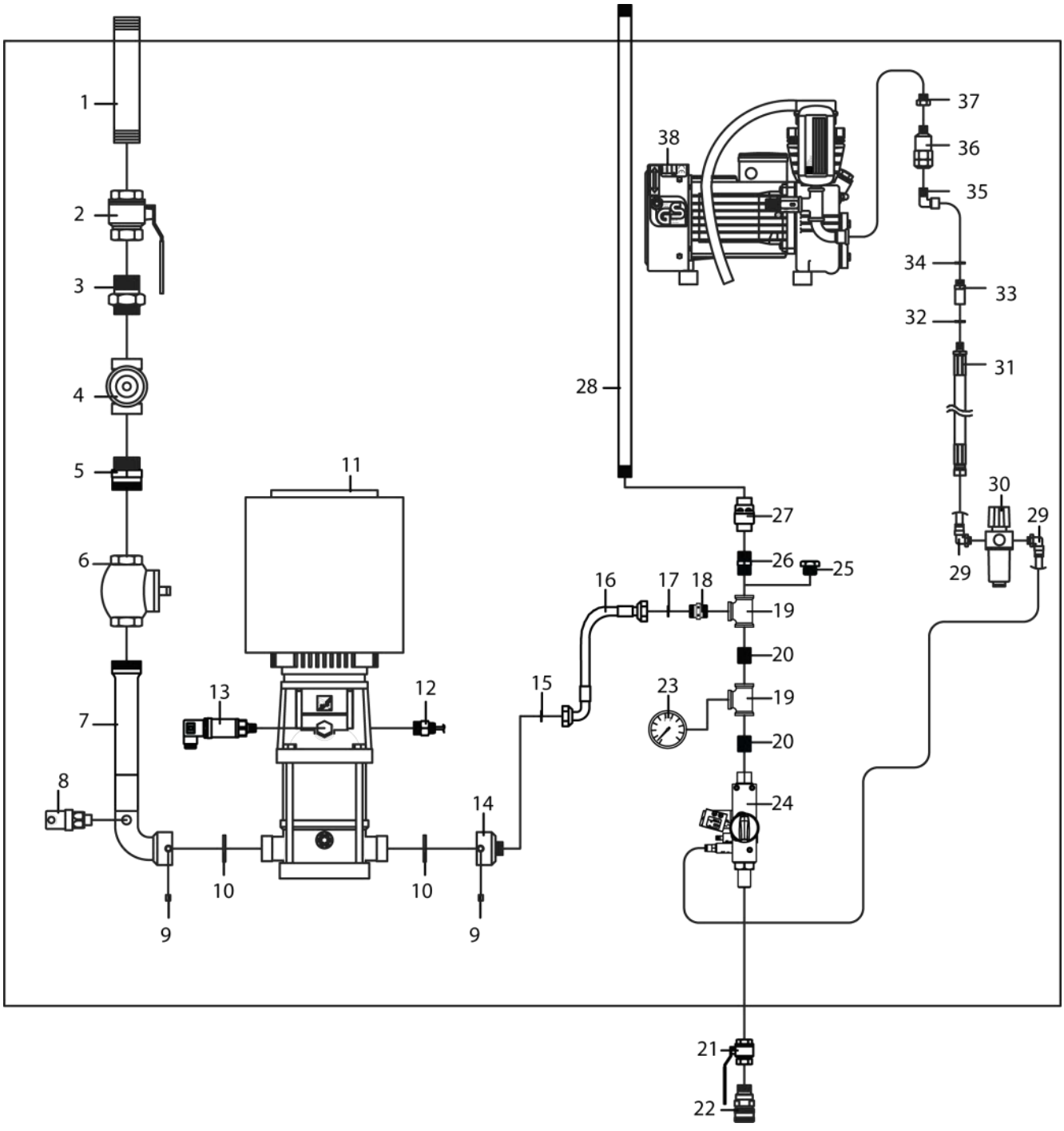
The suction filter for chemical should be clean once every week. It is recommended to change filter and chemical inlet hose every year.

