REV. 04 - 05/2026
Manuale Cod. 150186

SAMOA®

LEADING THROUGH INNOVATION

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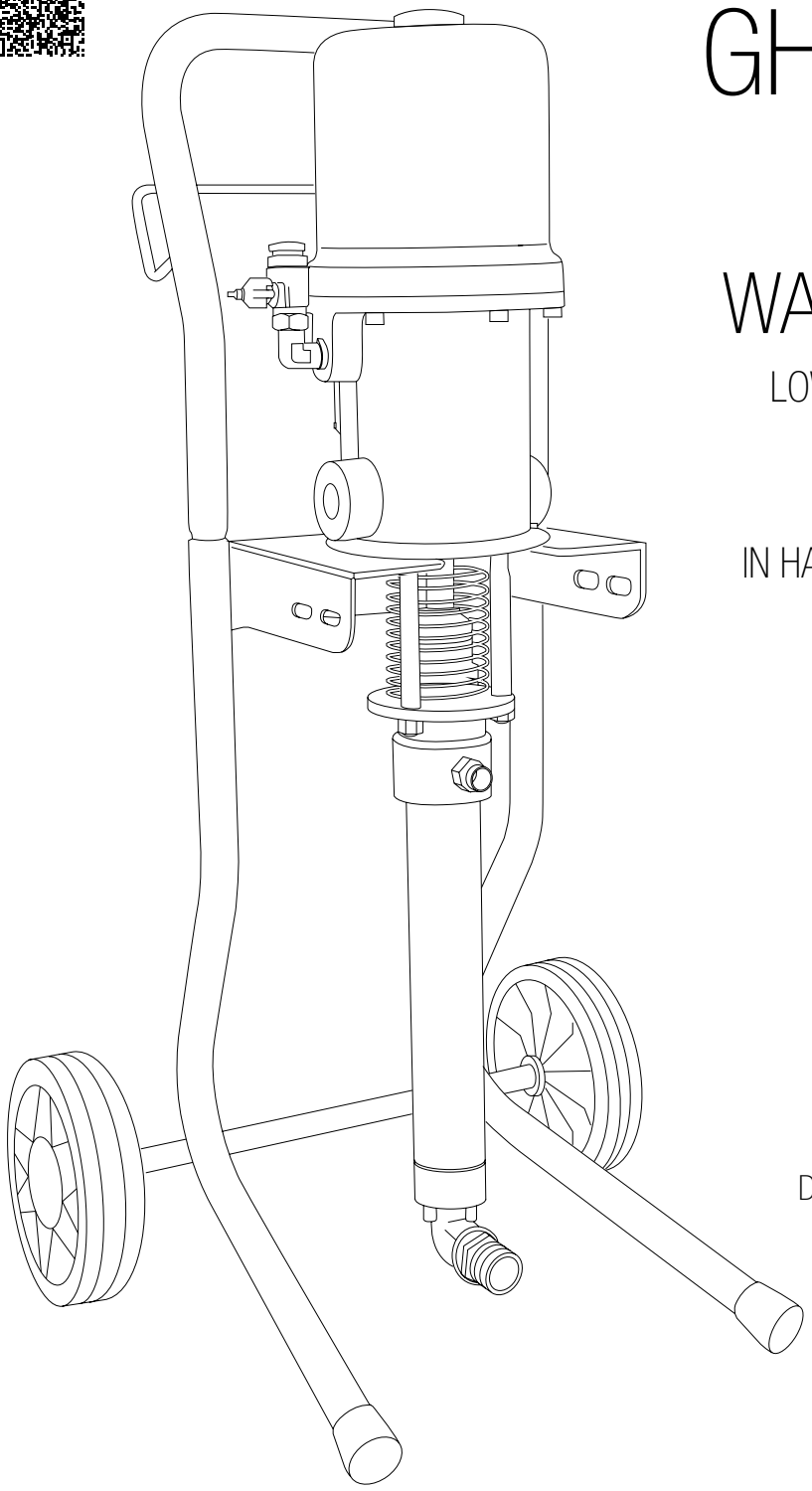


GHIBLI 10:1

PNEUMATIC WASHING PUMP

LOW AND MEDIUM PRESSURE
WASH PUMPS
FOR INTENSIVE CLEANING
IN HAZARDOUS ENVIRONMENTS

USABLE WITH COLD
OR HOT WATER UP TO 90°

Trolley version Cod. 98690/1
Wall version Cod. 98691
Drum Version 200L Cod. 96661/1

INSTRUCTION MANUAL

IT	https://www.larius.com/wp-content/uploads/GHIBLI_10_1WASH_PUMP_I.pdf
EN	https://www.larius.com/wp-content/uploads/GHIBLI_10_1WASH_PUMP_UK.pdf
ES	https://www.larius.com/wp-content/uploads/GHIBLI_10_1WASH_PUMP_ES.pdf

This manual is to be considered as an English language translation of the original manual in Italian. The manufacturer shall bear no responsibility for any damages or inconveniences that may arise due to the incorrect translation of the instructions contained within the original manual in Italian.

Due to a constant product improvement programme, the factory reserves the right to modify technical details mentioned in this manual without prior notice.

GHIBLI 10:1

Pneumatic washing pump

INDEX

WE ADVISE THE USE OF THIS EQUIPMENT ONLY BY PROFESSIONAL OPERATORS.
ONLY USE THIS MACHINE FOR USAGE SPECIFICALLY MENTIONED IN THIS MANUAL.

Thank you for choosing a **SAMOA** product.
As well as the product purchased, you will receive a range of support services enabling you to achieve the results desired, quickly and professionally.

A WARNINGS

The table below provides the meaning of the symbols used in this manual in relation to using, earthing, operating, maintaining, and repairing of this equipment.

- Read this operator's manual carefully before using the equipment.
- An improper use of this machine can cause injuries to people or things.
- Do not use this machine when under the influence of drugs or alcohol.
- Do not modify the equipment under any circumstances.
- Use products and solvents that are compatible with the various parts of the equipment, and read the manufacturer's warnings carefully.
- See the Technical Details for the equipment given in the Manual.
- Check the equipment for worn parts once a day. If any worn parts are found, replace them using ONLY original spare parts.
- Keep children and animals away from work area.
- Comply with all safety standards.

- It indicates an accident risk or serious damage to equipment if this warning is not followed.

FIRE AND EXPLOSION HAZARD
- Solvent and paint fumes in work area can ignite or explode.
- **To help prevent fire and explosion:**
  - Use equipment ONLY in well ventilated area.
  - Eliminate all ignition sources, such as pilot lights, cigarettes and plastic drop cloths (potential static arc).
  - Ground equipment and conductive objects.
  - Use only grounded hoses.
  - Do not use trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminium equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.
  - Do not form connections or switch light switches on or off if the air contains inflammable fumes.
- If electrical shocks or discharges are encountered the operation being carried out using the equipment **must be stopped immediately**.
- Keep a fire extinguisher at hand in the immediate vicinity of the work area.

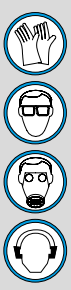
- It indicates wound and finger squashing risk due to movable parts in the equipment.
- Keep away from moving parts.
- Do not use the equipment without the proper protection.
- Before any inspection or maintenance of the equipment, carry out the decompression procedure explained in this manual, and prevent any risk of the equipment starting unexpectedly.

- Report any risk of chemical reaction or explosion if this warning has not been given.
- (IF PROVIDED) There is a risk of injury or serious lesion related to contact with the jet from the spray gun. If this should occur, IMMEDIATELY contact a doctor, indicating the type of product injected.
- (IF PROVIDED) Do not spray before the guard has been placed over the nozzle and the trigger on the spray gun.
- (IF PROVIDED) Do not put your fingers in the spray gun nozzle.
- Once work has been completed, before carrying out any maintenance, complete the decompression procedure.

- It indicates important recommendations about disposal and recycling process of products in accordance with the environmental regulations.

- Mark any clamps attached to earth cables.
- Use ONLY 3-wire extension cords and grounded electrical outlets.
- Before starting work make sure that the electrical system is grounded and that it complies with safety standards.
- High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin.
- **To help prevent injection, always:**
  - (IF PROVIDED) Engage trigger lock when not spraying.
  - (IF PROVIDED) Do not put your hand over the spray tip. Do not stop or deflect leaks with your hand, body or other.
  - (IF PROVIDED) Do not point gun at anyone or at any part of the body.
  - (IF PROVIDED) Never spray without tip guard.
  - Do pressure relief if you stop spraying or being servicing sprayer and before any maintenance operations.
  - Do not use components rated less than sprayer Maximum Working Pressure.
  - Never allow children to use this unit
  - (IF PROVIDED) Brace yourself; gun may recoil when triggered.

If high pressure fluid pierces your skin, the injury might look like "just a cut", but it is a serious wound!
Get immediate medical attention.



- It is obligatory to wear suitable clothing as gloves, goggles and face shield.
- Wear clothing that complies with the safety standards in force in the country in which the equipment is used.
- Do not wear bracelets, earrings, rings, chains, or anything else that may hinder the operator's work.
- Do not wear clothing with wide sleeves, scarves, ties, or any other piece of clothing that could get tangled up in moving parts of the equipment during the work, inspection, or maintenance cycles.

B WORKING PRINCIPLE

GHIBLI 10:1 PNEUMATIC WASHING PUMP is a low and medium pressure pneumatic pump for professional use to be used for cleaning with water.

GHIBLI pump is essentially constituted of an air motor and a structure called «pumping group» .

In the pneumatic motor, compressed air causes the vertical reciprocating movement of the motor piston; this movement is transmitted through a connecting rod to the material pumping piston which allows to suck water.

The ratio 10:1 means that the outlet pressure of water is 10 times higher than the pump feed air pressure.

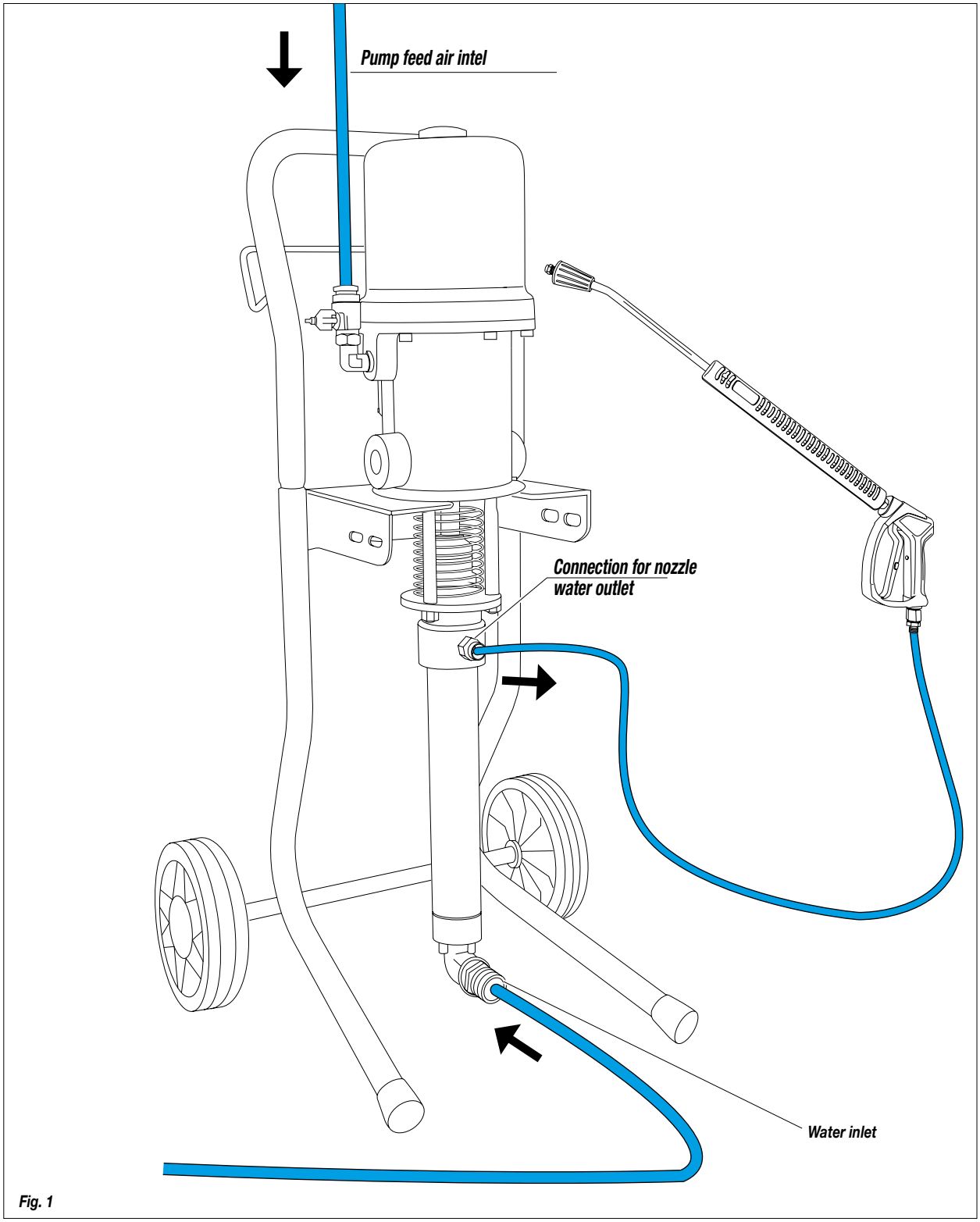


Fig. 1

C TECHNICAL DATA

GHIBLI 10:1 PNEUMATIC WASHING PUMP	
Feeding air pressure	7 bar
Max water pressure	70 bar
Feeding air inlet	1/2" BSPP
Max delivery	12 l/min
Material output	3/4" BSPP
Max water temperature	90°

Parts of the pump in contact with water
Pumping group: steel stainless steel AISI 303 and 420B
Sealing balls: stainless steel AISI 420B
Gaskets: PTFE

The disposal of some parts of the pump no more usable is a customer's competence and must be performed in accordance with the regulations in force in the country where the plant is installed and used.

