



FSR FOAM/SPRAY/RINSE



1. Symbols used in this document

	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: Warning! Sharp edges – watch your fingers.

2. Specifications

Technical Data	
Water	Units
Connection type inlet	ISO 228/1-G 1/2
Connection type outlet	3/4" GHT (ASME B1.20.7 3/4"-11,5NH)
Water consumption - foaming	5,2 l/min @3 bar
Water consumption - spraying	5,2 l/min @3 bar
Water consumption - rinsing	10,5 l/min @3 bar
Min. inlet pressure	2 bar @ 5,1 l/min
Max. inlet pressure	6 bar
Max. water temperature	55°C
Nozzles (recommended)	
Rinsing nozzle	25/50 lance 23cm
Foam nozzle	Topjet
Spray nozzle	25/50 lance 23 cm
General	
Number of products	2
Max. hose length (recommended)	15 m
Sound level ISO 11202	Below 70DB
Weight	1 kg
Dimensions HxWxD	173x205x119 mm

3. Overview and Use

The FSR unit is a complete tapwater cleaning unit. The unit requires sufficient supply of water, detergent and desinfectant.

Consumption

The unit is approved for the use of detergents and disinfectants.



WARNING: Do not change the settings made or recommended by the supplier of the detergents!

Detergents are supplied from separate standard cans/bags. (Supply is also possible via piping systems).

Before installation and set up of the unit always read this instruction thoroughly. Always make sure to follow personal safety procedures for chemicals in connection with refilling procedures (product change), maintenance and repair. See also product label and MSDS sheet.

Safety instructions

Only professional service personnel are allowed to carry out service and repairs on the unit.

Only instructed personnel are allowed to operate the unit.

4. System Safety

In case of error/defect or service on equipment:

- close the water supply

Closing valve for water supply

With this valve the unit can be isolated from the water supply. We recommend mounting a filter with non return valve on the inlet to prevent backflow of water.



Wear glasses when using the unit.



Wear gloves and suitable clothing when using the unit.

Breakdown of water non-return valves:

- Water closing valve on/in connection with the unit must always be closed when the unit is not in use.
- After use of the unit, all chemical non-return valves must be thoroughly rinsed with clean water. Follow instructions in paragraph .
- Non-return valves for water should be examined minimum once a year by authorised personnel for defects.

Repair of unit:

- Do not attempt to repair a Defective unit by yourself. Always contact an authorised service company.
- Block and mark any Defective unit in order to avoid unintended use – see paragraph below regarding “Rest risk – Use of the unit”
- For safety reasons only use approved and original spare parts.
- The unit must never be used without the cover being mounted.

5 Rest Risk

Use of Unit:

- Never use the unit without prior instructions in use of the unit and its safety instructions. The instruction must be prepared by an educated/ instructed personnel.
- Never use the unit without having read the enclosed guide and safety instructions.
- Always close water supply after use.

Damaged unit:

- Never use the unit if leakages (water or chemical) are observed.
- Never use the unit if it is not possible to operate the closing valves and/or if it is not possible to select required operation.
- Never use the unit if it has been dislodged from its original place of mounting.

6. Installation

Before Installation

When the unit is to be mounted you have to make sure that the carrying capacity of the wall is sufficient.

-  The pipeline must be rinsed through before the system is connected.
-  Remove cover before the unit is mounted on the wall.

For safety reasons it is important to read all of the enclosed information before installation of 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.

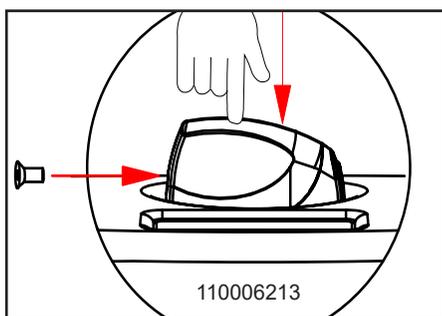
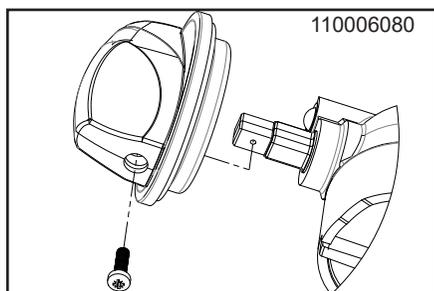
Noise

Sound level according to ISO 11202;
Below 70 dB.

