



**INSTRUCTION MANUAL**

**PRESSURE REGULATOR**  
**for fluid or semi-fluid materials**

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**ORIGINAL MANUAL**

***IMPORTANT : before 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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The specifications of the regulator - features and maintenance - are available in a documentation enclosed to the manual.

Dear Customer,

You are the owner of our new KREMLIN pressure regulator and we would like to take this opportunity to thank you.

To make sure your investment will provide full satisfaction, special care has been taken by KREMLIN during all designing and manufacturing processes.

To obtain the best result, safe and efficient operation of your equipment, we advice you to read and make yourself familiar with this instruction and service manual. Indeed, the non-compliance with instructions and precautions stated in this manual could reduce the equipment working life, result in operating trouble and create unsafe conditions.

## 1. GENERAL SAFETY INSTRUCTIONS



**WARNING : Any misuse of the equipment or accessories can damage them, result in serious body injury, fire or explosion hazard and reduce the equipment working life. Read, understand and comply with the safety instructions hereafter.**

The personnel involved in operating and servicing this equipment must be aware of all safety requirements stated in this manual. The workshop supervisor must be certain that the personnel has perfectly understood the safety instructions and complies with them.

Read all instruction manuals as well as the tags of the equipments before operating the equipment.

Refer to local safety instructions and comply with them.

### ■ INSTALLATION REQUIREMENTS

#### ➔ **Ground the equipments.**

Use the equipment only in a well-ventilated area to prevent from serious body injuries, fire and explosion hazards. Do not smoke in the spray area.

Never stock paints and solvents in the spray area. Always close the pots and the tins.

Always keep the spray area clean and free from debris (solvent, rags,...).

Read paint and solvent manufacturer's technical instructions.

Spraying of some materials may result in hazardous working conditions. To protect the operator, respirator mask, hand cream, glasses and hearing protective earplug are required (Refer to chapter " Safety equipment" of KREMLIN selection guide).

### ■ EQUIPMENT REQUIREMENTS

The operating pressure of these equipments are particularly high. Consequently, some precautions must be taken in order to prevent from accidents and from unsafe working conditions.

#### ➔ **Never exceed the components maximum pressure of the equipment.**

#### HOSES

Do not use hoses with a maximum burst-proof pressure less than four times the maximum service pressure of the pump (see data sheet).

Be certain the hoses are not crimped, leaking and not unrolled.

Be certain hoses are in good conditions and showing no evidence of damage.

#### ➔ **Use only air hose with static conductor to connect the pump with the spray gun.**

All fittings must be tight and in good condition.

#### PUMP

#### ➔ **Ground the equipment (use the connection on the pump).**

Do not use any product or solvent incompatible with the pump components.

Use the appropriate solvent for the material being sprayed to increase the equipment working life.

## GUN

Never wipe the end of the tip with the fingers.

Always depressurize air and hoses before carrying out any servicing on the gun.

Never point the spray gun at anyone or at any part of the body.

## PRESSURE REGULATOR

➡ Assemble conductive hoses upstream and downstream of the regulator.

### ■ MAINTENANCE 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.**

➡ Never modify these equipments.

Check them daily, keep them in a good condition and replace the worn parts **only with KREMLIN parts.**

**Before cleaning or removing components of the equipment, it is compulsory :**

- to stop the pump by shutting off the compressed air supply,
- to open the pump drain valve,
- to press the gun trigger to depressurize the hoses.

## 2. DESCRIPTION

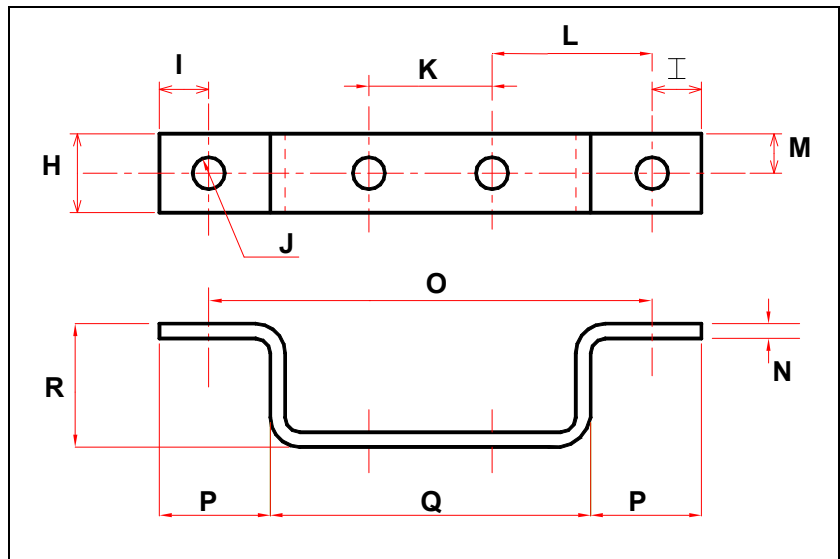
The pressure regulator enables to adjust the fluid pressure into the circuits of low and medium pressure.