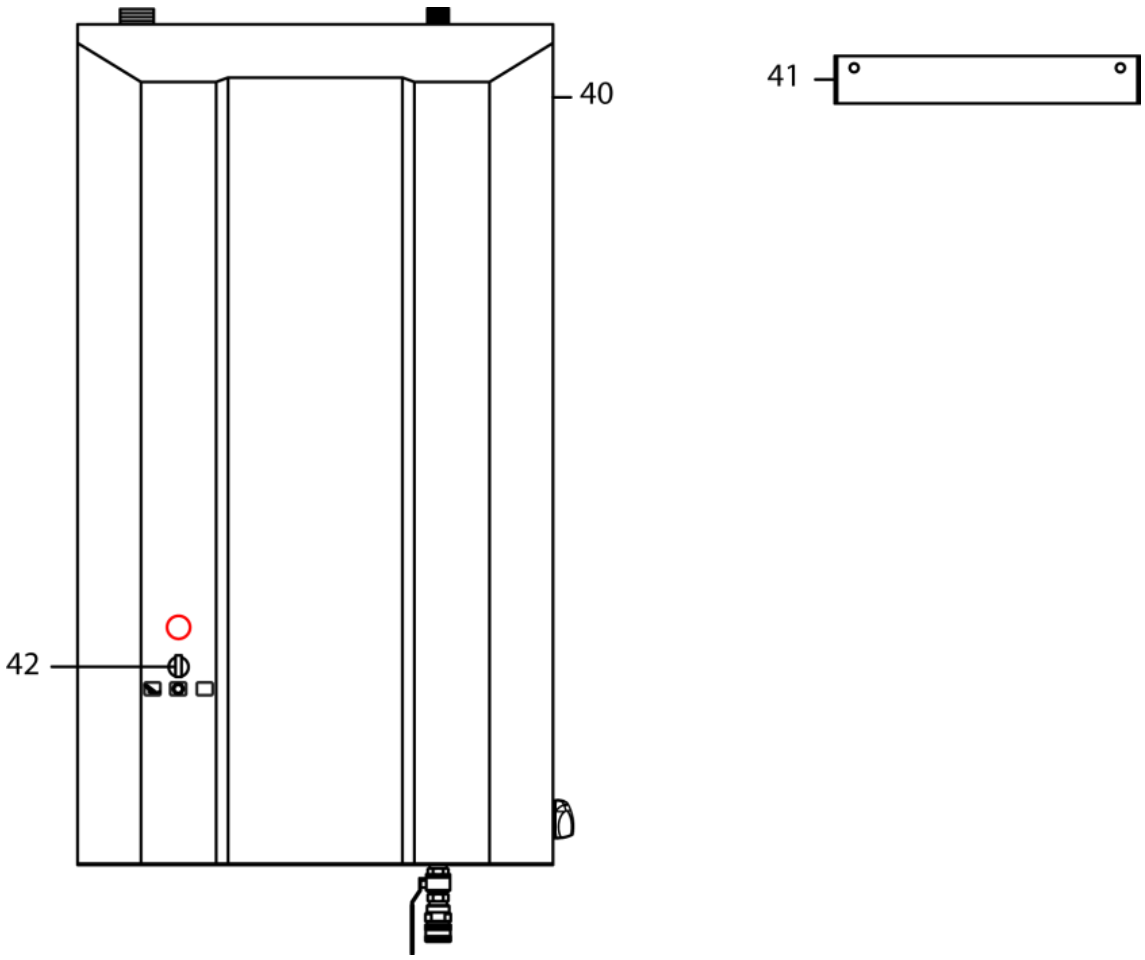
8 Technical Data

Model	S 410	S 410K
Pump pressure Max. operational pressure	15 bar + inlet pressure 25 bar	15 bar + inlet pressure 25 bar
Water flow	10 - 50 l/min.	10 - 50 l/min.
Min. pressure of water supply Max. pressure of water supply	2 bar 10 bar	2 bar 10 bar
Min. pressure of air supply Max. pressure of air supply	6 bar 10 bar	6 bar 10 bar
Max. temperature of water supply	70°C	70°C
Motor consumption	2.2 kW	2.2 kW + 1,1 kW
Nom. current	3,8 – 4,6 A	3,8 – 4,6 A + 2,9A
Control voltage	24 V	24 V
Security of electrical wiring Electrical cable	16 A 4 x 2.5 mm^2	16 A 4 x 2.5 mm^2
Rinsing nozzle Foam nozzle Spray nozzle	25/30 50/200 40/30	25/30 50/200 40/30
Max. hose length	30 m	30 m
Weight Dimensions H x W x D	85 kg 1060x 600 x365 mm	95 kg 1060x 600 x365 mm

