

Professional Satellite SM series



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1. Declaration of Conformity



SM

EN Declaration of Conformity

We Nilfisk-ALTO, declare under our sole responsibility that the products SM, SP, to which this declaration relates, are in conformity with these Council directives on the approximation of the laws of the EC member states:

Function: Hygiene Station
Model/Type: SM11+, SM21+, SM22+, SM32+, SM33+,

Serial number: All

Machinery Directive (2006/42/EC:2006-05-17).

Standard used: EN 12100-1/A1:2009 and EN 12100-2/A1:2009.

Technical file responsible:

Flemming Asp
Nilfisk-ALTO Food Division
Blytaekkervej 2
9000 Aalborg, Denmark

Signature:

A handwritten signature in blue ink, appearing to read 'Flemming Asp'.

Flemming Asp
R & D Manager
Aalborg d. 01-02-2013

2.1. General information EN

For safety reasons it is important to read all of the enclosed information (Installation guide, Service manual, Spare parts, Operating instructions) before mounting this 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 with the ultimate test carried out 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 cut hazard. Therefore it is advised always to use protective gloves and show caution when installing the equipment.

2.2. Preparation

If the wall is made of bricks or concrete, the enclosed screws and rawl plugs are usable otherwise you have to make sure that the carrying capacity of the wall is sufficient.

Note: The pipeline must be rinsed through before the system is connected. See service manual

Note: Remove cover before the system is mounted on the wall.

Note: The weight of the unit are listed in the Service manual under the section "Specifications"

2.3. Placing/application

- Do not use the machine outdoors.
- The satellite must be placed in frost-free rooms only.
- Free space around the satellite: min 1000 mm.

2.4. Water supply

	SM3
Water volume	30 l/min.
Pressure	1,2 - 2,5 MPa (12 - 25 bar)
Max. temperature	70°C

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: Recommended water hardness 14 - 18 dH°. The equipment will operate with water hardness exciding 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.

2.5. Air supply

Air supply for the system is to meet the following specifications:

- Pressure 6 – 10 bar
- Consumption 200 NI/min.

2.6. Piping

The pipe system should be made of stainless steel pipes. The pipe joints should be made in a way that makes separation possible in case of e.g. repairs, movement or similar.

Pipe connections	SM3
Water	3/4" RG
Air	6 mm

Note: A 1/2" closing valve should be mounted on the water supply immediately before the satellite and dirt filter if any.

2.7. Assembly

Dimensions see fig.1

It is recommended to mount the system in an appropriate height (approx. 1, 25 m above the floor) on brick or concrete wall. Tighten the satellite with the enclosed screws and rawl plugs.

