



Airspray Low Pressure Filter

User Manual 582216110

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Translation from the original instructions

SAMES KREMLIN SAS



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Evolution table of the document

	Object	Revision	Date	Modified by			
F.SEGUIN	Airspray Low Pressure Filter	A	Week 06/22	N. PLANTARD			

Dear customer, you have just purchased your new equipment and we thank you for it.

We have taken the utmost care, from design to manufacture, so that this equipment gives you complete satisfaction.

For good use and optimal availability, we invite you to read this manual carefully before using your equipment.



Warranty

SAMES KREMLIN grants a contractual warranty for a period of twelve (12) months from the date of availability to the customer provided that the conditions of use indicated in this technical manual are complied with.

In order to be implemented, the warranty claim must define precisely, in writing the malfunction in question, must be accompanied by the defective material and/or component, and must be informed of the conditions of acquisition by the customer of the material from

SAMES KREMLIN.

SAMES KREMLIN will only accept or refuse the implementation of the warranty after analysis of the 'defective' material. The warranty granted by **SAMES KREMLIN** is limited to the replacement of the Material in its entirety or to the partial replacement of the defective component.

SAMES KREMLIN will only bear the cost of the parts necessary to replace the defective material.

No guarantee will be granted by **SAMES KREMLIN**:

- For defects and deteriorations resulting from abnormal conditions of storage and/or conservation at the customer's premises or for maintenance or use of the equipment not conforming to the rules of art or not respecting the prescriptions of the present technical manual given to the customer by **SAMES KREMLIN**,

- For defects and damage resulting from replacement parts not approved by **SAMES KREMLIN** or which have been modified, by the customer or in the event that the replacement of a component of the equipment by the customer would damage other elements,

- If the equipment is dismantled without prior agreement from the supplier's technical support,

- For all damages resulting from negligence or lack of supervision on behalf of the customer,

- In the event of normal wear and tear of the equipment and/or its components or in the event of deterioration or accident resulting from faulty and/or abnormal use thereof.



Meaning of the pictograms						
Danger, general signal (user)	Danger: high pressure	Explosive materials	Danger: Electricity			
Toxic substances	Corrosive materials	Harmful or irritating materials	Danger: pinching, crushing			
Risk of product emanation	Danger: hot parts or surfaces	Danger: automatic start, moving parts	Danger: flammability hazard			
General obligation	Grounding	Refer to the manual/instruction leaflet	Gloves must be worn			
Protective helmet	Hearing protection	Mandatory respiratory protection	Safety shoes			
Protective clothing	Protective visor	Wearing of glasses is mandatory	Material recycling			

Personnel qualifications



Tasks on the filter must only be performed in accordance with existing rules and statutory regulations, by personnel who have been instructed and are qualified in this regard, in compliance with due diligence obligations.

The following requirements must be fulfilled:

- Personnel must have special skills and experience in the respective technical area. This particularly applies for maintenance and repair tasks on mechanical and pneumatic fixtures of the pump.
- Personnel must have knowledge of applicable standards, directives, accident prevention regulations and operating conditions.
- Personnel must have been authorised by the person responsible for safety to perform the respectively required tasks.
- Personnel must be capable of recognising and avoiding possible dangers.

The required personnel qualifications are subject to different statutory regulations depending on the implementation site. The owner must ensure compliance with the applicable laws.

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1 Safety instructions

1.1 Personal safety

Overview



The equipment at your disposal is for professional use only. It must be used only for the purpose for which it was intended.

Read all operating instructions and device labels carefully before putting the equipment into service.

Personnel using this equipment must have been trained in its use.

The workshop manager must ensure that the operators have fully understood all the instructions and safety rules of this equipment and other elements and accessories of the installation.

Misuse or operation can cause serious injury.

Do not modify or transform the equipment. Parts and accessories must only be supplied or approved by **SAMES KREMLIN**.

The equipment must be checked periodically. Defective or worn parts must be replaced.

Never exceed the maximum working pressures of the equipment components.

Always respect the laws in force regarding security, fire, electricity of the destination country of the equipment.

Only use fluids or solvents that are compatible with the parts in contact with the material (see material manufacturer's technical data sheet).

Security devices



Attention

Guards (motor cover, coupling guard, housings, ...) are set up for safe use of the equipment.

The manufacturer cannot be held responsible for any bodily injury as well as failures and / or damage to the equipment resulting from the destruction, hiding or total or partial removal of the guards.