Directions for Mounting

-  The unit should be mounted in frost-free rooms only.
 - The unit can be mounted on a wall or on a separate frame which may be installed in production areas and anchored to the floor.
 - For mounting on walls, please note the following:
 - The wall for mounting should be either a stable brick wall or a wall made of concrete.
 - The unit must always be mounted according to illustration 110005640

- i** The delivered bracket should be secured to the wall by the enclosed screws and corresponding dowels
- It is VERY important that the wall bracket is mounted with ALL of the enclosed 4 screws!
 - The wall bracket should be mounted on the wall according to the above description and the unit is hung on to the bracket. The hose and Product holders should be mounted afterwards.
 - The operation button must be mounted after mounting of the cover.
 - The screw on the button must be aligned with the small hole on the shaft.
 - Press the button while fastening the screw. (See illustration 110006080 and 110006213)



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 in horizontal position: The unit must not be placed on the front where you find the operation panel. Neither can it be placed on top or bottom where connections and outlets are mounted.

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.

Vibrations

Hand-arm vibrations according to ISO 5349-1.

Water Connection

- i**
- 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 connection for water must be made on the side of the unit. (see layout drawing)
 - Minimum internal diameter of the supply pipe must be at least ½" external (ø16 mm internal).
 - The pressure loss in the supply line must be held as low as possible by:
 - avoiding long supply pipes
 - mounting low pressure resistance ball valves and
 - avoiding fittings with high pressure loss.
 - When installing the piping, take care to avoid air traps.
 - All pipe connections to the unit must be screwed connections ensuring simple maintenance and dismantling of the station.

Max. allowed temperature of supplied water:	55°C
Max. allowed pressure of supplied water:	6 bar
Water consumption at rinsing mode:	10,5 l/min

i For an optimum functioning of the injector system, and to avoid impurities in the water, we recommend installing the enclosed filter

Supply of Detergent

Satellite

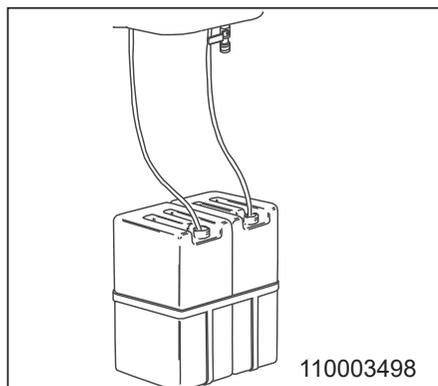
Attach chemical suction hoses:

- Washing product on the right side
 - Disinfection product on the left side
- see below drawing.



- Place the bag/can with detergent in the product holder
- Check the suction filter for impurities.

- Put the suction hose into the bag/can below product level and avoid suction of air. See drawing no 110003498



- After pre-rinsing, check again that the hose is sufficiently below product level and avoid suction of air during foam or spray operation.
- After use of and when changing product as well as after use of the unit, remove the hose from the bag/can and rinse the product inlet line and injector with clean water.

Hose Connection

- The special hose fitted with spray gun/outlet valve is connected to the outlet quick coupling of the unit (layout drawing).
- Maximum hose length: 15 m.

It is recommended only to use DEMA hoses, which have been tested for resistance.

If the drain hose is disconnected for a long time, the water connection has to be closed.

7. Operation procedures

Initial start up

Adjustment of detergent

Adjustment of detergent can be done either by means of a limiting nozzle or by means of a closing valve.

