



## REGPro

**User Manual 582215110**

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Index A

Translation from the original instructions

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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.

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## 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

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### Personnel qualifications



Work on the controller may only be carried out in accordance with the legal rules and regulations in force, by trained and qualified personnel

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 regulator.
- ✓ 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

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### Overview



The equipment you have 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.

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### 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.

Without this precaution, residual air can operate the regulator part and cause a serious accident.

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.

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### 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,
- ✓ 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.



#### ATTENTION

**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.**

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## 1.2 Integrity of the material

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### REGPro



- ✓ Instructions on REGPro instruction manuals.
- ✓ Before starting up or using the REGPro, 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.

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### REGPro feeding phase / Pump paint phase and pressure gun / Flushing the REGPro



- ✓ It is compulsory to wear PPE (glasses + gloves + safety shoes) during the painting phase.
  - ✓ 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).
-

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## Hoses

Recommendations for hoses.

- ✓ Keep hoses away from traffic areas, moving parts and hot areas.
- ✓ Never subject hoses to temperatures above 60 ° C / 140° F or below 0 ° C / 32° F.
- ✓ Do not use hoses to pull or move equipment.
- ✓ Tighten all connections as well as the hoses and junction fittings before commissioning the equipment.
- ✓ Check hoses regularly and replace them if damaged.
- ✓ Never exceed the maximum working pressure stated on the hose (MWP).
- ✓ For the assembly of the hoses and the gun: the wearing of PPE is mandatory.
- ✓ Tighten to the stop (Hoses + Gun).

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## Normal stop

To make a normal stop:

- ✓ Use the air regulator to gradually depressurize the REGPro.
-

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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.

The following points must be observed if the hazard analysis conducted by the operator reveals that a possible leakage of the medium poses an increased risk:

- ✓ If the diaphragm is defective, the fluid can enter the compressed air system and damage it.
- ✓ If the diaphragm is defective, the fluid to be pumped may react with the materials in the compressed air system. Before commissioning, the operator must assess the risks and take appropriate measures.

*Note: the REGPro is equipped with a 3-way valve at the inlet, to decompress the product part.*

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## Environment



Non-movable equipment must be fixed to the ground by suitable mounting devices (spit, screws, bolts, etc.) to ensure its stability during use.

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.

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## 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.

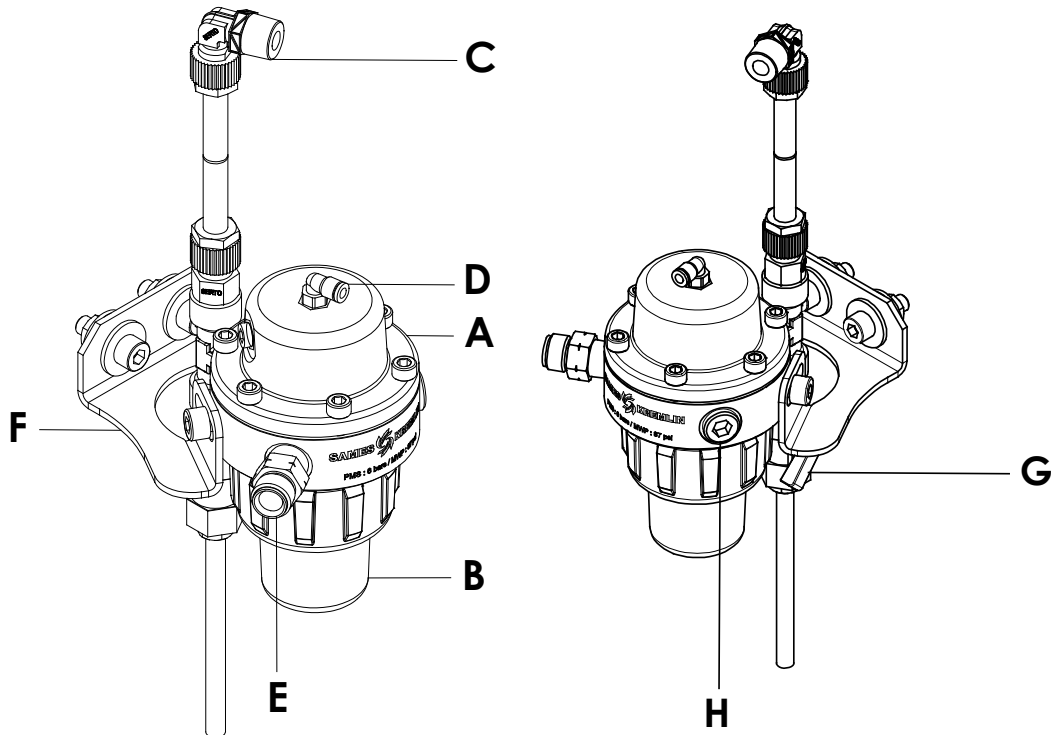
Follow the rules in your locality and **do not dispose of your old appliances with your household waste.** Proper disposal of this old appliance will help prevent negative effects on the environment and human health.