9 Spare Parts

9.1 S410DF K

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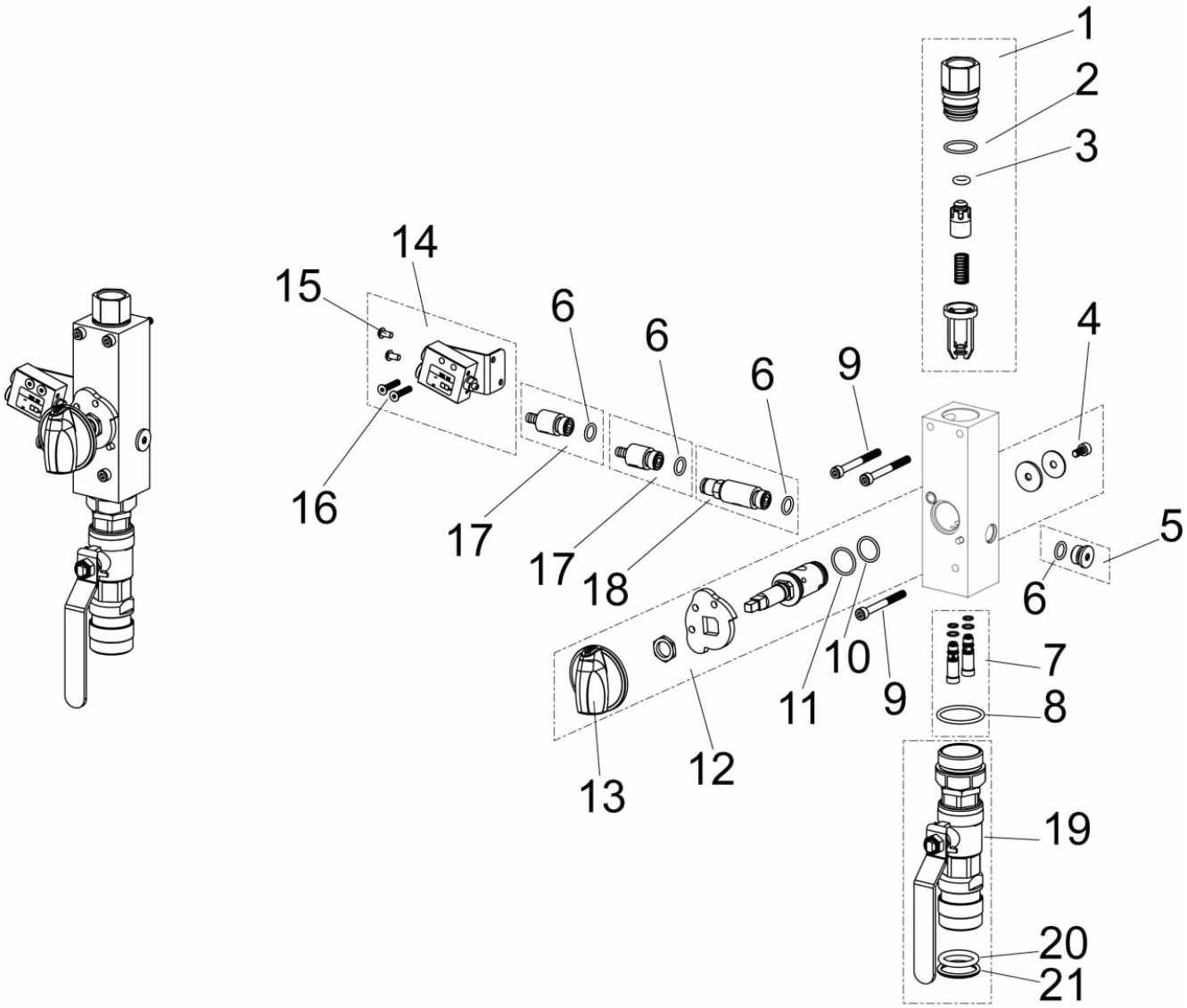
Pos. No.	Article No.	Description	Number
1	0603212	Pipe	1
2	0603205	Ball valve with union	1
3	0603205	Ball valve with union	1
4	601500	Filter for water	1
5	59007405	Hexagon nipple	1
6	606000	Flow switch	1
7	110002739	Pump inlet pipe	1
8	0600090	Pressure sensitive switch	1
9	156519	Screw	8
10	603700	O-ring	2
11	110002631	Pump	1
12	0601444	Thermo switch	1
13	313000	Pressure transmitter 0-25 bar	1
14	110004047	Pump coupling	1
15	110003383	Hose with gaskets	1
16	110003383	Hose with gaskets	1
17	110003383	Hose with gaskets	1
18	110003560	Hexagon nipple	1
19	925000	T-piece	2
20	641002	Nipple	2
21	632800	Ball valve	1
22	0607773	Quick coupling	1
23	659000	Pressure gauge for water	1
24	110003405	Multi block 22/33, compl.	1
25	0608042	Plug 1/2"	1
26	930300	Hexagon nipple 1/2"	1
27	630800	Non-return valve	1
28	110004048	Satellite outlet	1