Type SM11 - SM33

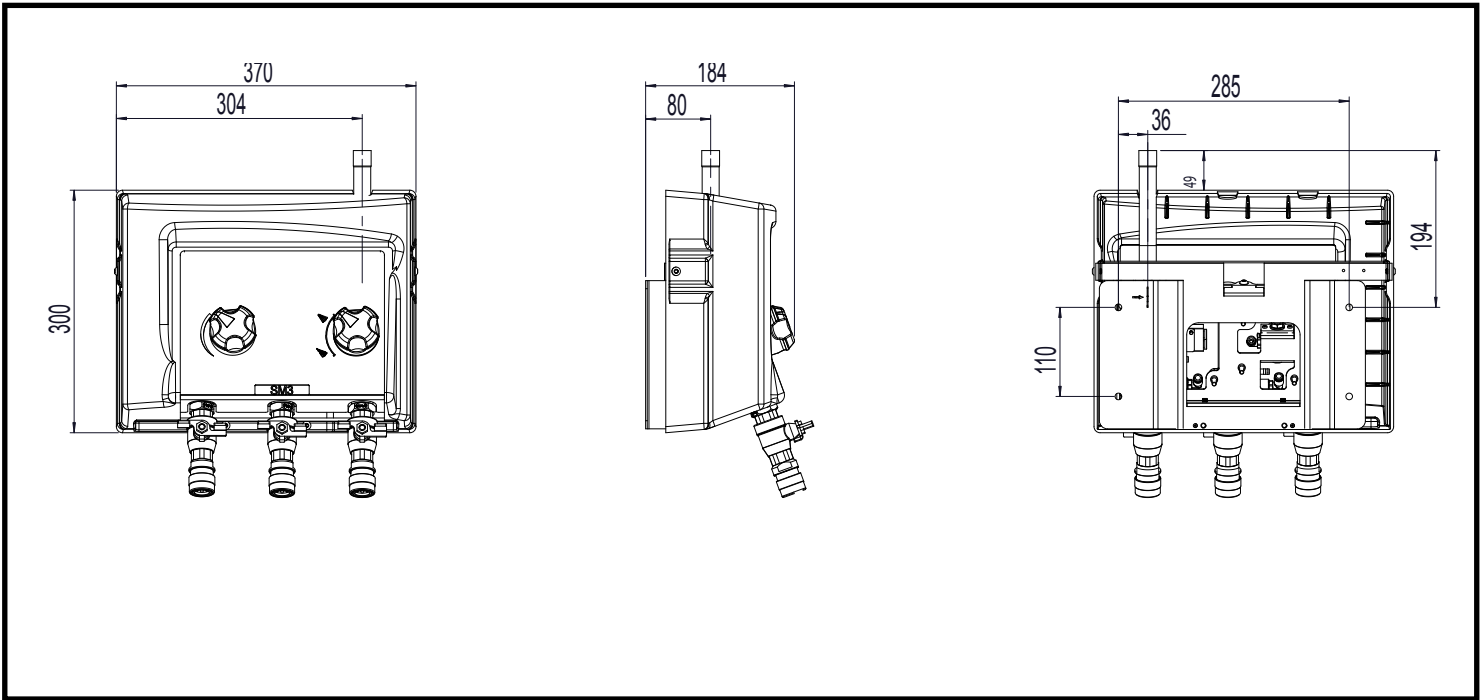


Fig. 1