Never exceed the maximum working pressures of the equipment components.

Pressure hazards



Safety requires that a **pressure relief air** shut-off valve be installed in the air stage supply circuit to release trapped air when the supply is shut off.

Also, a **fluid drain valve** must be installed in the fluid system so that the fluid can be drained (after shutting off motor air and decompressing it) before any intervention on the equipment. These valves must remain closed for air and open for the product during the intervention.

Toxic chemicals hazards



Toxic materials or vapors can cause serious injury through contact with the body, in the eyes, under the skin, but also by ingestion or inhalation. It is imperative :

- ✓ to know the type of material used and the dangers it represents,
- \checkmark to store the materials to be used in appropriate areas,
- ✓ to contain the material used during the application in a container designed for this purpose,
- ✓ to dispose the materials in accordance with the legislation of the country where the equipment is used,
- ✓ to wear clothing and protection designed for this purpose,
- ✓ to wear goggles, hearing, gloves, shoes, coveralls and respiratory masks.



The use of halogenated hydrocarbon solvents and products containing these solvents in the presence of aluminum or zinc is prohibited.

Failure to follow these instructions could result in an explosion hazard causing serious injury or death.



1.2 Integrity of the material

Filter



- \checkmark Instructions on pump instruction manuals.
- ✓ Before starting up or using the filter, read carefully the PRESSURE RELIEF PROCEDURE.
- ✓ Check that the pressure relief and drain air valves are working properly.
- Use only genuine SAMES KREMLIN accessories and spare parts designed to withstand the operating pressure of the pump.

Filter feeding phase / Pump paint phase and pressure gun / Flushing the filter



- ✓ Mandatory wearing of PPE (glasses + gloves + safety shoes) pump and pressure gun during the painting phase.
- \checkmark Do not look at the gun nozzle.
- ✓ The maximum pressures engraved on the equipment must be strictly respected.
- ✓ Rinse at a maximum of 1 bar on the air equipment pressure gauge (pressure varies according to the length of the hoses).

R	ecommen	dations for hoses.
		Keep hoses away from traffic areas, moving parts and hot areas.
	\checkmark	Never subject hoses to temperatures above 60 $^{\circ}$ C / 140 $^{\circ}$ F or below 0 $^{\circ}$ C / 32 $^{\circ}$ F.
	\checkmark	Do not use hoses to pull or move equipment.
		Tighten all connections as well as the hoses and junction fittings before commissioning the equipment.
	\checkmark	Check hoses regularly and replace them if damaged.
	\checkmark	Never exceed the maximum working pressure stated on the hose (MWP).
	\checkmark	For the assembly of the hoses and the gun: the wearing of PPE is mandatory.
	\checkmark	Tighten to the stop (Hoses + Gun).
_		
Normal sto	р	

 \checkmark Use the air regulator to gradually decompress the pump.

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Materials used

Given the diversity of the materials implemented by the users and the impossibility of listing all the characteristics of the chemical substances, their interactions and their evolution over time

SAMES KREMLIN cannot be held responsible:

- ✓ Poor compatibility of materials in contact,
- ✓ Inherent risks to personnel and the environment,
- ✓ Wear and tear, malfunctions, material or equipment malfunctions, as well as the quality of the finished.

The user shall identify and prevent from potential dangers inherent to the materials used, such as:

- ✓ Toxic vapors.
- ✓ Fire.
- ✓ Explosions.

It will determine the risks of immediate reactions or reactions due to repeated exposures to personnel.

SAMES KREMLIN declines any responsibility, in case of:

- ✓ Physical or mental injury,
- ✓ Direct or indirect material damage due to the use of chemical substances.

Environment



To avoid risks due to static electricity, the equipment and its components must be grounded.

- Have the ground continuity checked by a qualified electrician. If ground continuity is not assured, check terminal, wire and grounding point. Never operate the equipment without first resolving this problem.
- ✓ The gun must be 'grounded' through the air hose or fluid hose.
- The equipments to be painted must also be "grounded" by means of clamps fitted with cables or, if suspended, by means of hooks which must be kept clean permanently.

Note: all objects in the work area must also be grounded.

- Do not store more flammable materials than necessary inside the work area.
- ✓ These materials must be stored in approved, grounded containers.
- ✓ Use only grounded **metal pails** for flushing solvents.
- Cardboard and papers are to be banned. They are very bad conductors, even insulators.

