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EXTRUSION

SIRIO 22:1

Pneumatic pump



99805 SIRIO 22:1 Extrusion pump, long

99807 SIRIO 22:1 Extrusion pump, short



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.

SIRIO 22:1

Pneumatic pump

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**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.

	<ul style="list-style-type: none"> • 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.
	<ul style="list-style-type: none"> • It indicates an accident risk or serious damage to equipment if this warning is not followed.
   	<p>FIRE AND EXPLOSION HAZARD</p> <ul style="list-style-type: none"> • Solvent and paint fumes in work area can ignite or explode. • To help prevent fire and explosion: <ul style="list-style-type: none"> - 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.
	<ul style="list-style-type: none"> • It indicates wound and finger squashing risk due to movable parts in the equipment. • Tenersi lontano dalle parti in movimento. • 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.
 	<ul style="list-style-type: none"> • 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.
	<ul style="list-style-type: none"> • It indicates important recommendations about disposal and recycling process of products in accordance with the environmental regulations.
     	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> - (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.
   	<ul style="list-style-type: none"> • 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 TRANSPORT AND UNPACKING

- Observe the orientation of the packaging indicated externally by inscriptions or symbols
- Before installing the equipment to prepare a suitable environment with the space that you need the proper lighting clean, smooth flooring
- All unloading and handling of the equipment are covered by the user must be very careful to avoid injury or damage to the equipment.

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 individual protection.

- The manufacturer declines any responsibility concerning the unloading and transport of the equipment at the workplace
- Verify the integrity of the package upon receipt, remove the unit from the packaging and check that it has not been damaged during transport

If any part is broken, contact the MANUFACTURER and shipping agency. The deadline for submissions is corruption of 8 days from the date of receipt of the equipment. The communication must be made by registered letter with return receipt up to the MANUFACTURER and transport operator within.



The customer is in charge of the disposal of packaging materials which 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.

C 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.

D SAFETY REGULATIONS



Read carefully the following before using the product. Keep these instructions.



Unauthorized tampering or replacement of one or more parts composing the equipment, accessories, tools, materials other than those recommended by the manufacturer, may pose risk of injury and raise the manufacturer from civil 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 APPLICABLE) NEVER POINT THE SPRAY GUN AT YOURSELVES OR AT OTHER PEOPLE. THE CONTACT WITH THE CASTING CAN CAUSE SERIOUS INJURIES. IN CASE OF INJURIES CAUSED BY THE GUN CASTING, SEEK IMMEDIATE MEDICAL ADVICE SPECIFYING THE TYPE OF THE PRODUCT INJECTED. NEVER UNDERVALUE A WOUND CAUSED BY THE INJECTION OF A FLUID.
- ALWAYS DISCONNECT THE SUPPLY AND 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.
- TIGHTEN AND CHECK ALL THE FITTINGS FOR CONNECTION BETWEEN PUMP, FLEXIBLE HOSE AND SPRAY GUN BEFORE USING THE EQUIPMENT (IF APPLICABLE).
- 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.

Never spray over flammable products or solvents in closed places.

Never use the tooling in presence of potentially explosive gas.



Always check that the product is compatible with the materials composing the equipment (pump, spray gun, flexible hose and accessories) with which it can come into contact. Never use paints or solvents containing Halogen Hydrocarbons (as the Methylene Chloride). If these products come into contact with aluminium parts can provoke dangerous chemical reactions with risk of corrosion and explosion.



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.



If the product to be used is toxic, avoid inhalation and contact by using protection gloves, goggles and proper face shields.

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

E WORKING PRINCIPLE

The **SIRIO 22:1** pump is a pneumatic pump to be used for the extrusion and transfer of high viscosity materials.

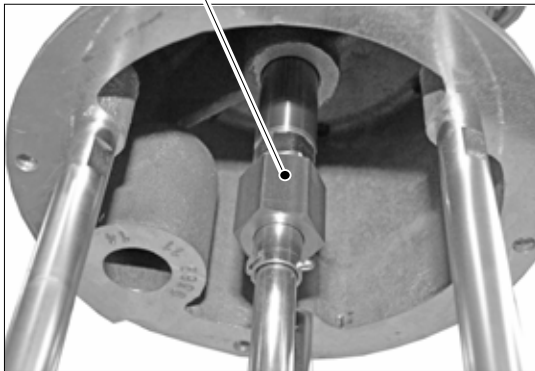
SIRIO 33:1 is essentially made up of an air motor and a structure called “material pumping group”, or simply “pumping group”.

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 pumping piston ending with a shovel plate allowing to suck very viscous products.

The 22:1 ratio indicates that the outlet pressure of the material is 22 times the pump feed air pressure.



Coupling sleeve



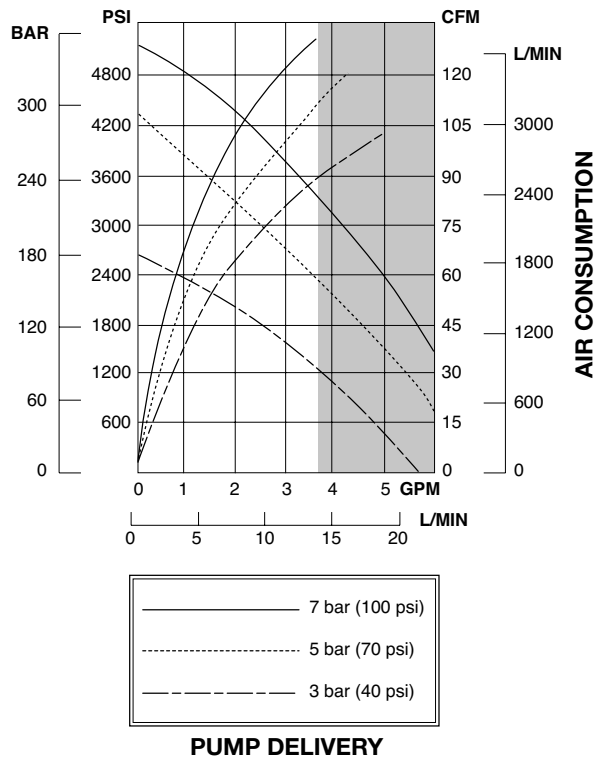
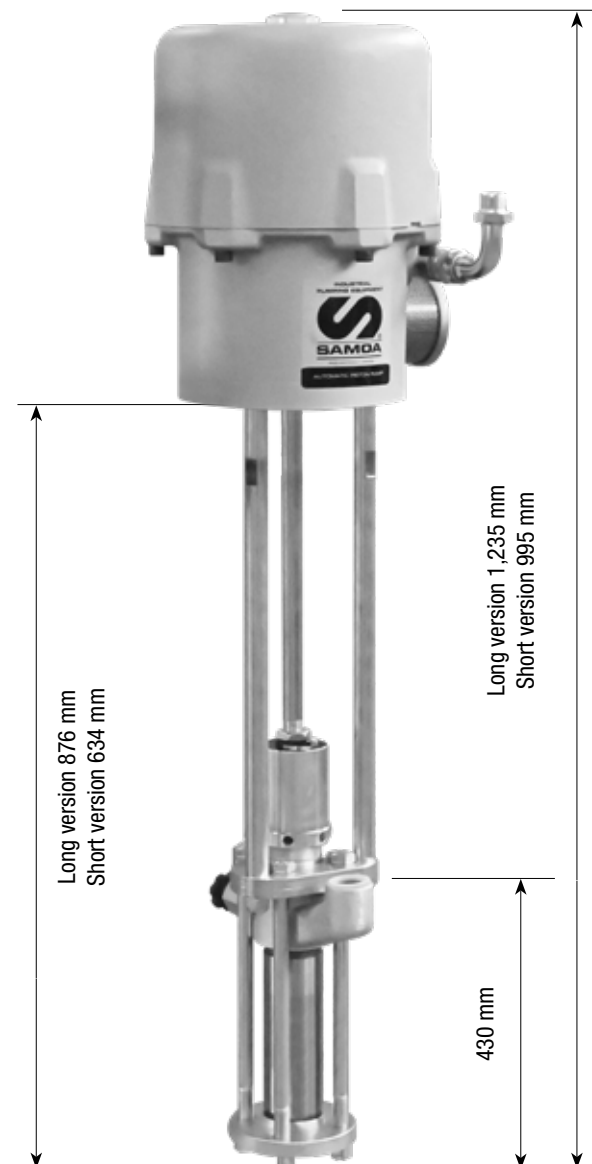
Oil cup