Limiting nozzle Remove cover from the unit.

The limiting nozzle is placed in the suction nipple of the non-return valve and can be replaced by a smaller or larger nozzle depending on the concentration required. Please follow guidelines in table. Reinstall the cover when adjustment has been carried out.

Nozzle colour	Concentration at 29 psi - 2 bar	Concentration at 44 psi - 3 bar	Hole dim.
Orange	2,8	3,2	0.25
Brown	2,3	2,7	0.23
Yellow	1,6	2,3	0.20
Turquoise	1,1	1,8	0.16
Purple	1,2	1,1	0.14
Light blue	0,6	1,0	0.12
Pink	0,7	0,7	0.10

 All tests have been made with water.

This table is for indicative purposes only. In order to achieve the exact concentration, it must be tested during use.

8. Operation

Start/Stop (change, rinse, foam, des)

Start satellite

1. Check that water supplies for the system are open.
2. Make sure that the water supply to the unit is open. In case of central chemical supply this must be activated too.
3. Select requested function. Use the unit according to the "User Guide".

Stop satellite

1. Turn off the water supply

 It is important to shut off the water and chemical supply when the unit is left after use .

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



CAUTION: The chemical supply must always be rinsed thoroughly after use

2. The following procedure will clean the chemical supply for detergents and/or remains of disinfectants.

- 2.1. Remove Product bag/can.
- 2.2. Place the hose in a bucket of clean water.
- 2.3. Activate the hose handle until clean water comes out of the nozzle (approx. 30 seconds)

 The chemical supply must always be rinsed thoroughly after use.

9. Maintenance, Trouble shooting, Service

Preventive maintenance

Depending on usage, maintenance should be undertaken by an authorised service engineer at least once a year in order to prevent defects and failure of operation. Authorised engineers are persons who due to their skills and experience have sufficient knowledge of the Hygiene Systems and are confident with the state work safety regulations, accident preventing regulations, lines and generally acknowledged technical regulations such as DIN-norms and VDE-provisions. For your safety, this cleaning unit has been manufactured according to all relevant regulations valid in the EU and therefore it has been supplied with the CE-marking. For further information, please contact to the service department.

Rinsing the chemical supply/ injector system

Remains of detergents or disinfectants can clog the injector so it needs to be rinsed or replaced.

The following procedure will clean the chemical supply for detergents and/or remains of disinfectants.

1. Hold the rinsing bottle with clean water tightly against the hose. Alternatively, you can place the hose in a bucket of clean water.
2. Activate the hose handle until clean water comes out of the nozzle (approx. 30 seconds).

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

Descaling

- The interval of the Descaling procedure is depends on the water hardness.
- Make sure the water supply to the unit is disconnected.
- Remove the Cover from the unit.
- Dismount the injector block.
- Put the injector block in a descaling bath – make sure the dosing valve (the knob) is over the surface.
- Wait for 60 minutes.
- Rinse the block in clean water.
- Connect water to the unit.
- Test the unit in Foam position make sure the vacuum is sufficient, it is recommended to be between 14,8 - 20,7 inHg / -0.05 - 0.07 MPa.
- Test that the unit can start and stop in both foam and rinse position
- Reinstall the cover to the unit

The following descaling intervals must be observed to prevent lime building 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

Coupling

It is recommended to lubricate all coupling parts regularly (approx. once a week) with waterproof grease to prevent leaks and damage of packings. If the unit is equipped with a spray gun the piston of the gun should also be lubricated.

In leaking quick couplings the packings should be replaced.

Internal cleaning of the unit

We recommend opening and cleaning the unit inside min. once a week.