D DESCRIPTION OF THE EQUIPMENT

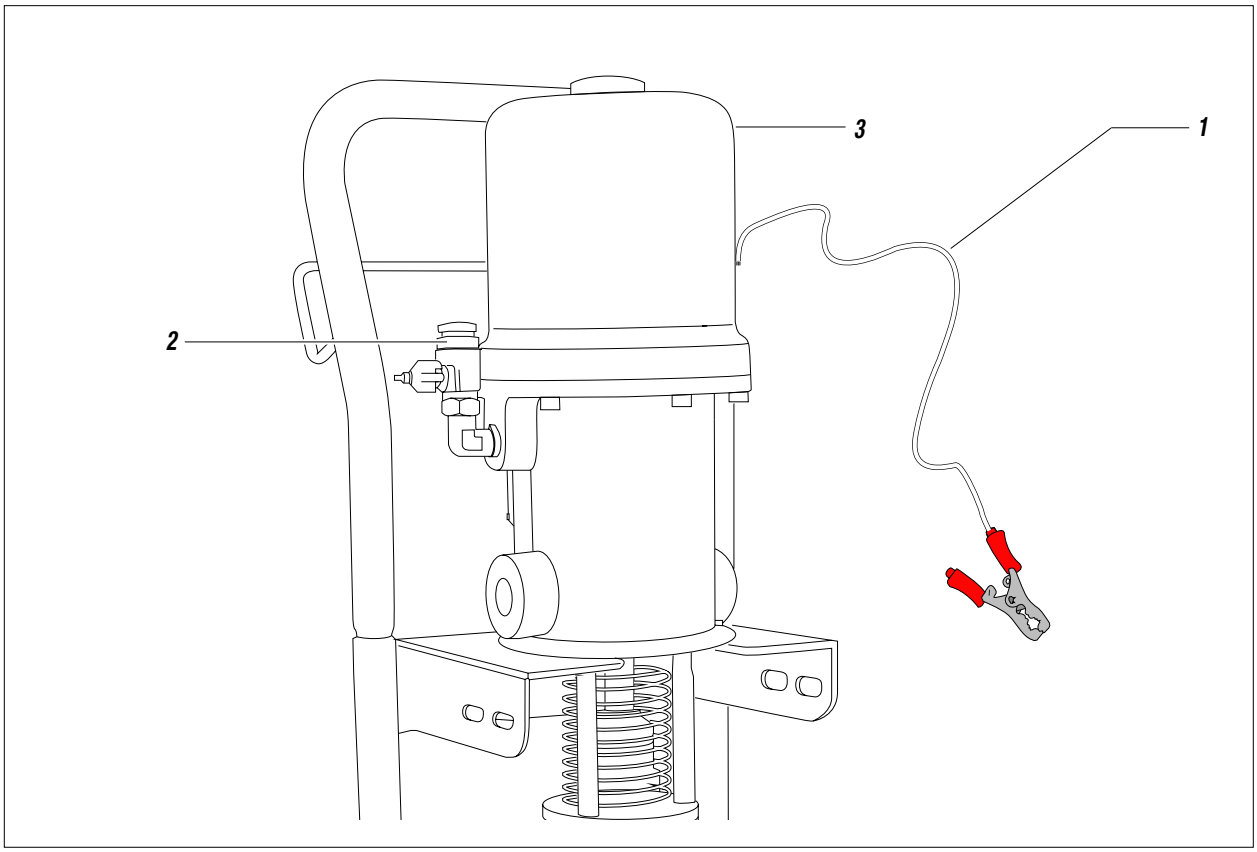


Fig. 1

Pos.	Description
1	Grounding cable
2	Pump feed air inlet
3	Pneumatic motor

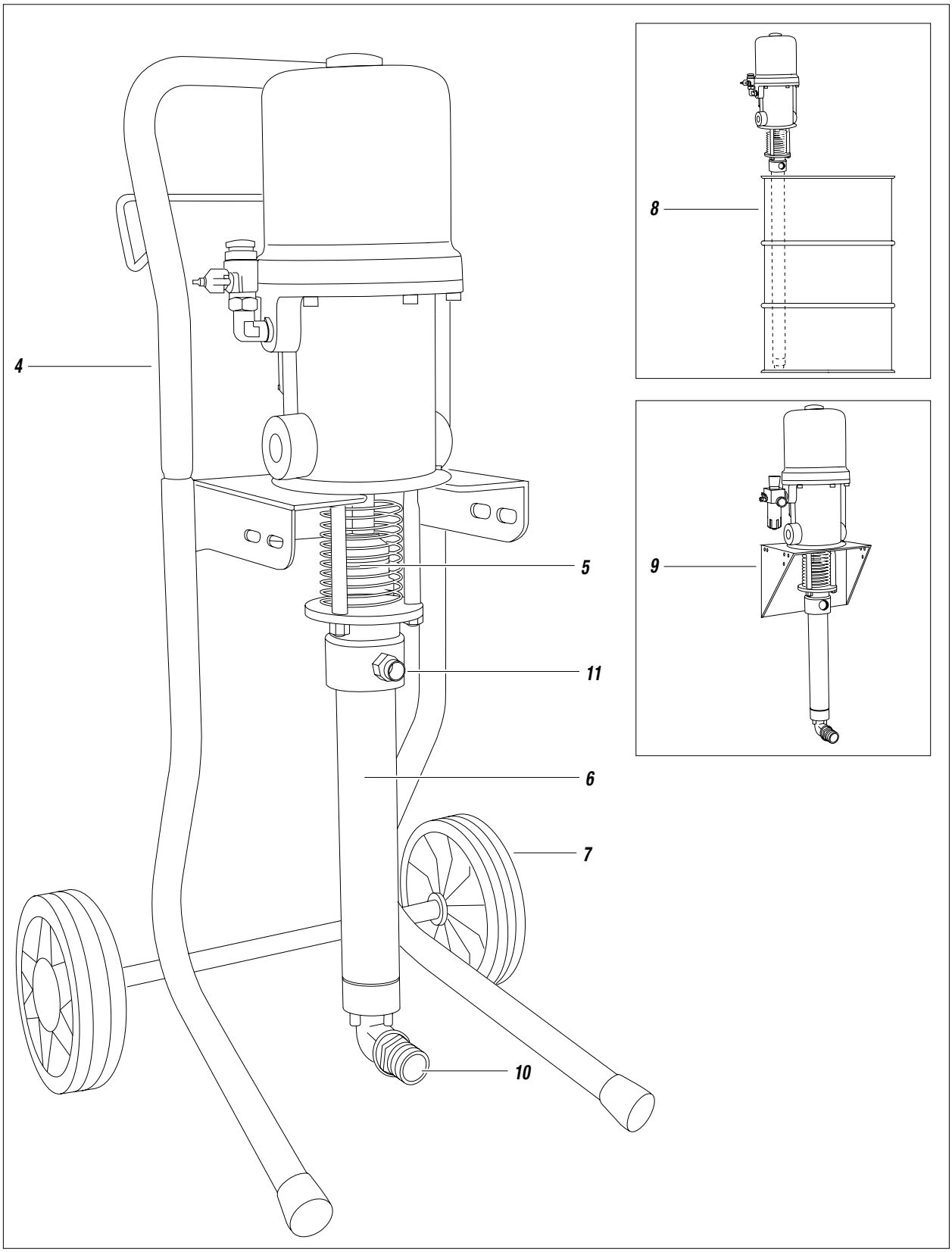


Fig. 2

Pos.	Description
4	Trolley
5	Lubrificant cap
6	Pumping group
7	Wheel

Pos.	Description
8	Drum Version 200L
9	Wall version
10	Water inlet hose connection
11	Water outlet hose connection

E TRANSPORT AND UNPACKING

- The packed parts should be handled as indicated in the symbols and markings on the outside of the packing.
- Before installing the equipment, ensure that the area to be used is large enough for such purposes, is properly lit and has a clean, smooth floor surface.
- The user is responsible for the operations of unloading and handling and should use the maximum care so as not to damage the individual parts or injure anyone.

  To perform the unloading operation, use only qualified and trained personnel (truck and crane operators, etc.) and also suitable hoisting equipment for the weight of the installation or its parts.

  Follow carefully all the safety rules.

  The personnel must be equipped with the necessary safety clothing.
- The manufacturer will not be responsible for the unloading operations and transport to the workplace of the machine.
- Check the packing is undamaged on receipt of the equipment. Unpack the machine and verify if there has been any damage due to transportation.

  In case of damage, call immediately the manufacturer and the Shipping Agent. All the notices about possible damage or anomalies must arrive timely within 8 days at least from the date of receipt of the plant through Registered Letter to the Shipping Agent and to the manufacturer.

The disposal of packaging materials is a customer's competence and must be performed in accordance with the regulations in force in the country where the plant is installed and used.It is nevertheless sound practice to recycle packaging materials in an environment-friendly manner as much as possible.

F CONDITIONS OF GUARANTEE

The conditions of guarantee do not apply in the following situations:
- **improper washing and cleaning of components causing malfunction, wear or damage to the equipment or any of its parts;**
- **improper use of the equipment;**
- **use that does not conform with applicable national legislation;**
- **incorrect or faulty installation;**
- **modifications, interventions and maintenance that have not been authorised by the manufacturer;**
- **use of non-original spare parts or parts that do not correspond to the specific model;**
- **total or partial non-compliance with the instructions provided.**

G SAFETY RULES

Read carefully and entirely the following instructions before using the product. Please save these instructions in a safe place.

The unauthorised tampering/replacement of one or more parts composing the machine, the use of accessories, tools, expendable materials other than those recommended by the manufacturer can be a danger of accident.
The manufacturer will be relieved from tort and criminal liability.

- THE EMPLOYER SHALL TRAIN ITS EMPLOYEES ABOUT ALL THOSE RISKS STEMMING FROM ACCIDENTS, ABOUT THE USE OF SAFETY DEVICES FOR THEIR OWN SAFETY AND ABOUT THE GENERAL RULES FOR ACCIDENT PREVENTION IN COMPLIANCE WITH INTERNATIONAL REGULATIONS AND WITH THE LAWS OF THE COUNTRY WHERE THE PLANT IS USED.
- THE BEHAVIOUR OF THE EMPLOYEES SHALL STRICTLY COMPLY WITH THE ACCIDENT PREVENTION AND ALSO ENVIRONMENTAL REGULATIONS IN FORCE IN THE COUNTRY WHERE THE PLANT IS INSTALLED AND USED.
- KEEP YOUR WORK PLACE CLEAN AND TIDY. DISORDER WHERE YOU ARE WORKING CREATES A POTENTIAL RISK OF ACCIDENTS.
- ALWAYS KEEP PROPER BALANCE AVOIDING UNUSUAL STANCE.
- BEFORE USING THE TOOL, ENSURE THERE ARE NOT DAMAGED PARTS AND THE MACHINE CAN WORK PROPERLY.
- ALWAYS FOLLOW THE INSTRUCTIONS ABOUT SAFETY AND THE REGULATIONS IN FORCE.
- KEEP THOSE WHO ARE NOT RESPONSIBLE FOR THE EQUIPMENT OUT OF THE WORK AREA.
- **NEVER** EXCEED THE MAXIMUM WORKING PRESSURE INDICATED.
- (IF PROVIDED) **NEVER** POINT THE SPRAY GUN AT YOURSELVES OR AT OTHER PEOPLE. THE CONTACT WITH THE CASTING CAN CAUSE SERIOUS INJURIES. **NEVER** UNDERVALUE A WOUND CAUSED BY THE INJECTION OF A FLUID.
- RELEASE THE PRESSURE IN THE CIRCUIT BEFORE PERFORMING ANY CHECK OR PART REPLACEMENT OF THE EQUIPMENT.
- NEVER MODIFY ANY PART IN THE EQUIPMENT. CHECK REGULARLY THE COMPONENTS OF THE SYSTEM.

