



INSTRUCTION MANUAL

COLD PNEUMATIC FLUID PRESSURE REGULATOR

5.4 mm / 0.21" passage

106 125 0111 - 106 125 0121 - 106 125 0131
106 125 0141 - 106 125 0151

Manual : 574.010.112 - 1408

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Modif. : § 6, # Ind.18, On request

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.

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Dear Customer,

You are the owner of our new equipment 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 REXSON 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.

01. WARRANTY

We reserve the right to make changes; these changes may be carried out after the receipt of the order. No claim will be accepted as a consequence of any change carried out in the instruction manuals or in the selection guides.

Our equipment is checked and tested prior to shipment. In the case of a problem arising with the equipment, this must be in writing, within ten days from the delivery date.

KREMLIN REXSON warrants all equipment manufactured bearing its name, to be free from defect in material or workmanship for a period of 12 months (one shift per day or 1800 hours - 1 term reached) from the date of delivery. Work life is based on single shift working - 8 hours per day. Warranty claims for defective items will only be accepted in writing and will be verified and confirmed by us.

The warranty does not cover fair wear and tear, damage or wear caused by misuse, improper maintenance or non-observance of our recommendations.

KREMLIN REXSON will repair or replace parts (carriage paid to our plant and accepted as defective by us). We shall not be liable for any losses, resulting from a production breakdown. Upon request, we can carry out service work at your premises; all expenses (travelling and accommodation) for KREMLIN REXSON technicians will be chargeable.

In the event that it is found that equipment has been tampered with, this will invalidate the warranty. Equipment that it is bought in will be subject to the suppliers' warranty.

02. 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 (To acquire an essential training, please contact the "KREMLIN REXSON University" training center - Stains).

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 (air motor cover, coupling shields, housings,...) have been designed for a safe use of the equipment.

The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial 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

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 of glasses is obligatory	Wear of gloves is obligatory	Product vapor hazard	Warning hot parts or areas
Electrical hazard	Warning fire hazards	Explosion hazards	Grounding	Warning (User)	Warning serious injuries

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.
- 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 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 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 (air motor cover, coupling shields, housings,...) have been designed for a safe use of the equipment.
The manufacturer will not be held responsible for bodily injury or failure and / or damage to property due to removal or partial 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

KREMLIN REXSON can not be held liable for :

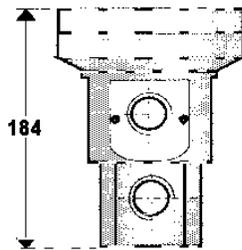
- Compatibility of wetted parts,
- Risks to staff and the surroundings,
- for worn or defective parts, for faulty equipment or units, or the quality of final product.

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,

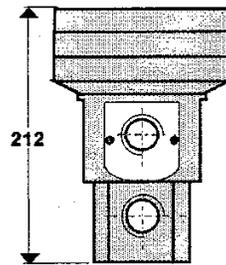
KREMLIN REXSON shall not be liable for physical injuries, direct or indirect material damages caused by the use of chemicals.