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## 2 Presentation of the material

### 2.1 Complete system

#### 2.1.1 Visual generic presentation



Ind	Description
A	Regulator part
B	Filter part
C	Pump fitting
D	Pilot air fitting
E	Spray Gun Fitting
F	Wall mount
G	Drain valve
H	Plug

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## Context of use

The REGPro maintains a constant pressure.

Its diaphragm has a very large surface area, which allows for excellent regulation.

The REGPro has been designed to be perfectly flushable.

The regulation is done by adjusting the pilot air pressure. Since the pressure ratio is 1, the product pressure can be read directly on the air pressure gauge.

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## 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.
- ✓ Modification of the regulator in any form is prohibited.
- ✓ The regulator is operated while damaged.
- ✓ Use, maintenance, repair of the system or commissioning of the controller by unauthorized, untrained personnel or by a private user.
- ✓ Regulator operation without earthing.
- ✓ Regulator operation with parameters and/or operating data exceeding the specification.
- ✓ Operating the regulator at a location with ignition risk due to source of ignition in the vicinity of the pump.
- ✓ Installing the regulator on unsuitable supports.
- ✓ Failure to observe the maintenance intervals.
- ✓ Immerse the controller in the medium to be conveyed or any other product.



- ✓ The regulator 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 conveyance of fluid chemically incompatible with the materials used for the construction of the regulator - The operator of the pump must check the chemical compatibility of the pumped fluid.
  - ✓ Conveying fluid with parameters (e.g. ignition temperatures) that are not compatible with the information on the marking of the pump.
  - ✓ Operating the regulator with bypassed safety devices is prohibited.
-

## 2.2 Description of the main elements of the system

### REGPro



#### Expected use

- ✓ Easy design: easy operation and maintenance.
- ✓ High density membrane technology: constant and extremely low pulsation delivery for superior finish.
- ✓ 3-way valve at the inlet with purge.

#### Performance

- ✓ Simple and robust regulator.

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#### Productivity

- ✓ Possibility to use a large range of materials with a viscosity up to 2 000 mPas thanks to large outlets.
- ✓ Compatible with a wide range of materials thanks to the choice of diaphragms for the fluid section.
- ✓ Less waste during flushing to prevent material loss.

