

DOCUMENTATION

**FLUID PRESSURE REGULATOR**

**RegSMART™**

**Manual : 582.024.110-UK - 2207**

*Date: 13/07/22*

*Supersede : 29/03/19*

*Modif.:*

**TRANSLATION FROM THE ORIGINAL MANUAL**

***IMPORTANT : Before assembly and start-up, please read and clearly understand all the documents relating to this equipment (professional use only).***

THE PICTURES AND DRAWINGS ARE NON CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE..

**SAMES KREMLIN SAS**

13, chemin de Malacher  
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**[www.sames-kremlin.com](http://www.sames-kremlin.com)**



# INSTALLATION AND SAFETY INSTRUCTIONS

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# 1. SAFETY INSTRUCTIONS

## GENERAL SAFETY INSTRUCTIONS



**CAUTION :** The equipment can be dangerous if you do not follow our instructions concerning installation and servicing described in this manual and in accordance with applicable European standards and local national safety regulations.

Please carefully read all the instruction literature before operating your equipment.

### **Only trained operators can use the equipment.**

The foreman must ensure that the operator has understood the safety instructions for this equipment as well as the instructions in the manuals for the different parts and accessories.

Read carefully all instruction manuals, label markings before operating the equipment.

Incorrect use may result in injury. This equipment is for professional use only. It must be used only for what it has been designed for. Never modify the equipment. The parts and accessories supplied must be regularly inspected. Defective or worn parts must be replaced.

**Guards (motor cover, coupling shields, connectors,...) have been designed for a safe use of the equipment.**  
**The manufacturer will not be held responsible for bodily injury or failure and / or property damage due to destruction, the overshadowing or the partial or total removal of the guards.**

### **Never exceed the equipment components' maximum working pressure.**

Comply with regulations concerning safety, fire risks, electrical regulations in force in the country of final destination of the material. Use only products or solvent compatible with the parts in contact with the material (refer to data sheet of the material manufacturer).

## PICTOGRAMS

A	D	F	E	C	G
NIP HAZARD	WARNING MOVING ELEVATOR	WARNING MOVING PARTS	WARNING MOVING SHOVEL	DO NOT EXCEED THIS PRESSURE	HIGH PRESSURE HAZARD
H	J	L	K	M	O
RELIEF OR DRAIN VALVE	WARNING HOSE UNDER PRESSURE	WEAR GLASSES OBLIGATORY	WEAR OF GLOVES IS OBLIGATORY	PRODUCT VAPOR HAZARDS	WARNING HOT PARTS OR AREAS
N	P	R	S	T	U
ELECTRICAL HAZARD	WARNING FIRE HAZARDS	EXPLOSION HAZARDS	GROUNDING	WARNING (USER)	WARNING SERIOUS INJURIES

## PRESSURE HAZARDS



Current legislation requires that an **air relief** valve be fitted in the air supply circuit to the air motor to prevent over pressurisation. This safety feature, ensures that it is not possible to supply the air motor with excessive air pressure that may cause injury.

Please ensure that a **material drain valve** is fitted in the fluid circuit to drain and depressurise the circuit. Once depressurised and drained, work /servicing may then commence on the equipment. Please remember to close these valves when restarting the system.

### HIGH PRESSURE INJECTION HAZARDS



When working with high pressure equipment, special care is required. Fluid leaks can occur. There is a risk of material being injected to any exposed parts of body, this could cause severe injury :

- medical care must be sought immediately if paint is injected under the skin or in other parts of the body (eyes, fingers).
- never point the spray gun at any one. Never try to stop the spray with your hands or fingers nor with rags or similars.
- **follow the shut down procedure and always depressurize air and fluid circuits** before carrying out any servicing on the gun (cleaning, checking, maintenance of the material or cleaning of the gun nozzles).
- for the guns equipped with a safety device, always lock the trigger when not in use.

### FIRE - EXPLOSION - SPARKS - STATIC ELECTRICITY HAZARDS



A poor earth connection, inadequate ventilation, sparks or static electricity can cause an explosion or fire. to avoid these risks when using or servicing SAMES KREMLIN equipment, the following safety procedures must be followed :

- ensure a good earth connection and ground the parts to be handled i.e. solvents, materials, components and equipment,
- ensure adequate ventilation,
- keep working area clean and free from waste solvents, chemicals, or solid waste i.e. rags, paper and empty chemicals drums,
- never use electrical switches / power if in an atmosphere of volatile solvent vapour,
- stop working immediately in case of electrical arcs,
- never store chemicals and solvents in the working area.
- use paint whose flash point is the highest possible to prevent from any formation of gas and inflammable vapours (refer to materials' safety instructions),
- install a cover on the drums to reduce the diffusion of gas and vapours in the spraybooth.

### TOXIC PRODUCT HAZARDS



Toxic products or vapours can cause severe injury not only though contact with the body, but also if the products are ingested or inhaled. It is imperative :

- to know the material products and their risks,
- notified or hazardous materials must be stored in accordance with the regulations,
- the material must be stored in an appropriate container, never place materials in a container where there is a risk of spillage or leakage,
- a procedure must be applied for the safe disposal of waste material. It must comply with all prevailing regulations and legislations of the country where the equipment is to be used,
- protective clothing should always be worn in compliance with the material manufacturers' recommendations,
- depending on the application and chemical safety instructions, safety glasses, hearing protective earplug, gloves, foot wear, protective masks and possible breathing equipment should be worn to comply with the regulations (Refer to chapter "Safety equipment of SAMES KREMLIN selection guide).



### CAUTION!

It is forbidden to use material containing high concentrations of halogenated hydrocarbon solvents with **aluminium** or **zinc fillers**. Non-compliance with the instructions may cause explosion risk causing serious or fatal injury.



### EQUIPMENT REQUIREMENTS

**Guards (motor cover, coupling shields, connectors,...) have been designed for a safe use of the equipment.**  
**The manufacturer will not be held responsible for bodily injury or failure and / or property damage due to destruction, the overshadowing or the partial or total removal of the guards.**



### PUMP

Before carrying out any work, it is imperative to read and clearly understand the disassembly and reassembly instructions before servicing. The operator must understand the equipment and the safety instructions. These instructions are available in the equipment manuals.

The air motor is designed to be mounted with a pump. Never modify any components or couplings. When operating, please keep hands away from moving parts. Before starting up the equipment, please read the PRESSURE RELIEF instructions. Please ensure that any relief or drain valves fitted are in good working order.

### HOSES

- Keep hoses out of circulation areas, moving parts or hot surfaces,
- Never expose product hoses to temperature higher than + 60°C / 140° F or lower than 0°C / 32° F,
- Never pull or use the hoses to move the equipment,
- Tighten all fittings as well as the hoses before operating the equipment,
- Check the hoses regularly; change them if they are damaged,
- Never exceed the maximum working pressure (MWP) indicated on the hose.

### USED PRODUCTS

Considering the wide variety of products that are available and can be used in our equipment it is impossible to check and make recommendations for all chemical data, regarding the risks of possible chemical attack and their long term chemical reaction


SAMES KREMLIN can not be held liable for :

- compatibility of wetted parts,
- risks to staff and the surroundings,
- for worn or defective parts, for faulty equipment or units, or the quality of final product.

It is the responsibility of the user to know and prevent any possible risks such as toxic vapours, fires or explosions. He shall determine the risks of immediate reactions or pursuant to repeated exposures of the staff,

SAMES KREMLIN shall not be liable for physical injuries, direct or indirect material damages caused by the use of chemicals.

## 2. HANDLING

 **Check the weight and the dimensions of the equipment**  
(☞ refer to 'Technical features' section of the instruction manual)

If weight and dimensions are too important, the unloading must be carried out by means of a forklift or any other appropriate means with a qualified personnel and in a clear horizontal area to prevent from risks of damage injury or an accident.

The centre of gravity is not in the centre of the machine : carry out by hand a stability-test after having lifted the whole at 10 cm / 3.937" maximum.

After the unloading, the handling of the whole (eg: elevator pump) is carried out by means of a pallet truck taking the bottom part of the frame.

**Remark : Each pump motor is fitted with a ring. The ring is designed for the hoisting of one pump and can not be used for the handling of the complete assembly.**

## 3. STORING

Storing before installation :

- Storing ambient temperature : 0 / +50 °C / 0 / +122°F
- Protect the whole against dust, water trickling, dampness and shocks.

Storing after installation :

- Operating temperature : +15 / +35 °C / +59 / +138.2° F
- Protect the whole against dust, water tricing, dampness and shocks.

## 4. INSTALLATION OF THE EQUIPMENT

The machine is installed on a stable horizontal floor (for eg a concrete flag).

The machine shall be made stable by the use of holding down bolts or by the use of other anchoring methods, strong enough to prevent unintended bodily movement of the equipment.



**To avoid risks caused by static electricity, the equipment as well as its components must be grounded.**

- **For the pumping equipments** (pumps, pneumatic rams, frame...), a section wire of 2.5 mm<sup>2</sup> is fixed on the material. Use this wire to connect the material to "the general ground". In case of severe environments (mechanical protection of the wire of earthing insufficient, vibrations, mobile material...) where function damages at the ground are probable, the user have to replace the provided wire of 2.5 mm<sup>2</sup> by a device more adapted to its environment (wire with a more important section, bonding strip, fixing by thimble with eyelet...).

The continuity of the ground must be controlled by a qualified electrician. If the continuity of the ground is not ensured, check the terminal, the wire and the earthing point. **Never** use the material without have solved this problem.

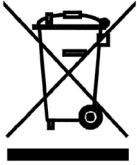
- In the severe cases of environments (mechanical protection of the wire of earthing insufficient, vibrations, mobile material...) where damages of the function put at the ground are probable, the user will have to replace the wire of 2.5 mm<sup>2</sup> provided, by a device more adapted to its environment (wire of more important section, bonding strip, fixing by thimble with eyelet...),
- **The gun** must be 'grounded' via a material hose or an air hose. In case of spraying by means of a gun with cup, the air hose must be conductive,
- **The materials to be painted** must also be grounded.

**All the materials situated in the working area shall be grounded.**



- **Never store** more than necessary inflammable materials inside the working area,
- The materials must be stored into **approved drums** and grounded,
- Use only grounded **metals containers** for the use of cleaning solvents,
- **Cardboard and paper are prohibited.**

## 5. MARKING OF THE EQUIPMENT



Each equipment has a label plate with the name of the manufacturer, the equipment part number, the interesting informations to use correctly the equipment (pressure, voltage,...) and sometimes the above pictogram.

The equipment is designed with and consists of high quality materials and components which can be re-used.

The 2012/19/UE European Directive covers all equipments with a crossed-out bin pictogram. Please inform yourself about the collection systems for electric and electronic equipments.

Please act in accordance with local rules and **do not dispose of old equipment with household wastes**. A correct disposal of old equipment will help prevent negative consequences for the environment and health.