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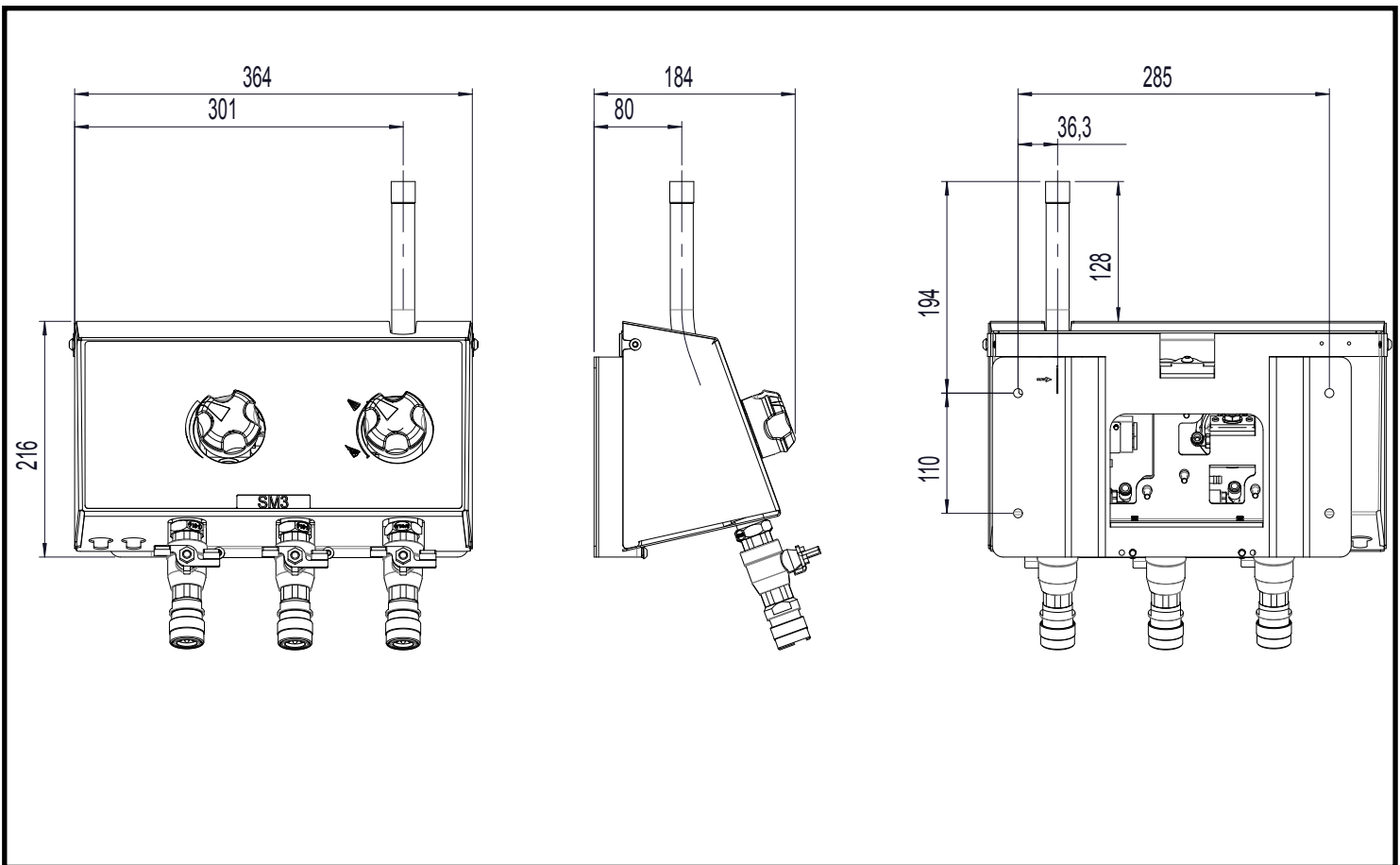