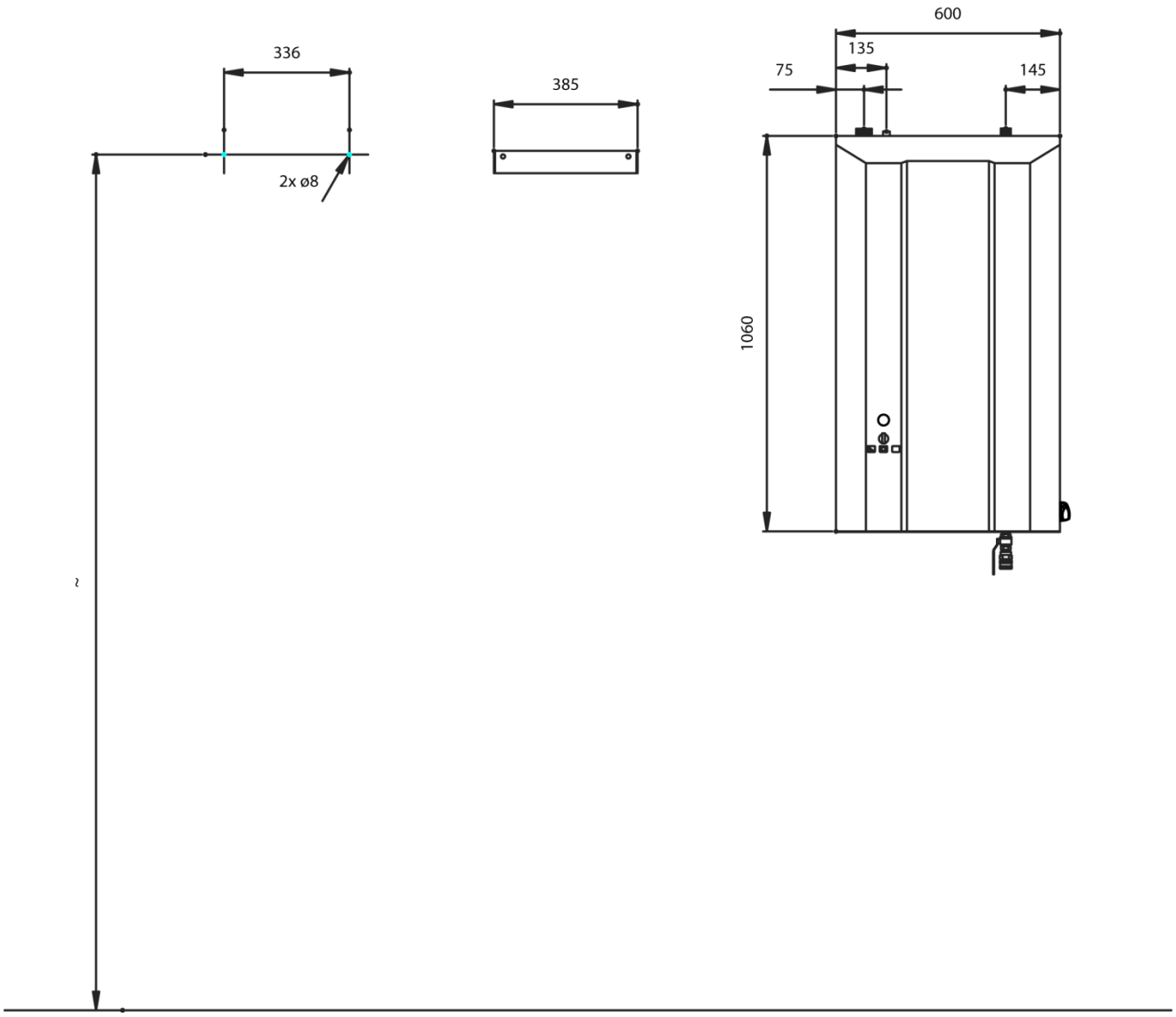
Pos. No.	Article No.	Description	Number
29	359000	Fittings for air, elbow	2
30	635650	Pressure gauge/filter/regulator for air	1
31	658911	Connection hose for compressor	1
32	638100	Packing for air	1
33	0664034	Check valve for air	2
34	638100	Packing for air	1
35	633400	Elbow 1/4"	1
36	635610	Filter for compressor	1
37	927400	Nippel	1
38	852200	Compressor	1
40	0606345	Door	1
41	36100000	Wall bracket	1
42		On/off/alarm switch	1