Material markings



Each appliance is fitted with a nameplate bearing the name of the manufacturer, the appliance reference number, important information for the use of the appliance (pressure, power, etc.) and sometimes the pictogram shown opposite.

The equipment is designed and manufactured with high quality materials and components that can be recycled and reused.

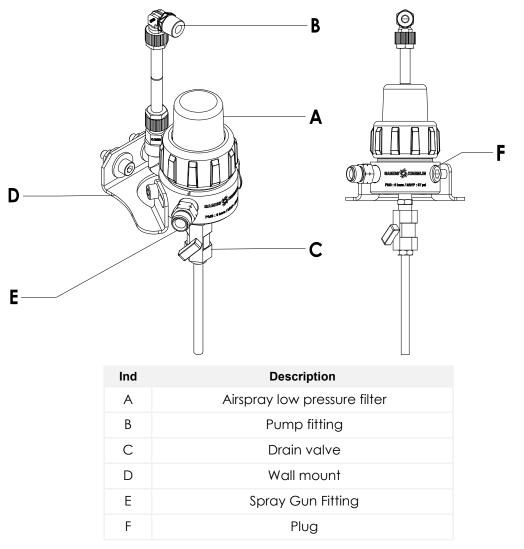
The 2012/19/EU European Directive applies to all devices marked with this logo (crossed-out waste bin). Find out more about the collection systems available for electrical and electronic appliances.

Follow the rules in your locality and **do not dispose of your old appliances with your household waste**. Proper disposal of this old appliance will help prevent negative effects on the environment and human health. SAMES SKREMLIN

2 Presentation of the material

2.1 Complete system

2.1.1 Visual generic presentation



Context of use

The filter allows a perfect filtration of the product to avoid the clogging of the gun nozzles.

The filter has been designed to be perfectly flushable.

Non-intended use

A use other than the use described in the paragraph, "Intended use" and in this operating manual, and any use that extends beyond the specified intended use, shall apply as non-intended use. The manufacturer shall not be liable damage resulting from non-intended use. This risk is borne solely by the user.

The following items describe improper or prohibited use:

- ✓ The conveyance of fluid does not meet the product specification.
- \checkmark Modification of the filter in any form is prohibited.
- \checkmark The filter is operated while damaged.
- ✓ Use, maintenance, repair of the system or commissioning of the controller by unauthorized, untrained personnel or by a private user.
- ✓ Filter operation without earthing.
- ✓ Filter operation with parameters and/or operating data exceeding the specification.
- ✓ Operating the filter at a location with ignition risk due to source of ignition in the vicinity of the pump.
- \checkmark Use or operation of the filter by private users.
- \checkmark Filter modification or conversion.
- ✓ Non-compliance with the specified maintenance intervals.
- ✓ The regulatorr may not be used in Zone 0 gas or dust explosion hazardous areas or in explosion hazardous areas unless the operator has taken measures in accordance with the requirements of Directive 1999/92/EC and the applicable national regulations on explosion protection.
- ✓ First commissioning without checking the area and the pump through a person qualified for that purpose.
- The use of products chemically incompatible with the materials used for the construction of the filter: the operator of the filter must control the chemical compatibility of the products conveyed.
- ✓ The use of products whose characteristics (e.g. ignition temperature) are not compatible with the filter identification.
- ✓ Operating the filter with bypassed safety devices is prohibited.



2.2 Description of the main elements of the system

Airspray Low Pressure Filter



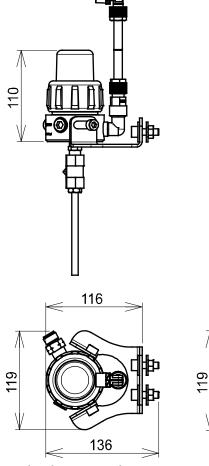
Expected use		
	\checkmark Easy to use and maintain, thanks to a simple design.	
Performance		
	 Simple and robust filter. 	
	 Several screen sizes available. 	
Productivity		
	 Possibility to use a large range of materials with a viscosity up to 2 000 mPas thanks to large outlets. 	ý
	 Compatible with a wide range of products. 	
	 Less waste during flushing to prevent material loss. 	
Sustainability		
	 Easy operation and maintenance due to its simple and optimized design. 	k
	 The use of high quality materials improves abrasion resistance and reduces friction. 	٦

3 Identification of the equipment

3.1 Equipment plans

3.1.1 Filter



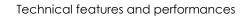


Fixation avec vis Mounting with screws Fixation avec étrier Mounting with bracket

3.2 Composition

The filter is available in:

- ✓ Screw mounting,
- ✓ Mounting with bracket.



