



INSTRUCTION MANUAL

MANUAL FLUID PRESSURE REGULATOR

**From 20 to 150 bar / from 290 to 2175 psi
2.6 mm / 0.10" passage**

102 790 01111

Manual : 574.120.112 - 1205

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TRANSLATION OF 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

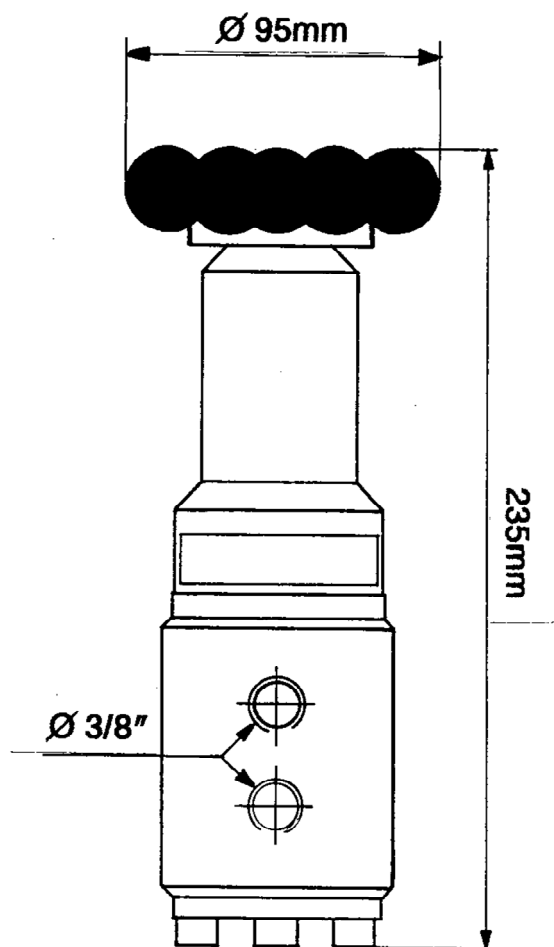
KREMLIN REXSON can not be held liable for :

- 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.

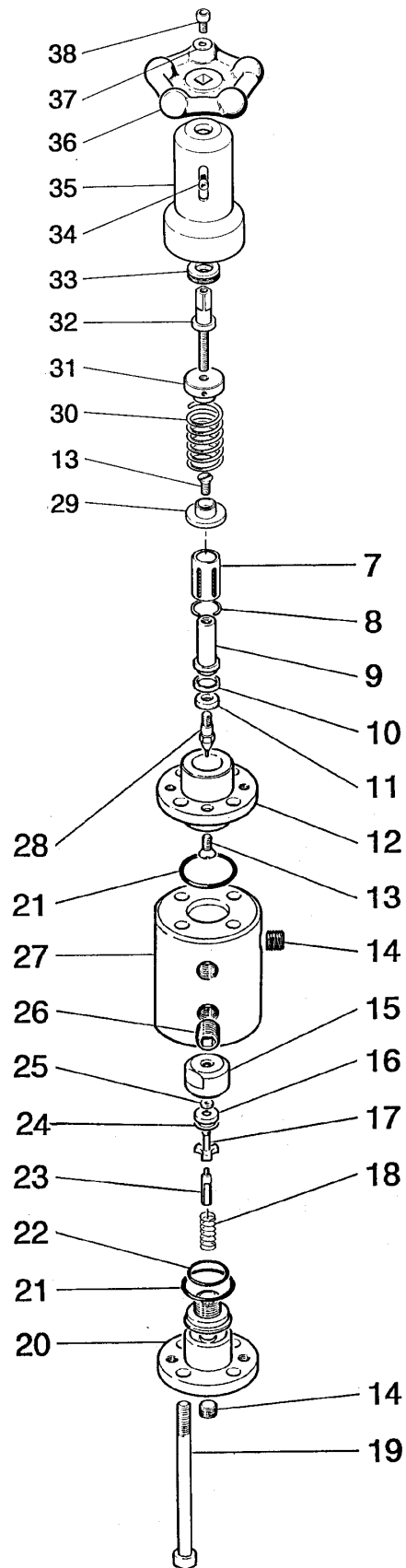
It is the responsibility of the user to know and prevent any possible risks such as toxic vapours, fires or explosions. He shall determine the risks of immediate reactions or pursuant to repeated exposures of the staff,