9.2 Spare parts for rinse/foam block

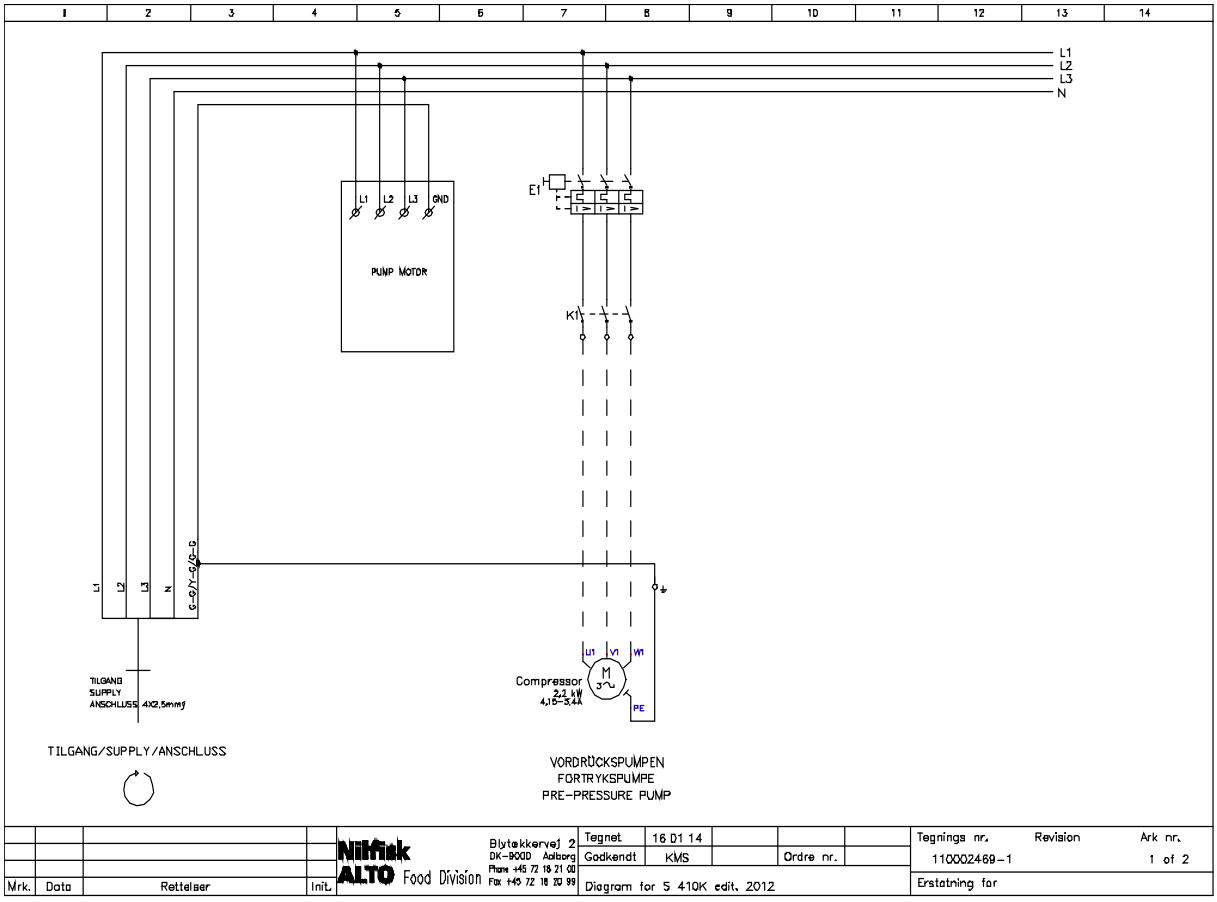


For Pos. No.	Article No.	Description	Number
1	110003279	Non-return valve	1
2	110003276	Set of O-rings	1
3	110003276	Set of O-rings	1
4	110003277	Set of screws	1
5	110002306	Plug with o-ring	1
6	110003276	Set of O-rings	1
7	110003283	Injector set	1
8	110003276	Set of O-rings	1
9	110003277	Set of screws	1
10	110003276	Set of O-rings	1
11	110003276	Set of O-rings	1
12	110003401	Schaft for block	1
13	909100214	Rotary knob	1
14	110003282	Air control valve, compl.	1
15	110003277	Set of screws	1
16	110003277	Set of screws	1
17	110001102	Non-return valve, detergent	2
18	110001979	Non-return valve, air	1
19	350810	Valve and coupling, compl.	1
20	110003276	Set of O-rings	1
21	1100003276	Set of O-rings	1