The pressure regulator is mounted on the fluid circuit between the pump fluid outlet and the gun fluid inlet. It enables to refine the pressure of the gun. It exits a spring operated model and an air operated model.

The back pressure regulator is mounted on the back fluid circuit. It enables to regulate a constant pressure and to ensure at the same time a fluid circulation into the hoses.

### 3. MOUNTING

Support (optional)

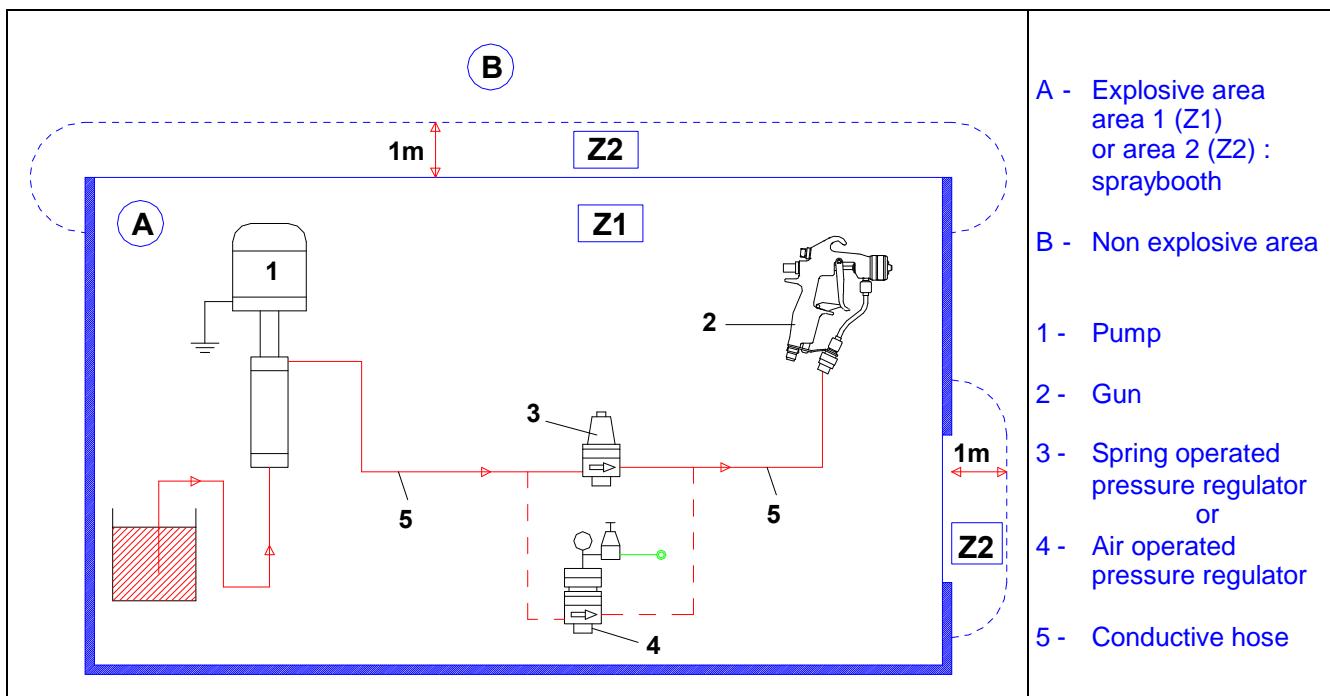


Ind.	mm	"	Ind.	mm	"	Ind.	mm	"	Ind.	mm	"
H	16	0.63	I	10	0.4	J	Ø 6,5	Ø 0.25	K	25	0.98
L	20	0.79	M	8	0.31	N	3	0.12	O	90	3.54
P	22,5	0.88	Q	65	2.56	R	25	0.98			

