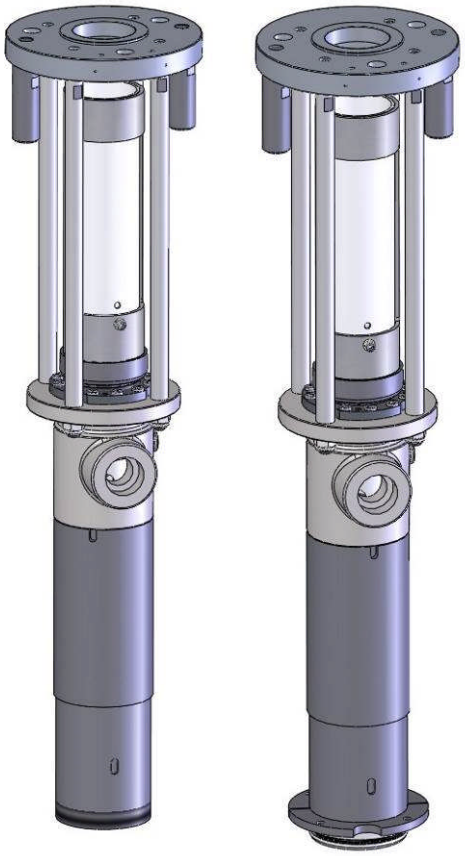
INSTRUCTION MANUAL

BALL FLUID SECTIONS

«TENOR»

980 cc / 33 oz,
stroke : 200 mm / 8"

106 201 xx xx



Manual : 574.050.112 - 1408

Date : 14/08/14 - Supersede : 03/12/07

Modif.: Update + § 3, 5, 7 & 10

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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INSTRUCTION MANUAL

TENOR BALL FLUID SECTIONS - 980 cc / 33 oz

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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.

1. WARRANTY

We reserve the right to make changes; these changes may be carried out after the receipt of our 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 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 is bought in will be subject to the supplier's warranty.

2. 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 (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 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 GLOVE 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 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 o 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 (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 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 maximum working pressure (MWP) 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.

3. INSTALLATION

- **HANDLING**

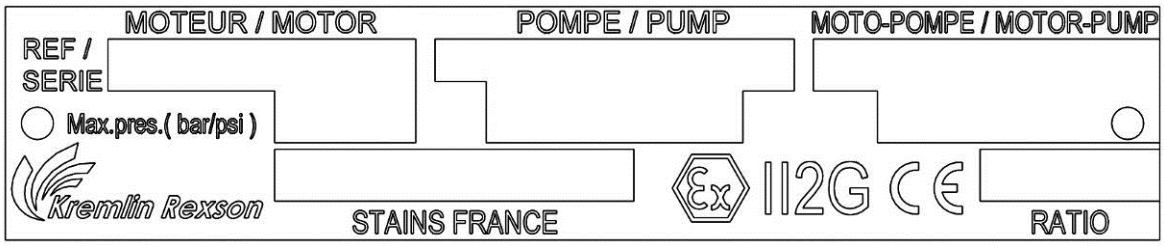
The fluid sections with important weight and dimensions must be handled with the appropriate means.

- **STORAGE**

Place the equipment safe from dampness after having closed the different air inlets and ports (plugs).

- **Description OF THE LABEL MARKING**

Marking in accordance with the ATEX directive



KREMLIN REXSON STAINS FRANCE	Name and address of the manufacturer
MOTEUR / MOTOR	-
POMPE / PUMP	Fluid section part number and serial number. The two first numbers indicate the manufacturing year.
MOTO-POMPE / MOTOR-PUMP	-
II 2 G CE	**II** : group II **2** : class 2 Surface equipment meant to area where explosive atmospheres due to gas, vapours, mists or air mixtures with dusts are liable to appear from time to time in usual operating. **G** : gas
MAX. PRES. (BAR/PSI)	Maximum pressure
RATIO	Pump pressure ratio

Associated to a pneumatic motor, the fluid sections must be grounded via the earth cable of that motor.

The earth cable must be grounded to a safe earth.

The pumps are designed to be installed in a spray booth.