Seal press nut

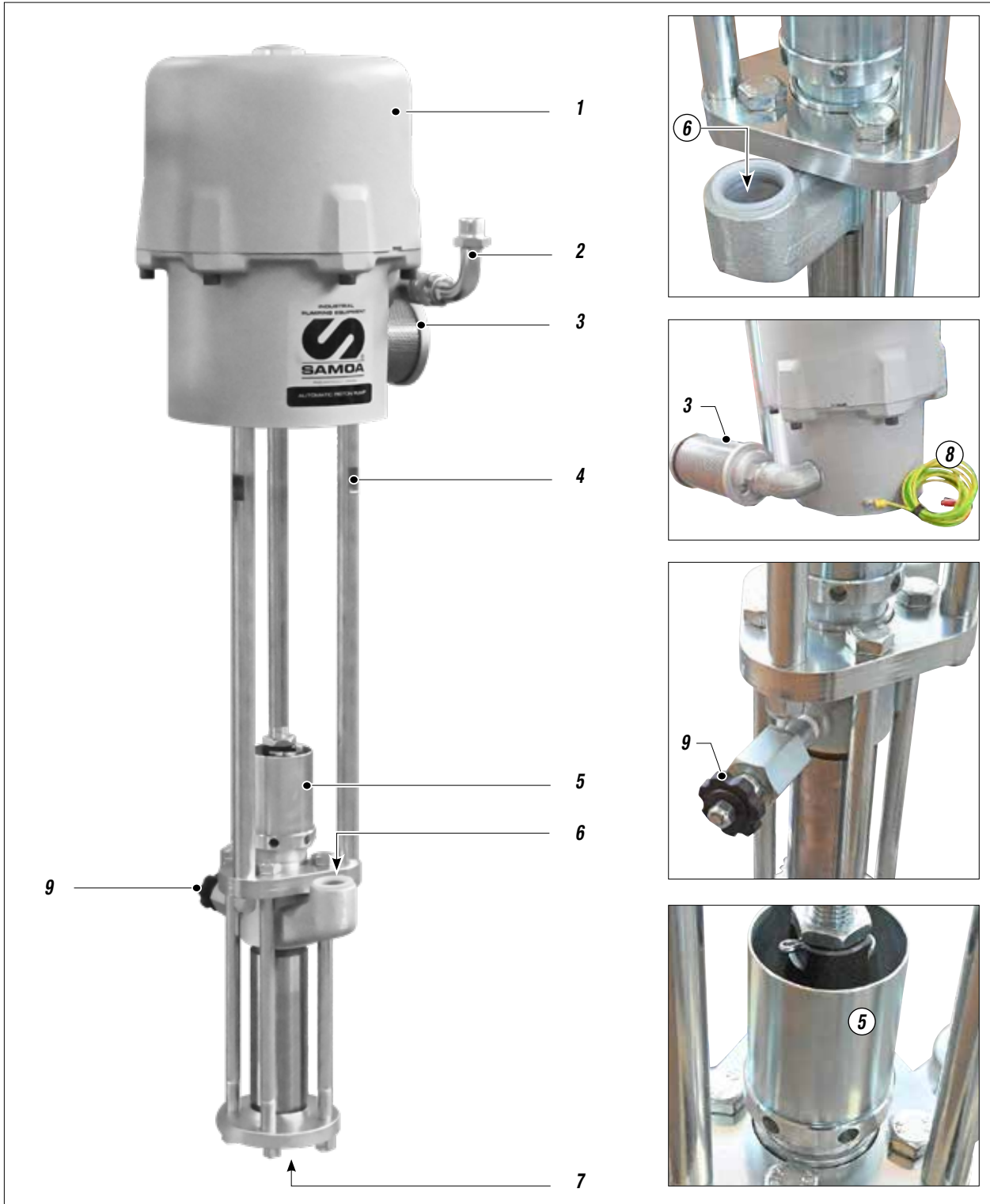
Fig. 1

F TECHNICAL DATA

SIRIO 22:1	
Pump pressure ratio	3-7 bar 40-100 psi
Maximum fluid outlet pressure	154 bar 2.233 psi
Delivery per cycle	150 cc
Air consumption at 60 cycle/min	3 bar - 760 l/min
	5 bar - 1.260 l/min
	7 bar - 1.760 l/min
Air inlet thread	3/4" BSPP (F)
Fluid outlet thread	1" BSPP (M)
Pumping material	Carbon steel
Fluid plunger material	INOX 420B
Seals material	PTFE + PE 1000
Air motor piston diameter and stroke	Ø 6 1/2" - 4"
	Ø 162 mm - 100 mm



G DESCRIPTION OF THE EQUIPMENT



Pos.	Description
1	Pneumatic pump motor
2	Air inlet
3	Filter
4	Material pumping group
5	Oil cup

Pos.	Description
6	Material release
7	Material intake
8	Grounding
9	Bleed valve

H TYPICAL INSTALLATION

The **SIRIO 22:1** pump can be installed on a pneumatic mast with shovel plate (see figure).

The ram allows to suck the product directly from the drum and also to replace quickly the drum itself. The shovel plate, fastened at the base of the pump, compresses the material ensuring a constant product flow. In addition, it protects the material not yet sucked against powder, moisture, and drying caused by contact with air.

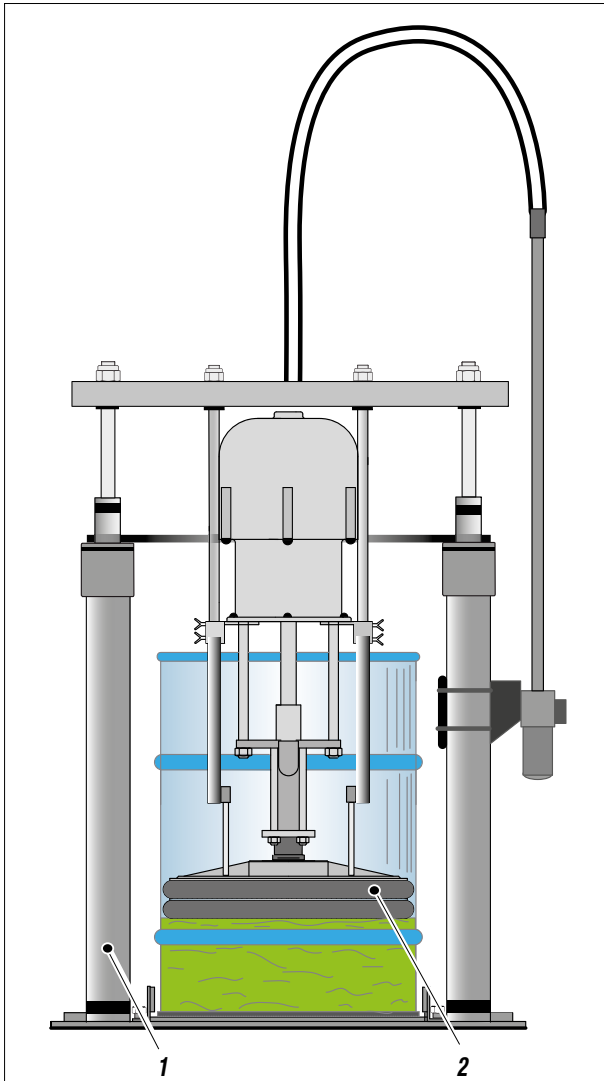


Fig. 1

Pos.	Description
1	Pneumatic mast for 200 litres drums
2	Shovel plate in cast iron complete with double gasket

I SETTING UP

FASTENING THE PUMP ON THE MAST

Please refer to the instruction manual of the pneumatic mast to fix correctly the pump on the mast

CONNECTION TO THE FEED AIR

For pump feed use a hose with an internal diameter no lower than 20 mm.