  REPLACE THE PARTS DAMAGED OR WORN.
- (IF PROVIDED) TIGHTEN AND CHECK ALL THE FITTINGS

- (IF PROVIDED) TIGHTEN AND CHECK ALL THE FITTINGS FOR CONNECTION BETWEEN PUMP, FLEXIBLE HOSE AND SPRAY GUN BEFORE USING THE EQUIPMENT.
- ALWAYS USE THE FLEXIBLE HOSE SUPPLIED WITH STANDARD KIT. THE USE OF ANY ACCESSORIES OR TOOLING OTHER THAN THOSE RECOMMENDED IN THIS MANUAL, MAY CAUSE DAMAGE OR INJURE THE OPERATOR.
- THE FLUID CONTAINED IN THE FLEXIBLE HOSE CAN BE VERY DANGEROUS. HANDLE THE FLEXIBLE HOSE CAREFULLY. DO NOT PULL THE FLEXIBLE HOSE TO MOVE THE EQUIPMENT. NEVER USE A DAMAGED OR A REPAIRED FLEXIBLE HOSE.

The high speed of travel of the product in the hose can create static electricity through discharges and sparks. It is suggested to earth the equipment.
The pump is earthed through the earth cable of the supply.
The gun is earthed through the high pressure flexible hose.
All the conductors near the work area must be earthed.

Take proper safety measures for the protection of hearing in case of work near the plant.

Avoid approaching too much to the pump piston rod when the pump is working or under pressure. A sudden movement of the piston rod can cause wounds or finger squashing.

H GROUNDING

- When using volatile cleaning products, the equipment must be grounded thereby reducing the risk of static and electric shocks and providing an escape route for electrical current.
- For cleaning in closed areas, locate the pump away from any storage tanks and provide adequate ventilation.
- If flammable materials are placed in the cleaning area, take appropriate precautions to avoid sparks.

AIR AND FLUID HOSES
- use only electrically conductive hoses

SPRAYING NOZZLE/DISPENSE VALVE
- Ground through connection to a properly grounded fluid hose and pump

SOLVENT PAILS USED WHEN FLUSHING
- Use only metal pails
- Place the pail only on grounded surface
- Don't place the pail on a non-conductive surface, such as paper or cardboard, which interrups grounding continuity

GROUNDING PUMP
- Use supplied grounding wire **(H1)** and clamp **(H2)**
- Connect the other end of the wire to a true earth ground **(H3)**

MAINTAINING GROUNDING CONTINUITY DURING FLUSHING OR PRESSURE RELIEF
- Firmly hold the metal part of the spraying nozzle / dispense valve on the side of a grounded metal pail, then activate the spraying nozzle / dispense valve

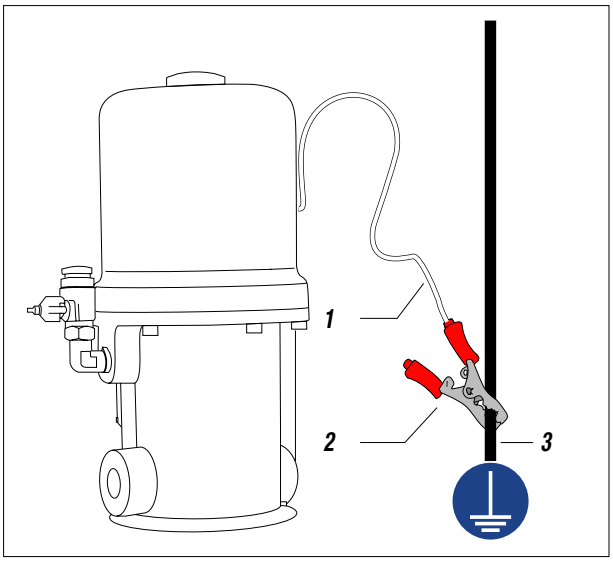


Fig. 1

I WORKING

Check all the fittings for connection of the different components *(pump, flexible hose, spraying nozzle, etc.)* before using the equipment.

- Allow the water to flow to the previously connected inlet hose.
- Make the compressed air flow into the pump. It is advisable to adjust air pressure to minimum necessary for its continuous working.
- When the product chamber is full, pump will start working and stopping. Pump will start working again any time the trigger of the spraying nozzle is pressed or the delivery valve is open.
- Check that the gasket pressing ring nut has not loosened causing liquid to escape from the upper part of the pump. To tighten the ring nut, follow the instructions given in the "Routine maintenance" paragraph.

Always avoid pump idling: this operation could damage the pneumatic motor and the seals.

J TUNING AND CONNECTIONS

Install at the pump inlet an air pressure regulator *(it is suggested complete with condensate filter and lubricator).* The outlet pressure of the water is 10 time the inlet pressure of the pump feed air. Therefore, it is extremely important to adjust the value of the feed air pressure.

CONNECTION OF THE AIR SUPPLY HOSE TO THE PUMP

- Connect the air supply hose (**1**) to the fitting (**2**) at the pump inlet

CONNECTION OF THE WATER INLET PIPE

- Connect the suction hose (**3**) to the inlet of the suction valve (**4**) of the pump

CONNECTION OF THE WATER OUTLET PIPE

- Connect the spraying tube (**5**) to the pump outlet (**6**)
- Connect the spraying nozzle (**7**) to the hose fitting (**8**)

WASHING THE NEW EQUIPMENT

The pump was factory tested with light mineral oil which remained inside the lower for protection. If the fluid to be pumped is not compatible with the one used for testing, wash the pump with a suitable solution.

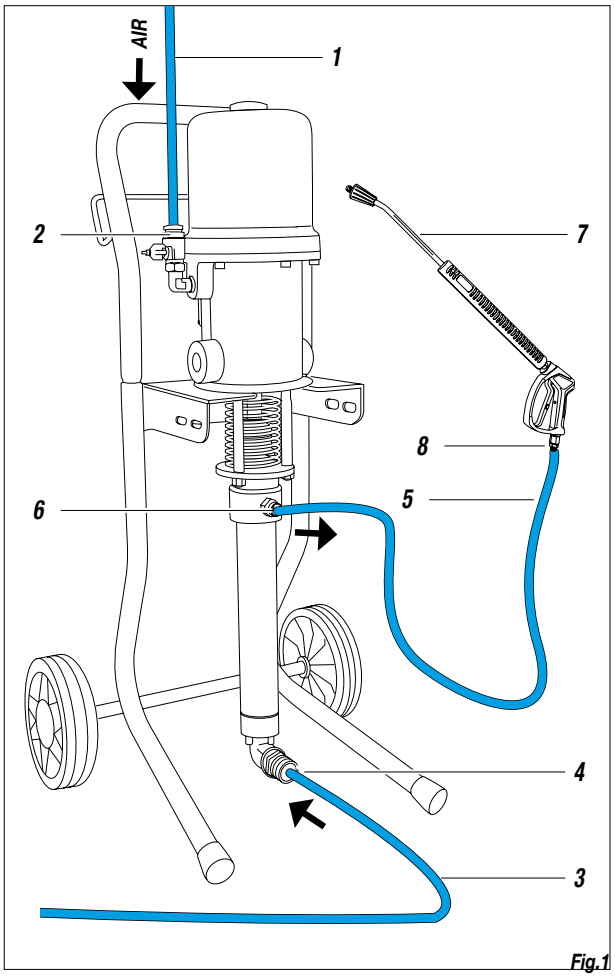


Fig.1

K TYPES OF INSTALLATION

WALL MOUNTING

- Ensure that the wall on which you intend to install the pump is suitable to support the weight of the pump and accessories and the stresses resulting from the use of the pump itself
- Ensure that the installation location has a space that allows easy access to the operator
- Be sure to position the bracket at an adequate height to ensure correct placement of the hoses and allow for displacement
- Firmly screw the bracket to the wall with screws and bolts suitable for the purpose
- Fix the pump to the bracket and connect the pipes as indicated in the 'SETTING UP' chapter

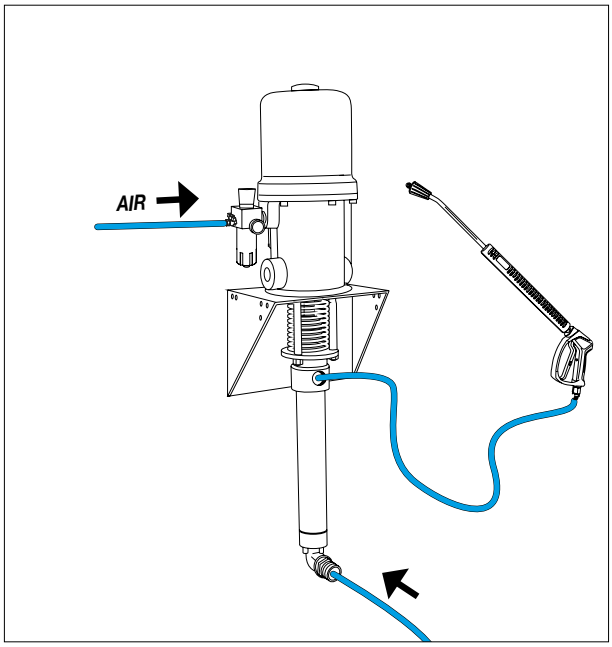


Fig.1

- **DRUM INSTALLATION**
- Insert the pump into the drum and screw the ring nut to the drum;
- Connect the air hose to the pump;
- Connect the hose of the spraying nozzle to the pump;

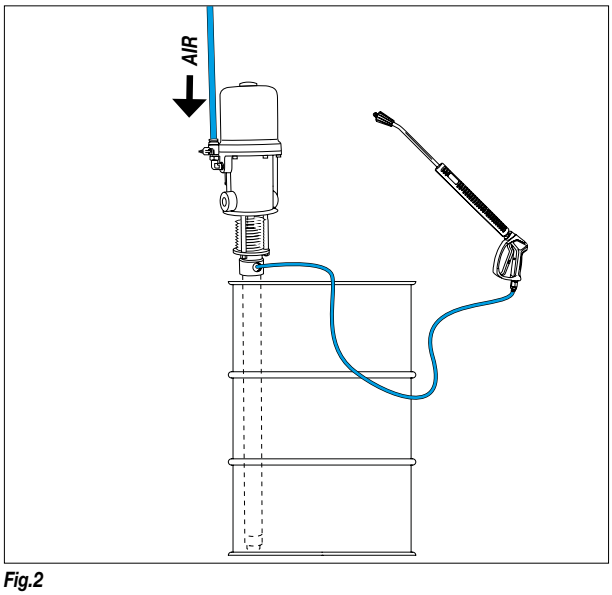


Fig.2

L CLEANING AT THE END OF THE WORK

- Close the water supply (**1**)
- Drain the water from the pumping circuit by pressing the spraying nozzle (**2**)
- Shut off the compressed air supply to the pump (**3**)
- Discharge the residual pressure present inside the pump.
- In case of long activity, the operations of sucking and leaving light mineral oil inside the pumping element are suggested.

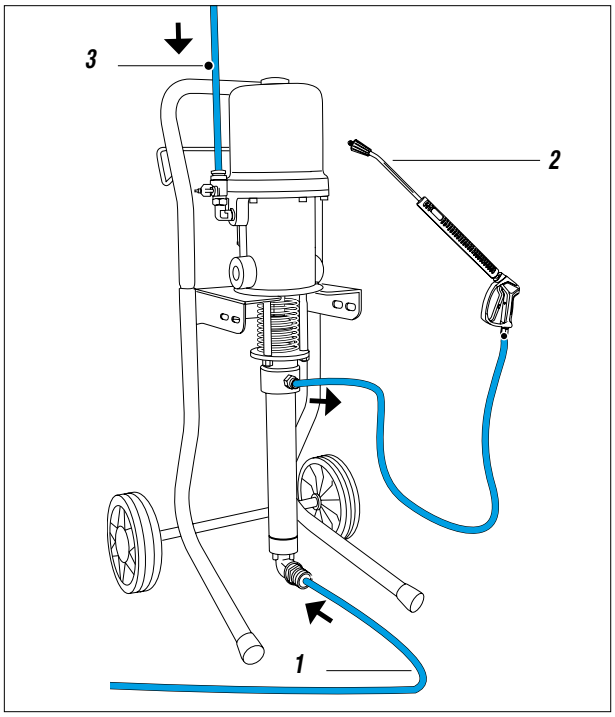


Fig.1

M ROUTINE MAINTENANCE

Always close the compressed air supply and release the pressure in the plant before performing any check or maintenance of the pump.

