



INSTRUCTION MANUAL

**3.2/40 STAINLESS STEEL
AIRSPRAY PNEUMATIC PUMP**

Manual : 1004 573.101.110

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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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SUMMARY

1.	SAFETY INSTRUCTIONS	2
2.	TECHNICAL FEATURES.....	5
3.	OPERATING PRINCIPLE	6
4.	START UP.....	6
5.	DAILY CARE (<u>depending on application</u>).....	6
6.	SAFETY.....	6
7.	TROUBLESHOOTING CHART	7
8.	SERVICING.....	7

PARTS LIST IDENTIFICATION :	Wall mounted unit	(Doc. 573.209.050)
	Air motor	(Doc. 573.239.050)
	Hydraulic section	(Doc. 573.210.050)

Dear customer,

We thank you very much for purchasing our airspray pump - model 3.2-40.

Special care has been taken during all designing and manufacturing process to make sure your investment will provide full satisfaction.

To get the best result, safe and efficient operation of your equipment, we advise 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. SAFETY INSTRUCTIONS

GENERAL SAFETY INSTRUCTIONS



CAUTION : The equipment can be dangerous if you do not use it according to the rules mentioned in this instruction manual. Read carefully all the instructions hereafter before operating your equipment.

Only trained operators can use the equipment. (To acquire an essential training, please contact the "KREMLIN REXSON University" training center - Stains).

The foreman must ensure that the operator has perfectly taken in the safety instructions of this equipment as well as the instructions in the manuals of 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.



















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 the equipment. The parts and accessories supplied must be regularly inspected. Defective or worn parts must be replaced.

Never exceed the equipment components' maximum working pressure.

Comply with regulations concerning safety, fire risks, electricity 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

					
NIP HAZARD	WARNING MOVING ELEVATOR	WARNING MOVING PARTS	WARNING MOVING SHOVEL	DO NOT EXCEED THIS PRESSURE	HIGH PRESSURE HAZARD
					
RELIEF OR DRAIN VALVE	WARNING HOSE UNDER PRESSURE	WEAR GLASSES OBLIGATORY	WEAR OF GLOVES IS OBLIGATORY	PRODUCT VAPOR HAZARDS	WARNING HOT PARTS OR AREAS
					
ELECTRICAL HAZARD	WARNING FIRE HAZARDS	EXPLOSION HAZARDS	GROUNDING	WARNING (USER)	WARNING SERIOUS INJURIES

PRESSURE HAZARDS



Current legislation requires that an **air relief** shut off valve is mounted on the supply circuit of the pump motor to let air off when closing the supply circuit. Without this precaution, the motor residual air of the motor may let the pump beat and cause a serious injury.

Please ensure that, a **material drain valve** is mounted on the material circuit to drain it (after shutting down air to the motor and the pressure relief) before any servicing on the equipment. These valves must be closed for air and opened for product when processing.

HIGH PRESSURE INJECTION HAZARDS

When working with high pressure equipment, special care is required. Fluid leaks can occur. Then there are injection risks in exposed parts of body that may cause severe injuries or amputations :



- Medical care must be handled immediately if product 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 you do not start the gun.

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 KREMLIN REXSON 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.

TOXIC PRODUCT HAZARDS

Toxic products or vapours can cause severe injury not only through 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 KREMLIN selection guide).



CAUTION!

It is forbidden using any solvent or with halogenated hydrocarbon base and also products with these solvents facing **aluminium** or **zinc**. The non-compliance with the instructions may cause explosion hazards causing serious or fatal injuries.



EQUIPMENT REQUIREMENTS

Guards (motor cover, coupling shields, connectors,...) have been designed for a safe use of the equipment.
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PUMP

Before carrying out any work, it is imperative to get used with the compatibilities of motors with pumps before coupling. The operator shall understand the equipment and the safety instructions. These instructions are available in the manuals of the pumps.



The air motor is designed to be mounted with a pump. Never modify any components or couplings. Where 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 working pressure (WP) indicated on the hose.

USED PRODUCTS

Considering the variety of products that may be used by the users and the impossibility to check off all chemical data, of possible reactions of chemicals to each other and their long term evolution, KREMLIN REXSON can not be considered as liable for :

- the bad compatibility of wetted parts,
- risks for staff and surroundings,
- for worn or out of order parts, for wrong working of equipments or units, as well as for the qualities of final product.

The user must know and prevent the possible risks as toxic vapours, fires or explosions due to used products. He shall determine the risks of immediate reactions or pursuant to repeated exposures of the staff.

KREMLIN REXSON shall not be liable for psychic injuries, direct or indirect material damages further to the use of chemicals.

2. TECHNICAL FEATURES

- Compact airspray pump.
- Low maintenance and ease of use

Recommended for :

- supplying one or several spray guns,
- the following materials :
 Paints and inks
 Epoxy.
 Adhesives.

Motor type 340/2
 Pump body type 40 FG
 Fluid pressure ratio 3.2/1

Air motor stroke.	45 mm	1" - 25/32
Air motor section.	35 cm ²	5.5 sq.in
Hydraulic section.	9 cm ²	1.4 sq.in.
Number of cycles	25 per liter	95 per gallon
Delivery per cycle (double acting pump)	40 cc	1.4 oz
Fluid delivery per minute.	2.4 l	0.63 US gal
Air pressure operating range.	0 - 6 bar	0 - 87 PSI
Maximum discharge pressure.	18 bar	261 PSI
Sound level.	< 70 dBa	< 70 dBa
Maxi. operating temperature.	60° C	140° F

Wetted parts :

Hard chrome stainless steel.
 Stainless steel.