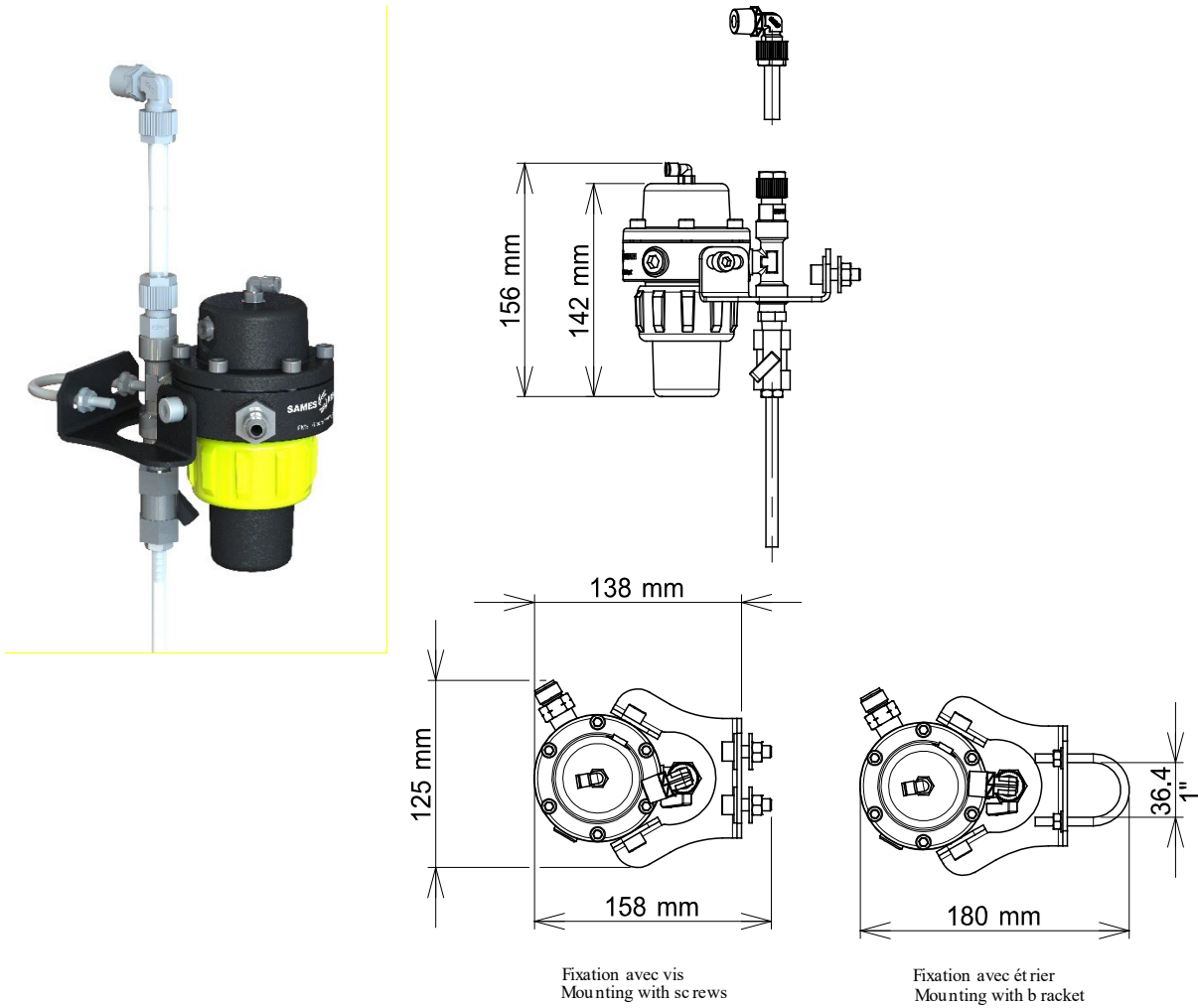
#### Sustainability

- ✓ Easy operation and maintenance due to its simple and optimized design.
  - ✓ The choice of high quality materials improves abrasion resistance and reduces friction.
-

### 3 Identification of the equipment

#### 3.1 Equipment plans

##### 3.1.1 REGPro



#### 3.2 Composition

The REGPro controller is available in:

- ✓ Screw mounting,
- ✓ Mounting with bracket.
- ✓ For these versions it is possible to install an M 3/8 "NPS or M 1/2 "JIC fluid outlet.

## 4 Technical features and performances

### 4.1 Technical features

#### REGPro regulator

<b>Product inlet connection</b>	PA 8/10 hose
<b>Product outlet connection x2</b>	M 3/8"NPS + (for 2nd outlet F RP 3/8) or M 1/2"JIC + (for 2nd outlet F RP 3/8)
<b>Air piloting</b>	F 1/8 BSP 2/4" hose
<b>Angle mounting by screw</b>	2 screws CHc M 8 x 25
<b>Bracket fixing by clamp</b>	U-bolt 1"
<b>Product pressure</b>	
- Inlet	6 bar / 87 psi max
- Output	4 bar / 58 psi max
<b>Product pressure</b>	6 bar / 87 psi max
<b>Max fluid flow at 6 bar / 87 psi pressure</b>	1,9 l/mn / 0.5 gal US/mn
<b>Materials in contact with the product</b>	Aluminium (body) Stainless steel (ball + screen) PP 30% fiberglass (tank) Carbide (seat) PTFE (seal) FEP (seal)
<b>Drain</b>	6/8 PA
<b>Weight Bare Regulator</b>	1327 g / 46.8 oz / 2.9 lbs