- **CONNECTION OF THE SUBSETS**

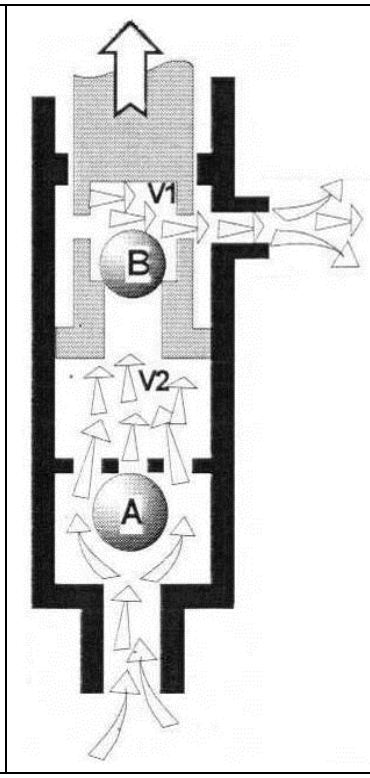
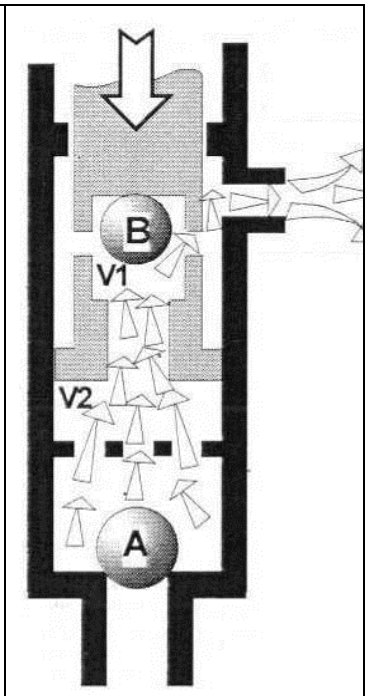
These fluid sections are designed for the coupling of pneumatic or hydraulic motors with similar stroke.
You must conform to a motor / fluid section association as planned by KREMLIN REXSON.

4. OPERATING

▪ EXPECTED USE

These fluid sections coupled with pneumatic or hydraulic motors are designed for the transfer, the pouring off or the spraying of different liquid or viscous fluids with a requested outlet flow and pressure.

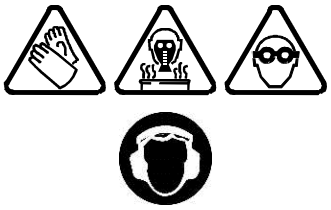
▪ OPERATING DESCRIPTION

A- The piston goes up = suction + exhaust When the piston goes up, the C valve lifts itself up : the material flows helped by the **P** shovel. The **V2** chamber is filled. Due to the decreasing of volume available, the fluid of **V1** is forced to the outlet. **There is exhaust and pressure increasing.**		**B - The piston goes down = exhaust** The piston goes down. The **C** valve is pressed on its seat. When the piston plunges inside the cylinder, it decreases the volume available **(V2)** and forces the fluid to the outlet. The **B** ball goes up. **There is exhaust and pressure increasing.**	

WARNING!

The frictions due to the displacement of fluid inside the pumps and accessories, as well as the one created by the tightness seals, generate static electricity that may cause fire or explosion. This is why the fluid section must be grounded (refer to the instruction manual of the motor for its grounding).

5. USE



Protective clothing (gloves, protective masks, glasses, hearing protective earplug, protective clothing…) should be worn to comply with the recommendations.

The working area must be correctly ventilated.

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.

▪ ADJUSTMENTS

Cup nut :

Before starting the equipment, half fill the cup with T lubricant.

The cup nut must be slightly tightened. A too important tightening would damage the cup seals. A wrench is supplied to allow a correct tightening.

Tightening of the wetting cup :

- Fill the cup with T lubricant,
- Start the pump, then tighten the cup after 10 minutes, then one hour and then one day of operating,
- If you notice a leakage, the cup must be tightened.