- Daily check (*and every time the pump is operated after a long storage*) the packing nut (**1**) is not loosened, causing otherwise the coming out of the product.
  To tighten the packing nut use a metal rod ***(2)*** with a diameter of 6 mm (*see the illustration*). The packing nut must be tightened so as to avoid the seizure of the pumping piston and the eccesive wear of sealing gaskets.
  In case of persistent coming out of product, provide for the replacement of the upper sealing gaskets (*see on page 13*).
- Keep the cup (**3**) that covers the packing ring nut filled with lubricating liquid in order to prevent the product from drying on the piston rod.
- Check periodically the air supply to the pump. Ensure the air is always clean and lubricated.

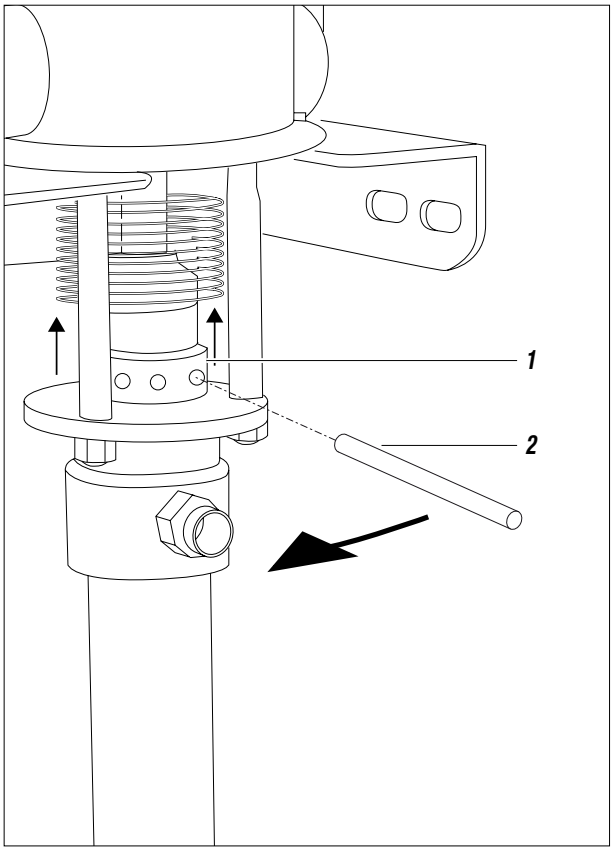


Fig. 1

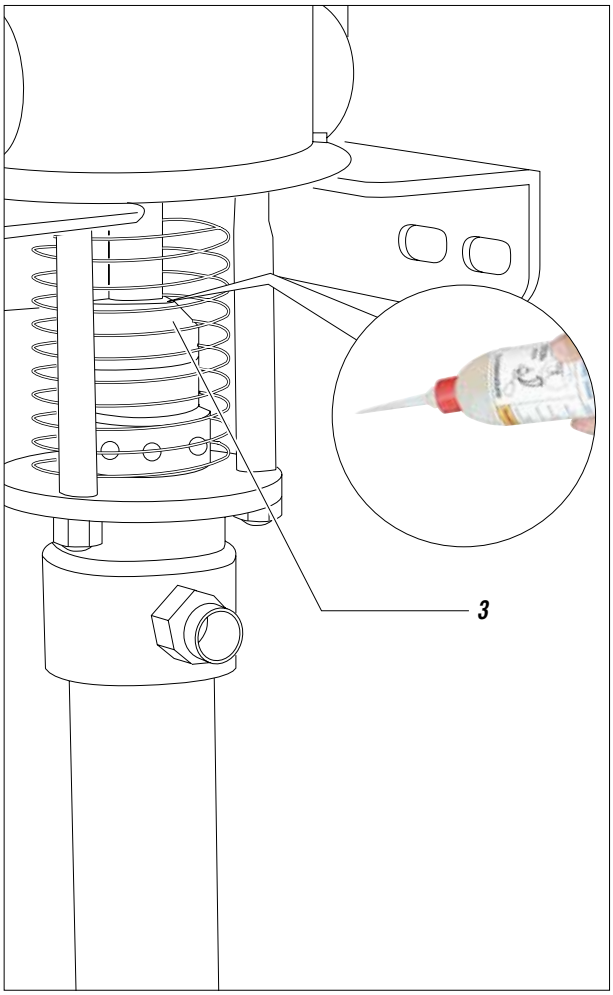


Fig. 2

N TROUBLESHOOTING

Problem	Possible cause	Solution
The pump does not start	Feeding air is not enough	Check the air supply. Increase the diameter of the feeding hose
	Outlet water line clogged	Clean. Disconnect the outlet liquid pipe. Feed pump at minimum pressure and check if the pump starts without the outlet pipe
	Inlet water line clogged	Clean the suction pipe
	Pneumatic motor blocked at the upper or lower stroke end (Dead Center)	Reduce feed pressure and manually reset the pneumatic motor (see on page 11)
	Parts failure of the pneumatic motor	Disassemble the motor and check
Accelerated working and no pressure of the pump	There is no water	Add water
	The pump sucks air	Open the exhausting valve. For the version on air hoist, follow the instructions in the relevant manual
	Feeding air is not enough	Increase the feeding air pressure
	Suction valve worn or partially clogged	Disassemble the suction valve. Clean and/or replace if necessary the worn parts
	Outlet valve worn or partially clogged	Disassemble the outlet valve. Clean and/or replace if necessary the worn parts
	Gaskets of the pumping rod worn	Replace the lower gaskets (see on page 13)
	The ball of the suction valve does not perfectly "close"	Disassemble the suction valve and clean (see on page 12)
The pump works, but the product is not flowing enough	Suction valve worn or partially clogged	Disassemble the suction valve. Clean and/or replace the worn parts
	Outlet water line clogged	Clean. Disconnect the outlet liquid pipe. Feed pump at minimum pressure and check if delivery increases without the outlet pipe
	The feed air pressure is too low	Increase air pressure
	Gaskets of the pumping rod worn	Replace the lower gaskets (see on page 13).
	Inlet water line clogged	Clean the suction pipe
	The ball of the suction valve does not perfectly "close"	Disassemble the suction valve and clean (see on page 12)
Leakage of water from the lubricating cup	Upper gaskets worn	Tighten the packing nut. In case of persistent waste of product, replace the upper gaskets of the pumping unit

Always close the compressed air supply and release the pressure in the plant before performing any check or replacement of parts of the pump.

O MANUAL RESET OF THE PNEUMATIC MOTOR

- The feed air pressure of the pump must never be higher than the maximum value indicated in the technical data (*see p. 4*). Exceed this value can block the valves of the pneumatic motor in the upper or lower position (*Dead Center*).
- To start again a blocked motor, close the air supply and release pressure in the circuit. This operation should allow the recovery of the valves.
- In case the motor is blocked, proceed as follows:

Close the air supply to the pump and release the residual pressure in the plant.

- Unscrew the handle plug (**1**) and pull it upwards together with the guide rod (**2**) so allowing the manual release of the stroke reversal group.
- Screw again the plug.

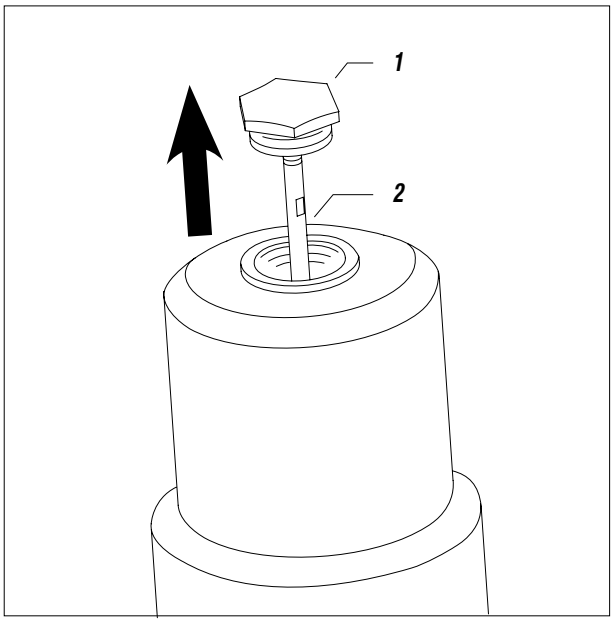


Fig. 1

P DISASSEMBLY OF THE PNEUMATIC MOTOR

Close the compressed air supply to the pump and release the residual pressure in the plant.

- Unscrew the handle plug (**1**) and pull it upwards together with the guide rod (**2**).
- Hold the guide rod and remove the plug (*using two wrenches*).

Immediately replace the plug with a usual M8 nut before the guide rod slides into the cylinder (*see illustration below*).

- Remove the screws (**3**).
- Carefully extract the motor cylinder (**4**) from the pump.

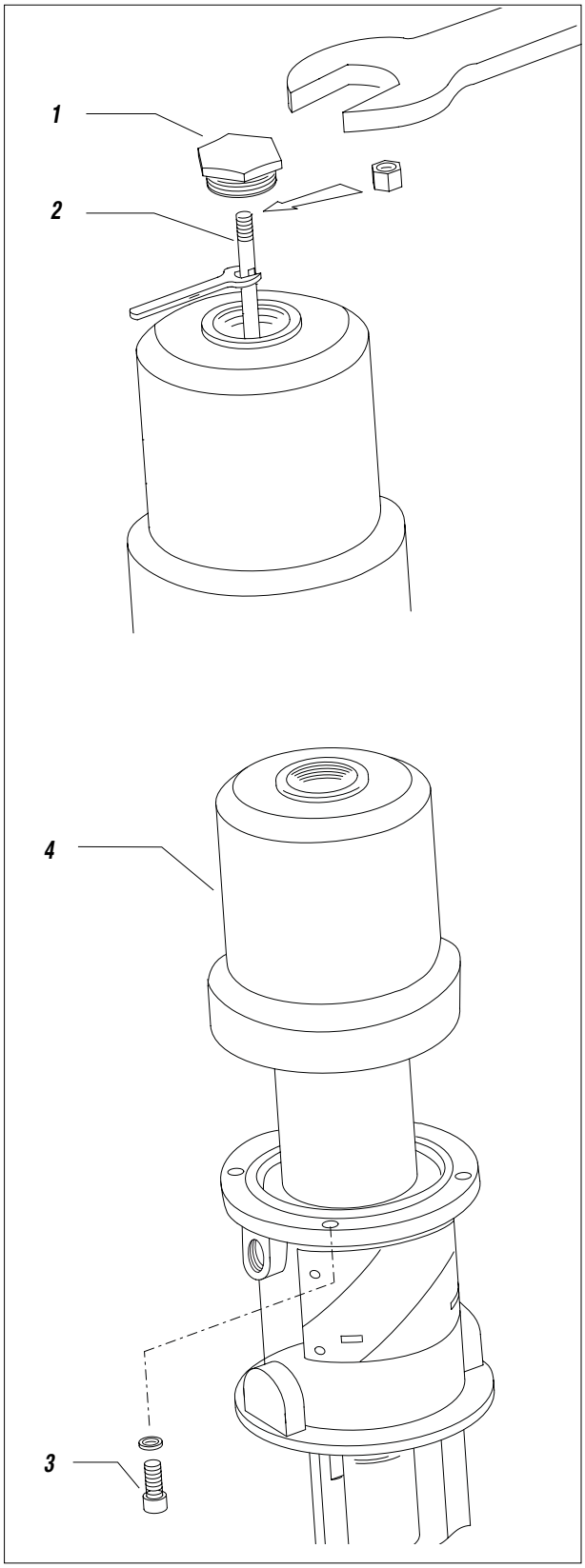


Fig. 1

- Check the condition of every part of the motor.
- For any replacement of the screws (**5**) of the crosspiece (**6**), for their reassembly and correct adjustment see the drawing below and the exploded view on page 16.