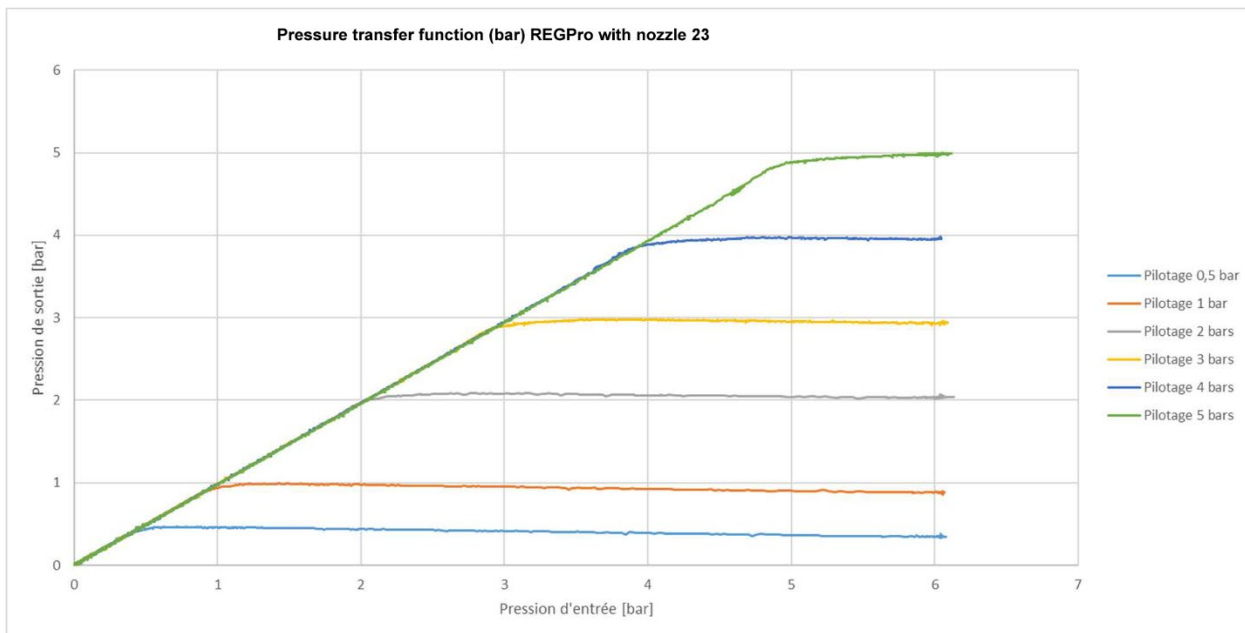
- For a PRIMA™ 01D100 pump supply pressure of 2 bar, the maximum control pressure must be 1 bar. That is to say a  $\Delta_{min} = 1\text{bar}$ .

- For a PRIMA™ 01D100 pump supply pressure of 4 bar, the maximum control pressure must be 3 bar. That is to say a  $\Delta_{min} = 1\text{bar}$ .

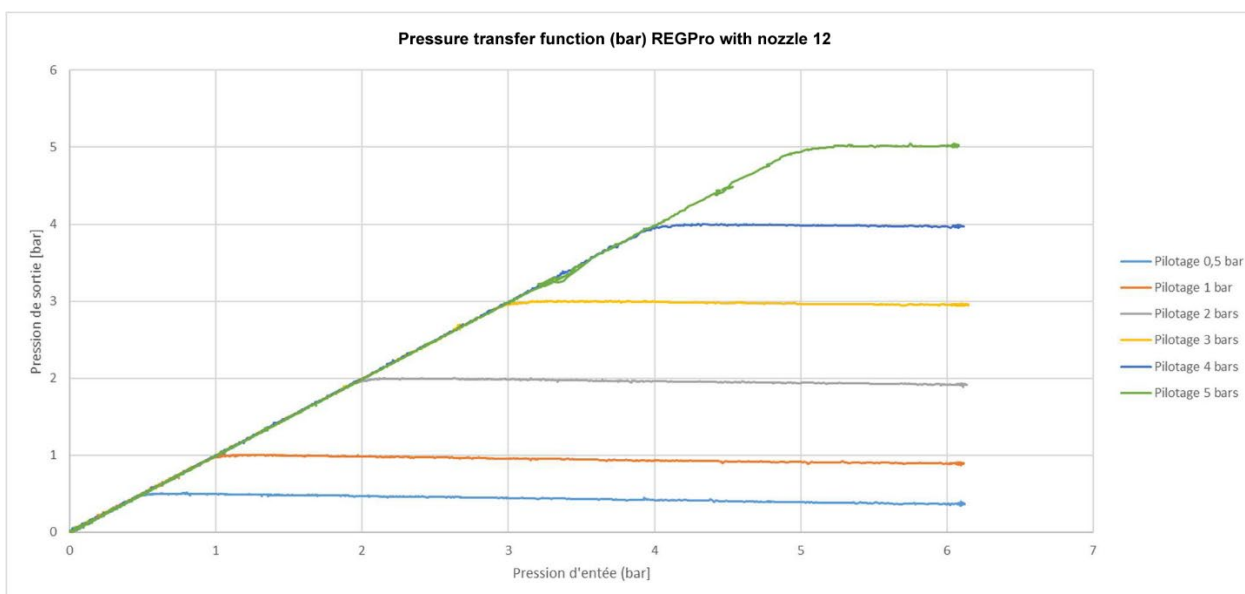
- For a PRIMA™ 01D100 pump supply pressure of 6 bar, the maximum control pressure must be 4.5 bar. That is to say a  $\Delta_{min} = 1,5\text{bar}$ .