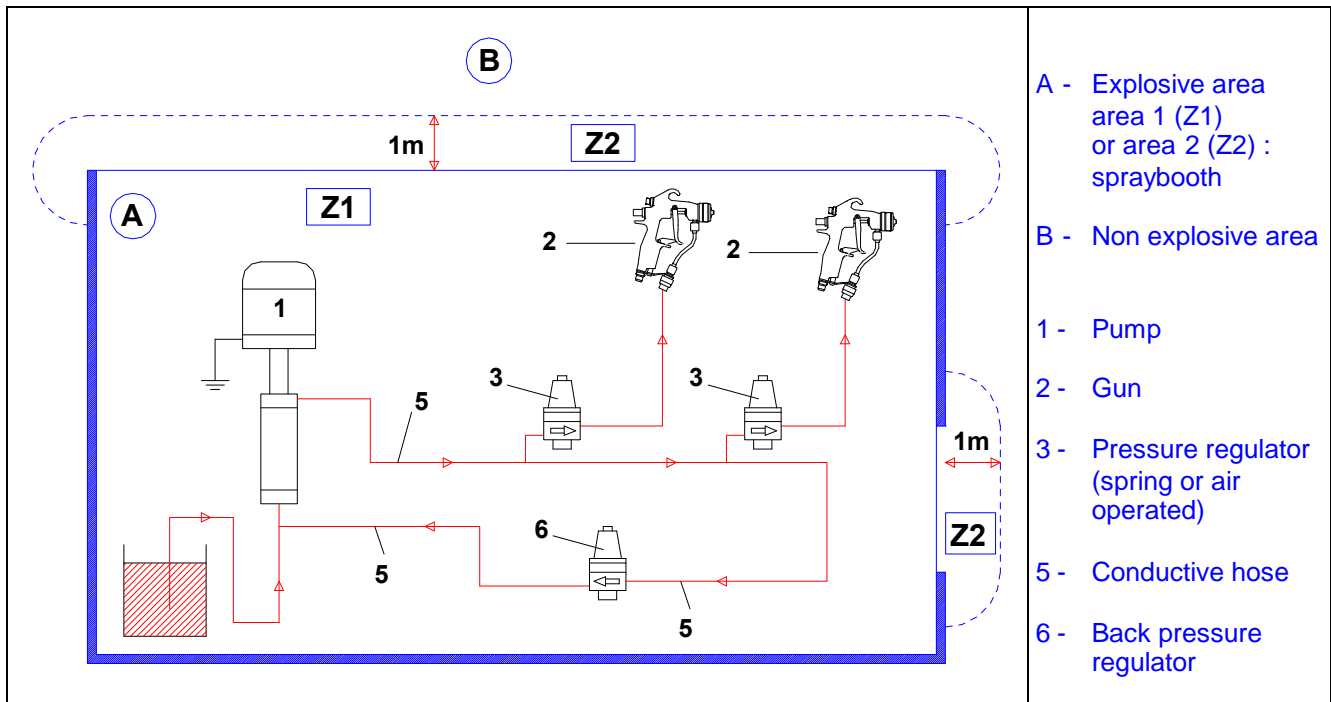
### 4. INSTALLATION

The pressure regulators are designed to be installed in a spraybooth.

#### ■ INSTALLATION DIAGRAM WITHOUT CIRCULATING



## ■ INSTALLATION DIAGRAM WITH CIRCULATING



(Nota : diagrams represented with Airmix® regulators)

## 5. START UP

Start up the pump (Refer to pump instruction manual).

Tighten the screw located on the upper part of the spring operated regulator or turn the regulator of the air operated assembly.

Start up the gun (Refer to gun instruction manual).

Adjust the fluid regulator to obtain the required pressure and fluid flow.

**Nota : Refer to the regulator features to comply with the inlet and outlet pressures (refer to the enclosed document).**

## 6. MAINTENANCE

Keep the pressure regulator clean to ensure its proper working.

When flushing the pump, make the solvent circulate in circuit to clean all the elements (pump, hoses, regulator, gun).

## 7. TROUBLESHOOTING CHART

### ■ PRESSURE REGULATOR (AIR OR SPRING OPERATED)

TROUBLE	CAUSE	SOLUTION
Overpressure at the regulator outlet.	Adjustment screw or adjustment knob of the regulator turned clockwise (full closed) or air pilot pressure too high. Bad tightness of seat and ball.	Unscrew adjustment screw or knob  or decrease pilot pressure. Clean or replace.
No material coming out from the regulator.	Adjustment screw or knob turned counter-clockwise (full open) or air pilot pressure insufficient. Ball blocked on the seat, needle broken.	Screw adjustment screw or knob  or increase pilot air pressure. Clean and reinstall or change.
Irregular flow rate.	Too much pulsation in the fluid network.  Improper proofness of seat, ball and spring.	Adjust inlet pressure  Clean or replace.
Leakage at the upper part of the regulator.	Defective fluid diaphragm.  Screws improperly tightened on the lower body.	Replace it.  Tighten up the screws.

### ■ BACK PRESSURE REGULATOR

DEFECT	CAUSE	SOLUTION
Overpressure upstream of the regulator.	Adjustment screw or knob turned clockwise (full closed).  Pressure too high in the fluid circuit (or circulating)	Turn the adjustment screw or knob counter-clockwise.  Decrease pressure.
Pressure drop upstream of the regulator.	Adjustment screw or knob turned counter-clockwise (full open).  Improper fluid proofness of seat and ball.	Screw the adjustment screw or knob.  Clean and reinstall.
Irregular circulation.	Too important pulsation in the fluid network.  Improper proofness of seat and ball	Check and adjust inlet pressure.  Clean or replace.
Material leakage at the upper body of the regulator.	Defective fluid diaphragm.  Loosened screws on the upper body.	Replace it.  Tighten up the screws.