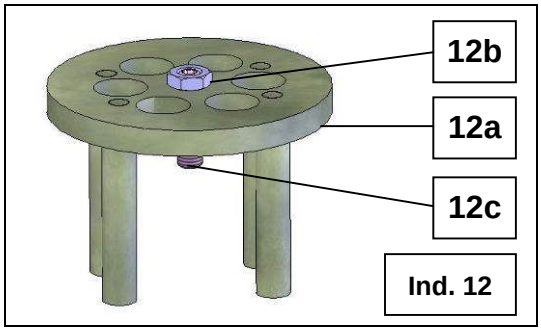
Tightening instructions :

- Depressurize the motor (refer to pressure relief instructions),
- Depressurize the fluid circuit (refer to pressure relief instructions),
- Tighten the cup, clean it and fill it with T lubricant,
- Close the pump drain circuits,
- Open the motor air valve.

Adjustment of the suction valve ball cage screw :

Depending upon the fluid viscosity to be pumped, adjust the height of the screw (12c) to increase the ball up motion.

Lock the screw on the lock nut (12b).



▪ START UP

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.

The pumps are tested in our workshop with lubricant.

Before starting up, you must flush the pump with the appropriate solvent.

At the end of the working day, carry out a flushing with the appropriate solvent. We advice you to stop the pump in the "low position" to prevent material spreading on the piston rod.

▪ TROUBLESHOOTINGS

Before any intervention on the pump, please carry out the release pressure and drain general instructions.

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.

To prevent from injuries, material injections, injuries due to moving parts or sparks during the stopping of the system, the assembly, the cleaning or changing of the nozzle, **you must follow the stages hereafter** before intervening :

- Close the guns,
- Shut off the air inlet using the pressure release to evacuate the residual air.
- Move the gun near to a metallic drum to get back the fluid. Keep it against the drum to maintain the grounding (if necessary use a wire to ground the metallic drum).
- Open the gun to drain the circuit.
- Open the drain valve of the pump and get back the fluid in a metallic drum correctly grounded.
- Let the drain valve open during the intervention.

If the hose or the nozzle remains clogged or if the pressure remains, unscrew **carefully** a coupling of the product hose to make the pressure decrease.

Check the conformity of cabling before intervening.

DEFECTS	CAUSES	SOLUTIONS
Leakage at the cup seals	Insufficient tightening of the cup nut	Screw the cup nut.
	Bad mounting of the cup seals	Check the mounting
	Damaged or worn seals	Replace them.
	Bad choice of the seals' material	Check the compatibility.
The cup seals get rapidly damaged	No lubricant in the shell (pumped product drying on the piston rod)	Clean, replace parts if necessary. During a long duration shutdown, stop the pump, the piston is in the the low position.
	Compatibility product/seals	Check.
Fluid leakage through pump body	Wrong tightening of the cylinder; seals missing or damaged	Check; replace if necessary.
The pump is stopped	The fluid is polymerized, hardened, dried in the pump	Clean the pump; change parts if necessary.
	The cup nut is too tightened	Unscrew.
	Broken part(s) in the pump	Remove, check and replace.
The motor seems to operate but the pump does not deliver product	Internal parts of the motor defective	Check the operating of the motor.
	Defective coupling	Check coupling.
The pump operates but irregular flow	Valve clogged on the seat, incorrectly mounted or worn	Check mounting, state of the parts, tightening of parts and seals.
	Air inlet in the suction circuit	
At stop, pump carries on going down	Valve worn or incorrectly mounted	Check and replace parts.
	Plug or drain valve not tightened	
At stop, pump carries on going up	Head piston seals or upper valve worn or incorrectly mounted	Check and replace parts.
	Plug or drain valve not tightened	
The piston is going down quickly (simple effect working)	Bad feeding of the pump	Check use parameters of the accessories (pressure on follower plate or suction rod,…). Accessories can be not adapted or clogged.
	Product is too viscous	Bad definition of the pump.
	Lower valve worn	Check and replace parts.
	A foreign product obstructs the lower valve	Clean and check.
	Lower valve getting up too weak	Displace the ball cage to increase the getting up.