**DEMONTAGE / REMONTAGE  
DISASSEMBLY / REASSEMBLY  
DEMONTAGE / MONTAGE  
DESMONTAJE / MONTAJE**

**RegSMART™**

*NOTICE ORIGINALE*  
/ TRANSLATION FROM THE ORIGINAL MANUAL  
/ ÜBERSETZUNG DER ORIGINAL BETRIEBSANLEITUNG  
/ TRADUCCIÓN DEL LIBRO ORIGINAL

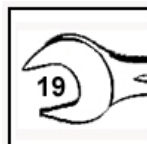
**Ce matériel ne doit en aucun cas être modifié.  
Le non-respect de cette préconisation ne saurait engager notre responsabilité.**

***This material can not be modified.  
SAMES KREMLIN will not be held responsible for any failure to comply with that instruction.***

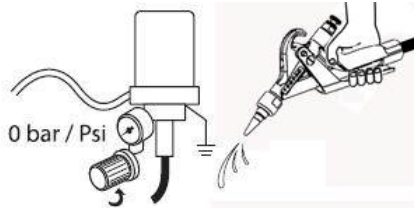
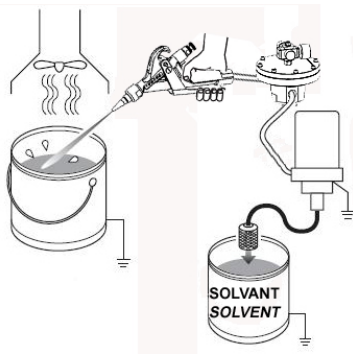
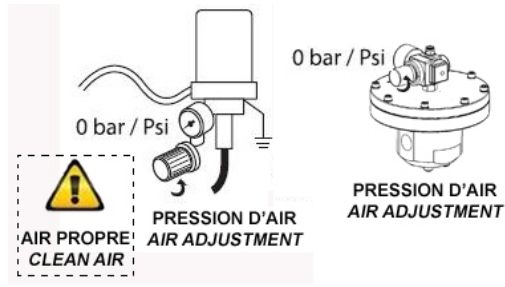
**Diese Anlage darf nicht verändert werden.  
Bei Nichtbeachtung können wir keine Garantie für eine einwandfreie Funktion des Druckreglers  
übernehmen.**

**Este equipo no debe ser modificado, en ningún caso.  
SAMES KREMLIN no se hace responsable de que esta preconización no sea respetada.**

**VOUS AVEZ BESOIN DE / YOU NEED / WERKZEUGAUFSTELLUNG / VD NECESITA:**

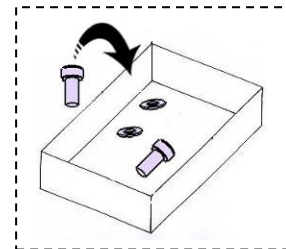
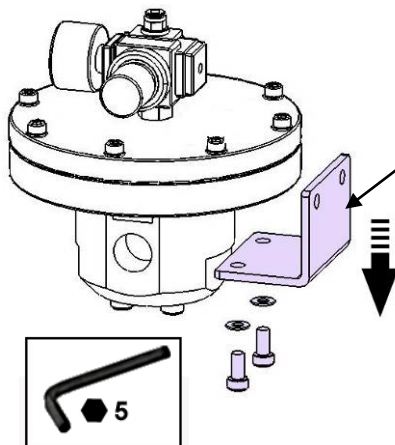




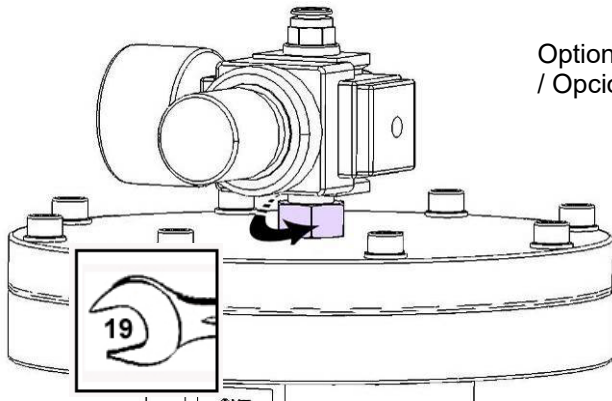


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/ Druckentlastung der Materialdruckseite  
/ Descomprimir el circuito producto**

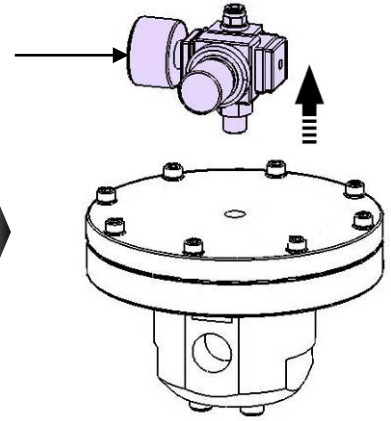
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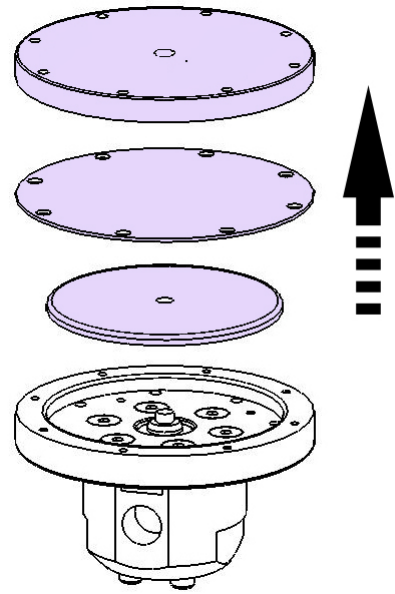
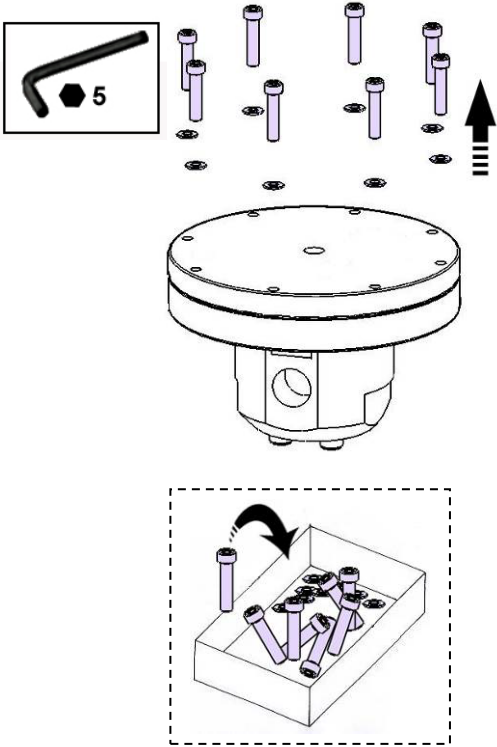
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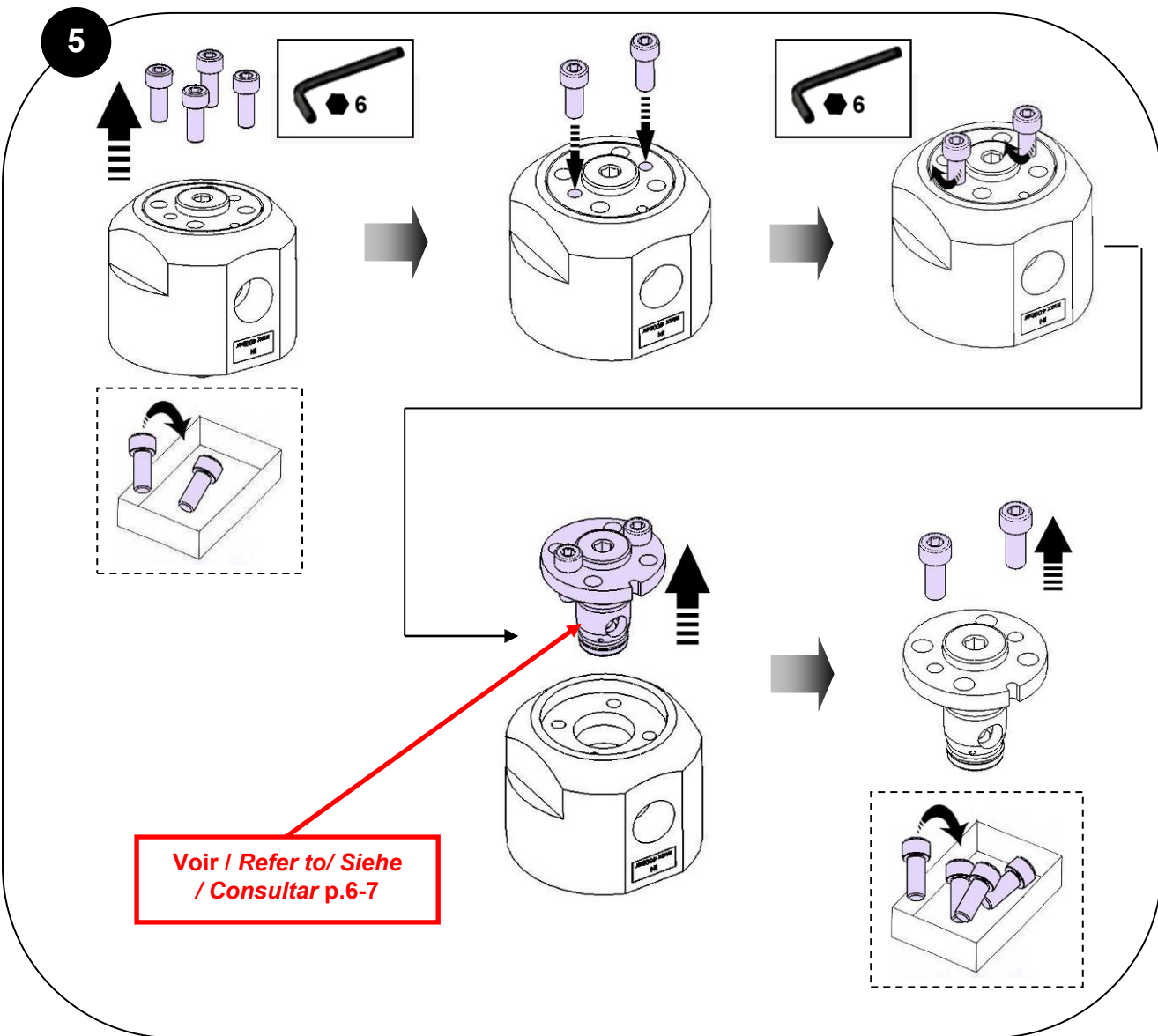
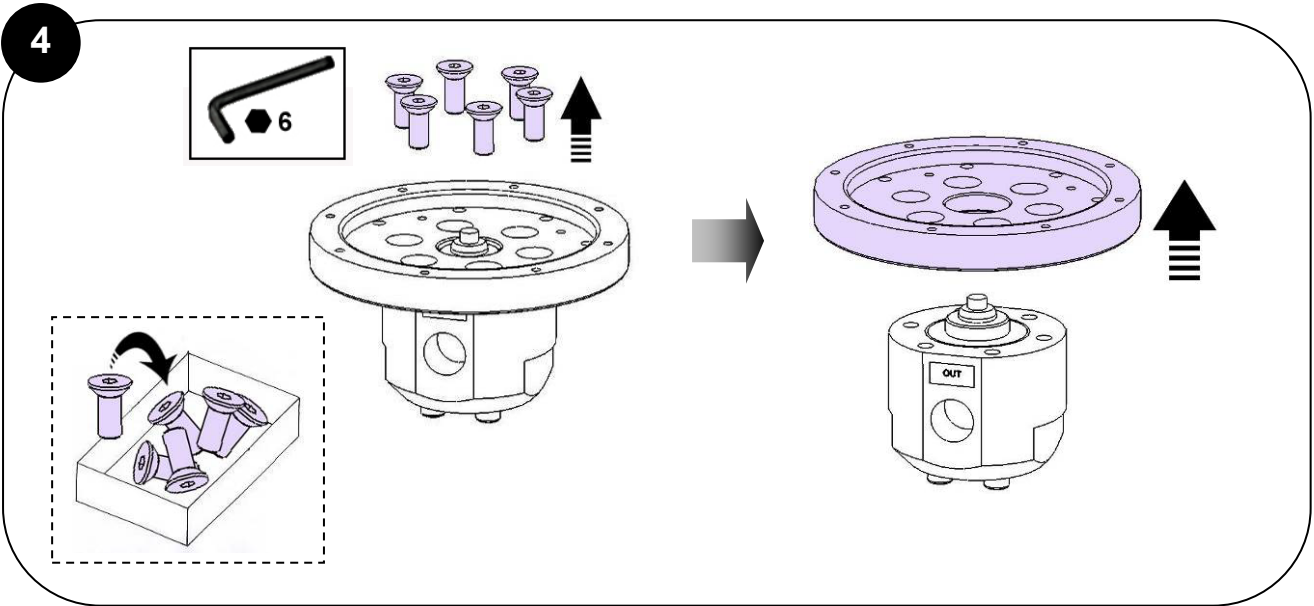