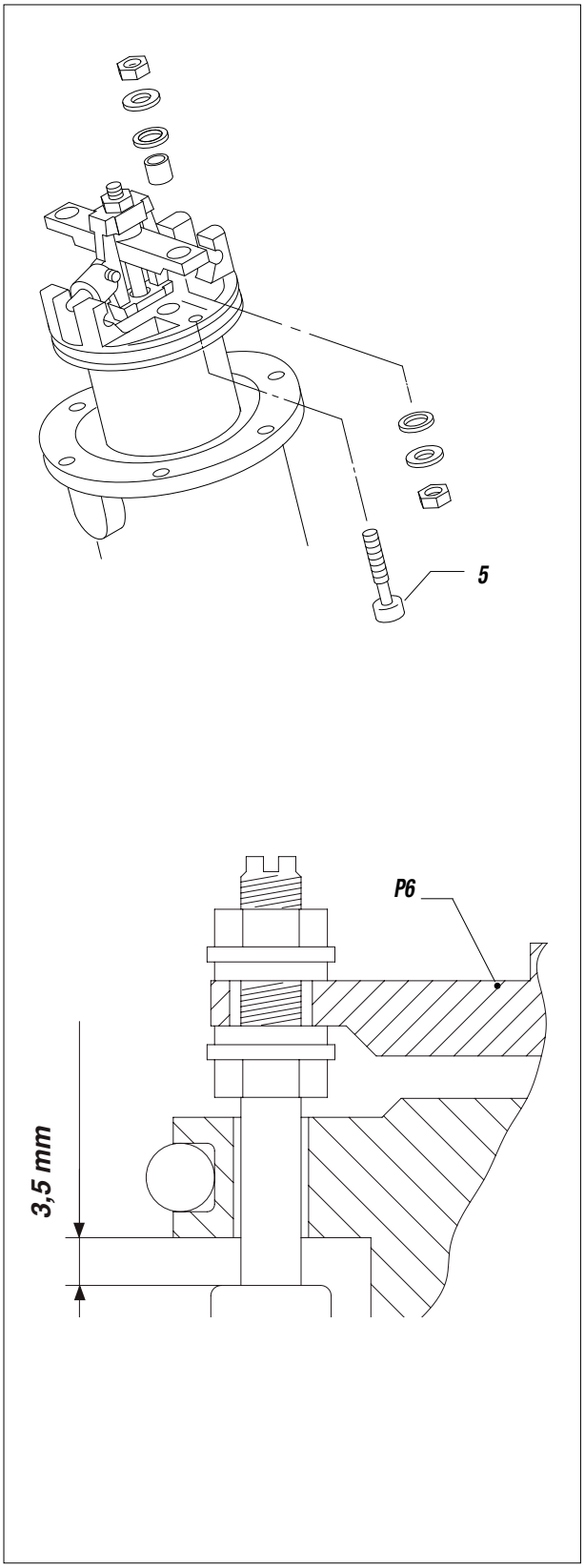


Fig. 2

Q DISASSEMBLY OF THE SUCTION VALVE

Close the compressed air supply to the pump and release the residual pressure in the plant.

- Lift the pump from the fluid tank.
- Unscrew the suction valve.
- Remove the stop ball pin (**1**) and the ball (**2**). Check that ball housing and ball are not ruined: then clean and/or replace the parts.
- Insert again the ball and the stop ball pin. Adjust the ball stroke according to the type of product being used. For thick products, the maximum of the stroke (*place the stop ball pin in connection with the upper holes of the suction valve*). For very fluid products, the contrary.

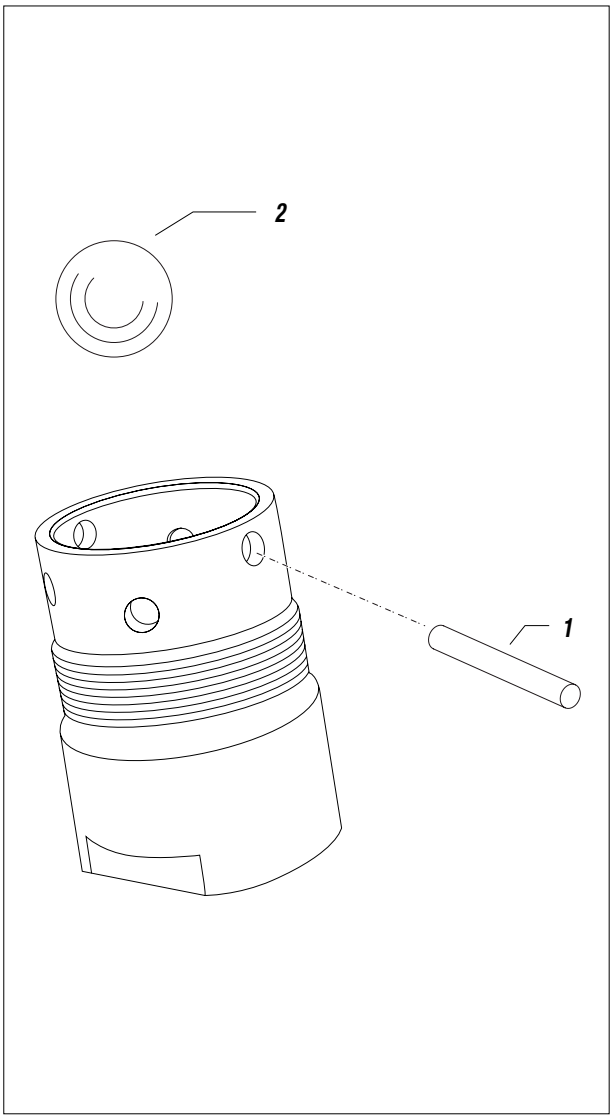


Fig. 1

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R REPLACEMENT OF THE LOWER GASKETS

Close the compressed air supply to the pump and release the residual pressure in the plant.

- Unscrew and remove the fluid cylinder (**1**).
- Hold the bush (**2**) with a wrench and with the other wrench unscrew the fitting (**3**).
- Exctract the necessary lower gaskets (**4**), supplied as spare parts.
- For the reassembling of the gaskets, respect the order as shown in the drawing.

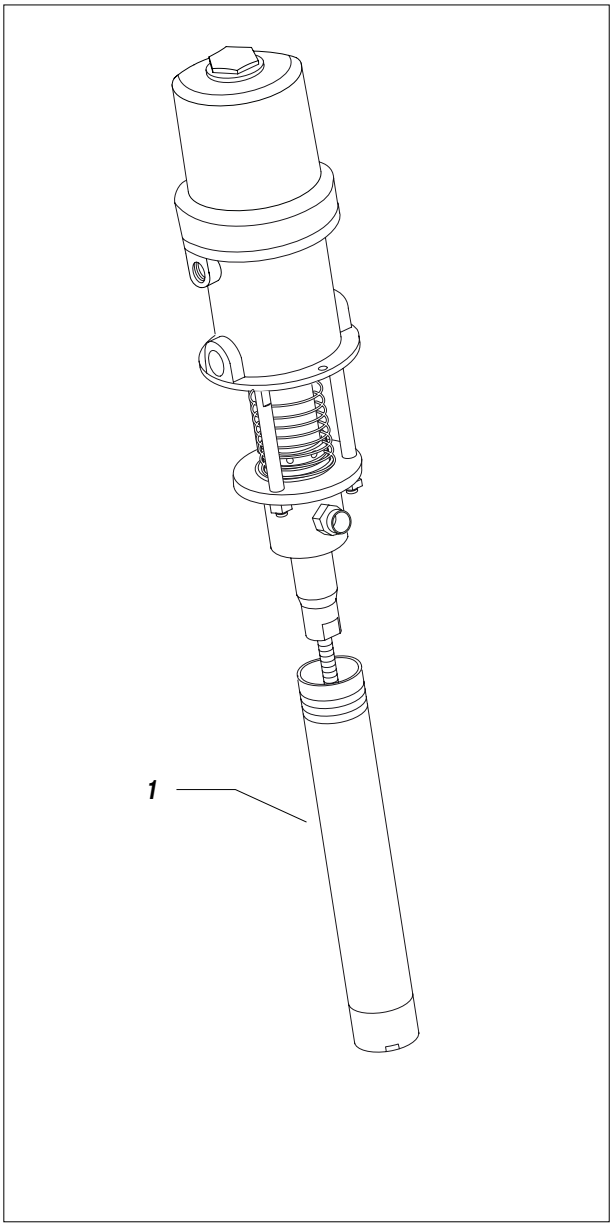

Fig. 1

- Carefully screw again the fluid cylinder (*it is suggested to lay a slight film of vaseline grease on the internal walls of the fluid cylinder*).

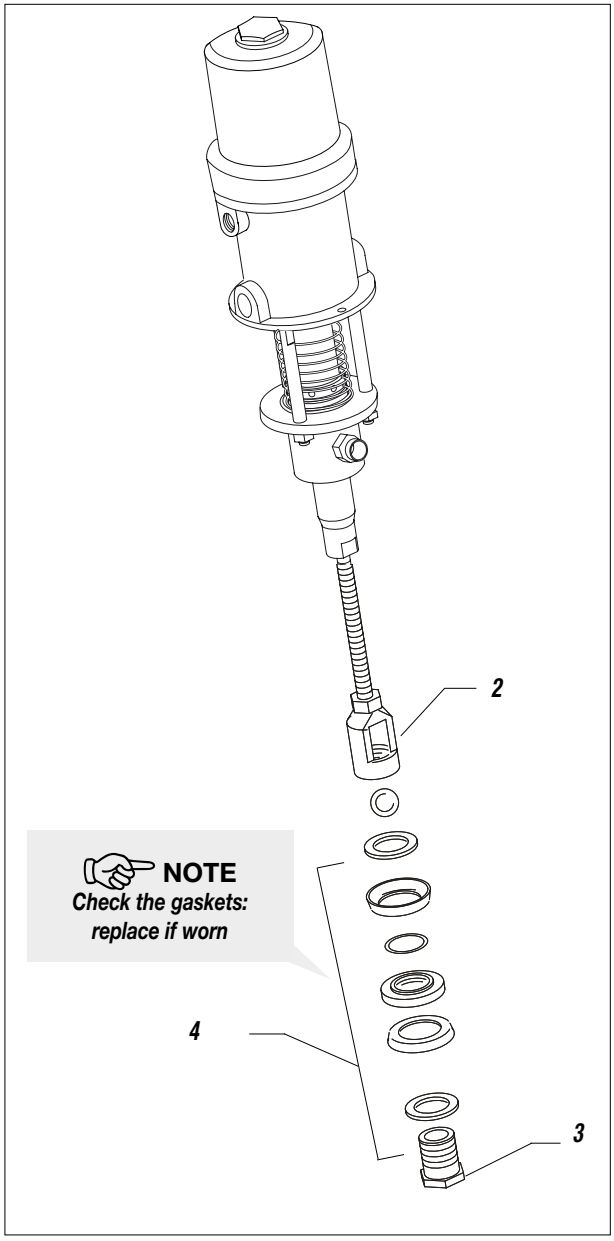

Fig. 2

S REPLACEMENT OF THE UPPER GASKETS

Close the compressed air supply to the pump and release the residual pressure in the plant.

- Unscrew and extract the fluid cyclinder (**1**).
- Unscrew the three nuts (**2**).
- Remove the split pin (**3**) and unscrew the piston rod from the pneumatic motor. Disconnect the pumping group from the pneumatic motor.

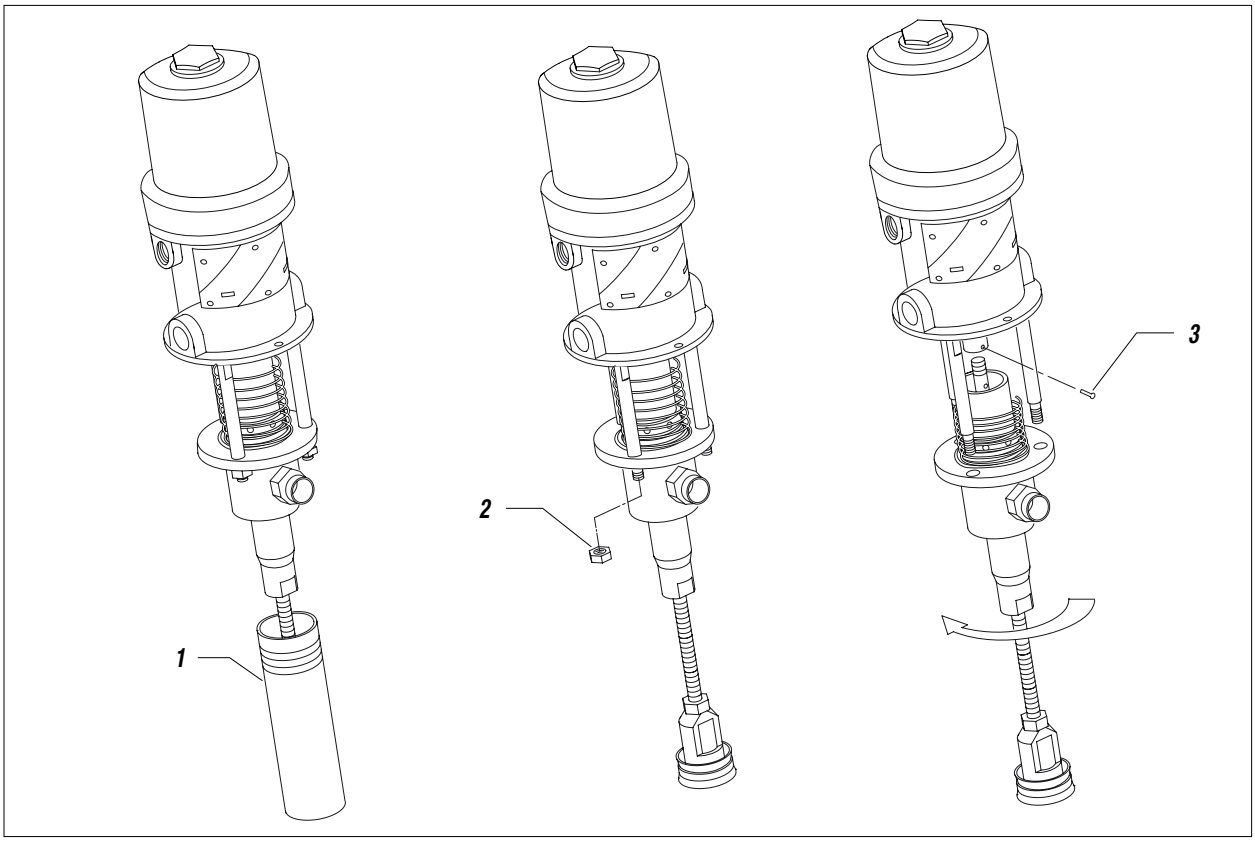

Fig. 1

- Extract the piston rod from the housing.
- Unscrew the packing nut (**4**) (*use a metal rod with an internal diameter of 6 mm*).
- Remove the gaskets and packing glands.
- For the correct reassembling of the gaskets see the illustration below and the exploded view on page 18.