DEFECTS	CAUSES	SOLUTIONS
The piston goes up quickly	Valve worn or damaged	Check and replace parts.
	A foreign product obstructs the upper valve	Clean and check.
The piston goes up and down at different speeds	Valve, head piston seals or cylinder worn	Replace parts.
	Seals incorrectly mounted or damaged	Check the mounting; change if necessary.
Important pressure drop at down stroke	Too important getting up of the valve	Displace the ball cage to reduce the getting up.
The pump does not deliver enough pressure	Insufficient air pressure to the motor (valve insufficiently open, air leak,…)	Check; adjust.
	Insufficient air inlet on the motor or outlet clogged	Check filter, mounting, hose not adapted.
	Cup or head piston seals too tightened	Check mounting or loosen cup nut.
Abnormal operating after racing or too important temperature.	Head piston or cup seals too tightened, damaged	Check mounting; reduce pumping rhythm. Replace parts if necessary.
	Product drum empty	Fill the drum; check the suction circuit and possible air leakage.

6. MAINTENANCE

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.

WARNING!

Before any intervention, please follow the pressure release instructions and read carefully the safety instructions.

During a long duration shutdown, stop the pump when the piston is in low position.

- **PREVENTIVE MAINTENANCE**

Daily care :

Check if there are leaks. Check that the hoses are in good conditions.

Keep the piston of the pumps clean to prevent from material drying.

Check the lubricant level inside the shell (keep the level halfway up). Fill it if necessary. The lubricant will normally be coloured by the material.

Tighten moderately if necessary the cup nut with the wrench provided.

Check the tightening of the different parts.

If the pump is fitted with a follower plate : check that the plate seal is in good condition, clean top and bottom parts of the follower plate.

Manipulate (open and close) all the valves of the installation.

Keep the spray area clean.

Bimonthly care :

If the lubricant is excessively coloured in the cup, fill the cup with new lubricant. Leave the cup clean and clean it regularly with lubricant after having drained the lubricant.

Yearly :

Remove the fluid section completely. Clean the parts. Install new seals during the pump assembly (refer to spare seals' package).

- **CURATIVE MAINTENANCE**

We advice you to schedule a systematic maintenance after a given working time. The rhythm is defined by the maintenance staff of the user and is done according to the product, the rate of work and the regular using pressure. . Refer to disassembly / assembly of the fluid section and to the spare parts.

Before intervening on the pump :

- **Clean the parts with the appropriate cleaning solvent,**
- **Install new seals if necessary after having lubricated them,**
- **Lubricate the piston and the inside of the cylinder to prevent from damaging the seals,**
- **Install new parts if necessary.**

7. DISASSEMBLY / ASSEMBLY

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.

WARNING!
Before any intervention, please follow the pressure release instructions and read carefully the safety instructions.

Fluid section

Make sure that a sufficient draining of the pump has been carried out.

Unscrew the 4 nuts (3) and put aside the flange (1), the tie-rods (2) and the protection (5).

Clamp the fluid section horizontally through the body (8) with a vice.

Reinstall the parts in the reverse order of the disassembly sequence.

Couple the fluid section to the pneumatic motor.

Valve (17)

Unscrew the suction valve body (17).

Put aside the ball cage (12).

Pull on the ball (14).

Take off the seat (13) and the seal (46).

Remove the seals (44 & 45).

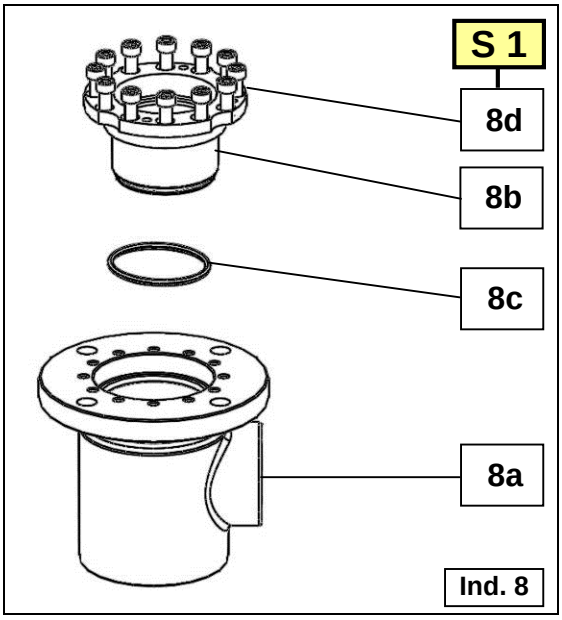
Clean the parts, change them if necessary and reinstall them changing the seals. When reassembling, tighten slightly the valve body.