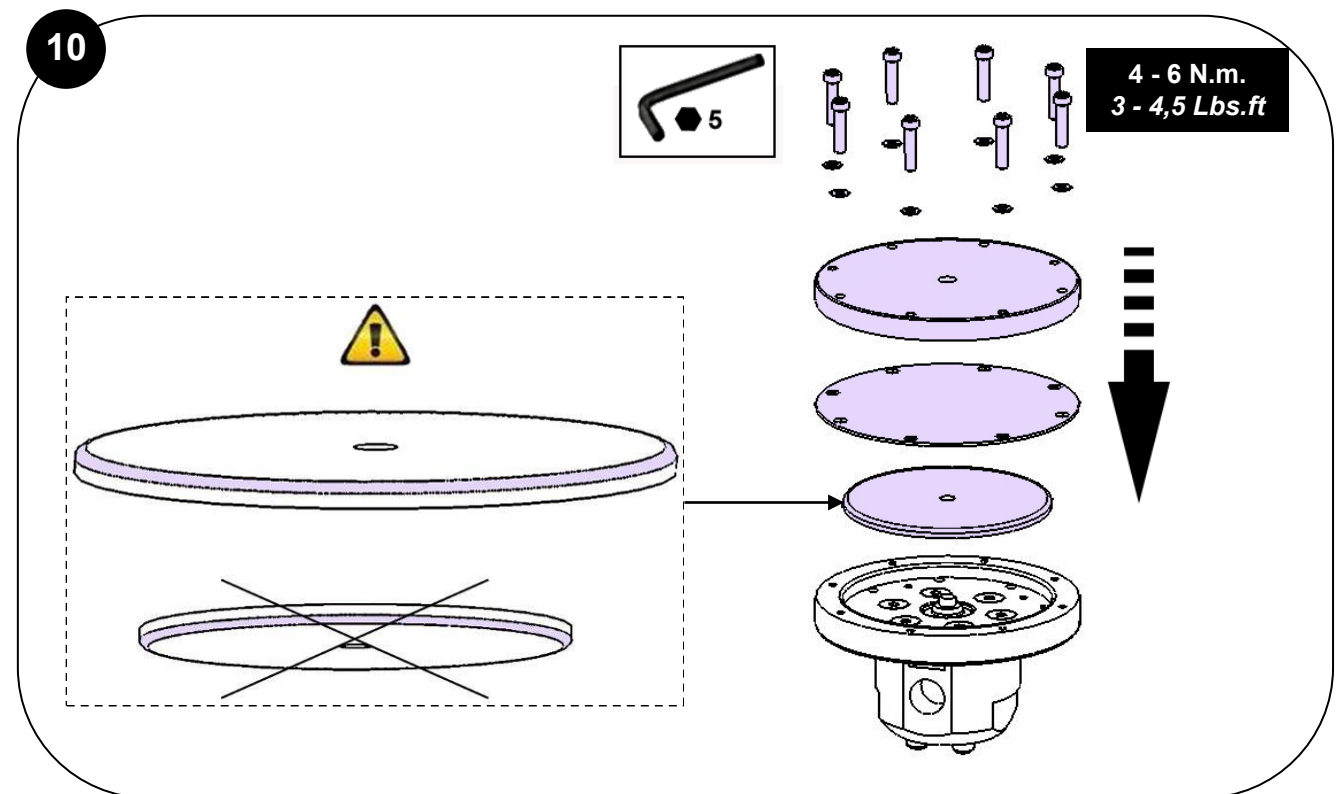
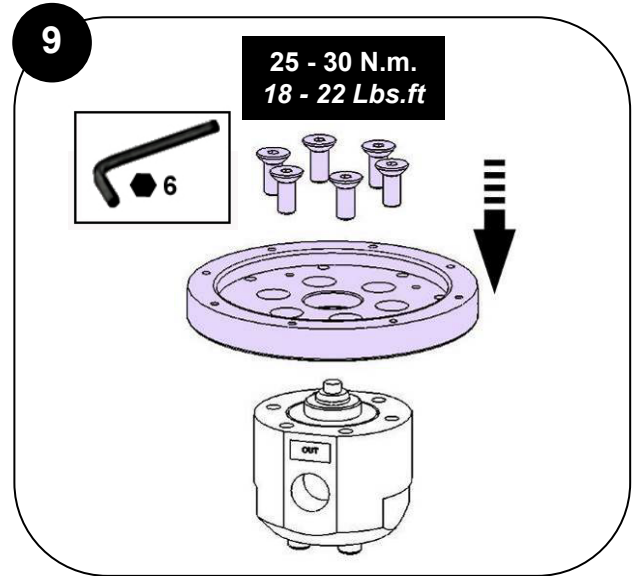
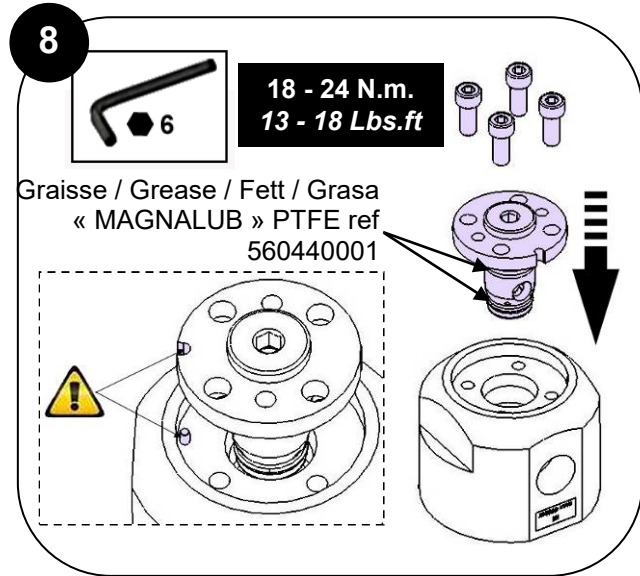
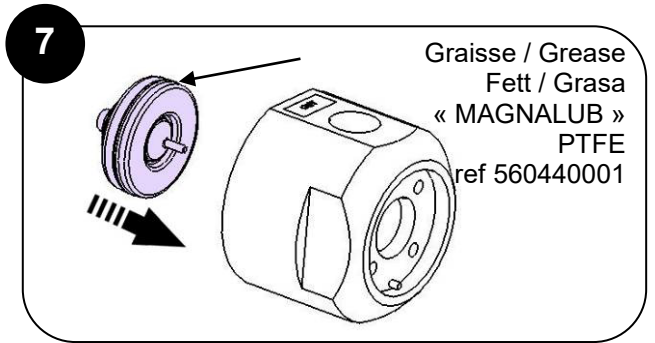
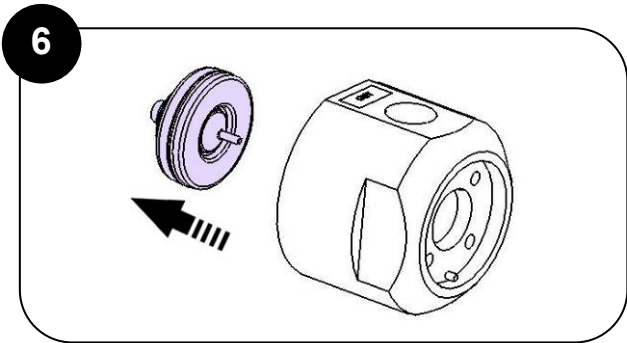
Option / Optional  
/ Opción