Install an air pressure regulator at the pump intake (it is recommended to equip it with condensate filter and lubricator). The outlet pressure of the material is 22 times 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 MATERIAL RELEASE HOSE

Connect the high pressure hose at the outlet of the pump. It is recommended to tighten the fittings.

J WORKING



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

- Dip the material pumping hose into the product tank (if the pump is fixed on the pneumatic mast, please follow the procedure described on pneumatic mast instruction manual).
- 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, the pump will start working and stopping. The pump will start working again any time the trigger of the spray gun is pressed or the delivery valve is open.
- The pump has been adjusted at our factory with light mineral oil and a part of it could be left inside the pumping element. Point the spray gun or the delivery valve at the tank and drain the product left inside the pump till the material to be used has come out.



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

- If long breaks are foreseen during the use of the equipment (for example the night break at the end of the working day) make sure that the product being used can be left inside the pump and the various pipes without the risk of it drying out.

If this risk does not exist, then in the event of a work break it is sufficient to interrupt the air supply to the pump and release the pressure in the circuit by acting on the delivery valve or on the pump bleed valve.

K CLEANING AT THE END OF THE WORK

“*Cleaning at the end of the work*” refers to the cleaning to be carried out in case of use with a different product or if a long period of downtime is foreseen.

- Stop the air supply to the pump.
- Dip the material pumping hose into the washing solvent tank (check its chemical compatibility with the product being used).
- Make compressed air flow into the pump. It is advisable to adjust the air pressure to minimum necessary to its continuous working.
- Point the spray gun or the delivery valve at a container and drain all the product left inside the pump until a clean solvent comes out.
- At this point, stop the air supply to the pump and drain the residual pressure.
- In case of long downtime, it is recommendable to duly suck and leave light mineral oil inside the pumping unit.



Store possible dangerous fluids in proper containers. Their disposal must be performed in accordance with the regulations in force about the industrial waste goods.

L ROUTINE MAINTENANCE



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

- Check periodically (*and every time the pump is operated after a long storage*) that the seal packing nut (2) is not loosened, causing otherwise the leaking of the product. To tighten the packing nut use the wrench supplied (1).

The packing nut (2) must be tightened so as to avoid wastes of product, but not excessively to avoid the seizure of the pumping piston and the wear of seals. In case of persistent coming out of product, replace the seals.

- Keep the oil cup (1) filled with lubricant oil (*compatible with the product used*) to avoid that the product dries on the piston rod.
- Check periodically the air supply to the pump. Make sure the air is always clean and lubricated. In case of installation of a lubricator on the air supply to the pump, it is advisable to keep the cup full of a mixture of water and antifreeze liquid (*dilution ratio 4:1*).

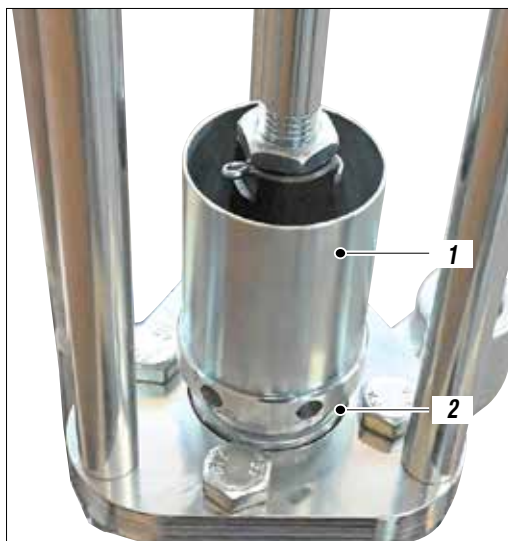


Fig. 1



Fig. 2

M DISMANTLING AND REASSEMBLING THE PNEUMATIC MOTOR

1

Necessary tools and equipment

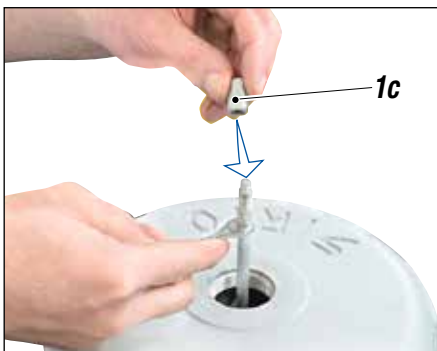
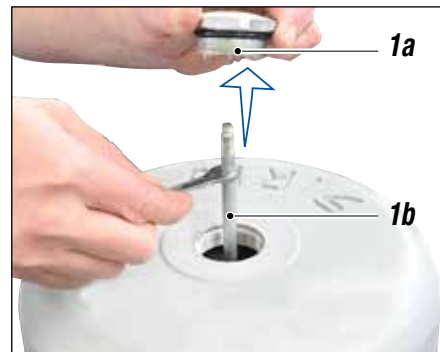


Procedure

- 1.1 Close the compressed air supply to the pump and release the residual pressure in the plant.
- 1.2 Unscrew the motor cap (1a) and pull it upwards together with the guide rod (1b);
- 1.3 Hold the guide rod (1b) with a fix wrench (1e) and remove the cap (1a).



Replace immediately the plug with a usual M8 (1c) nut before the guide rod (1b) slides into the cylinder (1d).



2

Necessary tools and equipment



Procedure

2.1 Remove the screws and the washers (**2a**).



3

Procedure

3.1 Carefully extract the motor cylinder (**3a**) from the pump.



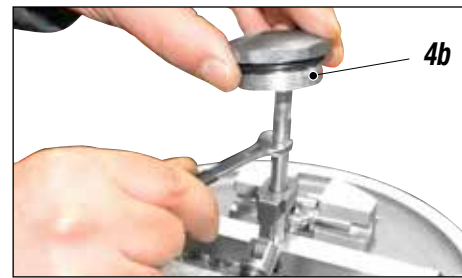
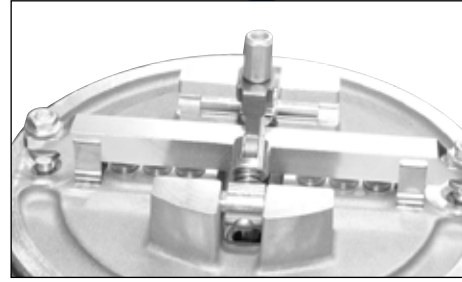
4

Necessary tools and equipment



Procedure

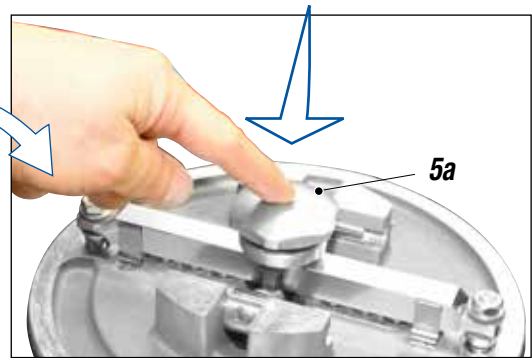
- 4.1 Unscrew the nut (4a), holding the guide rod with a 7mm wrench. Then reassemble the cap (4b).