## 4.2 Changing the inlet pressure from 0 bar to 6 bar

### 4.2.1 Gun with 23 nozzle



### 4.2.2 Gun with 12 nozzle



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## 5 Installation



### WARNING

**Personnel are in danger due to improper installation.**

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- ✓ Connections are to be used whose material is compatible with the fluid and with the material of the REGPro.
  - ✓ The regulator does not have a separate pneumatic shut-off valve. Use the shut-off valve on the air plate.
  - ✓ The regulator must be integrated into the compressed air system so that it can be put out of operation by switching off the compressed air.
  - ✓ Mount the controller on the wall bracket provided for this purpose in such a way as to exclude shocks that could cause ignition.
  - ✓ The compressed air supply (hoses...) must be installed so as to exclude any danger.
  - ✓ Use a pressure relief valve in the compressed air supply if there is a risk of exceeding the operating parameters.
  - ✓ The regulator must never be submerged.
  - ✓ Use the **SAMES KREMLIN** air plate with the REGPro.
- 

### Connections subsets

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

### 5.1 Transport

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

### 5.2 Check the scope of delivery

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

### 5.3 Recommendation materials



**WARNING**

**Trained personnel with PPE mandatory.**



- ✓ Do not use the regulator as a support for the pipework system.
- ✓ When moving the regulator, make sure that it cannot fall down.
- ✓ Never move the regulator 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 regulator 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).

- ✓ Storage conditions have a detrimental effect on the service life of the diaphragm.
- ✓ After careful cleaning, the controller should be stored in a safe place.
- ✓ Extreme storage conditions accelerate the ageing process.
- ✓ We recommend a storage temperature between +10°C / 50°F and +25°C / 77°F.
- ✓ The diaphragm must not be exposed to sources of heat or direct sunlight.
- ✓ The diaphragm must be kept in its original packaging.
- ✓ Exclude the effect of ozone or ionising radiation.
- ✓ Store the diaphragm such that it is not under tension.
- ✓ We recommend the replacement of the diaphragms at the latest after one year of storage under the storage conditions stated above.

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## 5.5 Handling

No slinging foreseen for the regulator due to its weight (1.3 kg / 2.9 Lbs). The regulator must therefore be handled by hand.

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## 6 Start up



### WARNING

Please refer to [§ 1 Safety Instructions](#) for more information.

### 6.1 Commissioning instructions

- ✓ During operation, make sure that the regulator 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 regulator material. Before pumping the material to be conveyed, check that the regulator materials are suitable for the material.
- ✓ Operating the controller above the allowable flow rate may cause the controller to overheat.
- ✓ Risk of dangerous heating of the conveyed material during the delivery phase.
- ✓ The special operating conditions of the controller must be taken into account and observed.
- ✓ Make sure that the first commissioning of the regulator in the installation area is carried out by an authorized person.
- ✓ Set the compressed air between 1(14.5psi) and 6 bar (87psi). The controller is ready for operation.
- ✓ The regulator switches on as soon as it is charged with compressed air.
- ✓ Operate the regulator with a maximum compressed air pressure of 6 bar / 87psi.



### ATTENTION

**Risk of destruction and bursting of the regulator due to excessive air pressure.**

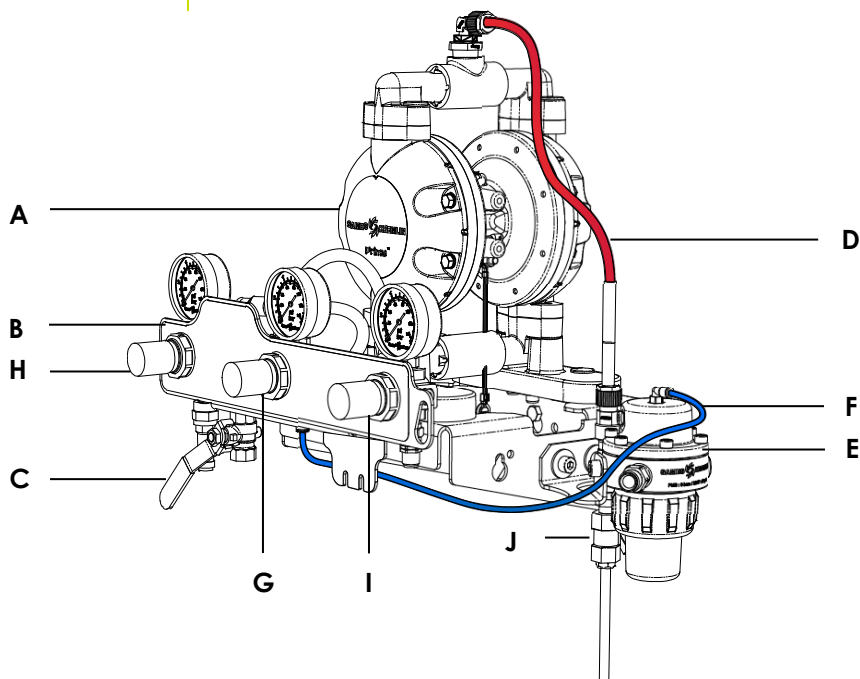
**Risk of diaphragm destruction due to excessive air pressure.**

## 6.2 User settings



### NOTA

The start-up below mentions the materials you will need to purchase (air equipment, suction rod, pump, etc.) to operate the REGPro regulator correctly.