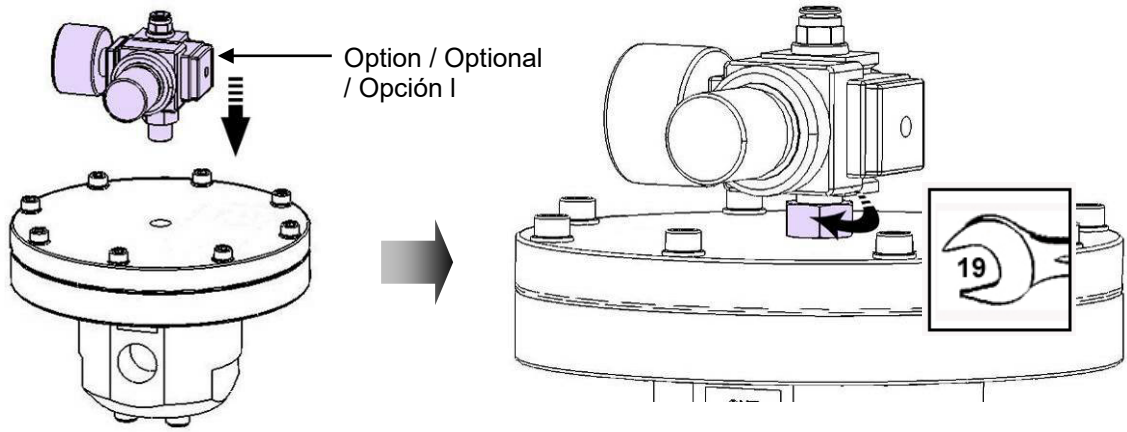
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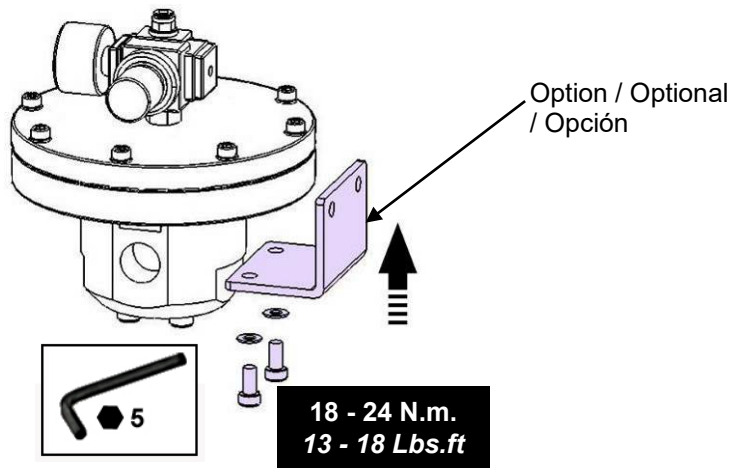




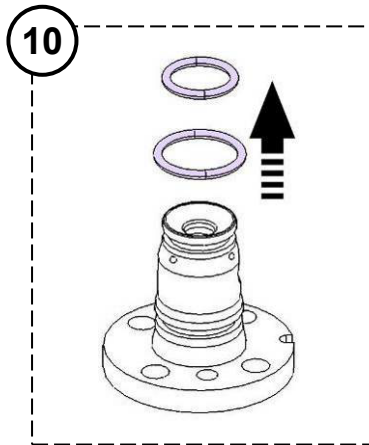
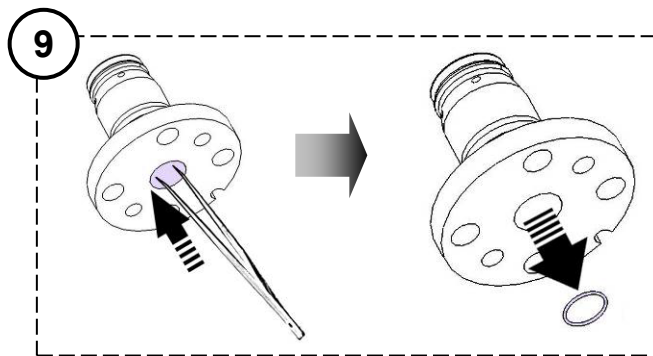
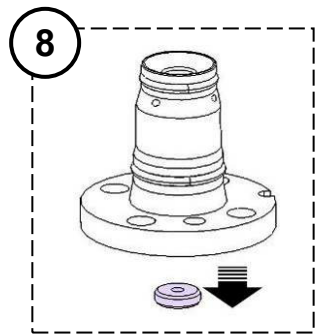
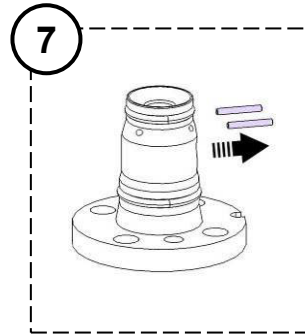
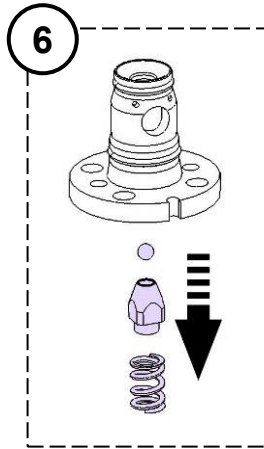
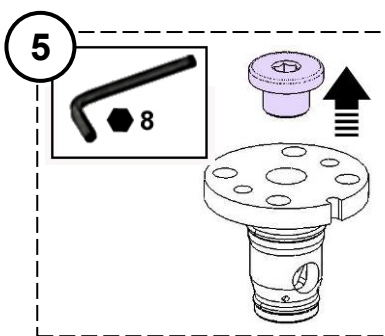
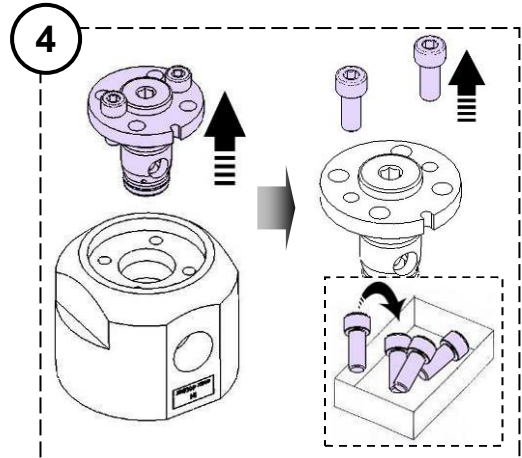
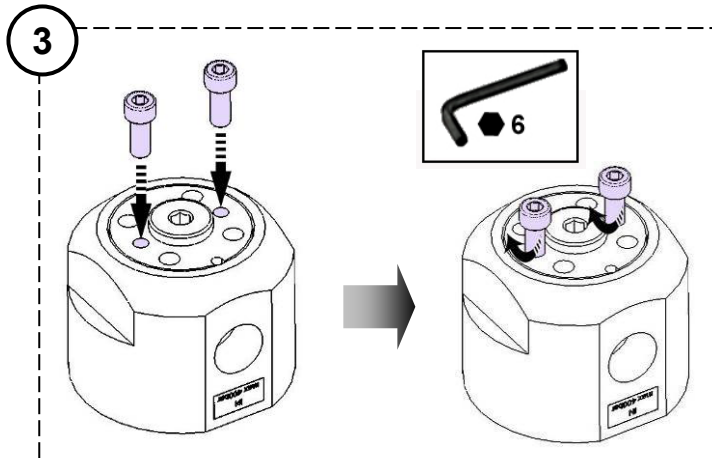
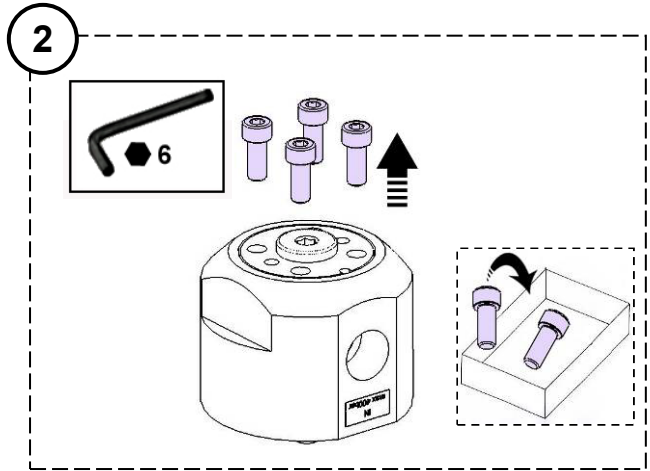
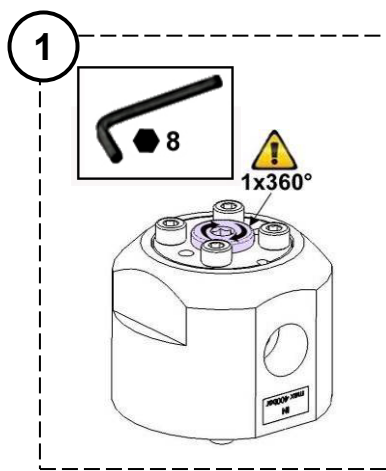
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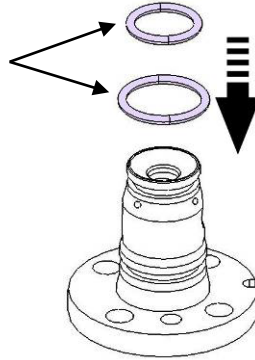




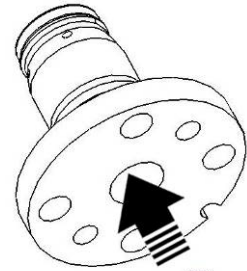


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« MAGNALUB »  
PTFE  
ref 560440001



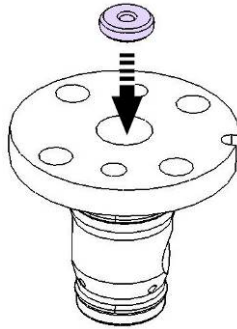
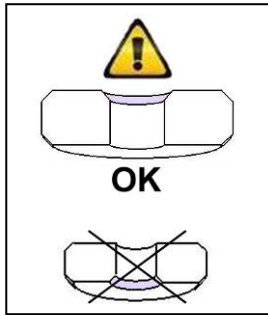
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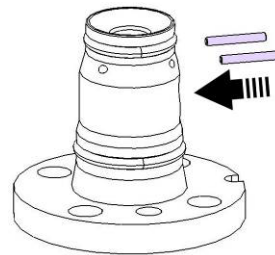
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« MAGNALUB » PTFE ref 560440001



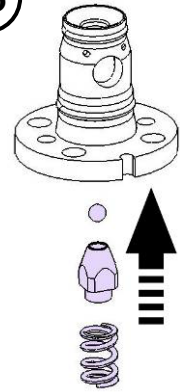
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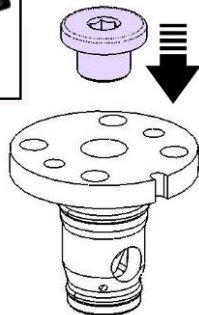
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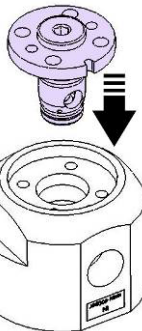
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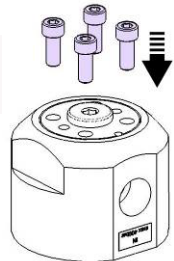
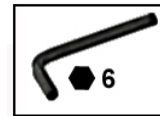


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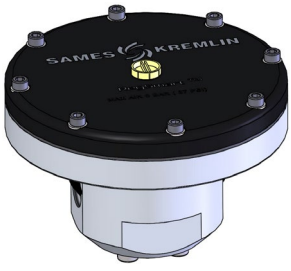
18