Cup seals :

Nota : the fluid section body (8) consists of a cartridge (8b) to make easier the changing of the seals.

- Unscrew the cup (6),
- Take off the 12 screws (8d) that tighten the cartridge (8b) in the body (8a),
- Take off the cartridge (8b) screwing the extractors in the 3 M8 holes of the cartridge,
- Take off the cartridge -25 & 26) and the seals (40),
- Change the seals (40).
- Change the seal (8c).

Clean and reinstall the parts in the reverse order of the disassembly sequence.



Index	Instruction	Description	Part number
A 1	PTFE grease	PTFE grease (10 ml)	560.440.101
A 2	Anti-seize grease	Grease box (450 g / 99 lb)	560.420.005
C 1	Medium strength Aneorobic Pipe sealant	Loctite 577	-
C 2	Low strength - Aneorobic Adhesive - Loctite 222	Glue bottle (50 ml)	554.180.010
S 1	Screwing torque : 20 Nm / 14.75 ft/lbs		

Piston (7)

Unscrew and put aside the cylinder (9).

Take off the seal (44).

Take off the piston (7) from the cylinder downwards.

Unscrew the exhaust seat (10) removing the ball (11).

Take off the 'M' washer (27), the piston packing (42) and the 'F' washer (28).

Clean the parts, change them if necessary and reinstall them changing the seals.

When reassembling, do not forget to lubricate the piston head. Slide the piston inside the cylinder (9) and push it upwards.

Reinstall the parts in the reverse order of the disassembly sequence.

Before intervening on the equipment :

- **Clean the parts with the appropriate cleaning solvent,**
- **Install new seals if necessary, after having lubricated them.**
- **Lubricate the piston and the inside of the cylinder to prevent from damaging the seals,**
- **Install new parts if necessary.**

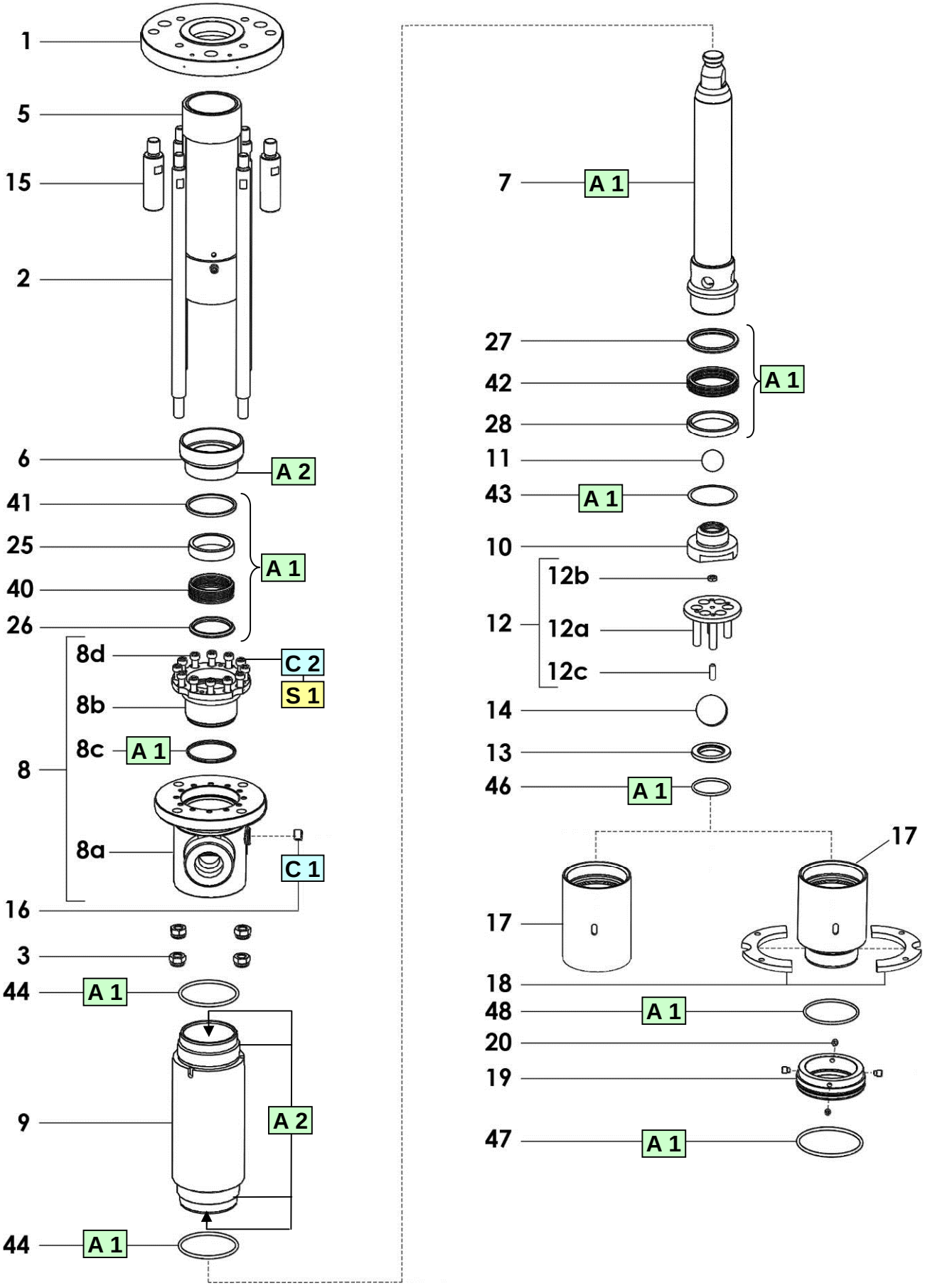
8. CODIFICATION OF THE 'TENOR' BALL FLUID SECTIONS - 980 cc / 33 oz