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4 Technical features and performances

4.1 Technical features

Airspray low pressure filter

Product inlet connection

Product outlet connection x2

Angle mounting by screw

Bracket fixing by clamp

Product pressure

Materials in contact with the product

Drain Weight bare filter PA 8/10 hose M 3/8"NPS + (for 2nd outlet F RP 3/8) 2 screws CHc M 8 x 25 U-bolt 1" 6 bar / 87 psi max Aluminium (body) Stainless steel (screen) PP 30% fiberglass (tank) FEP (seal) 6/8 PA 690 g / 24.3 oz

5 Installation WARNING Personnel are in danger due to improper installation.

- ✓ Use fittings of a material compatible with the fluid and the pump material.
- ✓ Mount the filter on the wall bracket provided for this purpose in such a way as to exclude shocks that could cause ignition.
- \checkmark The filter must never be submerged.

Connections subsets

- ✓ Install the filtre on the provided bracket using the fixing screws or the bracket.
- \checkmark Make sure the filter is in a stable position.
- \checkmark Do not immerse the filter in the pumped liquid.
- ✓ Make sure that the connections are compatible with the liquid being transported.

5.1 Transport

If possible, only transport the filter in its original packaging to avoid transport damage.

5.2 Check the scope of delivery

- ✓ Remove the transport packaging of the filter.
- ✓ Comply with the rules in force in your locality.
- \checkmark Examine the filter for any transport damage.
 - Transport damage must be immediately communicated to the transport company and **SAMES KREMLIN** in writing.
 - Protect the filter from further damage.
- ✓ Use the packing slip to verify the completeness of the delivery.



5.3 Recommendation materials

WARNING

Trained personnel with PPE mandatory.

- \checkmark Do not use the filter as a support for the pipework system.
- \checkmark When moving the filter, make sure that it cannot fall down.
- ✓ Never move the filter by pulling on the hoses: risk of damaging the pump and/or the hoses.
- ✓ Ensure that the system components are properly supported to prevent an overload on the filter parts.
- Ensure that regulations relating to the protective earthing system are observed.
- No electrical connection is required, apart from the earth grounding. The pump is self-priming.

5.4 Storage

Place the equipment away from moisture after closing the various air inlets and various openings (plugs).

- ✓ The filter should only be stored in a safe place if it has been thoroughly cleaned beforehand.
- ✓ Extreme storage conditions accelerate the ageing process.
- ✓ We recommend a storage temperature between +10°C / 50°F and +25°C / 77°F.
- \checkmark Exclude the effect of ozone or ionising radiation.

5.5 Handling

No slinging foreseen for the filter due to its weight (690 g / 24.3 oz). The filter must therefore be handled by hand.



6 Start up



WARNING

Please refer to <u>§ 1 Safety Instructions</u> for more information.

6.1 Commissioning instructions

- ✓ During operation, make sure that the filter is always completely filled with product.
- Ensure that the pumped fluid outlet is not obstructed or sealed during operation.
- ✓ The material being conveyed may react with the filter material. Before pumping the material to be conveyed, check that the filter materials are suitable for the material.
- ✓ The special operating conditions of the controller must be taken into account and observed.
- ✓ Make sure that the first commissioning of the filter in the installation area is carried out by an authorized person.



ATTENTION

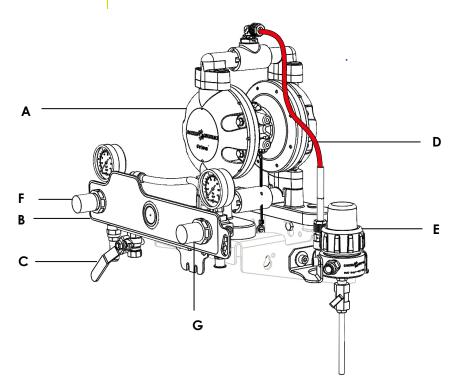
Risk of destruction and bursting of the filter due to excessive fluid pressure.



6.2 User settings



The start-up below mentions the materials you will need to purchase (air equipment, pump, etc.) to operate the filter.