Fig. 1

110002582

3.1. Description

SM = Professional Satellite
 SM-PD = Satellite with pre-diluted chemical

The satellite in the Professional range is a complete hygiene station which is connected to a booster or a main station. Therefore the satellite must be supplied with water in sufficient quantity, compressed air, detergent(s) and disinfectant. The station is then ready for hygiene duties. The change between rinse and foam on the first injector is manual. To char

the hose must be moved between the outlets.

Using Hygiene Chemicals

The Professional satellite has been prepared to use the most common of detergents and disinfectants.

Important: Do not use the water from the system for applications other than cleaning.

Warning

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

A typical installation of the Professional series is shown on Fig. 1

- Main station (1)
- Mixing system (2)
- Satellite (3)

Detergents are supplied either from the User Pack System, which can be ordered and delivered as an accessory (Fig.2) or from separate standard cans (Fig.3). Supply is also available via a central chemical supply, either as pre diluted chemical supply (Fig. 8) or as direct injection (user guide no. 0617686).

SM-PD

The pre-diluted standard Satellite SM1-PD2+, is a Satellite based on SM Professional range. On the left side there are two separated pre-diluted chemical lines. The Satellite is prepared for two pre-diluted chemicals and one local foam chemical. The local chemical is available with User Pack.

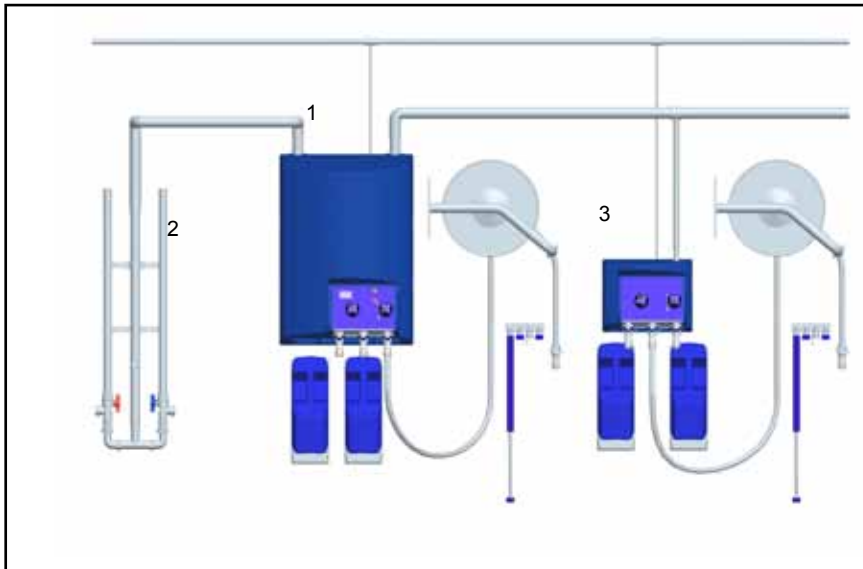


Fig. 1

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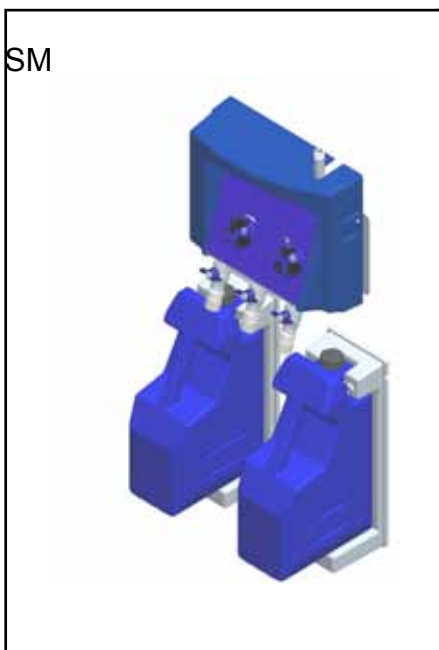


Fig. 2

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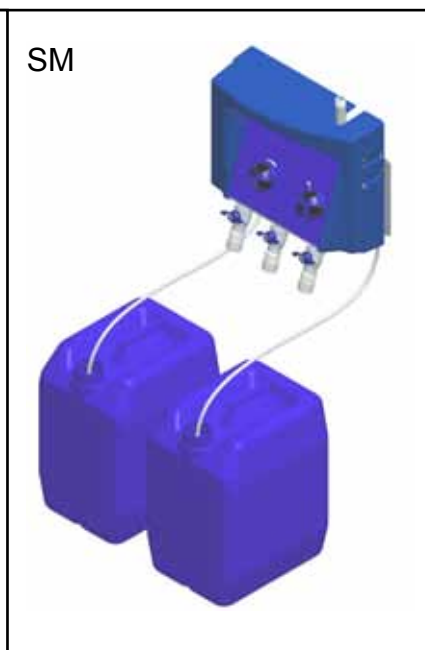


Fig. 3

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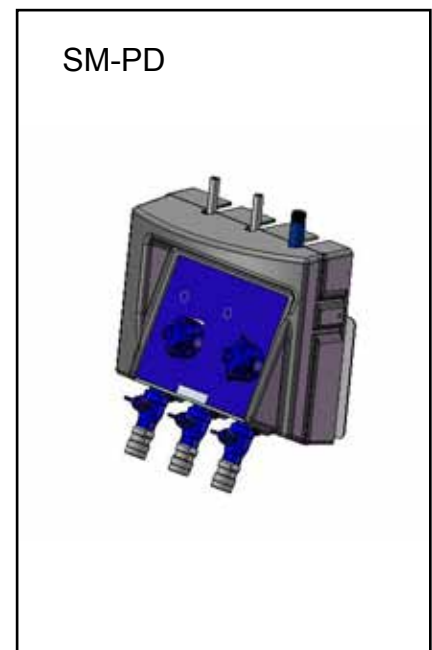