5

Procedure

- 5.1 Press at the point (5a) to snap inside the rocker arm stud screw



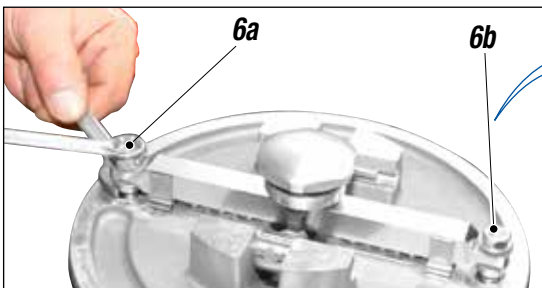
6

Necessary tools and equipment



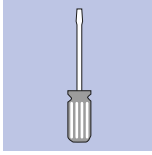
Procedure

- 6.1 Unscrew and remove the two screws (6a) and (6b) with 2 13mm wrenches as shown in figure



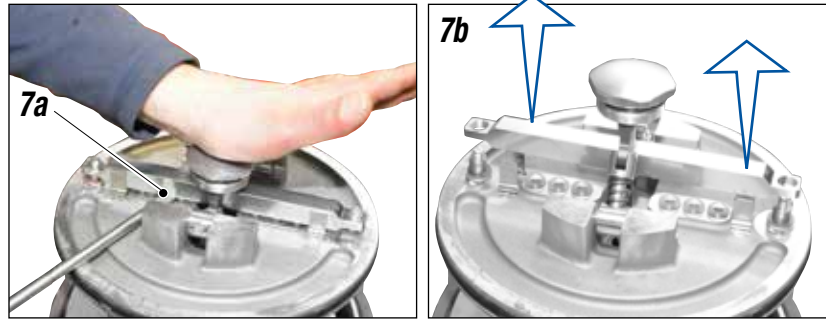
7

Necessary tools and equipment



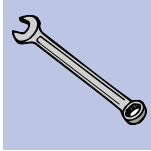
Procedure

7.1 Use a screwdriver to lever the lower part of the stud screw (7a), keeping a hand over the cap to accompany it (7b).



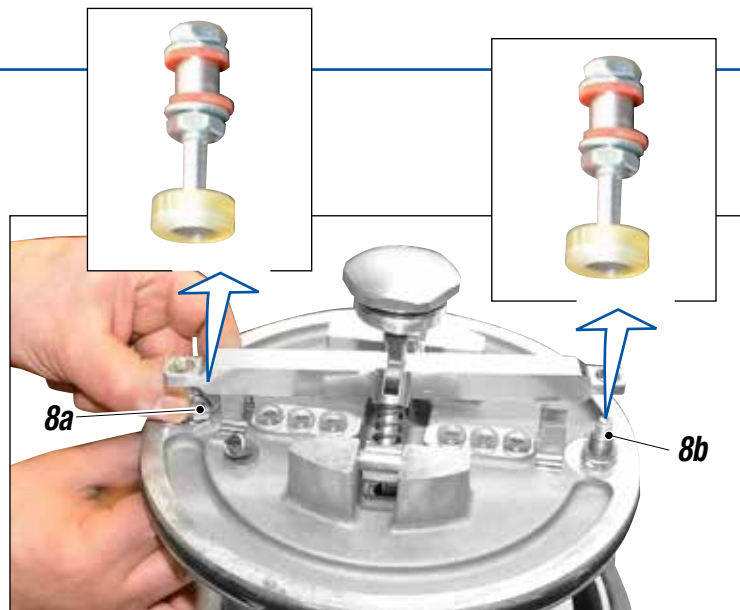
8

Necessary tools and equipment



Procedure

8.1 Remove the two valve screws (8a, 8b)



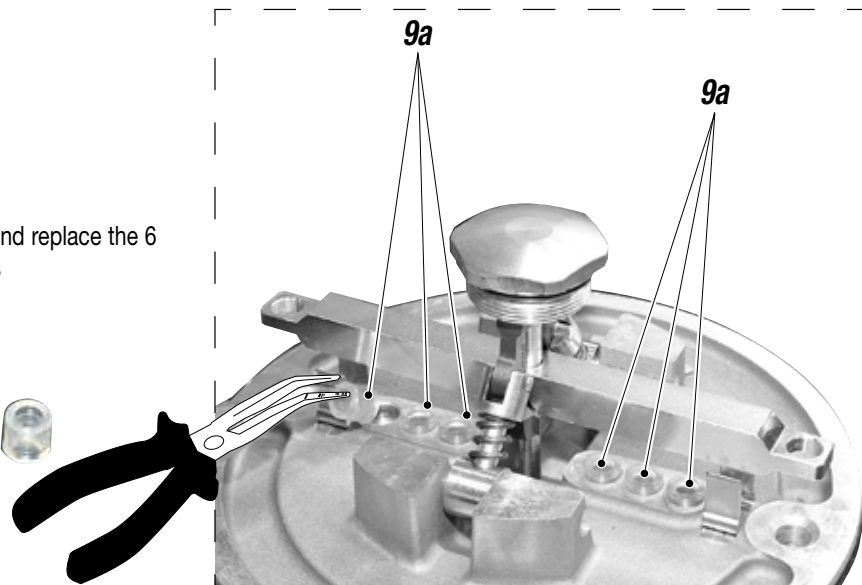
9

Necessary tools and equipment



Procedure

9.1 Proceed with disassembly and replace the 6 seal sleeves (9a) with pliers



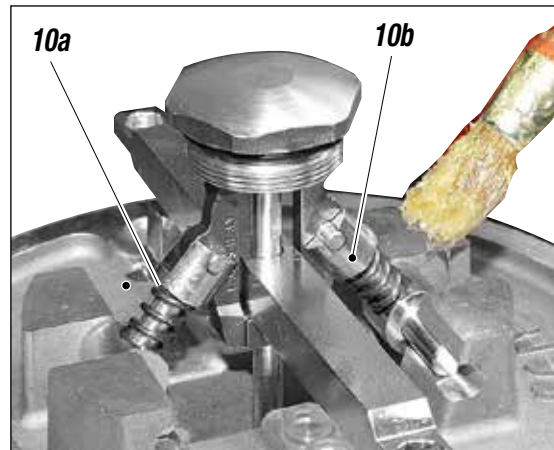
10

Necessary tools and equipment



Procedure

10.1 Lubricate the springs (10a) and (10b).



11

Necessary tools and equipment



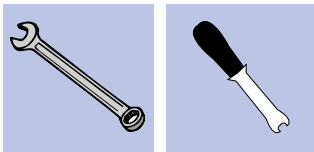
Procedure

11.1 Remove the OR gasket (11a) and replace it if necessary with a spare part



12

Necessary tools and equipment

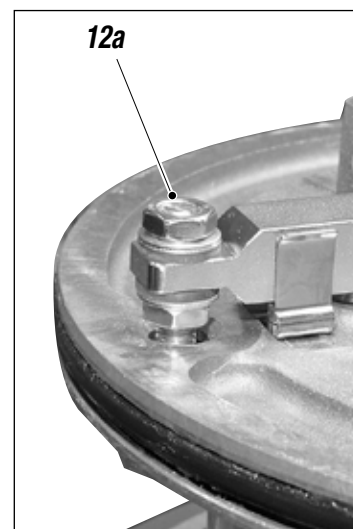
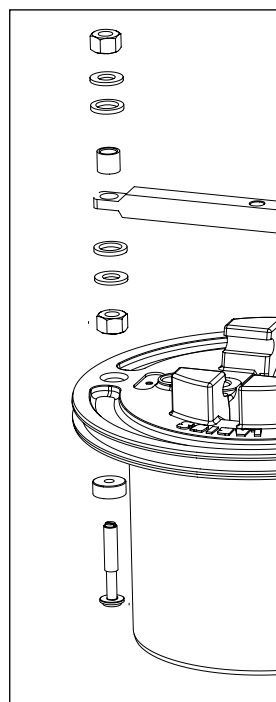