18 - 24 N.m.  
13 - 18 Lbs.ft

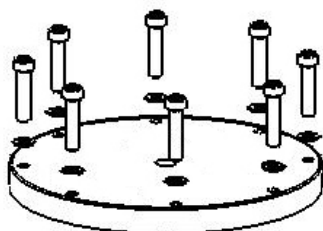
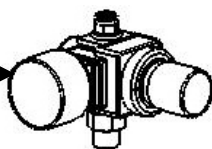


**PIECES DE RECHANGE  
SPARE PARTS  
ERSATZTEILE  
PIEZAS DE REPUESTO**

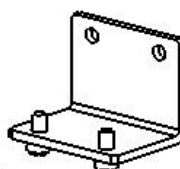
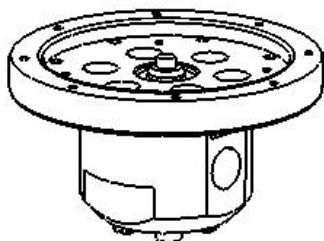
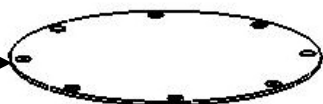
**RegSMART™**

	Bille / Ball / Kugel / Bola Ø	Aluminium / Aluminio #	Inox / Stainless steel / Edelstahl #
	6 mm / 0.23 in.	155 750 000	155 751 000
	8 mm / 0.32 in.	155 750 100	155 751 100
	12 mm / 0.46 in.	155 750 200	155 751 200

155 750 908  
(Option / Optional / Opción)

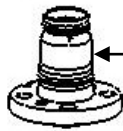
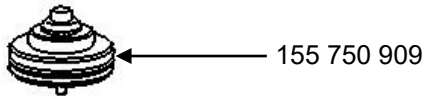
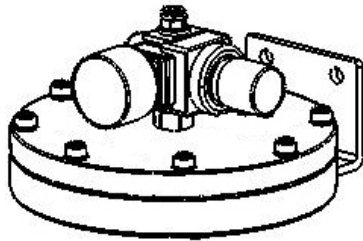


155 750 907




155 750 906  
(Option / Optional / Opción)





**Kit de réparation / Servicing kit  
/ Reparatursatz / Bolsa de reparación**

Bille / Ball Kugel / Bola Ø	#
6 mm / 0.23 in.	155 750 900
8 mm / 0.32 in.	155 750 901
12 mm / 0.46 in.	155 750 902

	Bille / Ball Kugel / Bola Ø	#
	6 mm / 0.23 in.	155 750 903
	8 mm / 0.32 in.	155 750 904
	12 mm / 0.46 in.	155 750 905

*\* inclus dans le kit de réparation  
included in the servicing kit  
Im Reparatursatz enthalten  
Incluido en la bolsa de reparación*

**REGULATEUR DE PRESSION PRODUIT  
/ FLUID PRESSURE REGULATOR  
/ MATERIALDRUCKREGLER  
/ REGULADOR DE PRESIÓN**

*NOTICE ORIGINALE*  
/ TRANSLATION FROM THE ORIGINAL MANUAL  
/ ÜBERSETZUNG DER ORIGINAL BETRIEBSANLEITUNG  
/ TRADUCCIÓN DEL LIBRO ORIGINAL

**Ce matériel ne doit en aucun cas être modifié.  
Le non-respect de cette préconisation ne saurait engager notre responsabilité.**

***This material can not be modified.  
SAMES KREMLIN will not be held responsible for any failure to comply with that instruction.***

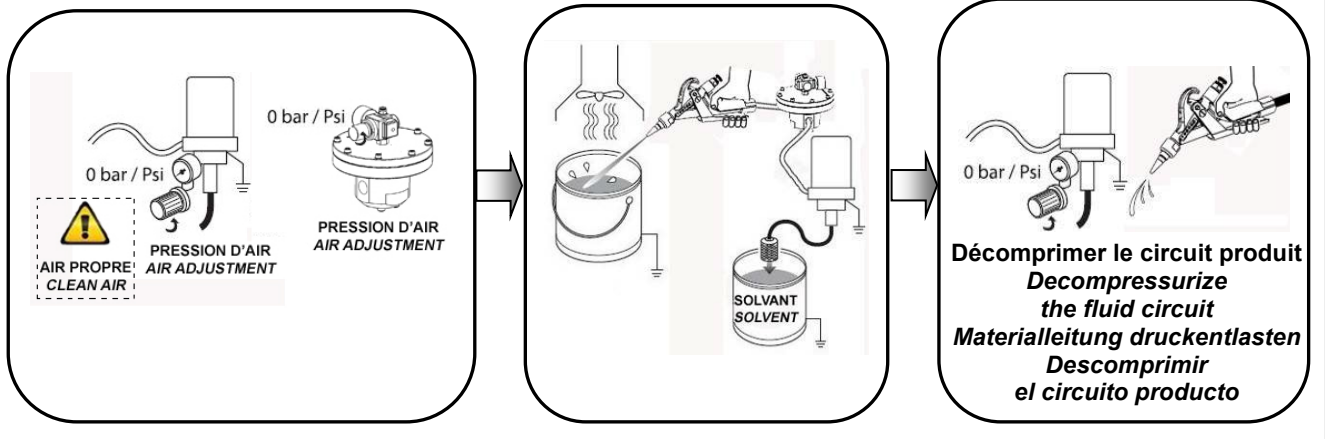
**Diese Anlage darf nicht verändert werden.  
Bei Nichtbeachtung können wir keine Garantie für eine einwandfreie Funktion des Druckreglers übernehmen.**

**Este equipo no debe ser modificado, en ningún caso.  
SAMES KREMLIN no se hace responsable de que esta preconización no sea respetada.**