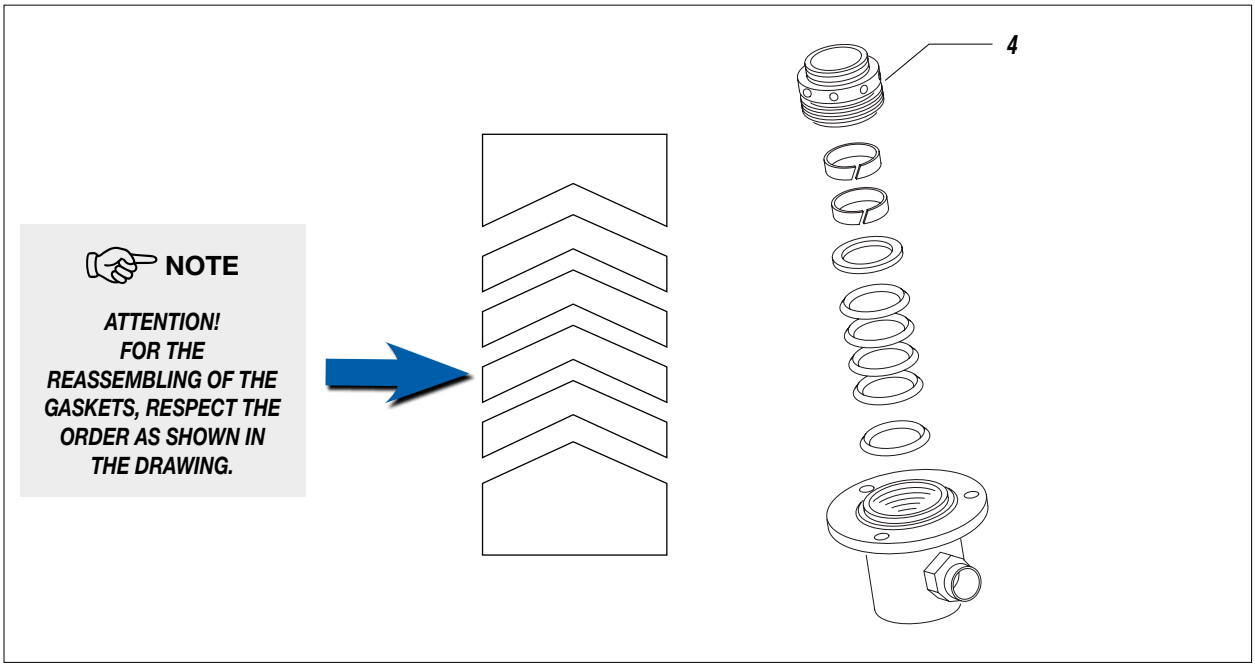

Fig. 2

Tighten the packing nut only after inserting again the piston rod into the housing (*it is suggested to insert the piston rod from the top to avoid to ruin the gaskets*).

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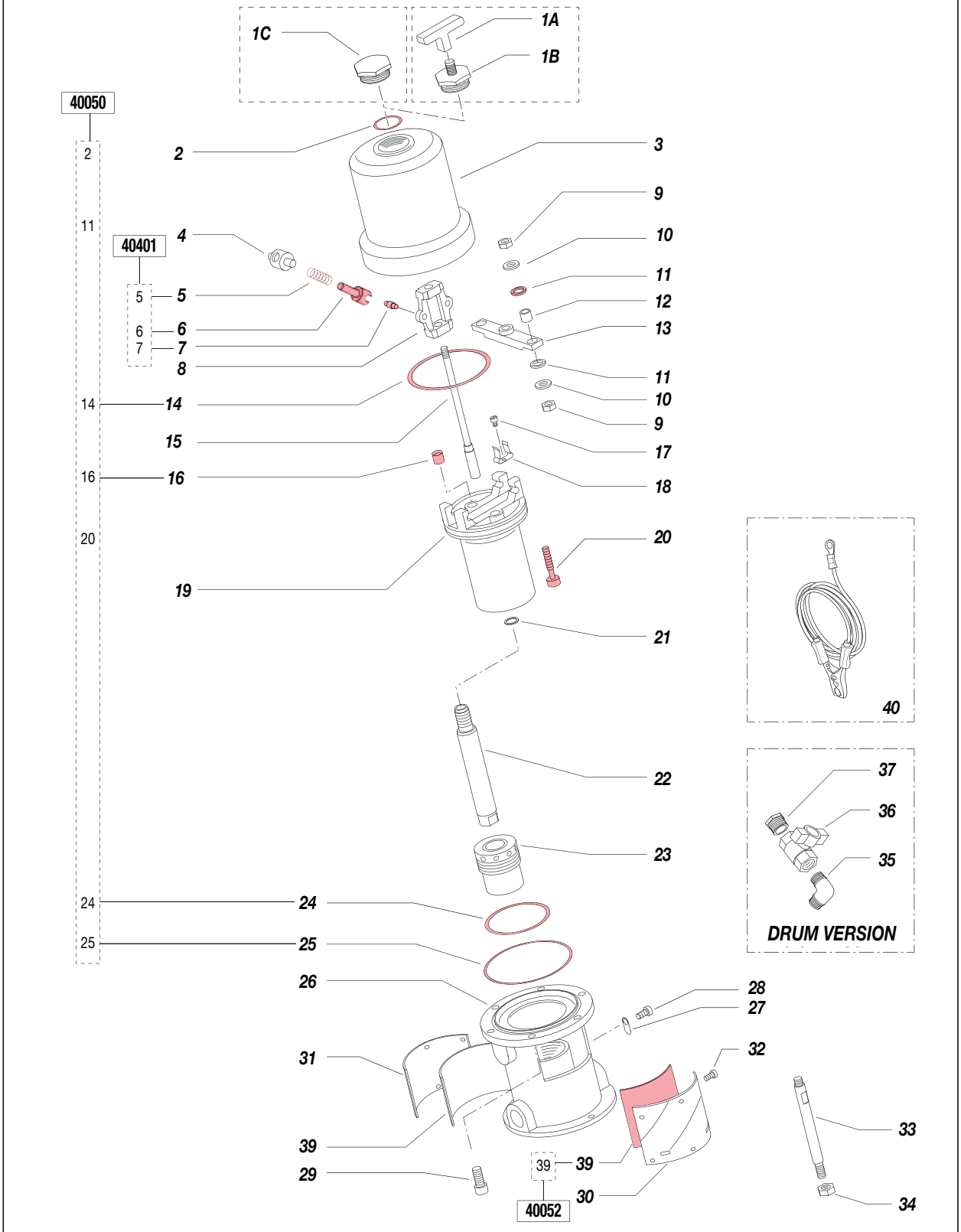
T SPARE PARTS - COMPLETE PNEUMATIC MOTOR

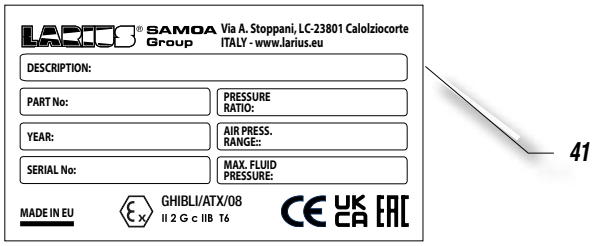
WARNING: always indicate code and quantity for every part required.



REV. 03 - 01/2024 - Cod. 150186

Pos.	Code	Descripcion	Q. ty
	96663	**Complete motor - trolley version**	
	96663/1	**Complete motor - wall version**	
	96669	**Complete motor - drum version**	
1A	91602	Handle - drum version	1
1B	391602	Handle plug - drum version	1
1C	96001	Plug - Trplley/wall version	1
2	95075	O-Ring	1
3	96003	Motor cylinder	1
4	96005	Roller	2
5	96006	Spring	2
6	96007	Fork	2
7	96024	Fork pin	2
8	96008	Rocker	1
9	4108	Nut M8	4
10	32024	Washer	4
11	96111	Crossbar washer	4
12	96112	Bush	2
13	96110	Traverse	1
14	96012	O-Ring	1
15	96010	Guiding rod	1
16	96009	Rubber valve	2
17	96025	Screw M4	2
18	96011	Traverse guide spring	2

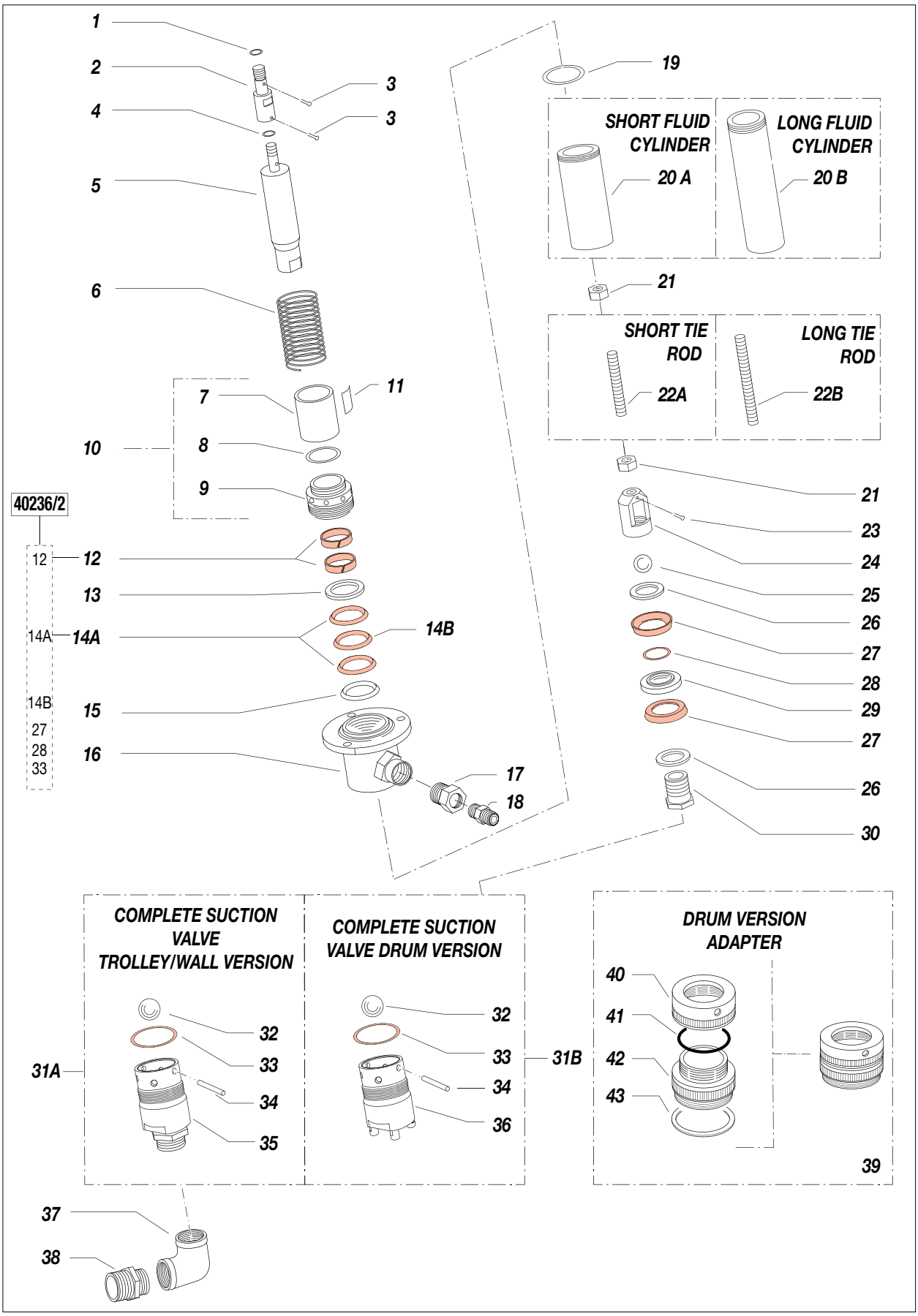
Pos.	Code	Descripcion	Q. ty
19	96013	Motor piston	1
20	96027	Complete valve screw	2
21	33031	Washer	1
22	96016	Piston rod	1
23	96017	Complete bush	1
24	96020	O-Ring	1
25	96018	O-Ring	1
26	96021	Motor support	1
27	96210	Ground plate	1
28	96211	Screw M6	2
29	96031	Screw M8	6
30	96022	Front name plate	1
31	96609	Back name plate	1
32	56444	Screw M4	12
33	96072	Tie rod	3
34	96080	Nut M10	3
35	96213	Elbow - drum version	1
36	96253	Valve - drum version	1
37	96261	Reduction - drum version	1
38	8045	Cut attention plate	1
39	96022/1	Felt seal	2
40	5010	Grounding cable	1
41	19556	Label	1