Visual with PRIMA™ 01D100 pump fitted with a 3 regulators and REGPro regulator

Ind	Description
A	Pump
B	Plate
C	Air shut-off valve
D	Product Hose
E	REGPro controller
F	Air hose
G	FLUID AIR regulator
H	PUMP AIR regulator
I	GUN SPRAYING AIR regulator
J	3-way valve at the inlet

---

Before starting up, connect the pump to the ground.

Then :

- ✓ Unscrew the regulators (G and H).
  - ✓ Interconnect the plate (B) with the air pressure network (clean dry air, maximum air pressure = 6 bar / 87 psi).
  - ✓ Install a water drop, model 3/8 if necessary.
  - ✓ Connect all the hoses (air hoses and material hose) as well as the spray gun.
  - ✓ Open the purge valve of the REGPro and direct the purge hose into the container where the suction rod is located.
  - ✓ Open the motor-air shut off valve supply air (C) ( $P \geq 1$  bar / 14.5 psi).
  - ✓ Gradually screw in the pump air regulator (H) and at the same time the fluid regulator (G) until the pump starts to beat.
  - ✓ When material flows out regularly, close the REGPro 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.
  - ✓ Supply air pressure to the spray gun (I).
  - ✓ Adjust the pump air regulator or fluid regulator (G) to get the appropriate material pressure and flow rate.
  - ✓ Gradually open air regulator (I) to adjust spraying air to obtain the required spray pattern.
-

## 7 Diagnostic help / Troubleshooting guide

### Troubleshooting

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

In order to avoid the risk of personal injury, product injections, injuries caused by moving parts or arcing, it is essential to follow the following procedure before any intervention during system shutdown, assembly, cleaning or changing the nozzle.

- ✓ Lock the guns (valve, tap, etc.) to OFF.
- ✓ Turn off the air supply through the valve on the plate.
- ✓ 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).
- ✓ 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 controller before replacing components.

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



**WARNING**

Before any intervention, it is imperative to follow the [decompression procedure](#) and the [safety instructions](#).

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

Defaults	Possible causes	Remedies
Overpressure at the regulator outlet.	Control air pressure too high.	Reduce pilot pressure.
	Poor sealing of the seat and the ball.	Clean or replace.
	Fluid pressure upstream of regulator too high.	Lower the pressure at the supply pump.
No product at the regulator outlet.	Insufficient pilot air pressure.	Check the distribution system.
	Ball glued to the seat.	Clean and reassemble.
Irregular flow.	Too much pulsation on the distribution system.	Check the distribution system.
	Non-sealed seat and ball.	Clean or replace.
Leak at regulator cap.	Defective diaphragm.	Replace.
	Lower cup not tight.	Tighten.

In order to regulate the flow of product correctly, it is necessary to clean the filter element **regularly** to avoid clogging.

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## 8 Maintenance



### WARNING

Please refer to the preventive maintenance plan in [§ 10 Appendices](#) for more information.

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### 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 Precautions to ensure the integrity of the equipment



### ATTENTION

Before any intervention, it is imperative to follow the [decompression procedure](#) and the [safety instructions](#).

---

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

The regulator is wear-resistant, except for the diaphragm and seals. The quality of the compressed air supply, the characteristics of the pumped medium and the operating conditions can have a negative influence on the service life of the regulator.

Therefore, we recommend a regular inspection of the pump regulator and valve.

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

- ✓ Replace the diaphragm,
- ✓ Clean the valve,
- ✓ Replace the seals,
- ✓ Clean the ball and seat or replace the spring.

Keep the suction strainer clean and in good condition. Clean it regularly and replace it periodically.

Flush REGPro as often as necessary, especially when using a loaded fluid that tends to settle.

Make sure the fluid hoses and other components can withstand the fluid pressure generated by the REGPro.

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### 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 of replacing parts that are cut or worn and cleaning the parts with compatible products without using abrasive materials that could damage them.

Make sure that none of them deteriorate, as the cutting of one of them could cause a malfunction of the REGPro.