# Fluid sections	Version of the motors to associate		Description
	7200	**9200**	
	19/1	30/1	Pressure ratio
106 201 01 xx	X	X	Standard fluid section
106 201 03 xx	X	X	Fluid section for follower plate, model ∅ 571
106 201 10 xx	X	X	Stainless steel fluid section

9. SPECIFICATIONS

FEATURES	**Pump, model 106 201 01 xx**	**Pump, model 106 201 03 xx**	**Pump, model 106 201 10 xx**
Capacity	490 cc / 16.5 oz		
Delivery per cycle	980 cc / 33 oz		
Stroke	200 mm / 8"		
Fluid inlet	F 1" 1/2 G + M 105 x 200 (External threading on valve)	Adaptation for follower plate, model Ø 105 mm	F 1" 1/2 G + M 105 x 200 (External threading on valve)
Fluid outlet	F 1" 1/2		
Maximum fluid temperature	80°C / 176° F		
Wetted parts :			
Cylinder	Hard chromium steel	Hard chromium steel	Hard chromium steel
Cylinder and piston	Hard chromium treated steel	Hard chromium treated steel	Hard chromium stainless steel
Seat	Treated steel	Treated steel	Treated stainless steel
Balls	Steel	Steel	Stainless Steel (420C)
Packings	Depending upon version (refer to package of seals)		

10. EXPLODED VIEW & SPARE PARTS' LIST



▪ PART NUMBERS OF THE PUMPS

Pump version	Specifications	Package of seals
106 201	xx	xx

Code : 01 or 02 or 03 or 04 or 05 or 06
(refer to packages of seals)

01 or 03 or 10
(plate adaptation, material)