10. Trouble Shooting and Remedy

Fault	Cause	Remedy
No pressure/ too low pressure	Insufficient or No water supply	Open water supply valve (See 5.1 – Closing valve)
	Rinsing nozzle is not installed	Place rinsing nozzle
Insufficient or No foam creating	No supply of diluted products	Consult directions for use of dosing unit
	Product is not suitable	Choose suitable product
	Incorrect nozzle	Place foam nozzle
	Non-return valve is blocked	Clean or replace non-return valve
No spray sanitising	Injector /mixing chamber blocked	Clean nozzle
	No supply of dilute products	Consult directions for use of dosing unit
	Non-return valve is blocked	Clean or replace non-return valve
	Injector /mixing chamber is blocked	Clean Injector /mixing chamber
<i>In case of errors/troubles not mentioned above, please contact your local service technician for further assistance.</i>		

11. End of Use

Dismounting

Close all supply valves and remove the unit from wall.

Disposal

In case the unit should be disposed, it must be separated and sorted in recyclable and non recyclable parts.

The steel construction is easily separated and disposed and constitutes no environmental risk – nor for the user.

Disposal must be made according to rules and regulations in force for disposal of machines as well as all standards in connection with environmental protection.



CAUTION: Disposal of electronic components and other remedies must be handled as special disposal when disposed. Alternatively, it can be disposed by a specialised disposal company.

Recommended spare parts
Pièces de rechange conseiées
Piezas de requesto recomendadas

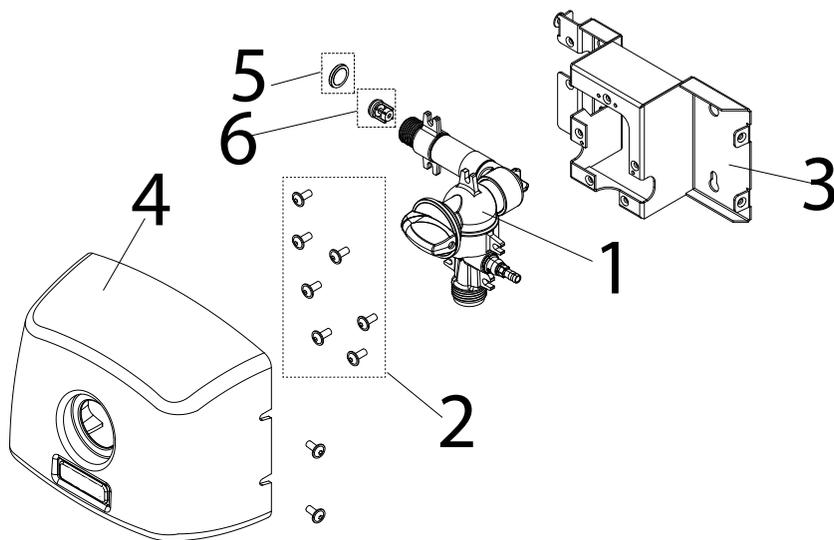
Español (ES)

Français (FR)

Deutsch (DE)

English (EN)

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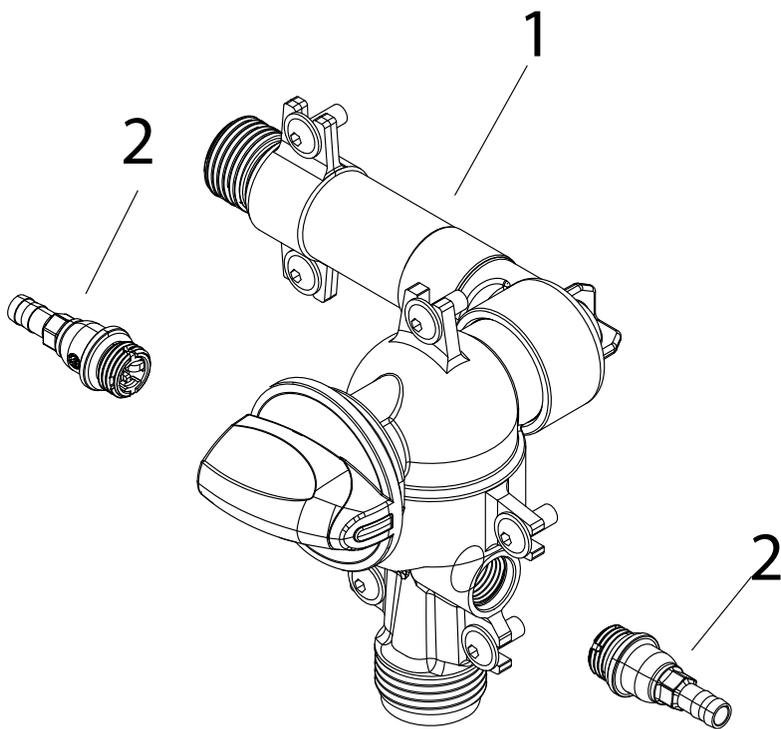
!	Pos./Ref.	Nr. No.	Description Désignation Designación		
	1		See page 84		
	2	110005653	Screw kit for cleaning station Nommo		
	3	110005532	Wallbracket		1
	4	110005652	Cover Complete		1
	5	110005813	Water filter		
	6	110006089	Water check valve kit with o-ring		