Take note of the [disassembly/reassembly](#) of the controller and the [spare parts](#).

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### 8.4 Cleaning

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

Empty the excess product and remove any residual traces that may cause deterioration of the ball.

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

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## 8.5 Disassembly / Reassembly



### ATTENTION

Before any intervention, it is imperative to follow the [decompression procedure](#) and the [safety instructions](#).

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### Preliminary operations

- ✓ Unscrew the spray air regulator or disconnect the air supply to the gun.
  - ✓ Remove air cap from the spray gun and put it into solvent.
  - ✓ Remove suction rod from the material container and immerse 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.
  - ✓ When the solvent flows out clear and clean, release the gun trigger.
  - ✓ Fully turn counterclockwise fluid regulator and shut off the compressed air supply.
  - ✓ Trigger the gun again to decompress the hoses.
-



### 8.5.1 Replacing the seat (12)

**Time required**

**1 minute 50**

- ✓ Unscrew the nut (21) manually,
- ✓ Manually remove the bowl (20),
- ✓ Manually remove the sieve (18),
- ✓ Unscrew the valve connection (16) with a 14 mm socket wrench,
- ✓ Remove the seal (15) from the valve body with a flat screwdriver,
- ✓ Remove the conical spring (14) and the ball (13),
- ✓ Remove the seat (12) and the seal (11),
- ✓ Replace the seals,
- ✓ Clean the parts with a suitable solvent,
- ✓ Reassemble the assembly by carrying out the operations in the opposite direction. Do not forget the flat seal (11).

*Note: The seat is reversible: at the time of the first intervention, it is enough to turn it over.*

**Tools needed**

**14**



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## 8.5.2 Replacing the diaphragm (6)

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**Time required**

**5 minutes**

- 
- ✓ Unscrew the 6 screws (2),
  - ✓ Remove the cap (3),
  - ✓ Unscrew the nut (4) with a 17 mm wrench,
  - ✓ Pull out the lower cup (5),
  - ✓ Remove the membrane (6),
  - ✓ Clean the parts with a suitable solvent,
  - ✓ Position the diaphragm (6) and cup (5) on the needle shaft assembly (7),
  - ✓ Position the diaphragm assembly (6), cup (5) and needle shaft (7) in relation to the base (9),
  - ✓ Tighten the nut (4) on the needle shaft assembly (7) with a 17 mm torque wrench to 5 N.m,
  - ✓ Position the cap (3) on the filter body (9),
  - ✓ Tighten the 6 screws (2) with a 5 mm torque wrench to a torque of 4 N.m.

---

**Tools needed**

**17**



**5**



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### 8.5.3 Cleaning / Replacing the Screen (18)