▪ SPARE PARTS' LIST

		106 201 01 xx	106 201 03 xx	106 201 10 xx	
Ind	**Description**	#			**Qty**
1	Flange	210 620			1
2	Tie-rod	210 687			4
3	Lock nut	88 339			4
5	Protection housing	106 200 010			1
6	Cup nut	210 700			1
7	Piston	210 720	210 720	210 903	1
8	Body	210 701			1
8a	▪ Body	NS			1
8b	▪ Cartridge	NS			1
8c	▪ Seal	Refer to packages of seals			1
8d	▪ Screw, model CHc M 8x20	930 151 279			12
9	Cylinder	210 718	210 718	210 901	1
*10	Seat (exhaust)	210 705	210 705	210 734	1
*11	Ball (Ø 32)	86 032	86 032	87 332	1
12	Ball cage	107 161			1
*13	Seat (suction)	210 708	210 708	210 896	1
*14	Ball (Ø 45)	86 045	86 045	87 344	1
15	Pin	209 582			2
16	Plug	906 333 102	906 333 102	552 237	1
*17	Suction valve body	210 707	210 714	210 897	1
18	Flange (2 parts)	-	210 686	-	1
19	Follower plate adaptation	-	210 674	-	1
20	Screw	-	88 253	-	4
25	'F' washer	210 730			1
26	'M' washer	210 731			1
27	'M' washer	210 712			1
28	'F' washer	210 713			1
30	Wrench	210 946			1
-	T lubricant (125 ml / 4.4 oz)	149 990 020			1
*	**Package of seals**	**Depending upon choice (refer to following page)) (Ind. 8C, 40, 41, 42, 43, 44, 45, 46, 47, 48)**			**1**

* Preceding the index number denotes a suggested spare part.

N S : Denotes parts are not serviceable separately.

Ind. 30

▪ PACKAGES OF SEALS' COMPOSITION

# Fluid section		106 201 xx 01			106 201 xx 02			106 201 xx 03		
Packages		01			02			03		
#		106 321			106 322			106 323		
Ind.	**Description**	**Qty**	**#**	**Material**	**Qty**	**#**	**Material**	**Qty**	**#**	**Material**
40	Cup packing	9	210 721	PTFE	9	210 721	PTFE	4 5	210 721 210 722	PTFE PE
41	Ring	-			-			-		
42	Piston packing	6	210 725	PTFE	6	210 725	PTFE	3 3	210 726 210 725	PE PTFE
43	Adjustment block	-			-			-		
44	O-Ring	2	84 456	FPM	2	84 473	FEP / FPM	2	84 456	FPM
46	O-Ring	1	84 458	PTFE	1	84 458	PTFE	1	84 458	PTFE
47	O-Ring	1	84 457	FPM	1	84 457	FPM	1	84 457	FPM
48	O-Ring	1	84 470	FPM	1	84 470	FPM	1	84 470	FPM
8c	Cartridge seal	1	909 420 265	FPM	1	909 420 265	FPM	1	909 420 265	FPM

Nota : seals (Ind. 47 & 48) for follower plate adaptation (pumps # 106 201 03xx)

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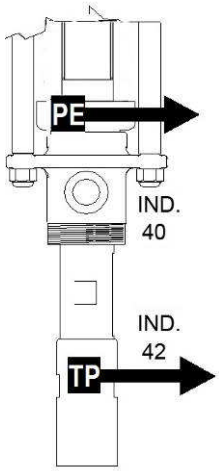

PTFE	→	∧	PTFE	→	∧	PE	→	∧
PTFE	→	∧	PTFE	→	∧	PTFE	→	∧
PTFE	→	∧	PTFE	→	∧	PE	→	∧
PTFE	→	∧	PTFE	→	∧	PTFE	→	∧
PTFE	→	∧	PTFE	→	∧	PE	→	∧
PTFE	→	∧	PTFE	→	∧	PTFE	→	∧
PTFE	→	∧	PTFE	→	∧	PE	→	∧
PTFE	→	∧	PTFE	→	∧	PTFE	→	∧
PTFE	→	∧	PTFE	→	∧	PE	→	∧
PTFE	→	∨	PTFE	→	∨	PE	→	∨
PTFE	→	∨	PTFE	→	∨	PTFE	→	∨
PTFE	→	∨	PTFE	→	∨	PE	→	∨
PTFE	→	∨	PTFE	→	∨	PTFE	→	∨
PTFE	→	∨	PTFE	→	∨	PE	→	∨
PTFE	→	∨	PTFE	→	∨	PTFE	→	∨