Cod. kit	Position	Description
40050	2, 4x (11), 14, 2x(16), 2x (20), 24, 25	Motor gasket kit
40401	2x (5), 2x (6), 2x (7)	Motor movement inversion device kit
40052	2x (39)	Felt gasket kit

U SPARE PARTS - COMPLETE PUMPING GROUP - SPLIT ST. STEEL

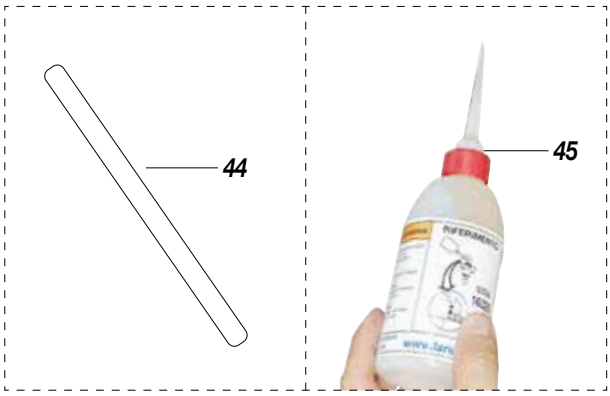
WARNING: always indicate code and quantity for every part required.



Pos.	Codice	Descrizione	Q.tà
	98051/3	**Short - pumping group - trolley/wall version**	
	98050/1	**Long- pumping group - drum version**	
1	96073	O-Ring	1
2	96670	Pin	1
3	3323	Split pin	2
4	91008	O-Ring	1
5	98010	Piston rod	1
7	96023	Finger protection spring	1
8	91001/1	Oil tank	1
7	3429	O-Ring	1
9	91371/2	Tank ring nut	1
10	91371	Packing nut	1
11	96233	'Oil' label	1
12	91372	PTFE ring	2
13	98018	Female V ring	1
14A	91375	Gasket	1
14B	91378	Gasket	2
15	98011	Male V ring	1
16	98012	Gaskets housing	1
17	3558/1	Nipple	1
18	6149	Nipple	1
19	91380	Gasket	1
20A	98021	Short fluid cylinder - Trolley/wall version	1
20B	98019	Long fluid cylinder - drum version	1
21	3806	Nut M12	2

Pos.	Codice	Descrizione	Q.tà
22A	98061	Short tie rod - Trolley/wall version	1
22B	98060	Long tie rod - drum version	1
23	3805	Split pin - Trolley/wall version	1
24	98005	Bush	1
25	95021	Ball Ø 7/8"	1
26	98006	Washer	2
27	91386	Poliuretan gaskets	2
28	91338	O-Ring	1
29	98008	Ring	1
30	98009	Fitting	1
31A	98032	Complete 3/4" suction valve- Trolley/wall version	1
31B	98016	Complete suction valve- Drum version	1
32	95027	Ball Ø 1.1/4"	1
33	3397	O-Ring	1
34	98023	Stop ball pin	1
35	98029	Suction valve - Trolley/wall version	1
36	98027	Suction valve - Drum version	1
37	98374	Elbow	1
38	8373/1	Nipple	1
39	3470	Drum version adapter	1
40	3472	Ring nut	1
41	3464	Gasket	1
42	3473	Fitting	1
43	3461	Ring	1

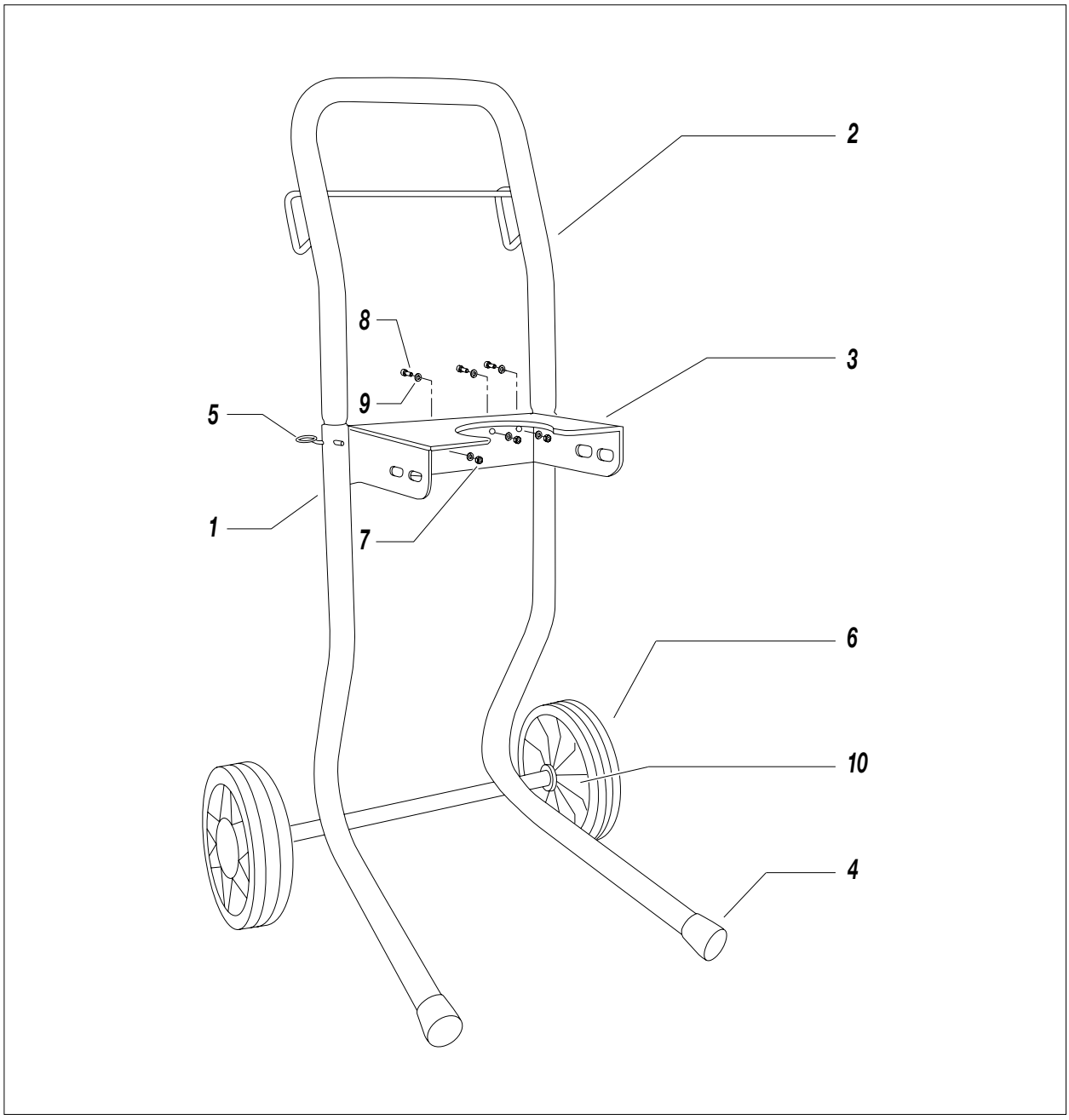
Pos.	Code	Descripcion	Q. ty
44	16135	Adjustment pin	1
45	16340	Oil bottle	1



Cod. kit	Position	Description
40236/2	2x (12), 1x (12A), 2x (14B), 2x (27), 28, 33	Gasket kit

V SPARE PARTS - COMPLETE TROLLEY

WARNING: Always indicate code and quantity for each part required.

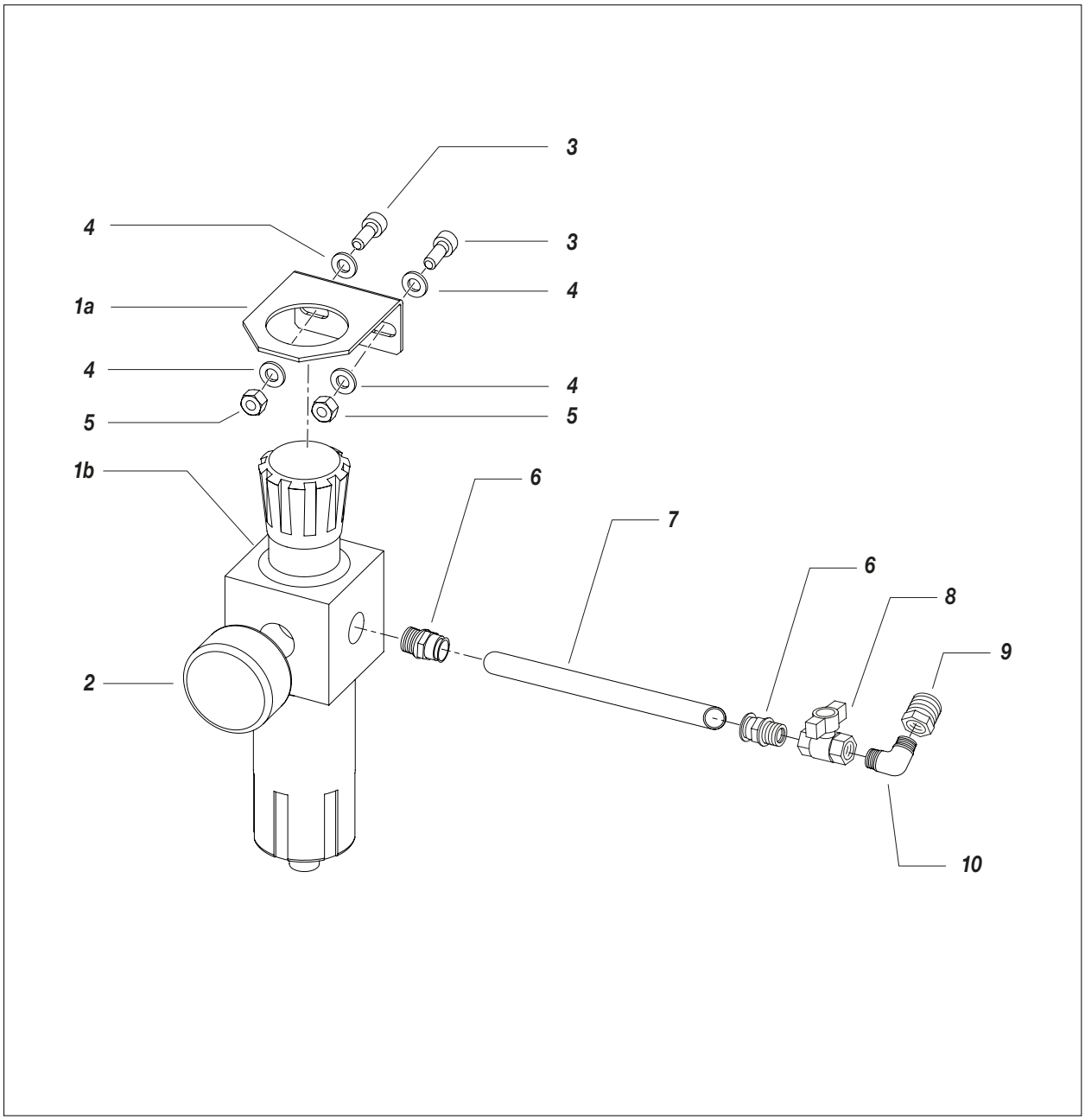


Pos.	Code	Description	Q.ty
	96320/3	**Complete trolley**	
1	16272/2	Trolley	1
2	16271/2	Trolley handle	1
3	16954/2	Stainless steel fixing plate	1
4	37403	Leg	2
5	84007	Split pin	2

Pos.	Code	Description	Q.ty
6	91023	Wheel	2
7	91026	Nut	3
8	8029	Screw	3
9	95063	Washer	4
10	91047	Fixator	6

W SPARE PARTS - AIR GROUP - TROLLEY VERSION

WARNING: Always indicate code and quantity for each part required.