English (EN)

Deutsch (DE)

Français (FR)

Español (ES)



110005636

!	Pos./Ref.	Nr. No.	Description Désignation Designación		
	1	110005650	Block complete		
	2	110004434	Chemical non return valve		2

Español (ES)

Français (FR)

Deutsch (DE)

English (EN)

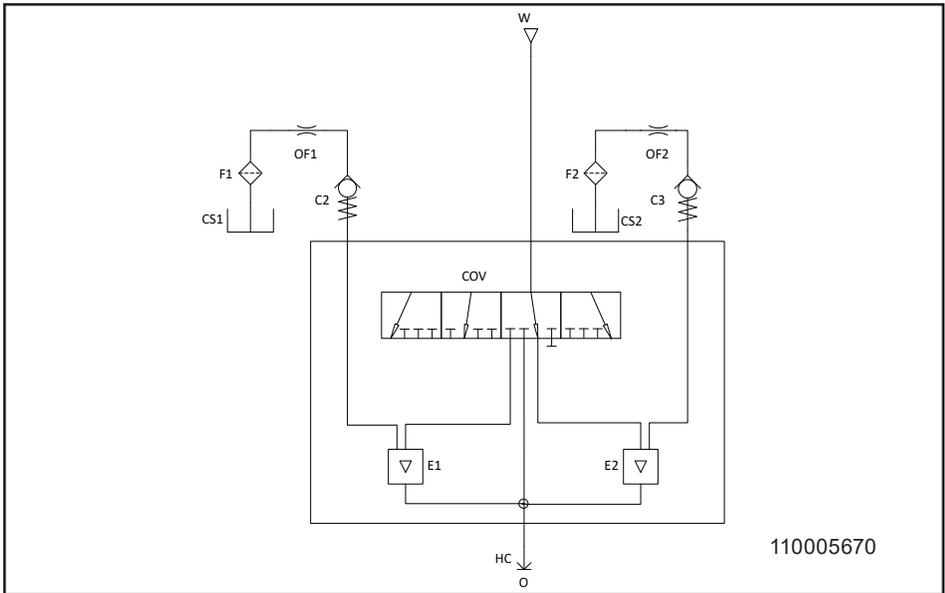
Operating Diagrams

English (EN)

Deutsch (DE)