Fig. 8

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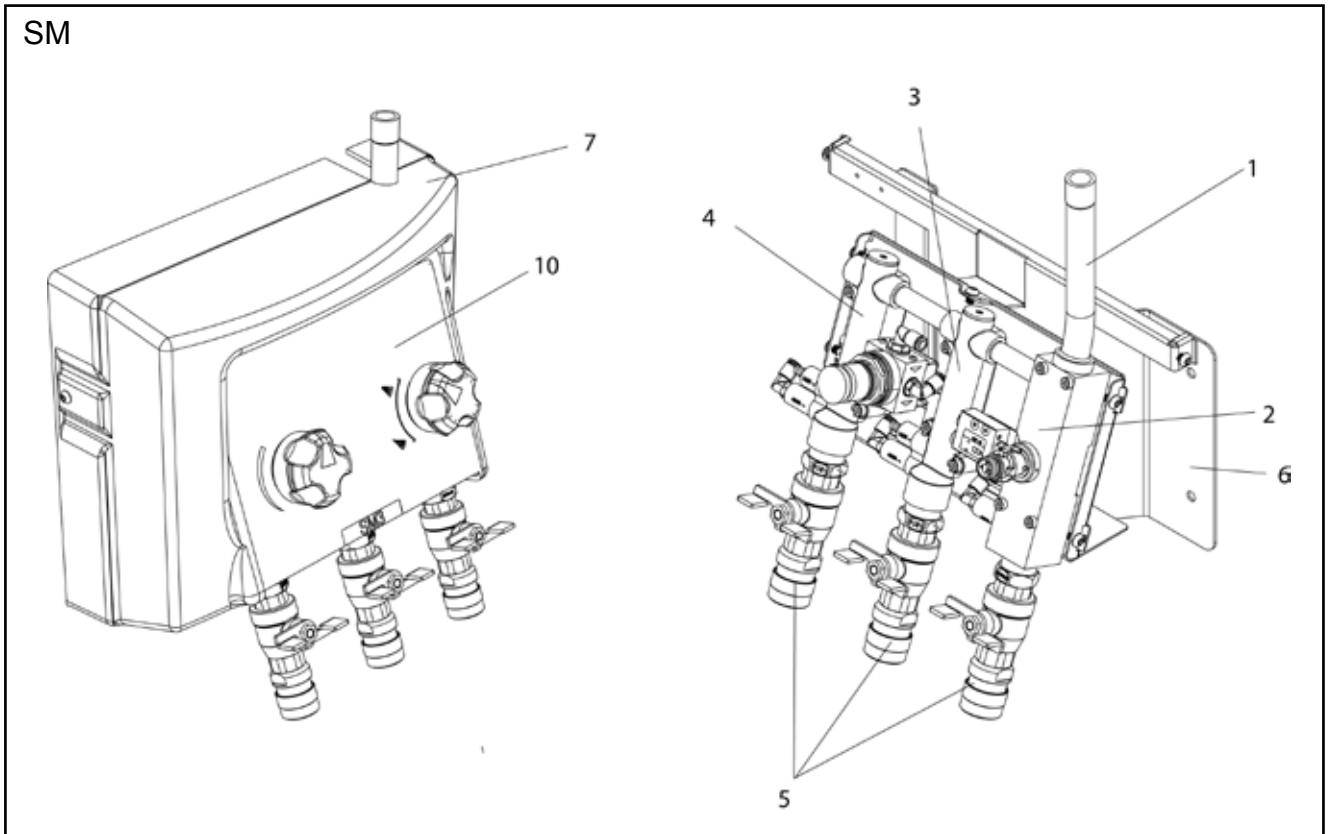


Fig. 4a

110001404

Satellites

SM11, SM21, SM22, SM32, SM33, (Fig. 4a).

- 1. Water inlet
- 2. Injector chemistry 1
- 3. Injector chemistry 2
- 4. Injector chemistry 3
- 5. Quick coupling with check tap
- 6. Wall rack
- 7. Cover
- 8. Air regulator
- 9. Change-over switch, foam/rinse
- 10. Operation panel

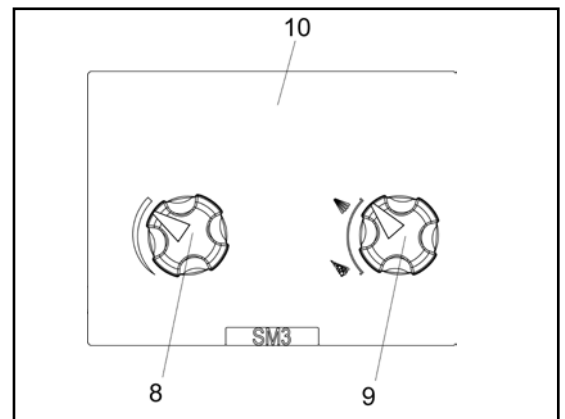


Fig. 5

110001403

3.1.1 Operating Diagrams according to ISO14617

Satellite SM

- A. Air supply.
- B. Ball valve.
- C. Check valve.
- COV. Change over valve.
- D. Outlet.
- E. Inlet, detergent.
- EJ. Ejector.
- F. Filter.
- HC. Hose connection.
- HV. Hydraulic valve.
- OF. Orifice.
- PR. Pressure regulator.
- W. Water inlet.