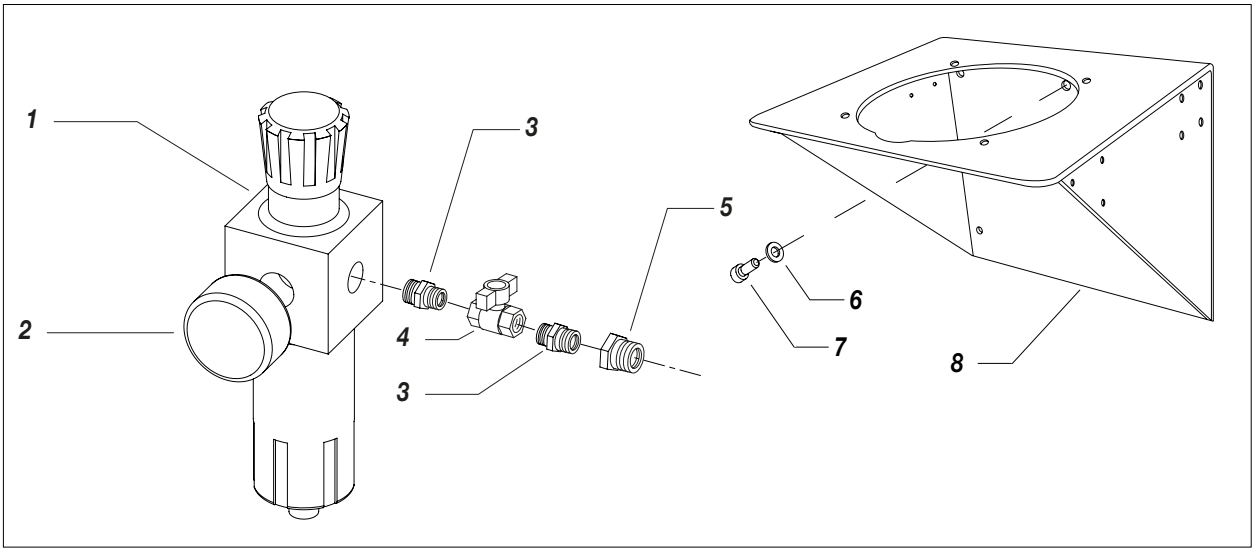


Pos.	Code	Description	Q.ty
	96250	**Air group complete**	
1a+1b	91107	Regulator	1
2	96259	Manometer	1
3	8029	Screw TCE UNI 5931 M6x22	2
4	95063	Washer	4
5	91026	Nut UNI 5588 M6	2

Pos.	Code	Description	Q.ty
6	96215	Quick coupling	2
7	96217	Pneumatic supply hose	1
8	91101	Valve	1
9	96261	Reducion	1
10	96214	Elbow	1

X SPARE PARTS - AIR GROUP - WALL VERSION

WARNING: Always indicate code and quantity for each part required.



Pos.	Code	Description	Q.ty
	96250/1	**Air group complete**	
	91200/1	**Wall support complete**	
1	91107	Regulator	1
2	96259	Manometer	1
3	91020	Nipple	2

Pos.	Code	Description	Q.ty
4	91101	Valve	1
5	96261	Reduction M-F 1/2"-3/8"	1
6	95063	Washer	3
7	54004	Screw TCE UNI5931 M6X16	3
8	96038	Wall support	1

Y ACCESSORIES

Code	Description
70008	Gun with 170 cm extension with fitting BSPP 3/8"
18072/1	Hose 15 mt with fitting BSPP 1"
70150	Stainless steel suction filter 200 lt with fitting BSPP 1"
6149/2	Nipple MM with fitting BSPP 3/8"
65016	Double outlet kit with fitting BSPP 3/8"
98245	Suction tube for tank 30 lt with fitting BSPP 1"
98246	Suction tube for tank 1000 lt with fitting BSPP 1"

Z ATEX CERTIFICATION

These safety instructions refer to the installation, use and maintenance of ***GHIBLI*** series pneumatic piston transfer pumps in high risk environments where potentially explosive gasses or vapours are present.

These instructions, along with the indications provided in the user and maintenance manual, must be fully respected.

The Ghibli series pneumatic piston pumps are group ii mechanical devices for use in areas where gasses classified as iib (category 2 g) are present. They are designed and built in accordance with the 94/9/ec atex directive, based on the following european standards: en 1127-1, en 13463-1ed en 13463-5.

MARKINGS

CE ⟨Ex⟩ II 2 G c IIB T6 T_{amb}: -20°C ÷ + 60°C $T_{max.}$ fluid: 90°C Tech. File: GHIBLI/ATX/08

II =	Group II (surfaces)
2 =	Category 2 (zone 1)
G =	Explosive atmosphere containing gasses, vapours or mists
c =	Design safety "c"
T6 =	Temperature class T6
- 20°C ÷ + 60°C	Room temperature
90°C	Maximum process fluid temperature
xxxx/AA	Serial number or lot number (xxxxx = PROGRESSIVE / year = AA)

NOTE

**** Fluid temperature can be 90° maximum only with water or water based products***

Correspondence between hazardous areas, substances and categories

HAZARDOUS AREAS		CATEGORIES ACCORDING TO THE 94/9/CE DIRECTIVE
Gasses, vapours or mists	Zone 0	1G
Gasses, vapours or mists	Zone 1	2G or 1G
Gasses, vapours or mists	Zone 2	3G, 2G or 1G

SAFETY INSTRUCTIONS FOR INSTALLATION IN HAZARDOUS AREAS

Read the indications provided in the user and maintenance manual carefully prior to installation. All of the maintenance operations must be performed according to the indications provided in the manual.

- The grounding wire for the pumps indicated above must be grounded using an appropriate anti-loosening connection.
- The tubes used to connect the delivery and suction lines must be either metallic, plastic with metallic braid, or plastic with fabric braid and a suitable grounding conductor.
- The pumps must be installed on properly grounded metallic or antistatic drums.
- The gases or vapours of any flammable liquids present must belong to group IIB.
- Based on the type of use and the substances employed, the user must periodically check for any encrustations and must verify the cleanliness, the wear status and the correct functionality of the pump on a regular basis.
- The user must periodically clean the suction filter in order to prevent any solid materials from entering the pump. The air used to power the pump must be filtered and must come from a SAFE AREA.

GHIBLI series pneumatic piston transfer pump cannot work without material.
All of the installation and maintenance operations must be performed by qualified personnel.

DECLARATION OF CONFORMITY

We Larius S.r.l.
Via Stoppani, 21
23801 Calolziocorte (LC)

declare under our sole responsability that the product:
GHIBLI series pneumatic piston transfer pump.
to which this declaration relates complies with the following directives:

- Directive 94/9/EC (ATEX)

The conformity are under observance of the following standards or standards documents:

- EN 1127-1
- EN 13463-1
- EN 13463-5

Markings

CE ⟨Ex⟩ II 2 G c IIB T6 Tamb.: - 20°C ÷ 60°C Tmax. fluido (acqua): 90°C*

Tech. File:: **GHIBLI/ATX/08**
Technical dossier kept on file c/o: **INERIS (0080)**

Calolziocorte- LC, 15/12/2008

Signature (LARIUS)

**** water or water based product***

INERIS

Appareil non électrique destiné à être utilisé en atmosphères explosibles
Non electrical equipment intended for use in potentially explosive atmospheres
Apparecchi destinati ad essere utilizzati in atmosfera potenzialmente esplosiva

Directive 2014/34/UE
Directive 2014/34/EU / Direttiva 2014/34/UE

ACCUSÉ DE RECEPTION D'UN DOSSIER TECHNIQUE
ACKNOWLEDGE RECEIPT OF TECHNICAL DOCUMENTATION
AVVISO DI RICEVIMENTO DEL FASCICOLO TECNICO

Appareil / Equipment / Apparecchiatura :

PNEUMATIC TRANSFER & EXTRUSION PUMPS

Type(s)/ Type(s) / Tipo(i) : **Series GHIBLI**

Marquage/ Marking / Marcatura : Ex II 2G

Dépositaire / Applicant / Richiedente : **LARIUS S.r.l.**
Via Stoppani, 21

I- 23801 Calziocorte (LC)

L'INERIS, organisme notifié et identifié sous le numéro 0080, conformément aux articles 17 et 21 de la Directive du Conseil 2014/34/UE du 26 février 2014, accuse réception du dossier conformément à la procédure décrite au chapitre 3, article 13 1) b) ii) de la Directive.

INERIS, notified body and identified under number 0080, in accordance with articles 17 and 21 of Council Directive 2014/34/EU of the 26 february 2014, acknowledges receipt of file according to the procedure described chapiter 3, article 13 1) b) ii) of the Directive.

L'INERIS, organismo notificato e identificato con il n.0080 conformemente agli articoli 17 e 21 della Direttiva 2014/34/UE del Consiglio dell'Unione Europea del 26 febbraio 2014, conferma il ricevimento del fascicolo in conformita alla procedura prevista nella rubrica 3, articolo 13 1) b) ii) della Direttiva.

La documentation technique référencée : GHIBLI/ATX/08 dated 2008-12-15
est consignée sous le numéro d'enregistrement :
n° INERIS-EQEN 021761/19.
Dans le cadre de cet enregistrement, l'INERIS n'a pas examiné le contenu de la documentation technique.

The technical documentation referenced : GHIBLI/ATX/08 dated 2008-12-15
is consigned under the reference :
no INERIS-EQEN 021761/19.
Within the scope of the recording, INERIS did not examine the contain of the technical documentation.

La documentazione tecnica di riferimento : GHIBLI/ATX/08 dated 2008-12-15
è depositata con il numero di registrazione :
n° INERIS-EQEN 021761/19.
Nel quadro di questa registrazione, INERIS non ha examinato il contenuto della documentazione tecnica.

Date de fin de validité : **2029.03.11**

Validity completion date : **2029.03.11**

Data di fine di validità : **2029.03.11**

Verneuil-en-Halatte, le 2019.03.11

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

Le Directeur Général de l'INERIS, Par délégation,
Thierry HOUEIX
Délégué Certification ATEX
Ex Certification Officer

The Chief Executive Officer of INERIS, By delegation,

Il Direttore generale dell' INERIS, Per Delega,

IM-1-423AB - Mise en application : 20/04/2016

Parc Technologique Alata BP 2 F-60550 Verneuil-en-Halatte
tél +33(0)3 44 55 66 77 fax +33(0)3 44 55 66 99 internet www.ineris.fr
Institut national de l'environnement industriel et des risques
Etablissement public à caractère industriel et commercial - RCS Compiègne B 381 984 924 - Siret 381 984 921 00019 - APE 71206 - TVA Intracom FR 73 381 984 921

CE DECLARATION OF CONFORMITY

Company

LARIUS srl
Via Antonio Stoppani 21 - 23801 Calolziocorte (LC) ITALY
Tel: +39 0341 621152
Fax: +39 0341 621243

E-mail: larius@larius.com

Declares under his owns resonsibility that the product:

GHIBLI 10:1 PNEUMATIC WASHING PUMP
Pneumatic airless pump

complies with the directives:	**- EC Directive 2006/42 Machinery Directive**
furthermore to the harmonized standards:	**- UNI EN ISO 12100-1/-2** **Machinery safety, basic concepts, general principles of design. Basic terminology, methodology. Technical principles.**

This declaration relates exclusevely to the product in the state in which it was placed on the market, and excludes components or modifications which are added or carried out subsequently by end user.

Signature

Calolziocorte, 19 January 2024
Location / Date

Pierangelo Castagna
Managing Director

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OPERATING AND MAINTENAINCE MANUAL AVAILABLE IN:		
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	EN	https://www.larius.com/wp-content/uploads/GHIBLI_10_1WASH_PUMP_UK.pdf
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