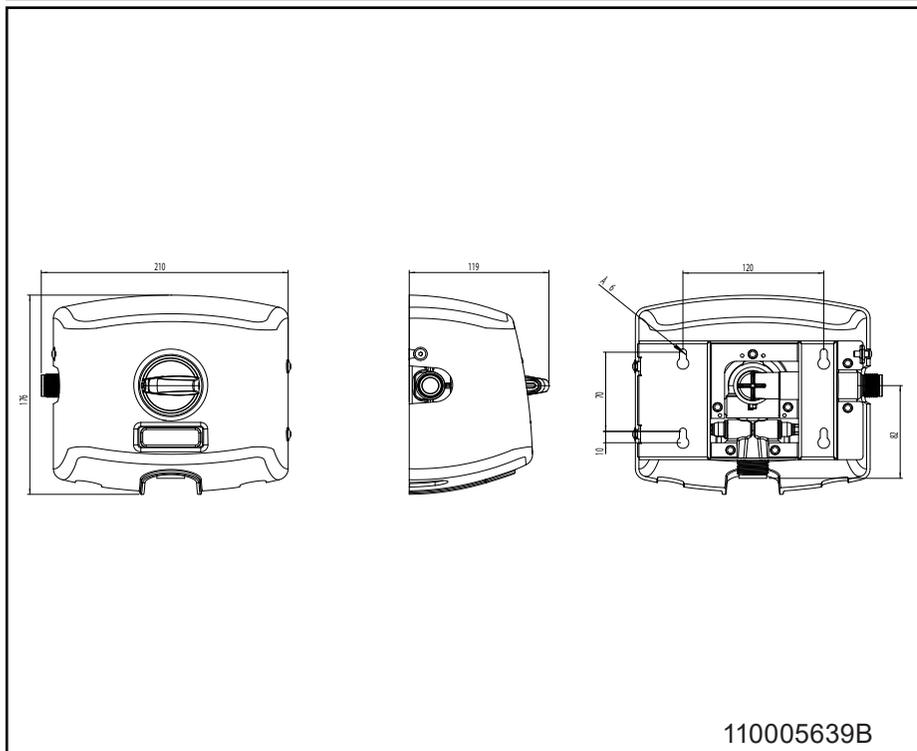
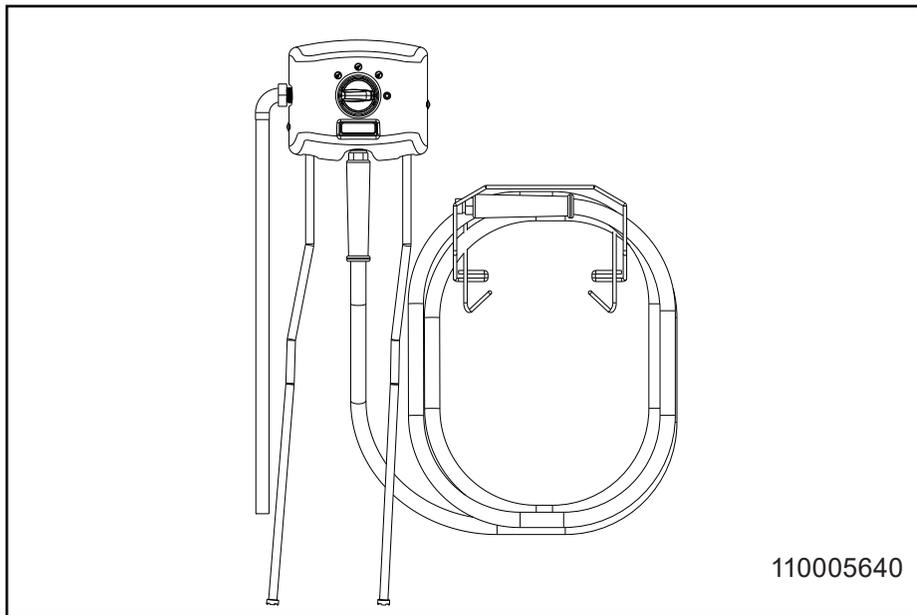
Français (FR)