Procedure

12.1 Reassemble the two valve screws (12a) as shown in the drawing

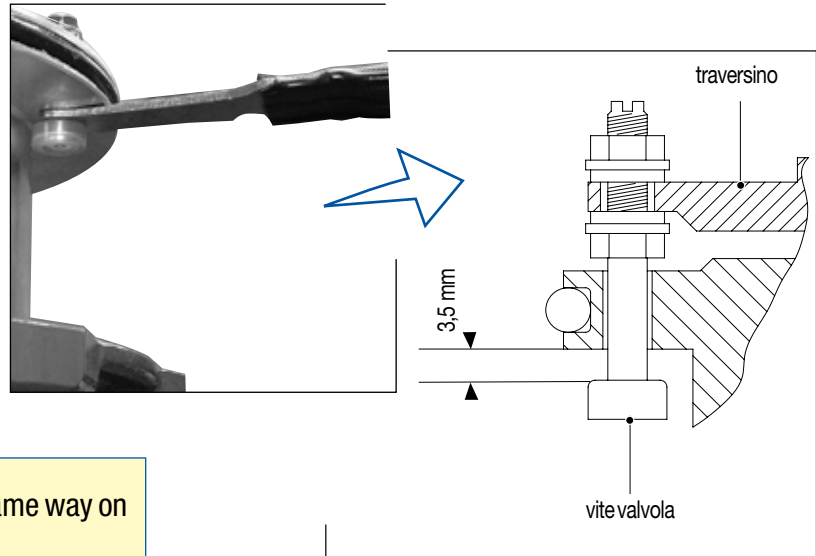
NOTE

Follow the direction of rotation of gaskets



Procedure

12.2 Reassemble the two valve screws, inserting a 3.5 mm thickness gauge as shown in the drawing and adjusting the exact position of the stud screw as shown in the drawing, keeping a tolerance distance of 3.5 mm



NOTE

Make adjustments in the same way on both valve screws



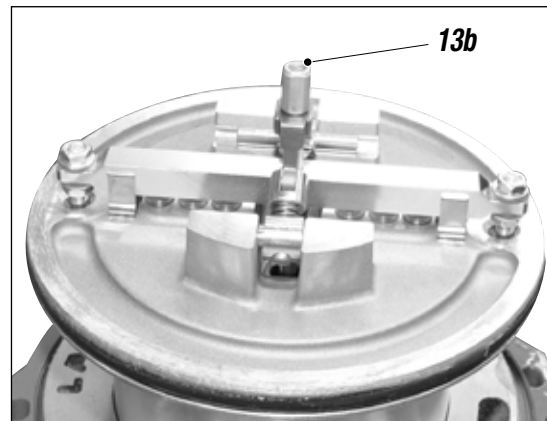
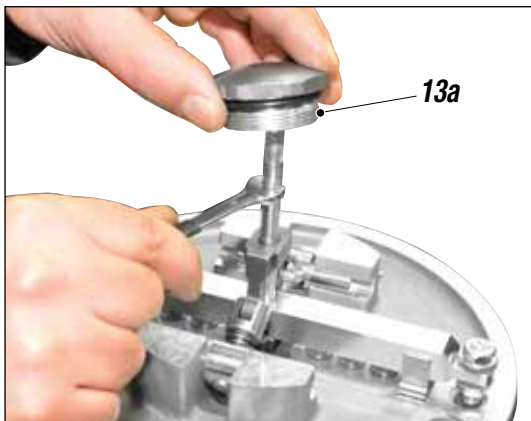
13