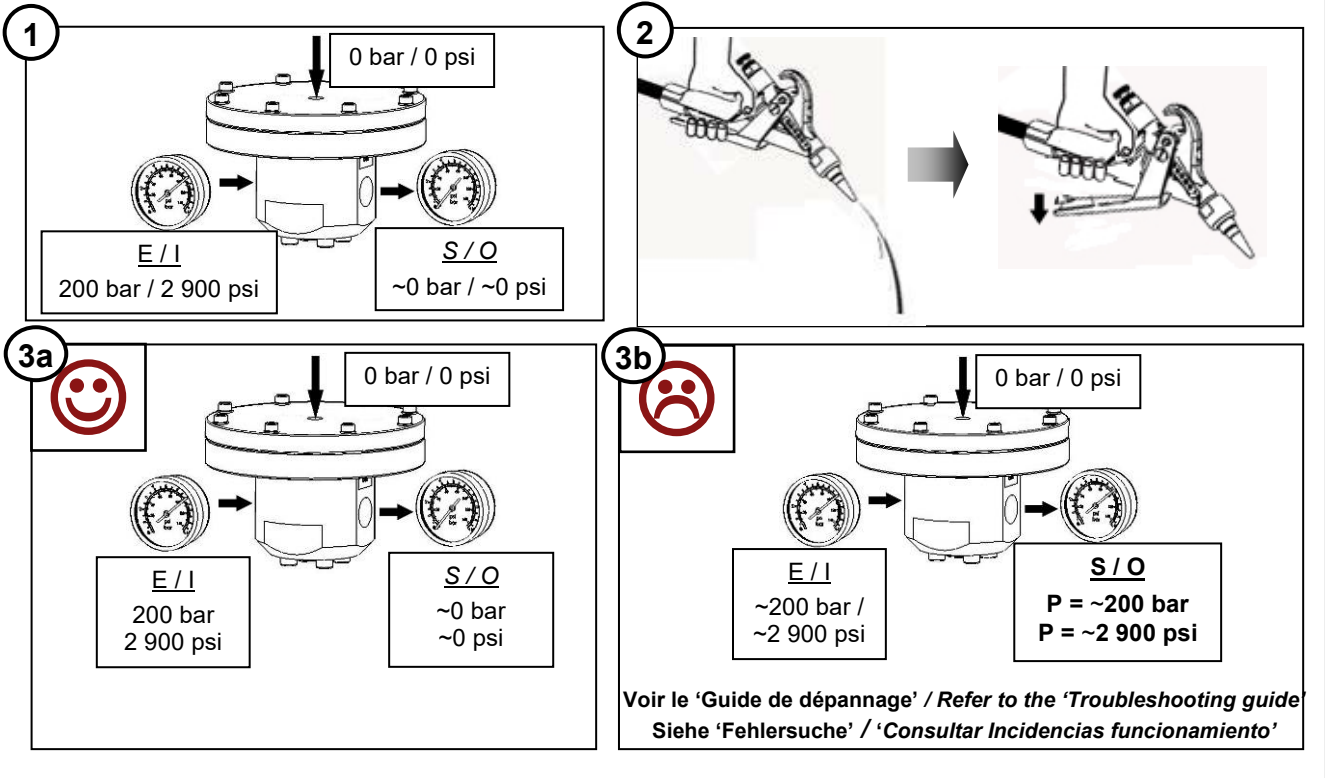


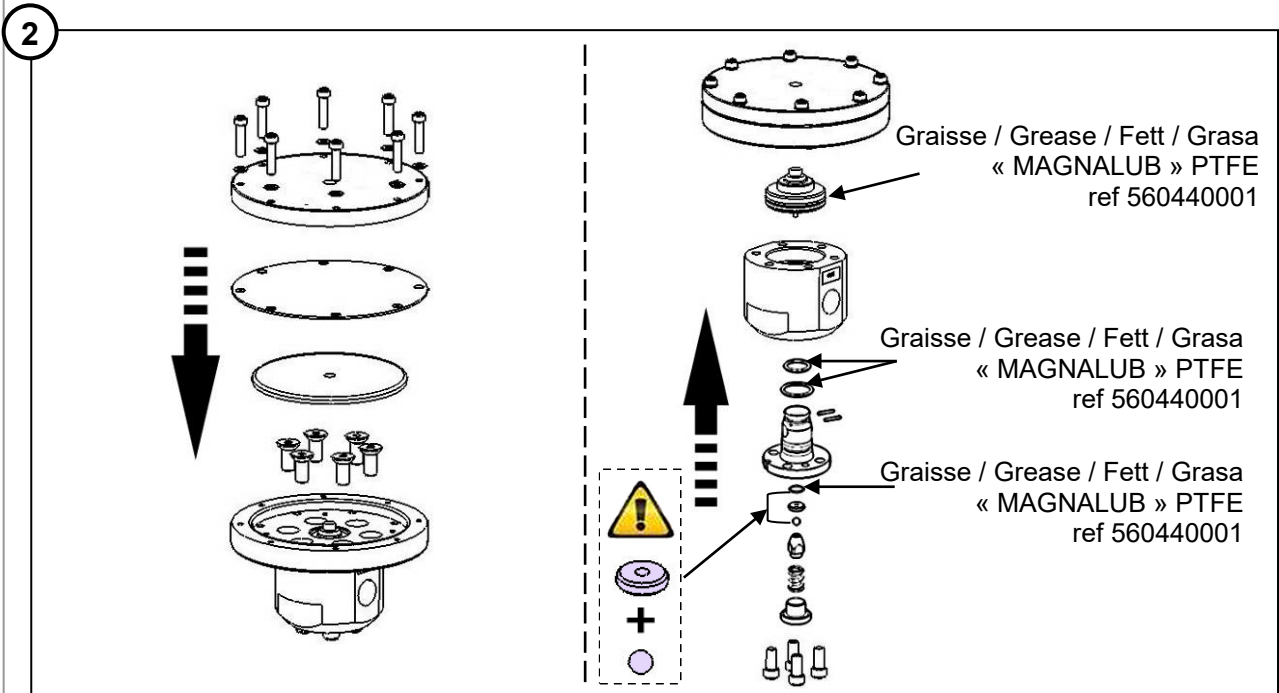
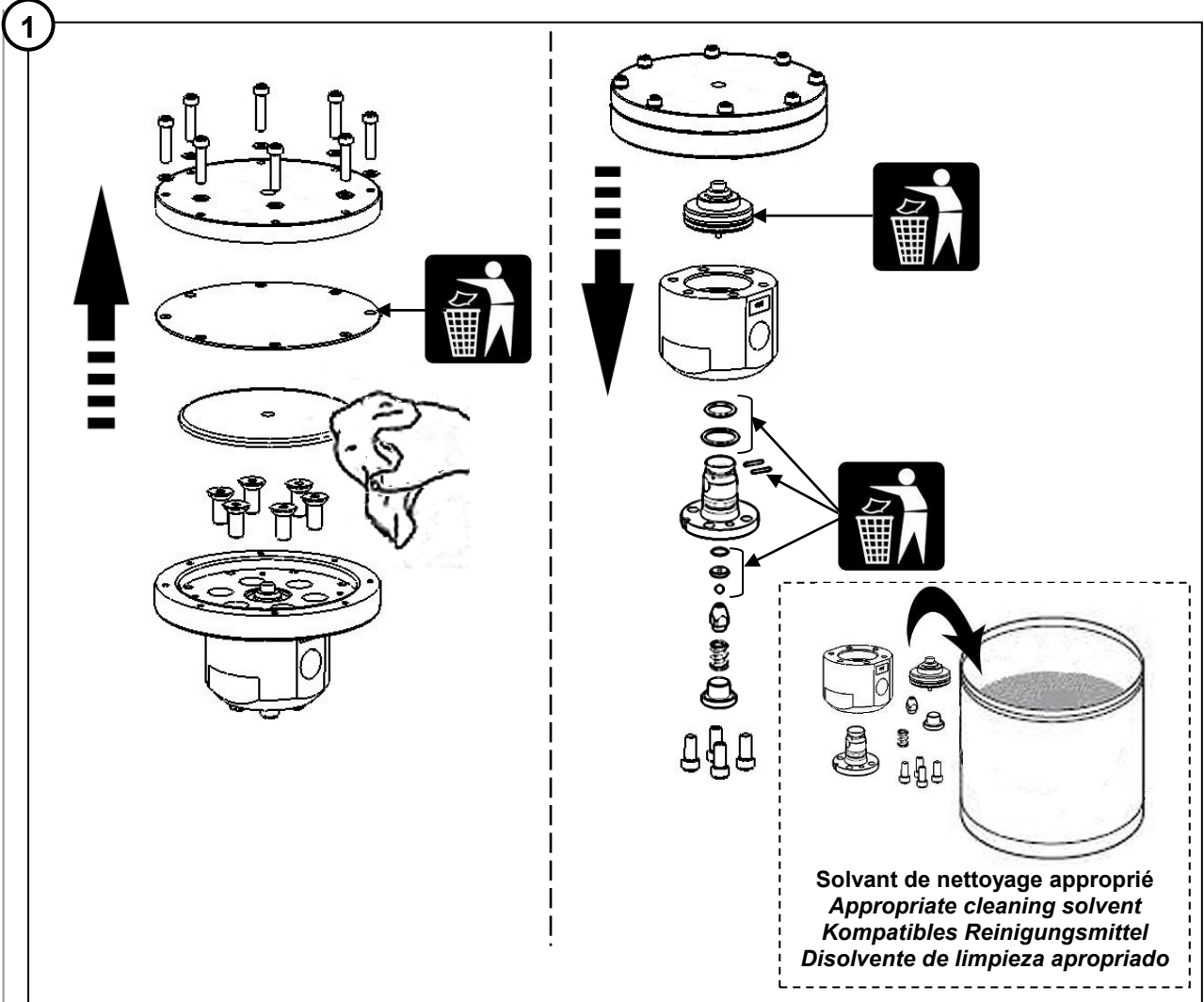
**AVANT CHAQUE OPERATION DE MAINTENANCE / DO THIS BEFORE ANY MAINTENANCE ACTION  
/ DIESE AKTIONEN VOR JEDEM EINGRIFF DURCHFÜHREN  
/ ANTES DE CADA OPERACIÓN DE MANTENIMIENTO**

**ET TOUTES LES SEMAINES / AND WEEKLY TASKS / UND JEDE WOCHE / Y TODAS LAS SEMANAS**



**TOUS LES 6 MOIS / HALF-YEARLY SERVICE / HALBJÄHRLICH / SEMESTRALMENTE**





**REGULATEUR DE PRESSION PRODUIT  
/ FLUID PRESSURE REGULATOR  
/ MATERIALDRUCKREGLER  
/ REGULADOR DE PRESIÓN**

*NOTICE ORIGINALE  
/ TRANSLATION FROM THE ORIGINAL MANUAL  
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/ TRADUCCIÓN DEL LIBRO ORIGINAL*

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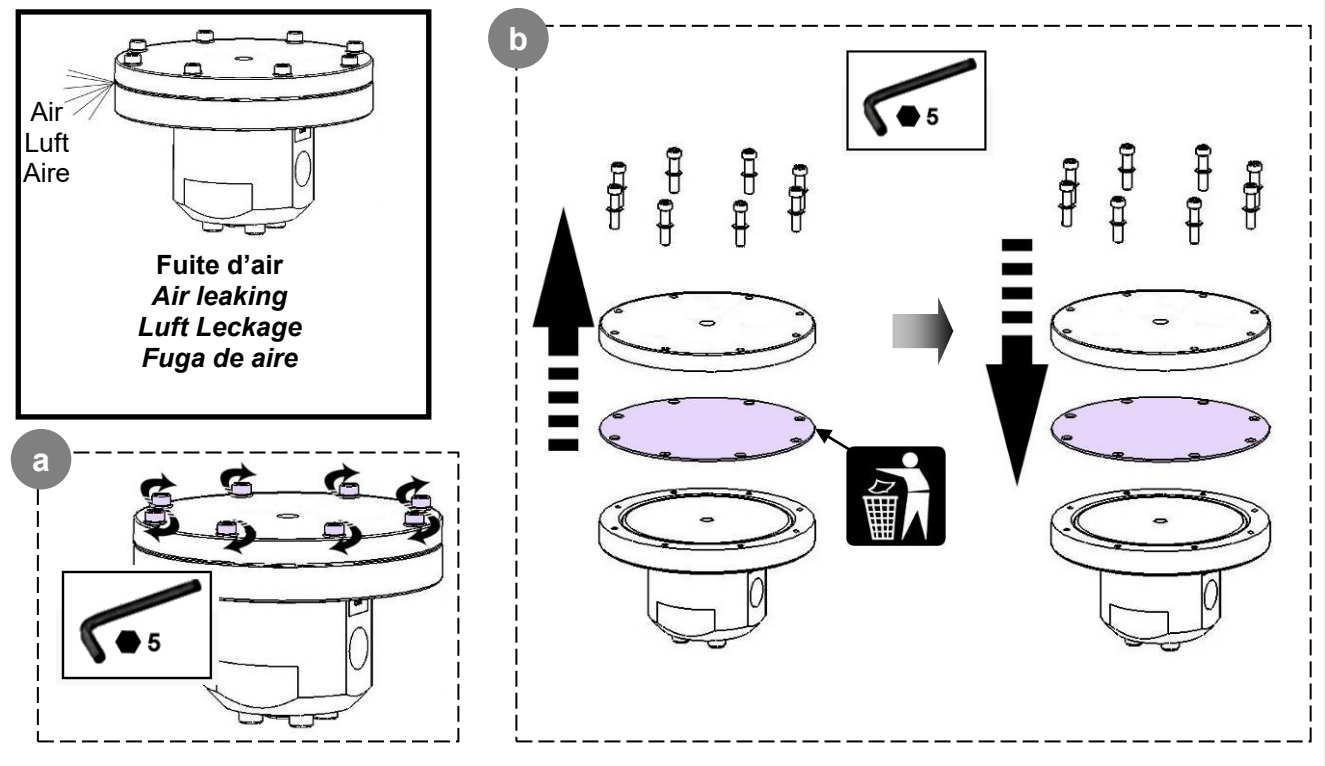
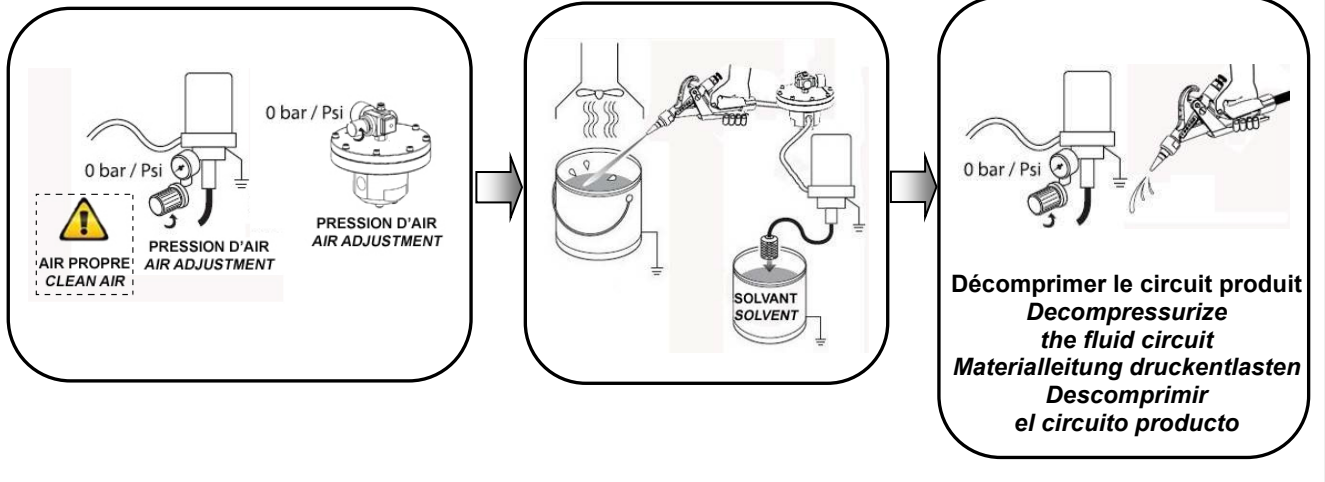
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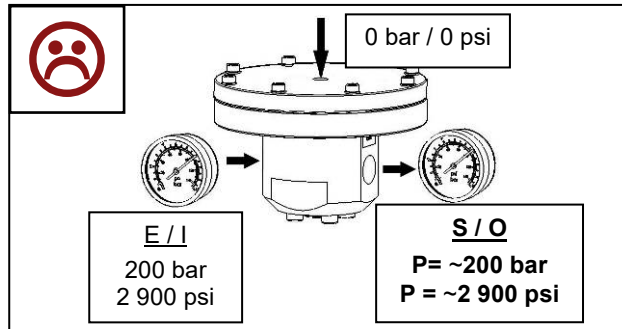
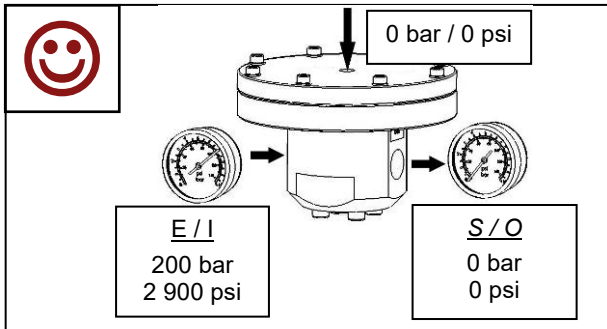
*Este equipo no debe ser modificado, en ningún caso.  
SAMES KREMLIN no se hace responsable de que esta preconización no sea respetada.*