# Fluid section		106 201 xx 04			106 201 xx 05			106 201 xx 06		
Packages		04			05			06		
#		106 324			106 325			106 326		
Ind.	**Description**	**Qty**	**#**	**Material**	**Qty**	**#**	**Material**	**Qty**	**#**	**Material**
40	Cup packing	4 3	210 722 210 723	PE LEATHER	9	210 603	PTFE G	1 5	210 722 84 395	PE PU
41	Ring	-			-			1	210 724	ST STEEL
42	Piston packing	3 2	210 726 210 728	PE LEATHER	6	210 727	PTFE G	6	210 727	PTFE G
43	Adjustment block	4	210 729	ST STEEL	-			-		
		→ Qty mounted according to need								
44	O-Ring	2	84 456	FPM	2	84 456	FPM	2	84 456	FPM
46	O-Ring	1	84 458	PTFE	1	84 458	PTFE	1	84 458	PTFE
47	O-Ring	1	84 457	FPM	1	84 457	FPM	1	84 457	FPM
48	O-Ring	1	84 470	FPM	1	84 470	FPM	1	84 470	FPM
8c	Cartridge seal	1	909 420 265	FPM	1	909 420 265	FPM	1	909 420 265	FPM

Nota : Seals (Ind. 47 & 48) for follower plate adaptation (pumps # 106 201 03xx)

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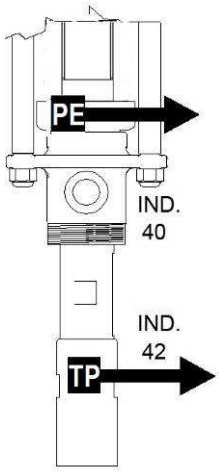

PE	→	∧	PTFE G	→	∧	RING	→	▭
LEATHER	→	∧	PTFE G	→	∧	PU	→	∧
PE	→	∧	PTFE G	→	∧	PU	→	∧
LEATHER	→	∧	PTFE G	→	∧	PU	→	∧
PE	→	∧	PTFE G	→	∧	PU	→	∧
LEATHER	→	∧	PTFE G	→	∧	PU	→	∧
PE	→	∧	PTFE G	→	∧	PE	→	∧
			PTFE G	→	∧			
			PTFE G	→	∧			
PE	→	∨	PTFE G	→	∨	PTFE G	→	∨
LEATHER	→	∨	PTFE G	→	∨	PTFE G	→	∨
PE	→	∨	PTFE G	→	∨	PTFE G	→	∨
LEATHER	→	∨	PTFE G	→	∨	PTFE G	→	∨
PE	→	∨	PTFE G	→	∨	PTFE G	→	∨
ADJ BLOCK	→	−	PTFE G	→	∨	PTFE G	→	∨

PTFE G = Graphited PTFE

▪ PACKAGES OF SEALS 'RECOMMENDED

Code	Composition	Use
01	PTFE (+ FPM)	Solvent - Ether - Ketone - Aromatic alcohol - some varnishes and paints
02	PTFE (+ FPM / FEP)	Solvent - Ether - Ketone - Aromatic alcohol - some varnishes and paints, PU paints - Pharmacy - Cosmetics - Some foodstuffs
03	PTFE + PE (+ FPM)	Epoxy glue - Butyl - PVC compound - Silicone - Some varnishes - Paint
04	PE + LEATHER (+ FPM)	Paint - Varnishes - Grease - Oil - Ink - Hydro soluble paint
05	GRAPHITED PTFE (+ FPM)	Paints - Varnishes - Inks - PVC compounds - Butyl
06	PU + PE + PTFE G (+ FPM)	Mastics - PVC - Butyl

▪ OPTIONS

Ind.	Description	#	Qty
-	Packages of seals (code 10) (PU + PE) + (PE + PTFE V) + (FPM)	106 591	1
-	Balls / carbide seat assembly (Ind. 11, 13, 14)	107 148	1

COMPOSITION OF THE PACKAGE OF SEALS (CODE 10)

PACKAGES code #		10 106 591		
Ind	**Description**	**Qt**	**#**	**Material**
40	Cup packing	1 5	210722 84395	PE PU
41	Ring	1	210724	St steel
42	Piston packing	3 3	210726 211318	PE PTFE V
43	Adjustment block			
44	O-Ring	2	84456	FPM
46	O-Ring	1	84458	PTFE
47	O-Ring	1	84457	FPM
48	O-Ring	1	84470	FPM
8c	Cartridge seal	1	909 420 265	FPM

Ind. 41	RING	
Ind. 40	PU	
	PU	
	PU	
	PU	
	PU	
	PE	

Ind. 42	PE	
	PTFE V	
	PE	
	PTFE V	
	PE	
	PTFE V