Visual with PRIMA™ 01D100 pump fitted with a 2 regulators and filter

Ind	Description
А	Pump
В	Plate
С	Air shut-off valve
D	Product Hose
Е	Filter
F	PUMP AIR regulator
G	GUN SPRAYING AIR regulator

Before starting up, connect the pump to the ground.

Then:

- ✓ Interconnect the plate (B) with the air pressure network (clean dry air, maximum air pressure = 6 bar / 87 psi).
- \checkmark Connect the material hose as well as the spray gun.
- ✓ Open the purge valve of the filter and direct the purge hose into the container where the suction rod is located
- \checkmark Supply the pump motor with air (P * 1 bar / 14.5 psi).
- ✓ Gradually screw in the pump air regulator (F) until the pump starts to beat.
- ✓ When material flows out regularly, close the filter purge valve. The pump is bled.
- Aim the gun (without spray head) into the container and pull the trigger.
- ✓ Install an aircap on the spray gun if 2 regulators with atomization).
- \checkmark Supply air pressure to the spray gun (G).
- ✓ Adjust the pump air regulator to get the appropriate material pressure and flow rate.
- ✓ Gradually open air regulator (G) to adjust spraying air to obtain the required spray pattern.



7 Diagnostic help / Troubleshooting guide

Troubleshooting

Before any intervention on a filter, it is imperative to carry out a general procedure of decompression and drain.

- ✓ Lock the guns (valve, tap, etc.) to OFF.
- \checkmark Turn off the air supply through the value on the plate.
- \checkmark Unlock the gun (valve, tap ...).
- Bring the gun (valve, tap ...) to a metal bucket to collect the fluid. Hold it against the wall of this bucket to avoid interrupting the continuity of the earthing (use the wire with stirrup to put the metal bucket to earth).
- \checkmark Open the gun (valve, tap) to drain the network.
- ✓ Lock the gun (valve, tap) to OFF.

Check the conformity of the wiring before intervention.

Purge the filter before replacing components.

7.1 Possible symptoms of faults / Causes of faults / Remedies to apply - fast operation



WARNING

Before any intervention, it is imperative to follow the <u>decompression</u> <u>procedure</u> and the <u>safety instructions</u>.

✓ Depressurize the fluid network by opening the drain valve of the pump or of the gun.

For the filter to work properly, it is necessary to clean the filter element regularly to avoid clogging.

8 Maintenance



WARNING

Please refer to the preventive maintenance plan in \S 10 Appendices for more information.

8.1 Qualification levels - foreseeable interventions

As the pump is easy to disassemble, this type of intervention can be carried out by an authorized technician of average qualification, on site, with portable tools (wrench, screwdriver,...) defined by the maintenance instructions and the disassembly/reassembly procedures.

Wear personal protective equipment (PPE).

8.2 Safety instructions - Preventive maintenance



ATTENTION

Please refer to <u>§ 1 Safety Instructions</u> for more information.

Before any intervention, it is imperative to follow the <u>decompression</u> <u>procedure</u>.

Keep the filter in a clean condition to ensure proper operation.

The filter is wear-resistant, except for seals and screen.

Therefore, we recommend a regular inspection of the filter.

Nevertheless, in case of failure or decrease in flow capacity, you can perform the following tasks:

- ✓ Replace the seals,
- \checkmark Replace the screen.



8.3 Maintenance periods

It is recommended to schedule a systematic maintenance after a certain number of operating hours.

This is defined by the user's maintenance department and depends on the product, the work rate and the usual pressure.

This maintenance consists in replacing the parts presenting cuts or wears and in cleaning the organs with compatible products without using abrasive materials likely to deteriorate them.

Take note of the disassembly/reassembly of the controller and the spare parts.

8.4 Cleaning

It is recommended to clean the filter with compatible products without using abrasive materials that could damage them.

Particular attention should be paid to the seals. If these cannot be cleaned, they must be replaced.



Disassembly / Reassembly

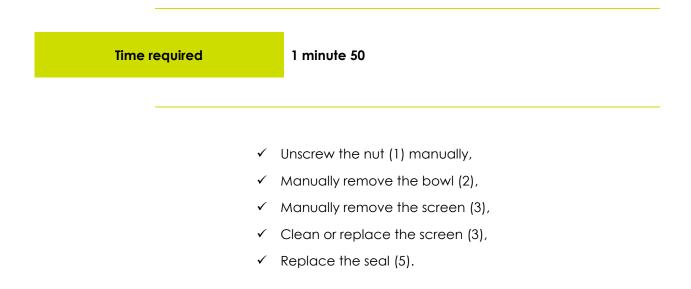
ATTENTION

Before any intervention, it is imperative to follow the <u>decompression procedure</u> and the <u>safety instructions</u>.