Tightness packings :

Upper cartridge seal : PTFE
 Exhaust valve seal : acetale resin.

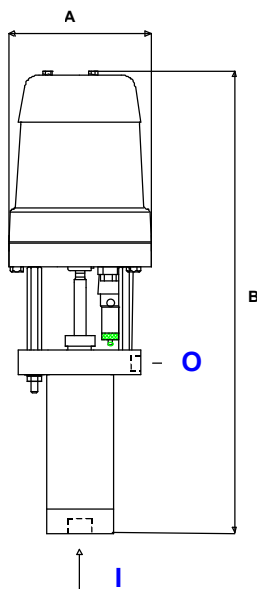
Fittings :

Air inlet : F 1/4 BSP
 Material inlet : F 1/2 BSP
 Material outlet : F 1/4 NPS

Weight 5 kg /11 Lbs

Dimensions

Rep.	mm	Inch.	Rep.	mm	Inch.
A	Ø 120	4.72	B	390	15.35



3. OPERATING PRINCIPLE

The pump consists of :

- an alternating air motor.
- an hydraulic section (2) mechanically coupled to the motor.

The motor is directly supplied with compressed air from air pressure network .

While doing its alternating movement, the motor drives the piston of the hydraulic section. The material is siphoned and forced under pressure. Due to its design, this pressure is always 0.8 time the air pressure supplying the air motor.

4. START UP

Start up procedure :

- 1- Fill up the pump wetting cup (recess in fluid section packing nut) with KREMLIN "T" lubricant or an appropriate solvent (**depending on application**)
- 2- Interconnect the equipment with the air pressure network (clean air - Maxi 6 bar/87 PSI).
- 3- Connect all the hoses.
- 4- Prime the pump → the material should flow out regularly from the pump outlet.

When stopping the pump for a long duration, shut off the pump air supply and depressurize the system.

5. DAILY CARE (depending on application)

**Guards (motor cover, coupling shields, connectors,...) have been designed for a safe use of the equipment.
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Make sure the pump wetting cup (recess in fluid section packing nut) is always filled up with T lubricant (this T lubricant will normally be coloured by the paint).

Regularly clean the wetting cup with solvent after having drained the lubricant.

Flush the pump as often as necessary, specially when spraying pigment-filled material.

Whatever the case, when stopping the pump always leave it filled up with :

- for a short duration, if the flushing has not been carried out, leave the pump filled up with material,
- For a long duration, after flushing the pump, leave it filled up with clean solvent.

6. SAFETY

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A discharge-valve (setting : 6.5 bar / 94 PSI) is fitted on the air equipment - thus protecting the air motor from an overpressure which could damage it.

7. TROUBLESHOOTING CHART

TROUBLE	SOLUTION
Pump does not start.	Check the pump air supply.
Priming trouble : → Air is always coming out from the spray gun. → When priming, air or material do not come out from the spray gun.	Be sure the spray gun is fully opened and air is evacuated through the fluid passage Air intake at the fitting or at the suction rod. Check the pump valves. If a valve is stuck by dry paint, it can be unsticked without disassembling it. Blow air pressure directly by suction fitting.
Pump does not stop when gun trigger is released. → Pump reverses continuously. → Pump operates and stops on down stroke. → Pump operates and stops on up stroke.	Check pump valve seal, cartridge and valves. Check exhaust valve or valve seal. Check suction valve or upper cartridge.
Pump has stalled, air leakage at the air motor.	Check motor valve located under the cover.
Spraying troubles.	Refer to spray gun manual.

8. SERVICING

The pump is manufactured under the ATEX agreement and can not be modified. KREMLIN REXSON will not be held responsible for any failure to comply with that instruction.

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■ SUCTION VALVE

Unscrew suction valve body (14) from the cylinder.

The ball (15) is secured on the seat by means of a retaining ring (16).

Reinstall suction valve assembly and check if seal (12) is not worn or damaged.

■ EXHAUST VALVE

Unscrew cylinder (11) and pull it downwards.

Unscrew exhaust seat (21) by holding valve support (20).

Check if valve seal (23) is not worn or damaged.

■ UPPER PACKING

Unscrew cylinder (11) and pull it downwards.

Separate motor piston rod (5) by removing connecting pin (18) with cotter pin.

Pull piston rod and exhaust valve downwards.

Unscrew packing-nut (6) and push seals (3) and rings (2 and 4) upwards to remove them.

Reassembly :

Install the upper packing (seals (3) and the rings (2 and 4)) in pump body (1).

Insert piston rod (5) into this upper packing - **from the top to the bottom** - to avoid damaging the seals.

Screw packing nut (6).

When remounting the other parts, be certain seals are installed.

■ MOTOR VALVE

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Disassemble cover (15) by removing the 3 screws HM 6 (9).

Unscrew motor valve (14) by holding driving-rod (12) thanks to the two flat parts located at its end.

Reinstall the new motor valve (14) and block it on the driving-rod (12).

Reinstall cover (15) with its 3 screws (9).