Necessary tools and equipment



Procedure

13.1 Unscrew the cap (13a), holding the guide rod with a 7mm wrench. Then reassemble the nut (13b).



14

Necessary tools and equipment

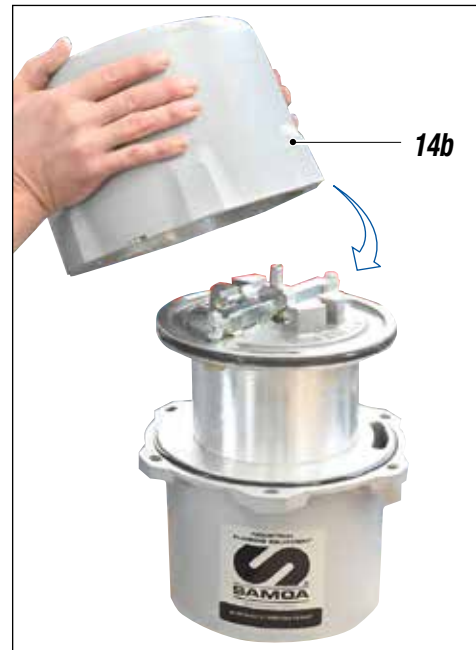


Procedure

14.1 Lubricate the gasket (14a)

14.2 Carefully reassemble the motor cylinder (14b) on the pump.

14a



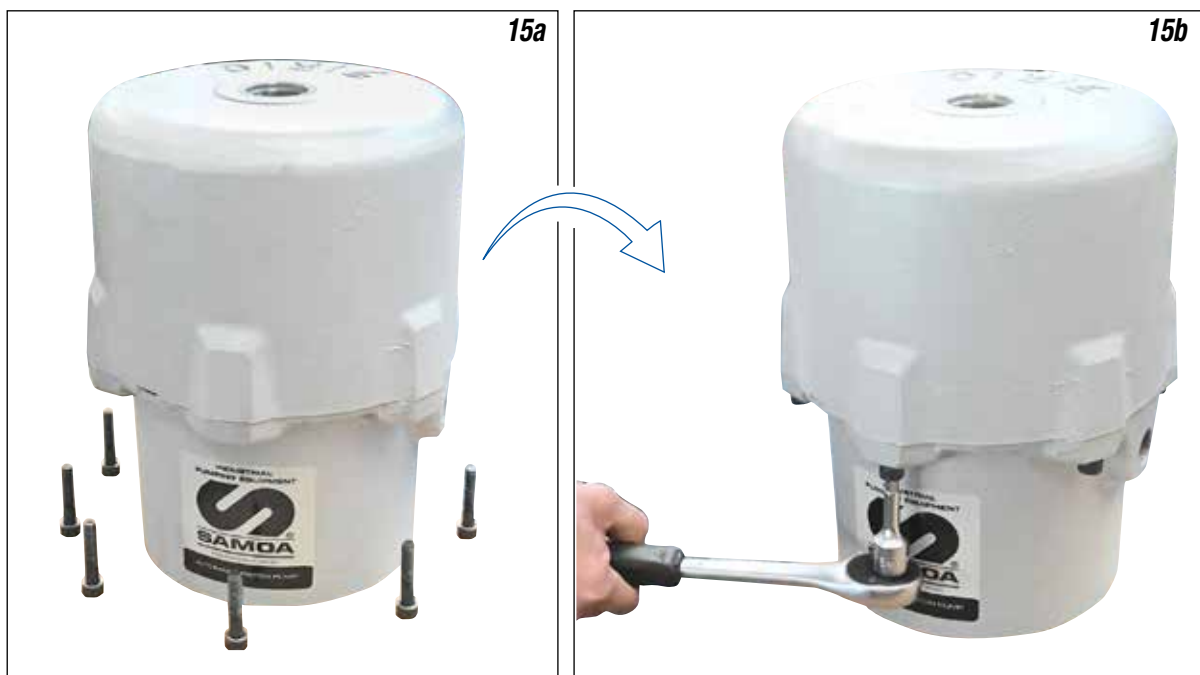
15

Necessary tools and equipment



Procedure

15.1 Screw back in the 6 screws and the washers (15a)



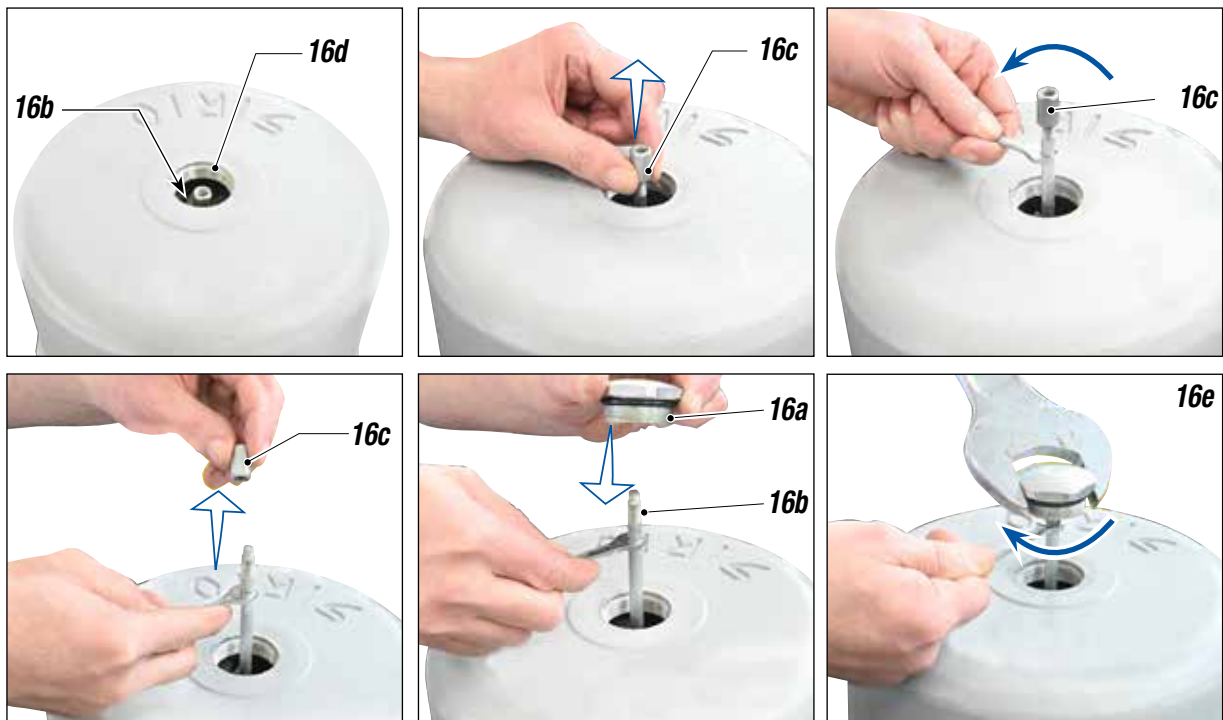
16
Necessary tools and equipment

Procedure

16.1 Raise the central guide rod (**16b**) from inside the cylinder (**16d**)

16.2 Remove the nut (**16c**)

16.3 Re-screw the cap (**16a**) onto the rod using 2 wrenches and re-screw in the cap on the cover (**16e**)



N 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. Exceed this value can block the valves of the pneumatic motor in the intermediate position of the cycle reversal.
- To start again a blocked motor, close the air supply and release pressure in the plant. 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 motor cap (1) and pull it upward along with the guide rod (2) so as to manually trigger the stroke inversion unit;
 - screw again the plug.

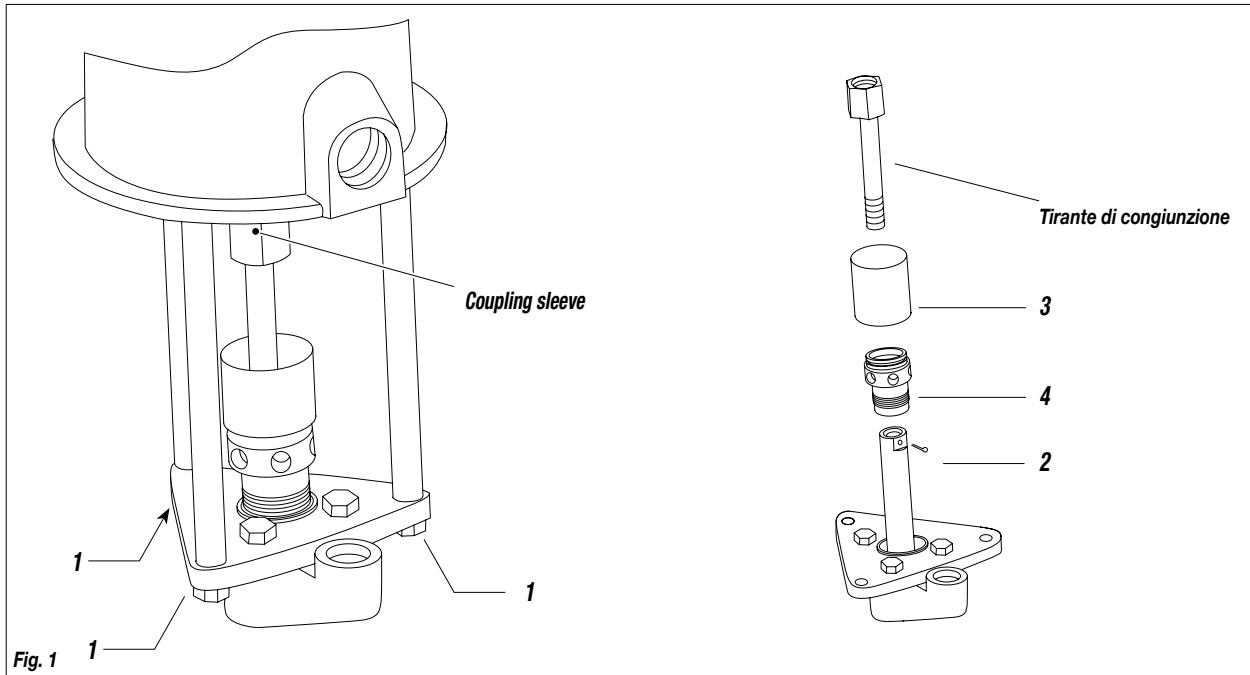


0 DISASSEMBLY OF THE PUMPING GROUP



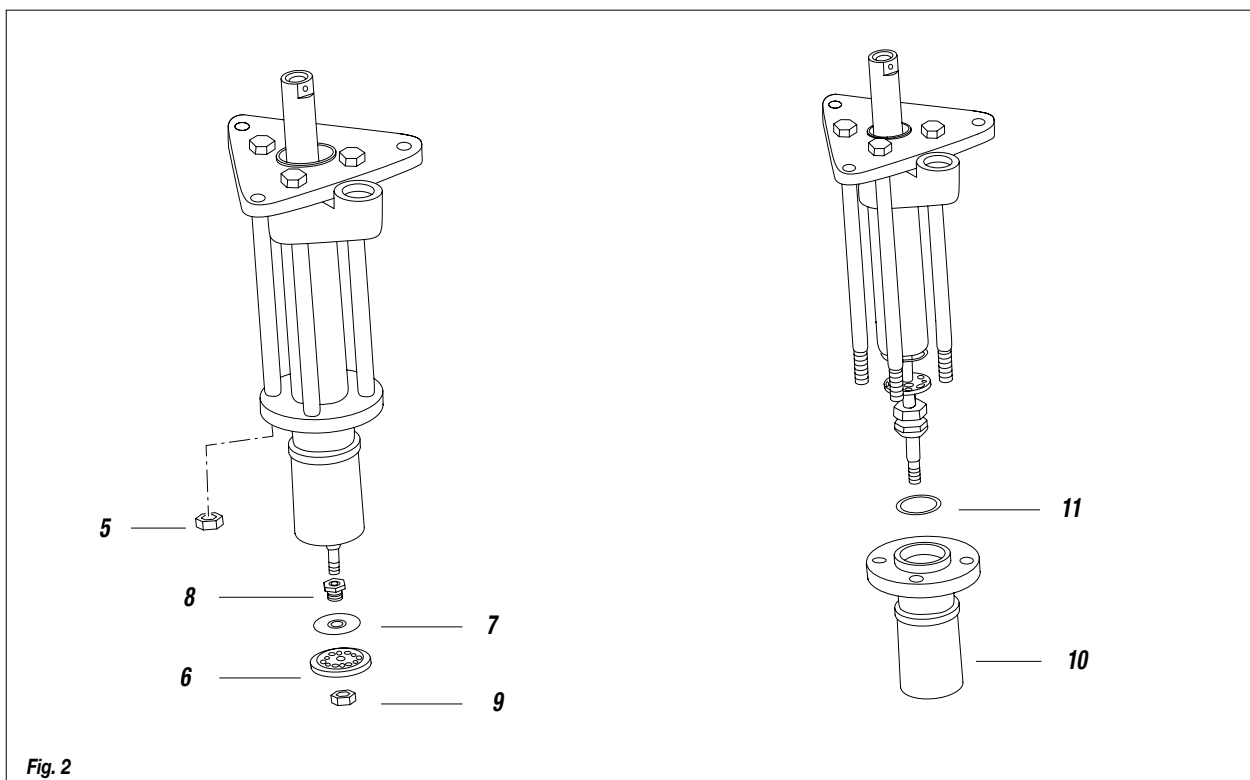
Always close the compressed air supply and release the pressure in the plant before carrying out the disassembly of the pumping group.