Preliminary operations

- \checkmark Remove air cap from the spray gun and put it into solvent.
- Remove suction rod from the material container and inmerse it in a solvent filled container. Take all the appropriate precautions in the presence of flammable solvents.
- ✓ Point the spray gun towards the material container and press the gun trigger. When the solvent flows out, point the spray gun into a recovery container.
- \checkmark When the solvent flows out clear and clean, release the gun

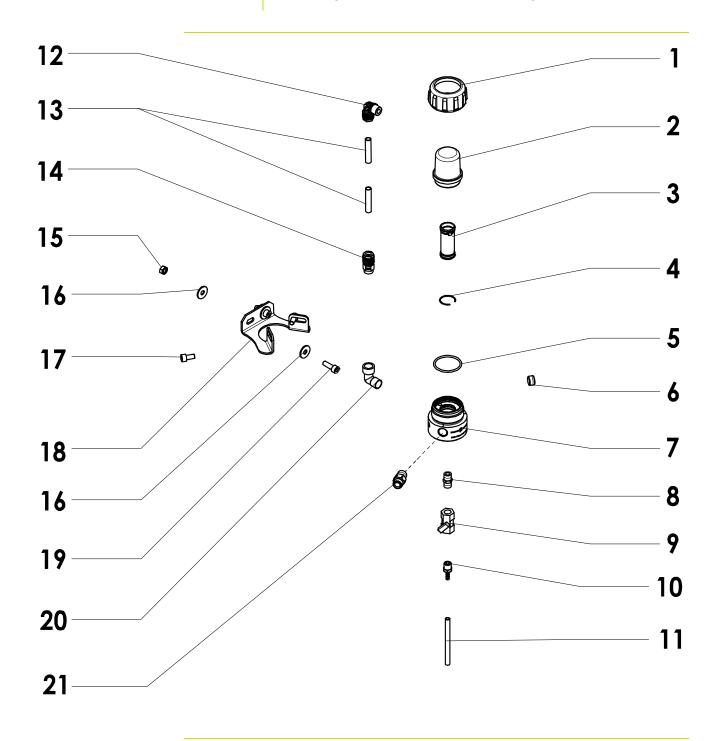
8.5.1 Replacing the screen (3)





9 Spare parts

Use only genuine **SAMES KREMLIN** accessories and spare parts designed to withstand the operating pressures of the pump.



9.1 Wear part numbers

Ind	#Référence	Désignation	Qté	Niveau**
1	155 610 085	Nut	1	3
2	155 610 084	Filter tank	1	3
3	000 160 106	Filter screen n°6	1	1
4*	055 190 007	Stop ring	1	1
5	909 420 520	FEP seal	1	1
6	906 333 104	Plug	1	3
7	055 581 602	Filter base	1	3
8	551 218	Steel fitting MM 1/4" G	1	3
9	903 090 806	F.1/4" G valve	1	2
10	105 030 207	1/4" barbed fitting	1	3
11	155 581 684	Rilsan hose	1	1
12	905 190 415	Elbow 3/8" G x tube 8x10	1	3
13*	155 581 683	Rilsan hose	1	1
14	905 190 418	Fitting	1	3
15	953 010 019	Nut HM 8	2	3
16	88 733	Washer	4	3
17	88 150	ScrewCHc 8x16 CL 8.8	2	3
18	155 581 618	Support bracket	1	3
19	88 152	Screw CHc 8x25 CL 8.8	2	3
20	552 432	Elbow MF 3/8"	1	1
21	050 102 648	Fitting MM 3/8" BSP 3/8" NPS	1	3

**Level 0 : Parts are not spare parts.

Level 1 : Preventive maintenance.

Level 2 : Corrective maintenance.

Level 3 : Exceptional maintenance.



9.2 Options

Ind	# Part numbers	Description	Qty	Level**
-	000 160 104	Filter screen n°4	1	1
18*	000 160 106	Filter screen n°6	1	1
-	000 160 108	Filter screen n°8	1	1
-	000 160 112	Filter screen n°12	1	1

10 Appendices

10.1 Appendix A Preventive Maintenance Plan