03. DIMENSIONS

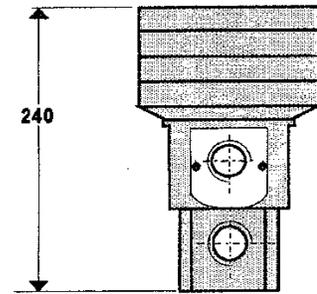
1 PLATE



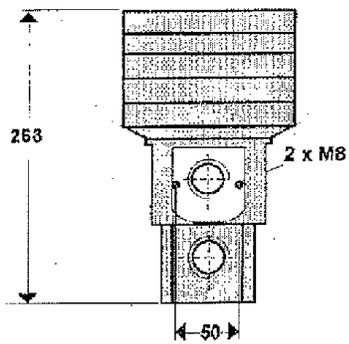
2 PLATES



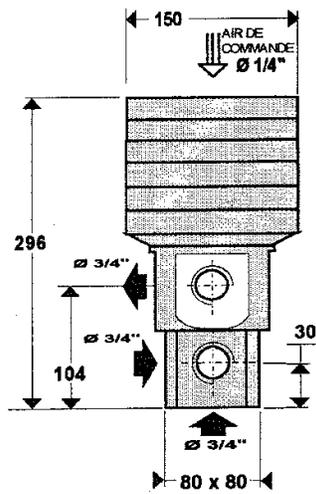
3 PLATES



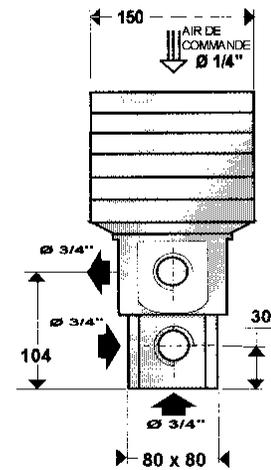
4 PLATES



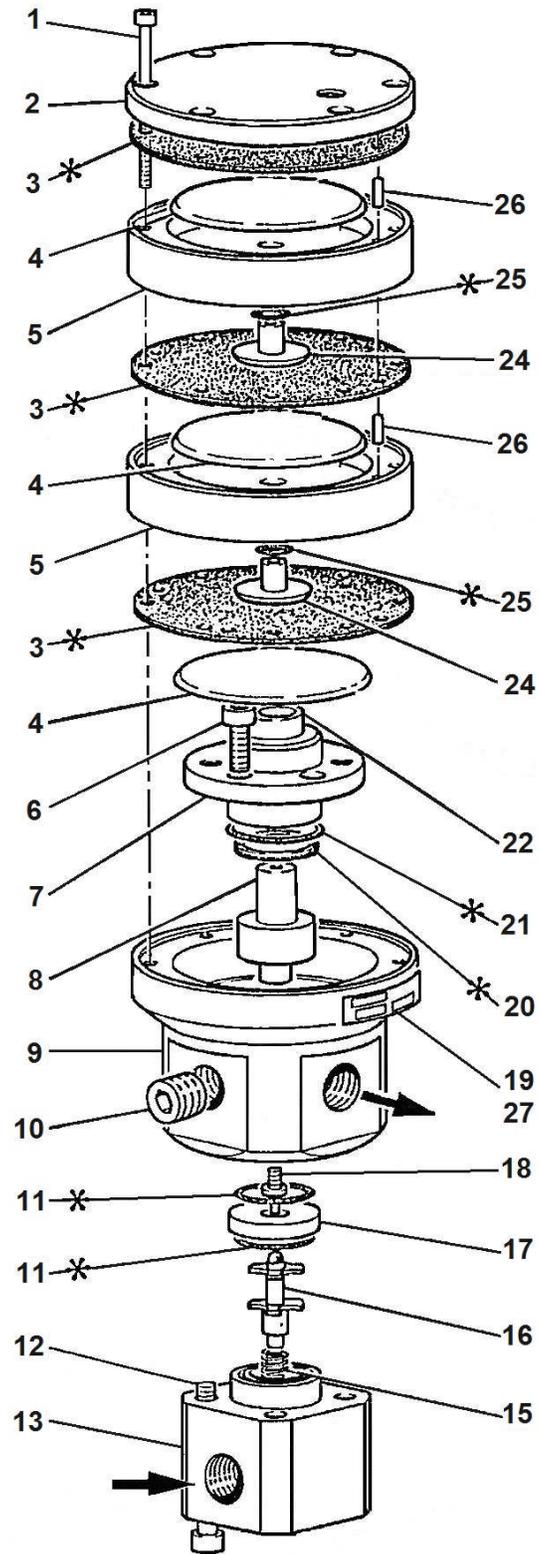
5 PLATES



OTHER DIMENSIONS



04. EXPLODED VIEW



05. PARTS' LIST

COMMON PARTS						
Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
2	204 819	Couvercle	Cover	Deckel	Tapa	1
6	932 151 392	Vis	Screw	Schraube	Tornillo	4
7	204 823	Guide clapet	Valve guide	Ventilführung	Guía de valvula	1
8	204 828	Tige de clapet	Valve rod	Ventilstange	Tirante de válvula	1
9	204 824	Corps	Body	Körper	Cuerpo	1
10	905 210 305	Bouchon	Plug	Stöpsel	Tapón	1
12	88 176	Vis	Screw	Schraube	Tornillo	4
13	206 827	Bloc d'entrée	Inlet block	Eingangsspeicher	Bloque de entrada	1
15	203 617	Ressort	Spring	Feder	Muelle	1
16	204 826	Clapet	Valve	Ventil	Válvula	1
17	204 825	Siège	Seat	Sitz	Asiento	1
18	631 150	Poussoir	Push rod	Knopf	Pulsador	1
19	203 683	Plaquette de pression	Pressure plate	Druckplatte	Placa de presión	1
22	90 025	Douille à bille	Ball bearing	Kugelbuchse	Pico de bolas	1
27	906 030 107	Rivet	Rivet	Niet	Roblón	2

SPECIFIC PARTS							
Regulator : #			106 125 0111	106 125 0121	106 125 0131	106 125 0141	106 125 0151
Ind	#	Description	Qty	Qty	Qty	Qty	Qty
1	933 151 332	Screw	8	-	-	-	-
1	88 138	Screw	-	8	-	-	-
1	88 140	Screw	-	-	8	-	-
1	88 617	Screw	-	-	-	8	-
1	88 755	Screw	-	-	-	-	8
4	204 820	Plate	1	2	3	4	5
5	204 822	Spacer	-	1	2	3	4
24	204 821	Stop	-	1	2	3	4
26	88 427	Pin	-	1	2	3	4

OPTIONS - ON REQUEST - OPTIONEN - OPCIONES

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
18	631 143	Poussoir	Push rod	Knopf	Pulsador	1

SEAL KITS							
Regulator : #			106 125 0111	106 125 0121	106 125 0131	106 125 0141	106 125 0151
Seal kit # :			102 342	106 132	102 403	106 134	103 716
Ind	#	Description	Qty	Qty	Qty	Qty	Qty
* 3	NC / NS	Diphragm	1	2	3	4	5
* 11	NC / NS	FKM seal	2	2	2	2	2
* 20	NC / NS	Seal	1	1	1	1	1
* 21	NC / NS	FKM seal	1	1	1	1	1
* 25	NC / NS	NBR seal	-	1	2	3	4

* Pièces de maintenance préconisées.