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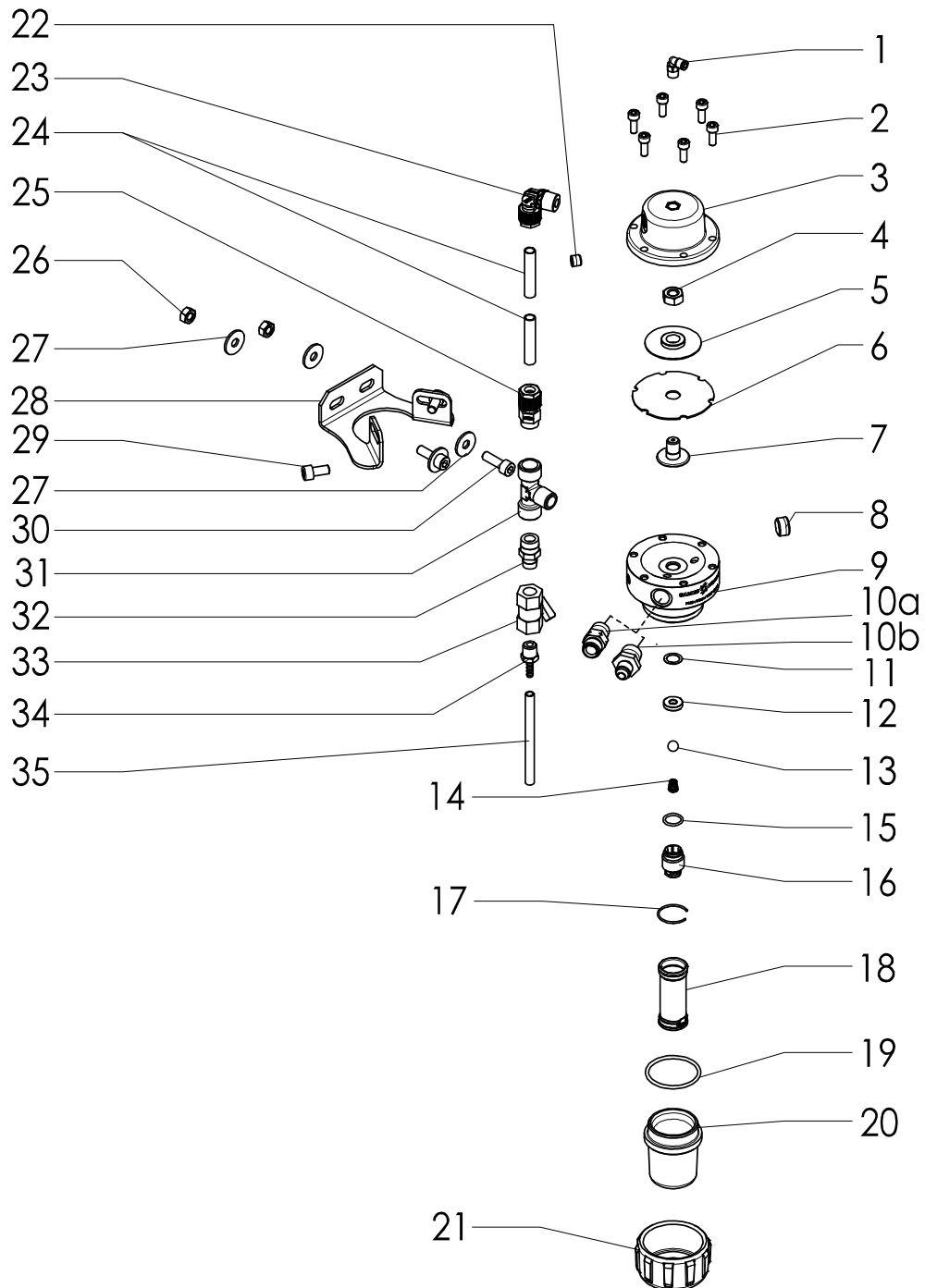
**Time required**

**1 minute 50**

- 
- ✓ Unscrew the nut (21) manually,
  - ✓ Manually remove the bowl (20),
  - ✓ Manually remove the screen (18),
  - ✓ Clean or replace the screen (18).
-

## 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	905 120 926	Elbow 1/8" G	1	3
2	933 151 196	Screw CHc 6x16 CL 8.8	6	3
3	155 610 086	Regulator cap	1	3
4	953 010 021	Nut HM 10	1	3
5	055 170 006	Lower cup	1	3
6*	055 170 005	Diaphragm	1	1
7*	155 610 003	Axle and needle assembly	1	1
8	906 333 104	Plug	1	3
9	N S	Filter body	1	3
10a	050 102 648	Fitting MM 3/8" BSP 3/8" NPS	1	3
10b	550 824	Fitting MM 3/8" BSP 1/2" JIC	1	3
11*	055 610 005	Flat seal	1	1
12*	055 610 004	Carbide seat	1	1
13*	907 414 223	Stainless steel ball Ø 9.5	1	1
14*	050 312 225	Conical spring	1	1
15*	150 040 314	O-ring seal	1	1
16	155 581 604	Valve connection	1	3
17*	055 190 007	Stop ring	1	1
18*	000 160 106	Filter screen n°6	1	1
19*	909 420 520	FEP seal	1	1
20	155 610 084	Filter tank	1	3
21	155 610 085	Nut	1	3
22	906 333 106	Plug	1	3
23	905 190 415	Elbow 3/8" G x tube 8x10	1	3
24*	155 581 683	Rilsan pipe	1	1
25	905 190 418	Fitting	1	3
26	953 010 019	Nut HM 8	2	3
27	88 733	Washer	4	3
28	155 581 618	Support bracket	1	3
29	88 150	ScrewCHc 8x16 CL 8.8	2	3
30	88 152	ScrewCHc 8x25 CL 8.8	2	3
31	N S	TE FMF 3/8"	1	3

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## Wear part numbers (continued)

Ind	# Part numbers	Description	Qty	Level**
32	155 581 680	Nipple MM 1/4" – 3/8"	1	3
33	903 090 806	Valve F.1/4" G	1	2
34	105 030 207	1/4" hose barb	1	3
35	155 581 684	Rilsan hose	1	1

\* Recommended maintenance parts.

N S: Denotes parts are not serviceable.

\*\*Level 0 : Parts are not spare parts.

Level 1 : Preventive maintenance.

Level 2 : Corrective maintenance.

Level 3 : Exceptional maintenance.

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## 9.2 Options

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

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## **10 Appendices**

### **10.1 Appendix A Preventive Maintenance Plan**

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