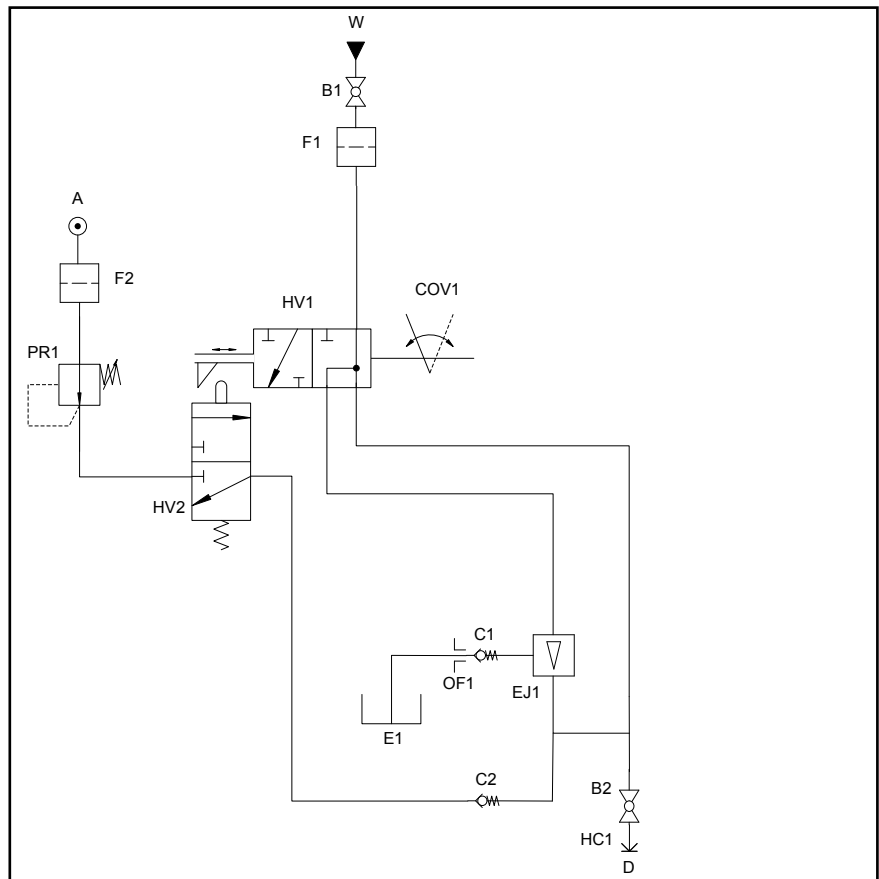


Fig. 6a

0627150

3.2. Maintenance

Besides the procedures described in item 3.4.3 the satellite is maintenance-free. However, we recommend cleaning the satellite occasionally in connection with the cleaning of other equipment in the area.

3.3. Start

3.3.1 New system

In order to ensure a problem-free start up of a new system the pipe system must be flushed and bled:

Bleeding the pipe system

1. Turn on the water supply to rinse and bleed the entire system. Open the tap furthest away until no air or dirt comes out. Then rinse and bleed the next tap and continue until the tap closest to you has been rinsed and bled.
2. Mount satellites.
3. Chemical supply lines are only to be bled by authorised personnel appointed by the chemical supplier.

3.4. Daily operation

3.4.1 Start

1. Check that water- and air supplies for the system are open. (see A, Fig.7, air). Activate central chemical supply if present.
2. Set the function that you want. Use the system referring to "User Guide" instructions.

3.4.2 Stop

1. Press "0" on the control panel to stop.
2. Close the water supply
3. Close the air supply (A, Fig. 7)
4. De-activate the chemical supply, switch off closing valves if any.

Note: It is important to shut off the water, air and chemistry, when the machine is left after use because:

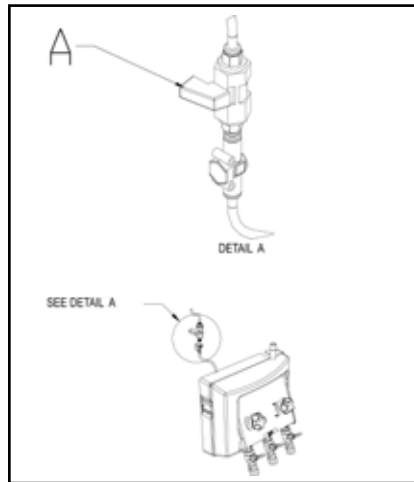


Fig. 7

110001402

- If the air supply is open when the satellite is not in use, air may seep into the water pipe. If this is the case the system may have to be bled again.
- The water separator, which is a part of the air regulator, is only to be emptied when the air is shut off.
- If the water and the air supply is closed, but the outlet tap on the satellite is open, chemical can be pumped out on the floor etc. This is only possible in connection with direct or pre diluted chemical supply.