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

03. DIMENSIONS



04. EXPLODED VIEW



05. PARTS' LIST

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
7	90 205	Douille à bille	Ball bearing	Kugelbuchse	Pico a bola	1
8	88 648	Circlips	Ring	Sicherungsring	Anillo truarc	1
9	205 623	Piston	Piston	Kolben	Pistón	1
* 10	-	Joint	Seal	Dichtung	Junta	1
11	205 624	Rondelle	Washer	Scheibe	Arandela	1
12	211 519	Chemise	Sleeve	Umhüllung	Camisa	1
13	88 211	Vis, TF 30° M6x16	Screw, model TF 30° M6x16	Schraube, TF 30°M6x16	Tornillo, tipo TF 30° M6x16	2
14	906 333 102	Bouchon, 1/4"	Plug, model 1/4"	Stopfen, 1/4"	Tapón, tipo 1/4"	2
15	205 626	Porte-siège	Seat holder	Sitzhalterung	Porta-asiento	1
16	205 628	Rondelle d'appui	Support washer	Unterer Stützring	Arandela de apoyo	1
17	630 806	Pointeau	Needle	Nadel	Aguja	1
18	25 027	Ressort	Spring	Feder	Muelle	1
19	88 616	Vis, CHc M8x120	Screw, model CHc M8x120	Schraube, CHc M8x120	Tornillo, tipo CHc M8x120	4
20	205 622	Guide clapet	Guide valve	Ventilführung	Guia de válvula	1
* 21	-	Joint FKM	FKM seal	FKM Dichtung	Junta FKM	1
* 22	-	Joint FKM	FKM seal	FKM Dichtung	Junta FKM	1
23	205 629	Tige de pointeau	Needle rod	Nadelstange	Eje de aguja	1
25	205 627	Siège	Seat	Sitz	Asiento	1
26	906 333 104	Bouchon, 3/8"	Plug, model 3/8"	Stopfen, 3/8"	Tapón, tipo 3/8"	2
27	211 521	Corps	Body	Körper	Cuerpo	1
28	205 625	Poussoir	Push rod	Druckschalter	Pulsador	1
29	205 840	Butée ressort	Spring stop	Federanschlag	Tope muelle	1
30	205 790	Ressort	Spring	Feder	Muelle	1
31	205 789	Ecrou	Nut	Mutter	Tuerca	1
32	205 785	Vis	Screw	Schraube	Tornillo	1
33	203 524	Butée	Stop	Anschlag	Tope	1
34	88 110	Vis, CHc M4x8	Screw, model CHc M4x8	Schraube, CHc M4x8	Tornillo, tipo CHc M4x8	1
35	205 781	Boîtier	Casing	Gehäuse	Armario	1
36	203 157	Volant	Wheel	Lenkrad	Volante	1
37	963 040 016	Rondelle	Washer	Scheibe	Arandela	1
38	88 131	Vis, CHc M6x12	Screw, model CHc M6x12	Schraube, CHc M6x12	Tornillo, tipo CHc M6x12	1
* 29	102 887	Pochette de joints	Seal kit	Dichtungssatz	Bolsa de juntas	1

Seal kit						# 102 887
* 10	NCS/NSS	Joint	Seal	Dichtung	Junta	1
* 21	NCS/NSS	Joint FKM	FKM seal	FKM Dichtung	Junta FKM	2
* 22	NCS/NSS	Joint FKM	FKM seal	FKM Dichtung	Junta FKM	1

- * Pièces de maintenance préconisées tenues en stock
- * Preceding the index number denotes a suggested spare part.
- * Bezeichnete Teile sind empfohlene Ersatzteile.
- * Piezas de mantenimiento preventivas a tener en stock.

- N C S : Non commercialisé seul.
- N S S : Denotes parts are not serviceable separately.
- N S S : Bezeichnete Teile gibt es nicht einzeln, sondern nur komplett.
- N S S : no suministrado por separado.

06. TECHNICAL FEATURES

Fluid inlet port	Ø 3/8"G
Fluid outlet port	Ø 3/8"G
Passage	2,6 mm / 0.10" (ball : 4 mm / 0.16")
Inlet maximum pressure	400 bar / 5801 psi
Regulated outlet minimum pressure	~ 20 bar / 290 psi
Regulated outlet maximum pressure	150 bar / 2175 psi

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. DISASSEMBLY OF THE MANUAL CONTROL

- Unscrew the 4 screws (19), remove the sleeve casing assembly,
- Unscrew the screws (13), remove the sleeve assembly and take off the spring (30),
- Unscrew the screw (38) and take off the washer (37),
- Remove the operating wheel (36),
- Unscrew the screw (34), take off the operating screw assembly,
- Take off the ball stop (33) and the casing (35),
- Unscrew the nut (31) and remove the operating screw (32).

B. DISASSEMBLY OF THE LOWER VALVE

- Unscrew the 4 screws (19), the valve guide assembly, the body (27) and the sleeve base assembly,
- Check the seals (21), change them if necessary,
- Unscrew the seat holder (15),
- Take off the washer (24) and the support washer (16); then, check the seat (25) mounted with tightness glue in the seat holder; change the seat / seat holder assembly,
- Take off and check the seal (22); change it if necessary; then, remove the seat holder (15),
- Remove then unscrew the needle rod (23) from the needle (17),
- Take off and check the spring (18),
- Take off the bare valve guide (20).

NOTA : Check the seat. If it is damaged, you **must** change the needle at the same time than the seat.

C. CHANGING THE PUSH ROD AND THE SEALS OF THE UPPER VALVE

- Carry out the stages of § A and B,
- Unscrew the third screw (13),
- Remove the spring stop (29) and the sleeve assembly,
- Take off bottom wards the push rod assembly,
- Unscrew the push rod (28); change it if necessary; when assembling, use "Loctite n°243" or similar,
- Remove the washer (11), then take off and check the seal (10),
- Remove the piston (9),
- Take off and check the ball bearing (7), the ring (8) and the sleeve (12).

09. MAINTENANCE

When using abrasive material, we advice 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	Increase the pressure on the pump motor.
	Ball cage defective	Change the ball cage.
	Stop seals worn or damaged.	Change the stop seals.
Material leakage	Valve guide seal (s) worn	Change the seal (s).