- Unscrew the coupling sleeve so as to detach the pumping group from the motor.
- Remove the nuts (1) and detach the pumping group.
- Remove the split pin (2) and remove the tie rod.
- Remove the cup (3) and unscrew the seal press nut (4).



- Push downwards the motor piston rod till the shovel plate comes out from the housing. Unscrew the nut (5), the plates (6) and (7) and the bush (8).

- Remove the nuts (5) and disconnect the housing (9) [pay attention to the washer (10)].



- Extract the complete shutter group from the rod, the lock (27), the washer (10) and the cylinder (12).
- Disassemble the shutter group and replace the gaskets (refer to the exploded view).

- Extract the tie rods (13) from the top.
- Unscrew the fitting (14) and remove the ball (15), the ring (16), the gaskets (17), the ring (18) and the washer (19) (replace worn parts).

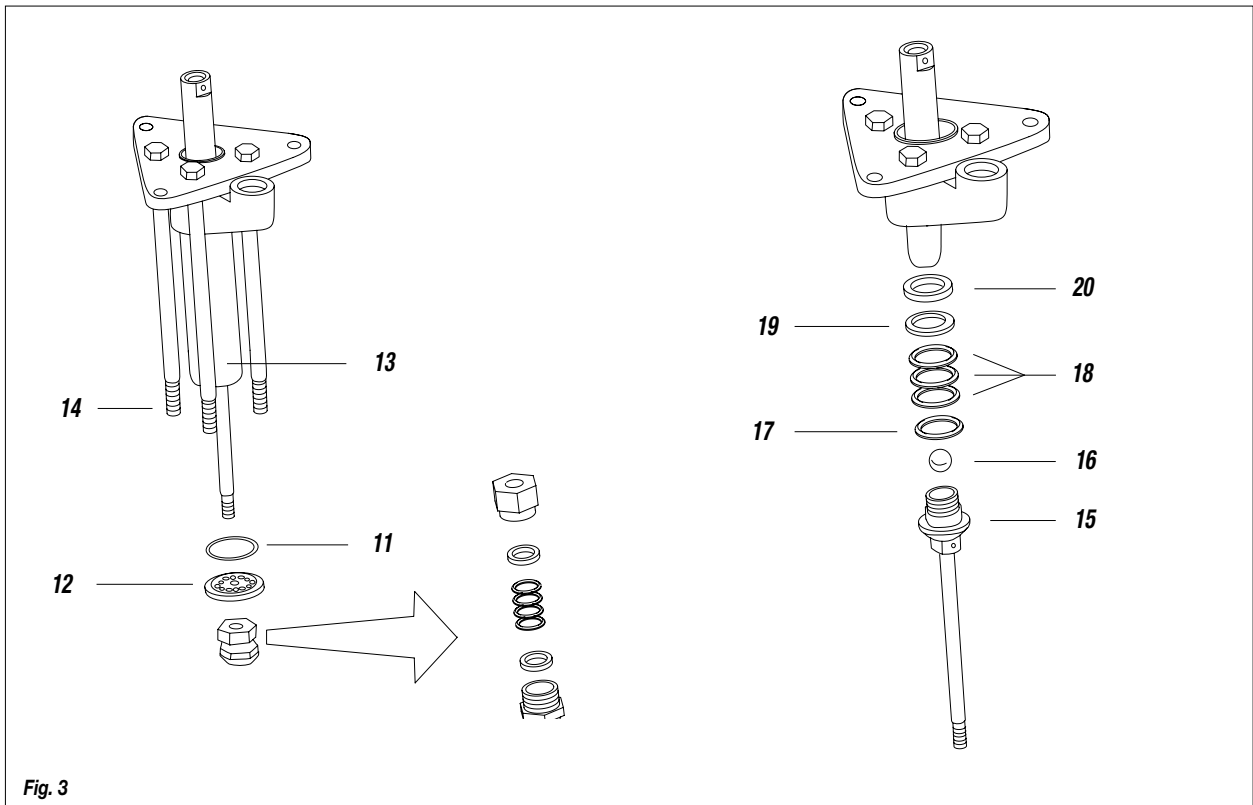


Fig. 3

- Take out the upper gasket pack: the ring (20), the gaskets (21) and the ring (22). Replace the worn parts.

- For the correct reassembling of the parts and of the complete pumping group, refer to the exploded view.

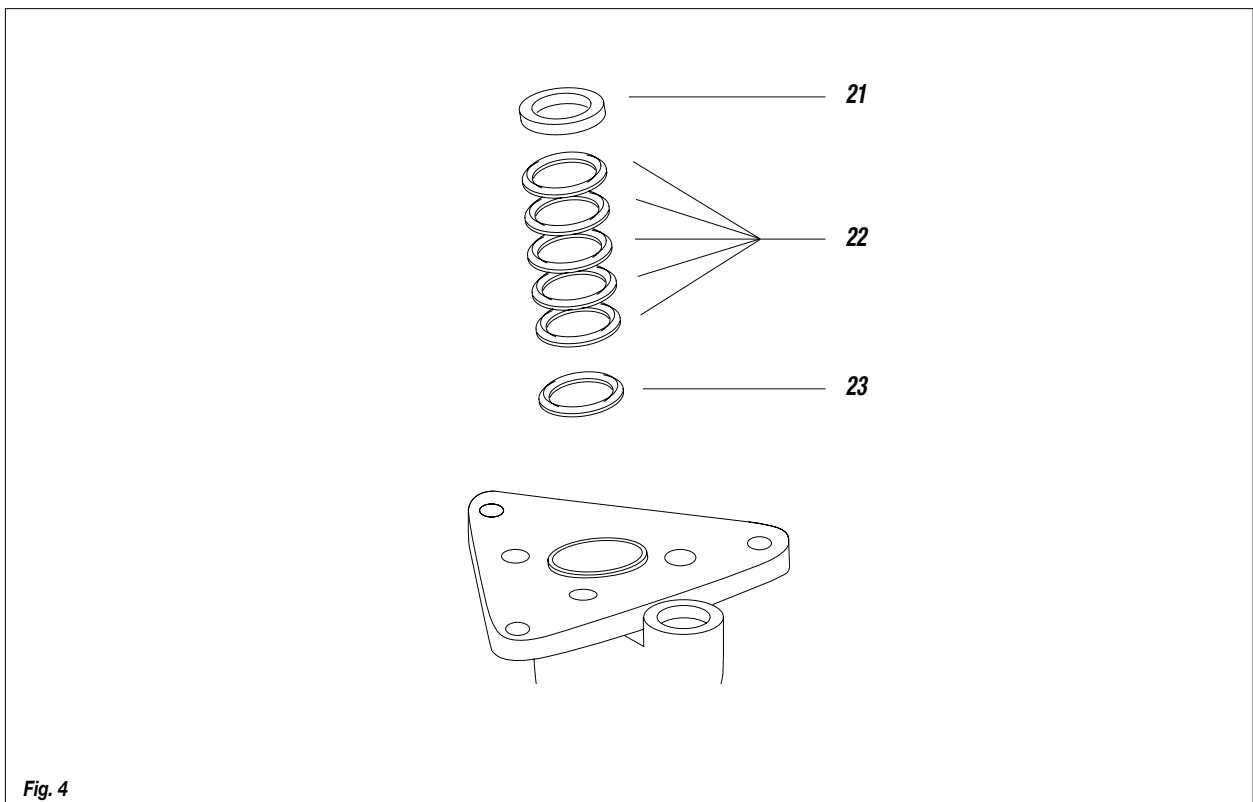


Fig. 4

P PROBLEMS AND SOLUTIONS

Problem	Cause	Solution
The pump does not start	Feed air not sufficient;	Check on the air supply line. Increase the diameter of the feed hose;
	Outlet product line clogged;	Open the recirculation tap to check whether the pump starts up. Unscrew the high pressure filter and clean/replace the filter sieve. Clean/replace the spray gun's filter;
	Clogged product intake line;	Clean the suction filter;
	Pneumatic motor blocked in the cycle reversal position;	Reduce feed air pressure;
	Parts failure of the pneumatic motor;	Disassemble the motor and verify;
Accelerate working and no pressure of the pump	There is no product;	Add the product;
	The pump sucks air;	Check the flexible suction tube;
	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 possible, the parts worn;
	Outlet valve worn or partially clogged;	Disassemble the outlet valve. Clean and/or replace if necessary the worn parts;
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 product line clogged;	Clean. Disconnect the outlet product 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;
Leakage of product 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.