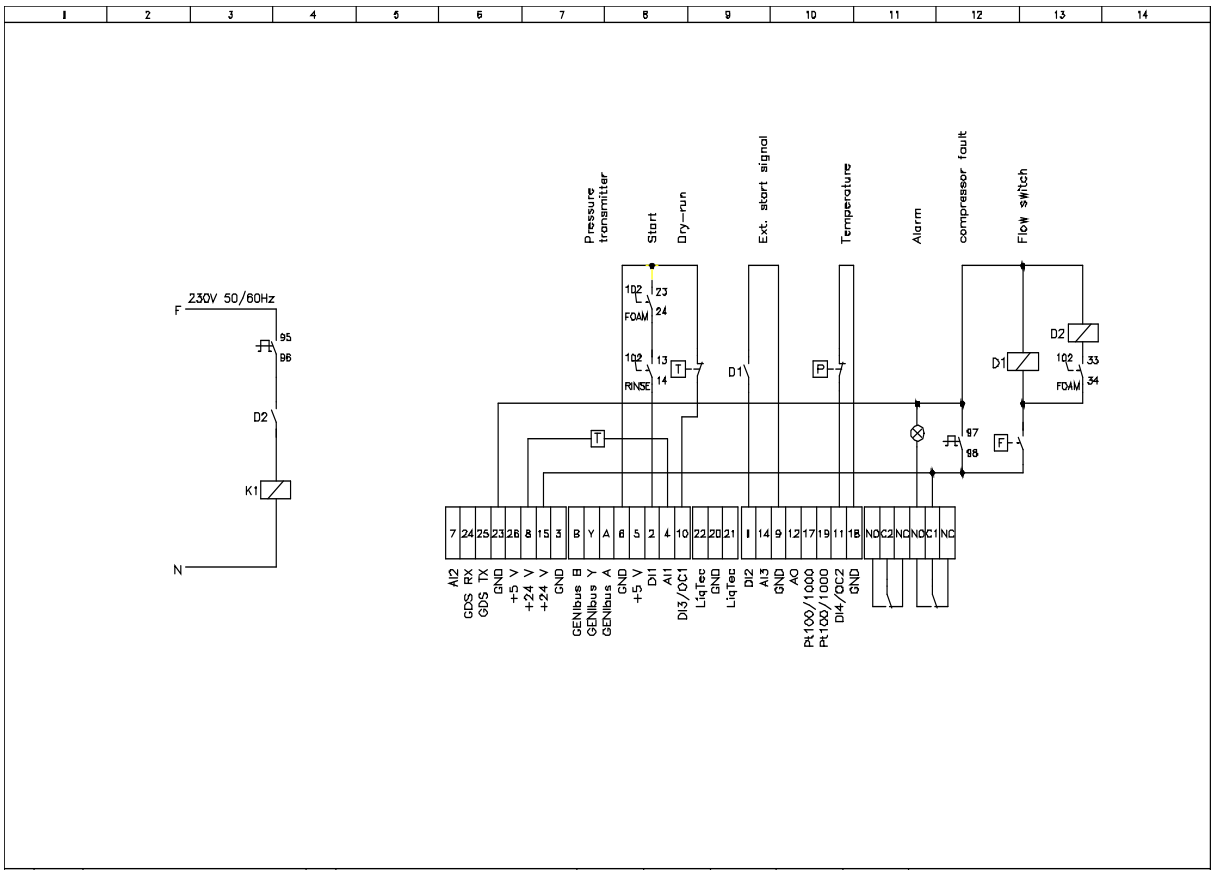
9.3 Installation Drawing



9.4 Electrical diagram

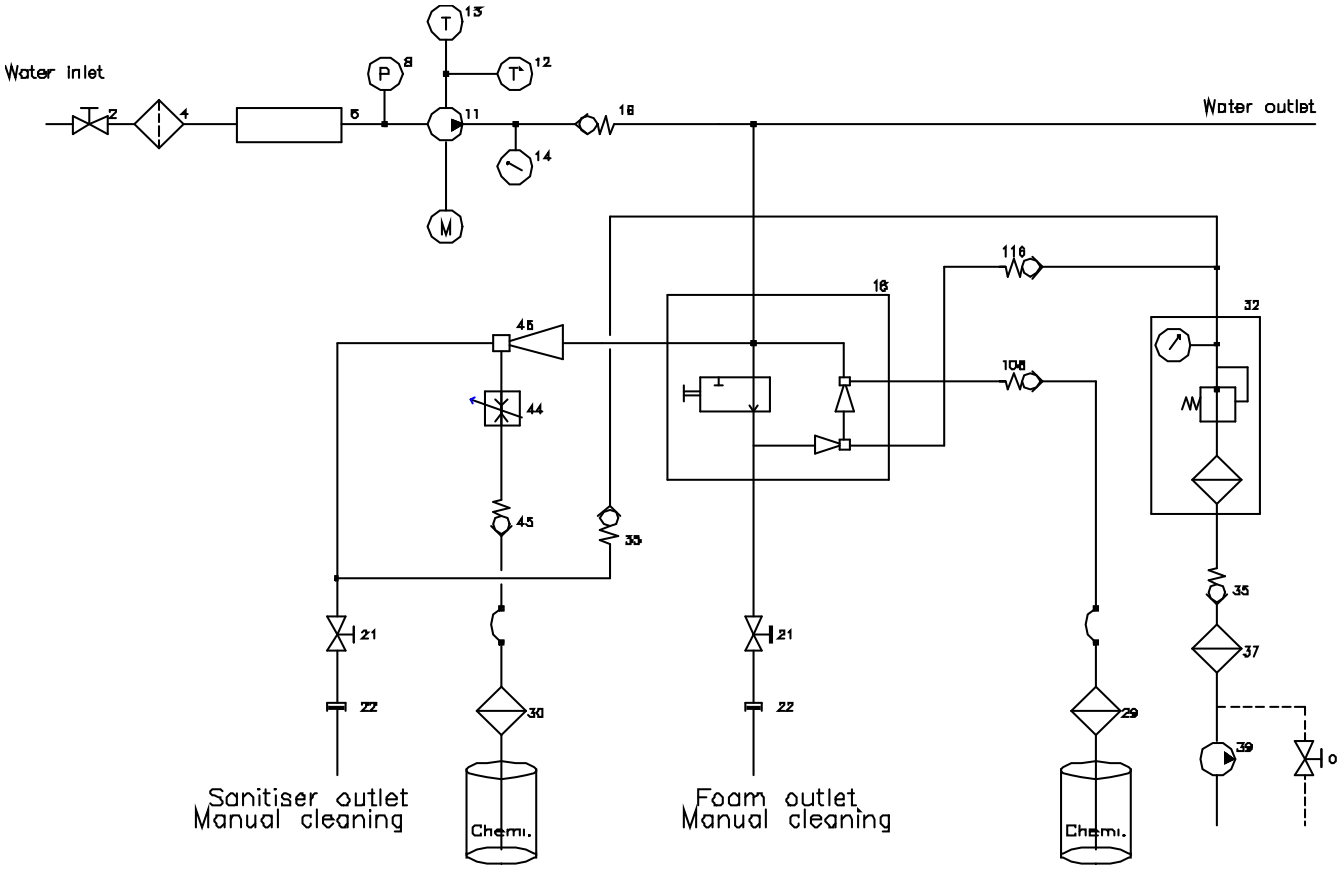


Mrk.	Dato	Rettelser	Init.	Nilfisk ALTO Food Division	Blytækkervej 2 DK-9000 Aalborg Phone +45 72 16 21 00 Fax +45 72 16 20 99	Tegnet	16.01.14		Ordre nr.	Tegnings nr. 110002469-1	Revision	Ark nr. 1 of 2
						Godkendt	KMS			Erstatning for		
						Diagram for S 410K edit. 2012						



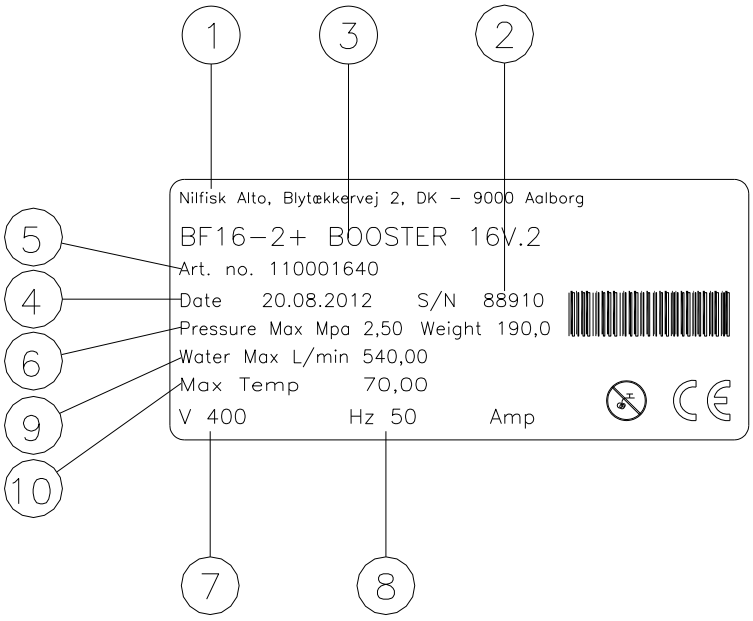