It may be necessary to bleed the pipes and the satellite again after it has been closed for a longer period of time (holidays, and the like)

3.4.3 Rinsing the chemistry supply

IMPORTANT: The chemistry supply must always be rinsed thoroughly after use. The following does not concern units (satellites) with central chemical supply. Rinsing of central supply lines are only to be carried out by authorised personnel appointed by the chemical supplier.

Remains of detergent or disinfectants can clog the injector so it needs to be rinsed or replaced. The following procedure will clean the injector for detergent and/or remains of disinfectants.

1. Remove User Pack, if any.
2. Hold the rinsing bottle with clean water tightly against the suction opening (with User Pack) or against the hose (without User Pack). Alternatively, you can place a User Pack with clean water in the holder or – without User Pack – place the hose in a bucket of clean water.
3. Activate the hose handle until clean water comes out of the nozzle (approx. 30 seconds).

Note: This procedure should be followed for both the detergent and disinfectant side (if this is installed).

3.5. Service

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

Warning: The satellite must only be serviced when there is no pressure on the system.

1. Turn off the water and air supply
2. Turn off the power supply.
3. Disconnect the chemical supply.
4. Depressurise the system.

3.5.1 Components

3.5.1.1 Non-return valve/inlet side (water, air, detergent)

Maintenance free

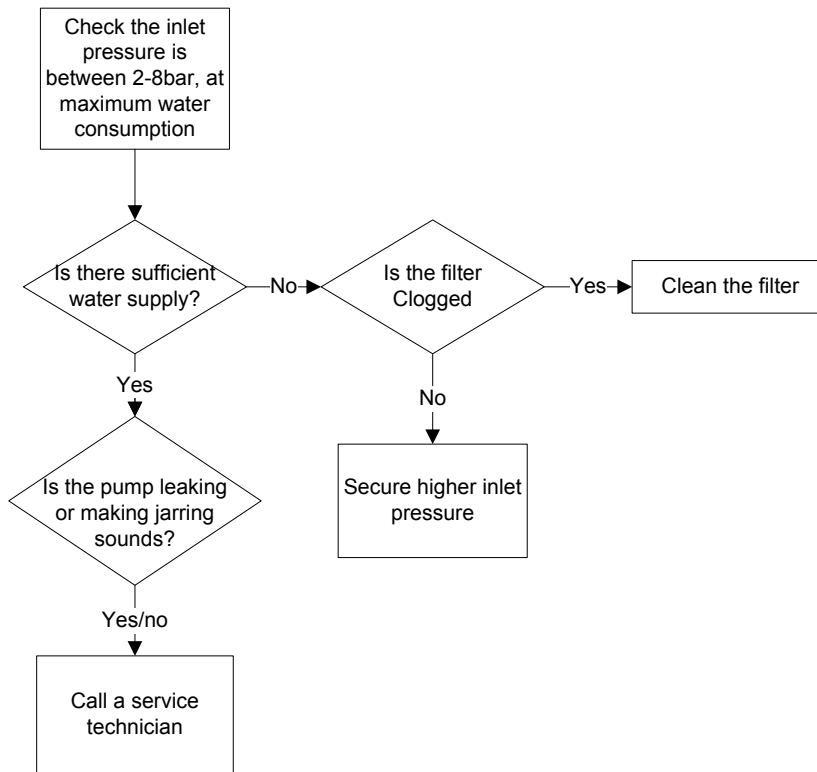
If defective: Call service technician

3.5.2 Recycling and scrapping

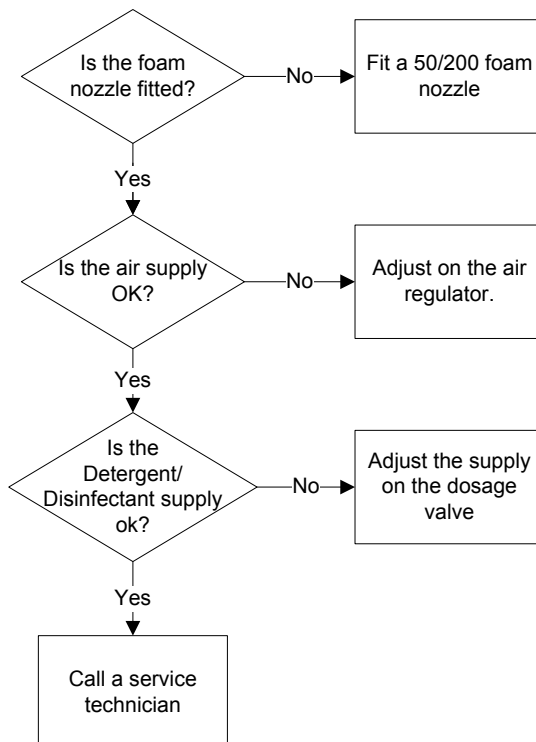
Recycle the wrapping and scrap the machine according to recommendations from the local authorities.