* Preceding the index number denotes a suggested spare part.

* Bezeichnete Teile sind empfohlene Ersatzteile.

* Piezas de mantenimiento preventivas.

N C : Non commercialisé.

N S : Denotes parts are not serviceable.

N S : Bezeichnete Teile gibt es nicht einzeln, sondern nur komplett.

N S : no suministrado.

06. TECHNICAL FEATURES

Fluid inlet port : Ø 3/4"G

Fluid outlet port : Ø 3/4"G

Regulation air inlet port : Ø 1/4"G

5.4 mm / 0.21" passage (ball : 8 mm / 0.32")

Inlet maximum pressure : 400 bar / 5801 psi

Regulated outlet minimum pressure : ~ 5 bar / 72.5 psi

Regulation air pressure : 6 bar / 87 psi

Regulator part number	Nb of plates	Regulated outlet maximum pressure
106 125 0111	1 plate	40 bar / 580 psi
106 125 0121	2 plates	80 bar / 1160 psi
106 125 0131	3 plates	120 bar / 1740 psi
106 125 0141	4 plates	160 bar / 2320.5 psi
106 125 0151	5 plates	200 bar / 2900.6 psi



NOTA :

To ensure a larger lifetime of your equipment and to obtain the best flow rate possible, you must mount the regulator in vertical position.

07. START UP

The regulators are tested in our plant with neutral oil.

Before starting the equipment, you must eliminate the oil flushing with solvent (high-flash naphtha or chloric solvent for example) if it is incompatible with the materials to be used.

08. DISASSEMBLY

First, **carry out the depressurization procedure** to avoid risks of serious injuries : spatters especially in eyes or injections under the skin can cause a blood poisoning when using such material. Then, unscrew the inlet and outlet fittings, disconnect the regulator air supply and put aside the regulator.

A. CHANGING THE DIAPHRAGM

- Unscrew the 8 screws (1),
- Take off the cover (2),
- Take off, check and change if necessary the diaphragm (3).

B. DISASSEMBLY OF THE LOWER VALVE

- Unscrew the 4 screws (12),
- Take off the inlet block assembly,
- Remove the seat (17), check it and change it if necessary,
- Take off and check the seals (11); change them if necessary,
- Put aside the valve (16),
- Remove and check the spring (15),
- Remove the inlet block (13).

NOTA : Check the seat. If it is damaged, you **must** change the seat / seat holder assembly at the same time than the valve.

C. CHANGING THE PUSH ROD AND THE UPPER VALVE SEALS

- Unscrew the 8 screws (1),
- Take off the cover (2),
- Remove, check and change if necessary the diaphragm (3),
- Unscrew the screw (s) (23),
- Remove the plate (s) (4),
- Unscrew the 4 screws (6),
- Take off the valve guide assembly,
- Take off and check the seals (21), change them if necessary. **The seal (20) must be changed every time you carry out the assembly.**
- Remove the valve rod (8),
- Unscrew the push rod (18) and change it if necessary; **When assembling, use Loctite 243 glue or similar.**
- Put aside the valve guide (7),

09. MAINTENANCE

When using abrasive material, we advise you to carry out a systematic maintenance after a given working time. It is specified by the user maintenance staff and depends on the material, the working rate and the pressure.

The maintenance consists of :

- Check the seals and the tightness rings,
- Change if necessary the damaged parts,
- Lubricate the parts submitted to frictions,
- Check the parts do not have scratches,
- Clean carefully the parts without using metal parts or abrasive materials,
- Check the condition of seals.

IMPORTANT : Make sure during the assembly that the seals are not damaged to avoid a bad operating of the regulator.

10. ASSEMBLY

Carry out the assembly in the reverse order of the disassembly and comply with the instructions above.

11. TROUBLESHOOTING CHART

TROUBLES	CAUSES	SOLUTIONS
No regulation	Seat worn Impurity on the seat Mechanic assembly locked in low position Spring broken	Change the seat. Clean the seat. Remove, clean and check the mechanic assembly. Change the spring
No outlet pressure	No piloting air Push rod broken	Check the air circuit upstream. Change the push rod.
Bad regulation	Pressure or feeding flow rate too low Ball cage defective	Increase the pressure on the pump motor. Change the ball cage.
Pressure too low at the outlet	Piloting pressure too low Hole (s) in the diaphragm (s)	Increase the piloting pressure. Change the diaphragm (s).
Air leakage	Hole (s) in the diaphragm (s) The spacers are not tightened correctly. Stop seals worn or damaged.	Change the diaphragm (s). Tighten the spacers. Change the stop seals.
Material leakage	Valve guide seal (s) worn	Change the seal (s).