Mrk.	Dato	Rettelser	Init.	Nilfisk ALTO Food Division	Blytækkervej 2 DK-9000 Aalborg Phone +45 72 16 21 00 Fax +45 72 16 20 99	Tegnet	16.01.14		Ordre nr.	Tegnings nr. 110002469-2	Revision	Ark nr. 2 of 2
						Godkendt	KMS			Erstatning for		
						Diagram for S 410K edit. 2012						

9.5 Flow diagram



0.	Ball valve for air (optional)	22.	Quick coupling
2.	Ball valve water	29.	Filter/hose for detergent
4.	Filter for water	30.	Filter/hose for sanitizer
6.	Flow switch	32.	Pressure gauge/regulator/filter for air
8.	Dry run protection	35.	Check valve for air
11.	Pump	37.	Filter for compressor
12.	Temperature switch	39.	Compressor
13.	Pressure transmitter	44.	Dosing valve for sanitizer
14.	Pressure gauge for water	45.	Check valve/nipple for sanitizer
16.	Check valve water	46.	Injector for sanitizer
18.	Bloch/injector	108.	Check valve for detergent
21.	Ball valve for outlet	116.	Check valve for air

9.6 Identification Plate



1. Producer
2. Serial number
3. Type
4. Date
5. Article number
6. Maximum pressure
7. Voltage
8. Frequency
9. Water volume
10. Maximum temperature

9.7 Pump curve