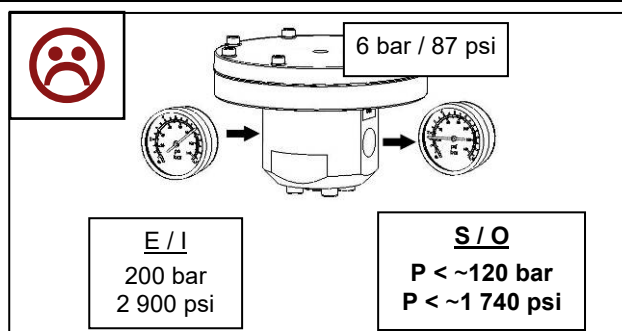
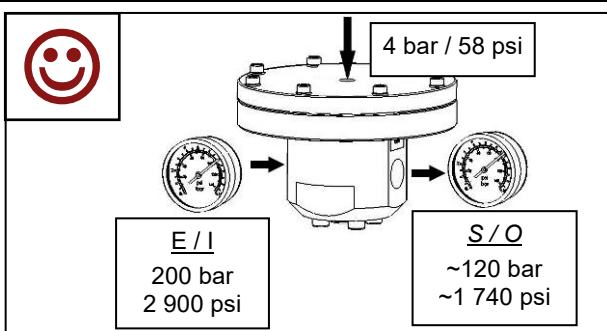
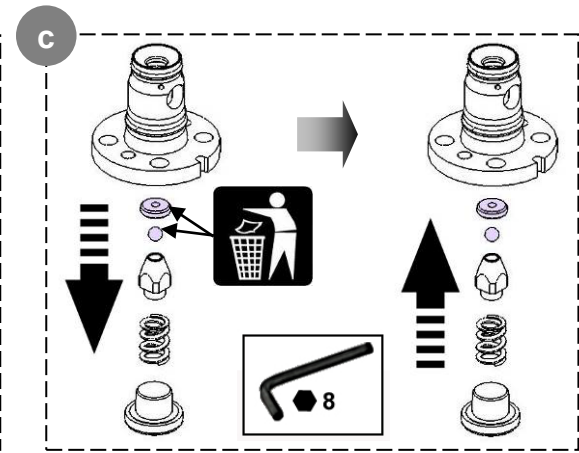
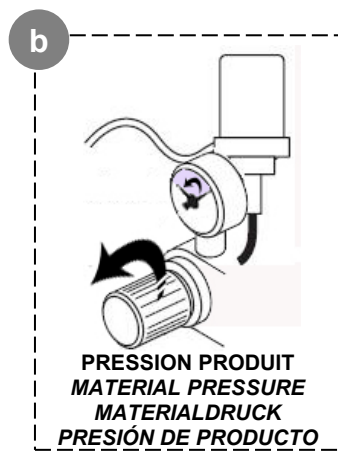
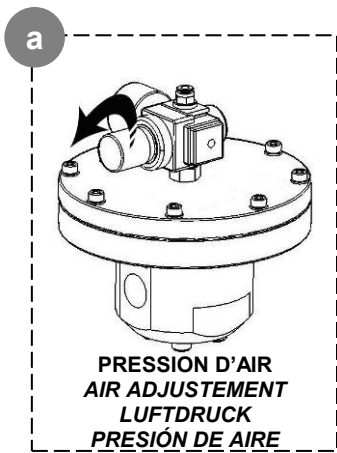
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/ ANTES DE CADA OPERACIÓN DE MANTENIMIENTO**





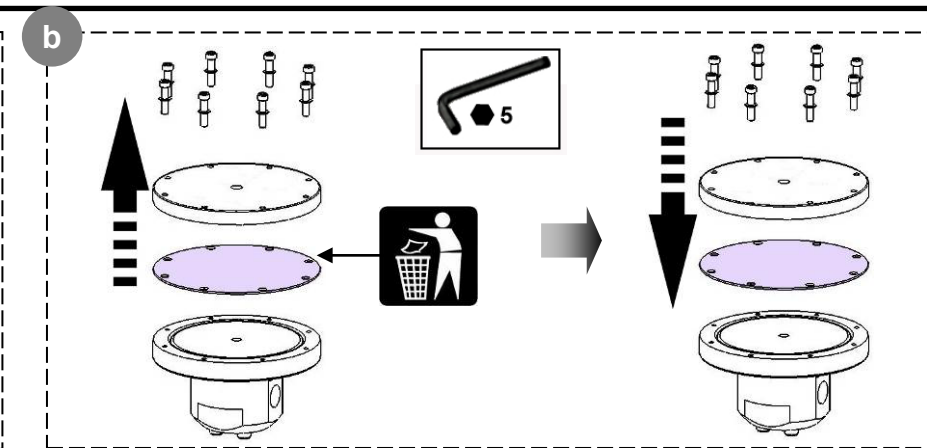
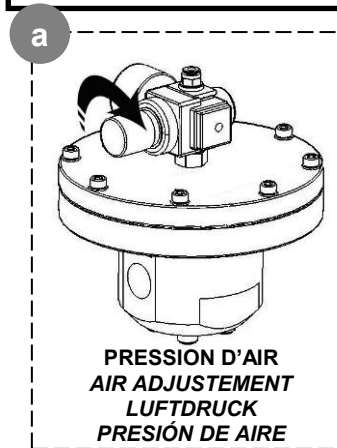


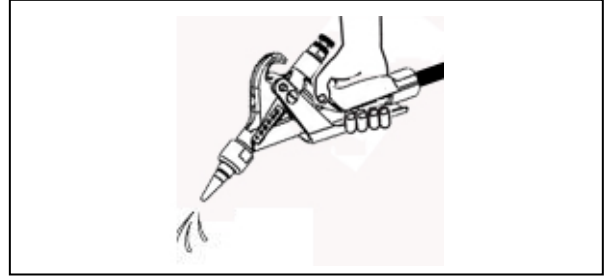
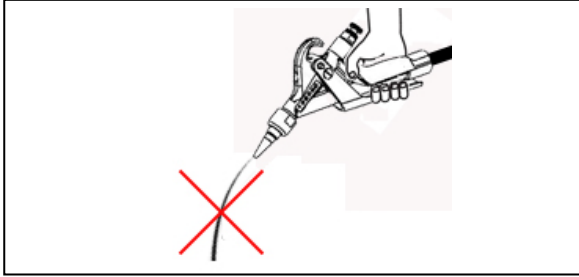
**Pression trop élevée à la sortie du régulateur / Overpressure at the regulator outlet  
/ Zu hoher Ausgangsdruck / Presión demasiado alta en la salida del regulador**



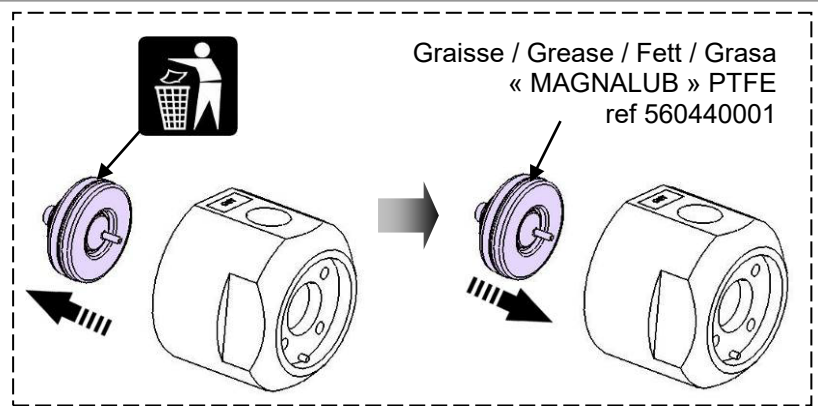
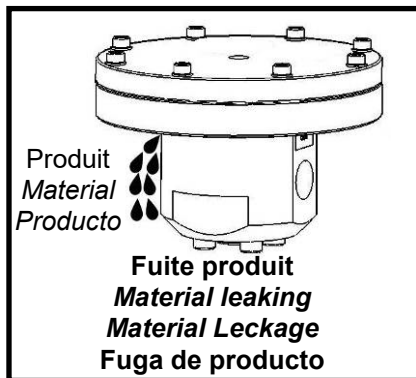
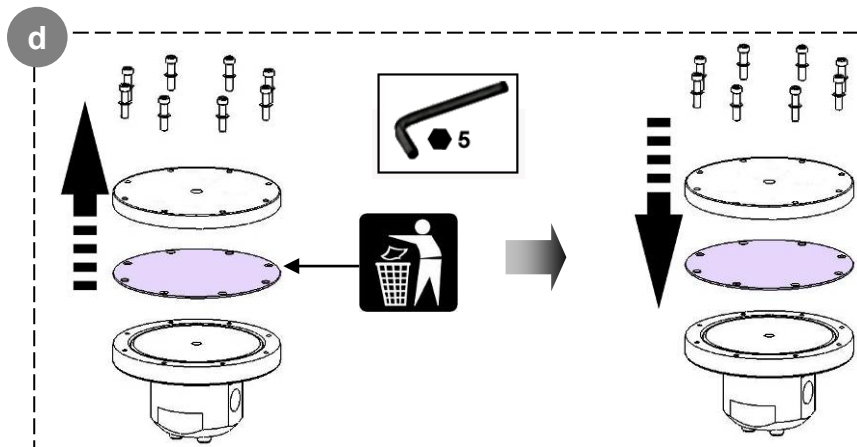
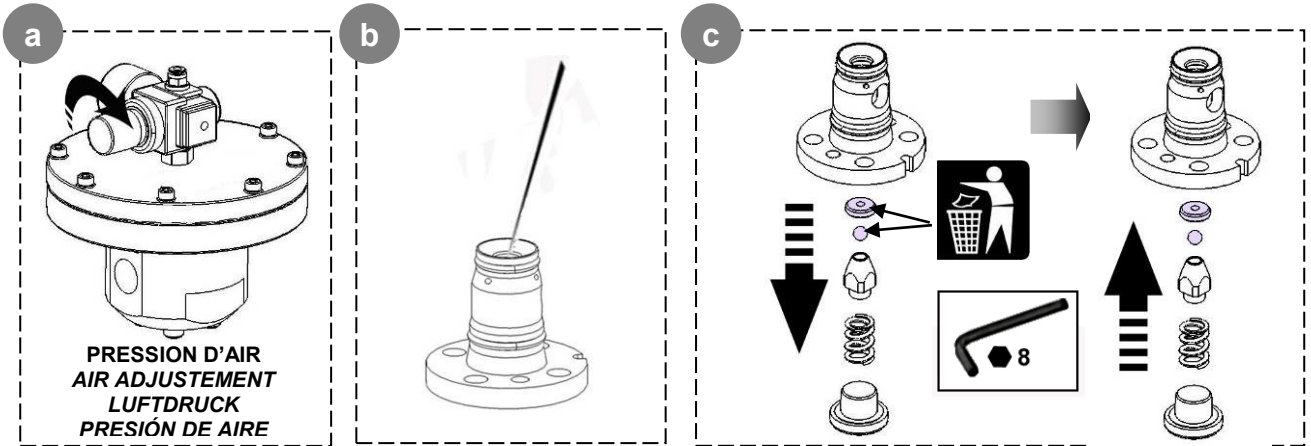
**Pression trop basse à la sortie du régulateur / Pressure too low at the regulator outlet  
/ Schlechte Regelung / Presión demasiado baja en salida del regulador**