3.6. Troubleshooting

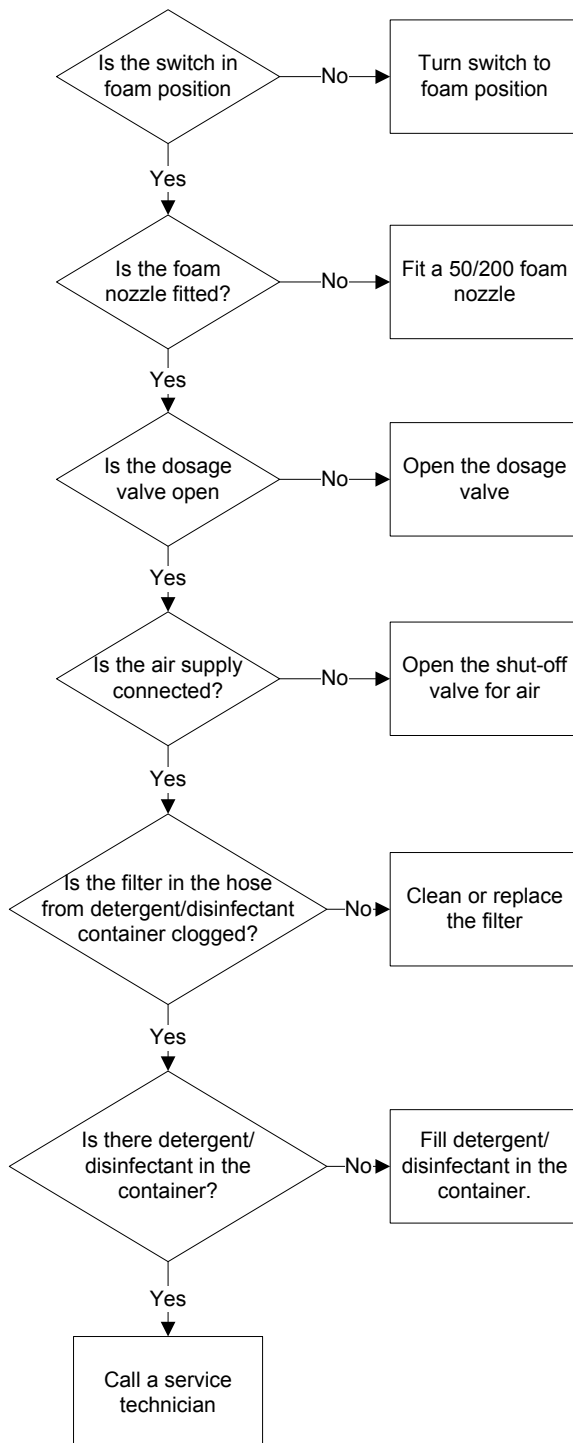
3.6.1 Too low or unstable pressure



3.6.2 Unsatisfactory foam quality



3.6.3 No foam creation



3.7. Recommended spare parts

The recommended spare parts are marked with * in the sparepart manual.

3.8. Specifications

The most important specifications are shown on the serial plates on the main station/satellite and pump, respectively.

Technical Data SM		
Water	Unit.	Pro
Max. Operational pressure.	Mpa/bar	4,0 / 40
Consumption during rinsing.	L/min	30* - 35
Consumption during foaming	L/min	10
Min. supply pressure.	Mpa/bar	1,2 / 12
Max. supply pressure.	Mpa/bar	4,0 / 40
Min. water supply.	L/min	30
Max. water temp.	°C	70
Pipe dimension inlet Ø	inch	3/4"
Pipe dimension outlet Ø	inch	1/2"
Compressed air		
Min/Max air pressure.	Mpa/bar	0,5 - 1,0 / 5 - 10
Compressed air consumption.	NL/min	200
Pipe dimension inlet Ø	mm	6
General		
Dimensions H x W x D	mm	330 x 403 x 215
Weight	kg	13

*Depends on nozzels size.

Spare parts