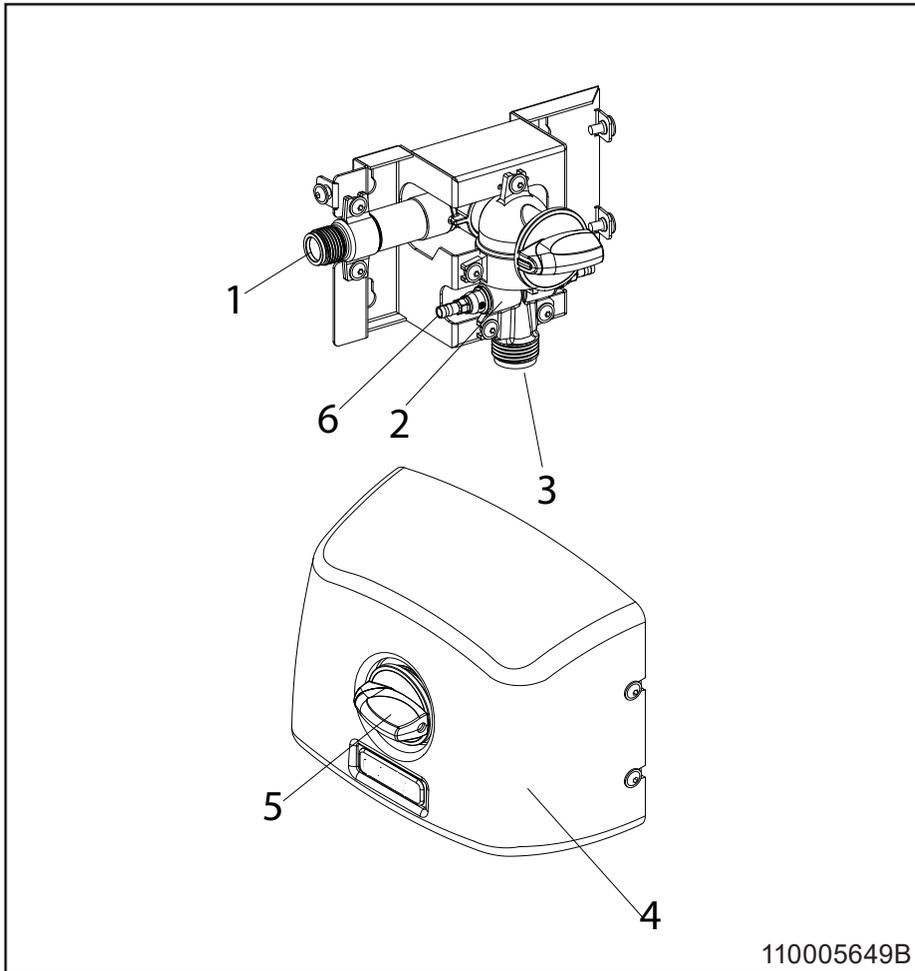
Español (ES)



	English	Deutsch	Français	Español
B	Ball valve	Kugelventil	Clapet à bille	Válvula esférica
C	Check valve	Rückschlagventil	Soupape de non retour	Válvula de retención
COV	Change over valve	Umschaltventil	Robinet coupleur	Válvula de conmutación
CS	Chemical supply	Chemieversorgung	Fourniture de produits chimiques	Toma de suministro de productos químicos
E	Ejector	Ejektör	Ejecteur	Eyector
F	Filter	Filter	Filtre	Filtro
HC	Hose connection	Schlauchanschluss	Connexion flexible	Conexión de tubo flexible
O	Outlet	Auslass	Sortie	Salida
OF	Orifice	Düse	Orifice	Orificio
W	Water inlet	Wassereingang	Admission d'eau	Toma de agua

Installation





110005649B

	English	Deutsch	Français	Español
1	Water inlet	Wassereinlass	Entrée d'eau	Entrada de agua
2	Duo block	Multi-Block	Multi block	Bloque múltiple
3	Water outlet	Wasserauslass	Sortie d'eau	Salida de agua
4	Cover	Abdeckung	Couvercle	Cubierta
5	Operation button	Bedientaste	Bouton de commande	Botón de funcionamiento
6	Foam	Schaum	Mousse	Espuma
7	Sanitize	Desinfizieren	Desinfecter	Sanitizznte