*Note : Valeurs en bar données à titre d'exemple / Values in bar are given as example  
/ Druckangaben sind nur ein Beispiel / Valores en bar indicadas como ejemplo*

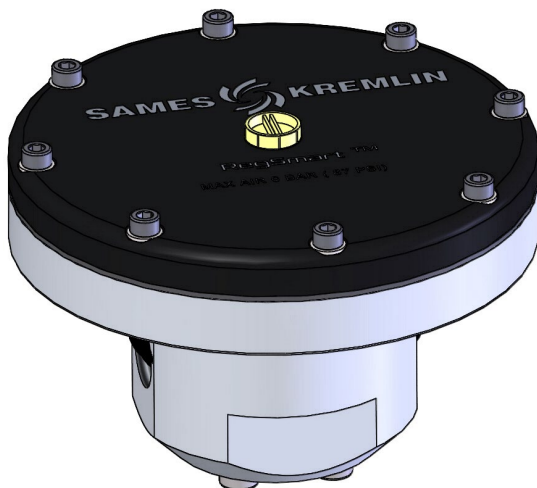




**Pas de débit ou débit faible à la sortie du régulateur / No flow or low flow rate at the regulator outlet / Kein oder nur geringer Ausfluss am Reglerausgang / Ningún caudal o caudal bajo en la salida del regulador**







## FLUID PRESSURE REGULATOR

**RegSMART™**

*Technical features*

### TRANSLATION OF THE ORIGINAL MANUAL

**IMPORTANT** : before storage, assembly and start-up, please read and clearly understand all documents relating to this equipment (professional use only).

PICTURES AND DRAWINGS ARE NON CONTRACTUAL. WE RESERVE THE RIGHT TO MAKE CHANGES WITHOUT PRIOR NOTICE.

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38 240 - MEYLAN - France  
☎ : 33 (0)4 76 41 60 60

[www.sames-kremlin.com](http://www.sames-kremlin.com)

## 1. DESCRIPTION

The fluid pressure regulator RegSMART™ can be used on installations :

- under low, medium or high pressure,
- for fluid, semi-fluid or viscous materials.

2 versions of the fluid pressure regulator RegSMART™ are available : Aluminum or stainless steel.

The modular ball and seat cartridge configuration are available in 3 different diameters (6mm / 0.23 in., 8mm / 0.32 in. or 12mm / 0.46 in.), this allows you to achieve precise material regulation and flow control.

This regulator is designed for easy flushing.

This regulator is an air operated regulator : adjustment of material fluid pressure on the regulator is controlled by adjusting the air pilot pressure. Please note that the air pilot must be adjusted by using a precision air regulator to achieve a constant control of material regulation.

The pressure regulator is mounted in the fluid circuit between the pump fluid outlet and the gun or dispensing valve fluid inlet, enabling you to accurately control the material pressure/flow to the gun or dispense valve.

## 2. TECHNICAL FEATURES

<b>Pressure range :</b> - Inlet pressure - Outlet pressure (regulated range) - Air pressure Max.	Max. 400 bar / 5800 psi. From 25 bar / 362 psi min. to 275 bar / 3988 psi max. 2 - 6 bar / 29 - 87 psi.	
<b>Fittings :</b> - Fluid inlet (I) - Fluid outlet (O) - Air inlet	F G 3/4" F G 3/4" F G 1/4"	
<b>Flow rate :</b> - Low flow rate up to 15 cm <sup>3</sup> /s (valve ball 6 mm / 0.23") - Medium flow rate up to 50 cm <sup>3</sup> /s (valve ball 8 mm / 0.32") - High flow rate up to 150 cm <sup>3</sup> /s (valve ball 12 mm / 0,46")	0,9 l/min* 3 l/min* 9 l/min*	
<b>Wetted part</b>	<b>Aluminium version</b>	<b>Stainless steel version</b>
	Aluminium / Stainless steel / PTFE / FFKM	Stainless steel / PTFE / FFKM
<b>Weight (kg / lb)</b>	<b>Aluminium version</b>	<b>Stainless steel version</b>
	4 Kg / 8.8 lb	5.7 Kg / 12.5 lb
<b>Maximum temperature</b>	80°C / 176° F	

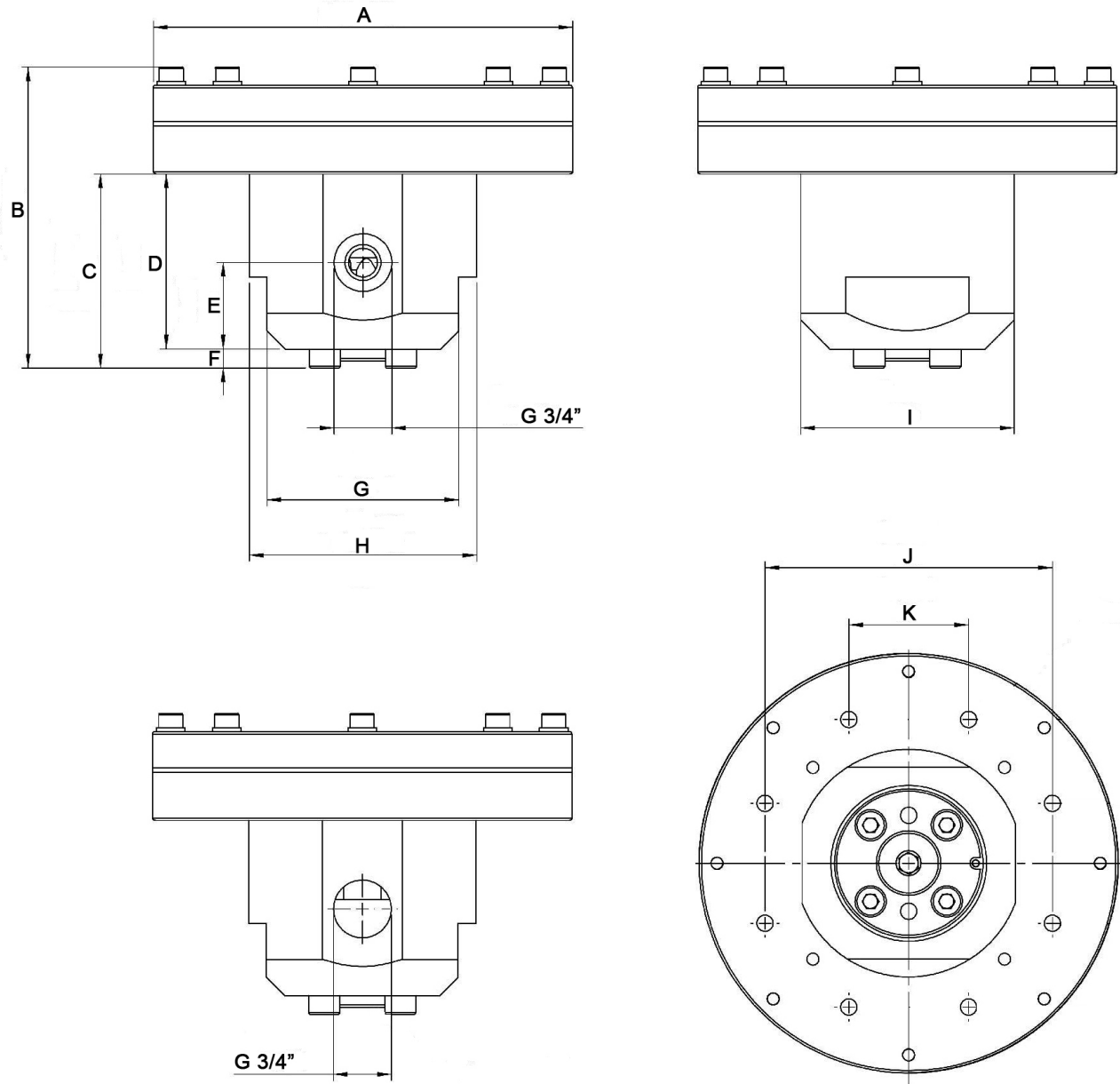
\* Depending on the material

### ▪ CORRECT HOSE SELECTION

Please ensure that you select the appropriate hose based on - the material viscosity - the hose length and the required flow rate.

Note : for high length hose or for materials with important viscosity, a higher diameter hose is required.

▪ DIMENSIONS



Ind.	mm	in.	Ind.	mm	in.	Ind.	mm	in.	Ind.	mm	in.
A	Ø 175 (± 0,5)	6,89 (± 0,02)	D	73	2,87	G	80	3,15	J	120	4,72
B	120 (± 1)	4,72 (± 0,04)	E	36	1,42	H	Ø 95 (± 0,5)	Ø 3,74 (± 0,02)	K	50	1,97
C	81	3,19	F	8	0,3	I	89	3,50			