Q SPARE PARTS



S EXPLODED VIEW OF MOTOR GROUP
Page 24

R EXPLODED VIEW OF PUMPING GROUP
Page 22

R EXPLODED VIEW OF PUMPING GROUP

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

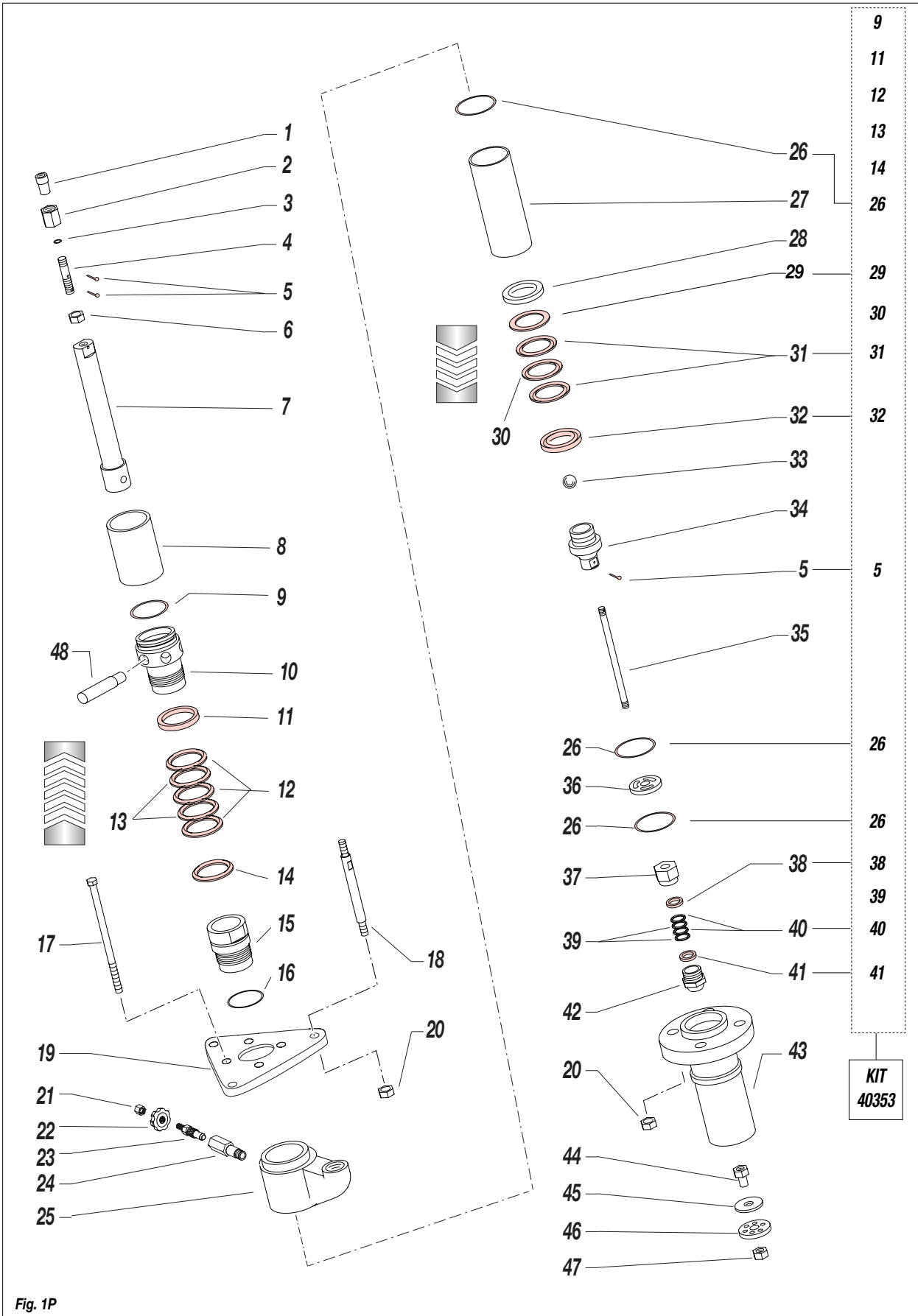


Fig. 1P

Pos.	Code	Description	Q.ty
1	95003	Bush	1
2	95004	Sleeve	1
3	95005	O-ring	1
4	95942	Short tie rod vers. 200L	1
	95006	Long tie rod vers. 30L	1
5	95015	Split pin	3
6	95007	Nut	1
7	98975/0	Piston rod	1
8	95912	Wet cup	1
9	95915	O-ring	1
10	98963	Press gasket	1
11	98966	Female ring	1
12	98968	PTFE "V" gasket	3
13	98970	Upper "V" gasket	2
14	98967	Male ring	1
15	98969	Gasket housing fitting	1
16	95917	Gasket	1
17	95914	Screw	4
18A	95943	Tie rod vers. 200 lt	3
18B	95943/2	Tie rod vers. 30 lt	3
19	95918	Upper flange	1
20	95013	Nut	7
21	3637	Nut M8	1
22	95721/4	Knob	1
23	95721/1	Bleeder valve	1

Pos.	Code	Description	Q.ty
24	95721/2	Bleeder valve bush	1
25	95919	Upper pumping part	1
26	95925	Washer	3
27	95921	Material cylinder	1
28	95922	Washer	1
29	98212	Male ring	1
30	95138	PE "V" gasket	1
31	95010	PTFE "V" gasket	2
32	95936	Female ring	1
33	95021	Ball 7/8"	1
34	95907	Valve group fitting	1
35	98961	Injection piston stem	1
36	98962	Suction valve stop	1
37	98964	Gasket stuffing nut	1
38	98971	Female ring	1
39	98974	Shutter "V" gasket	2
40	98973	PTFE "V" gasket	2
41	98972	Male ring	1
42	98976/0	Complete shutter	1
43	95909	Complete seat	1
44	95939	Bush	1
45	95938	Plate	1
46	95935	Injection plate	1
47	96893	Nut	1
48	20144	Locking pin	1

COMPLETE VALVE CODE 95721 Complete replacement recommended - To be purchased already assembled

Pos.	Description	Q. ty
21	Nut M8	1
22	Knob	1

Pos.	Description	Q. ty
23	Bleeder valve	1
24	Bleeder valve bush	1

Cod. KIT 40353 Gaskets		
Pos.	Description	Q. ty
5	Split pin	3
9	O-ring	1
11	Female ring	1
12	PTFE "V" gasket	3
13	Upper "V" gasket	2
14	Male ring	1
26	Washer	3
29	Male ring	1

Cod. KIT 40353 Gaskets		
Pos.	Description	Q. ty
30	PE "V" gasket	1
31	PTFE "V" gasket	2
32	Female ring	1
38	Female ring	1
39	Shutter "V" gasket	2
40	PTFE "V" gasket	2
41	Male ring	1

S EXPLODED VIEW OF MOTOR GROUP

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

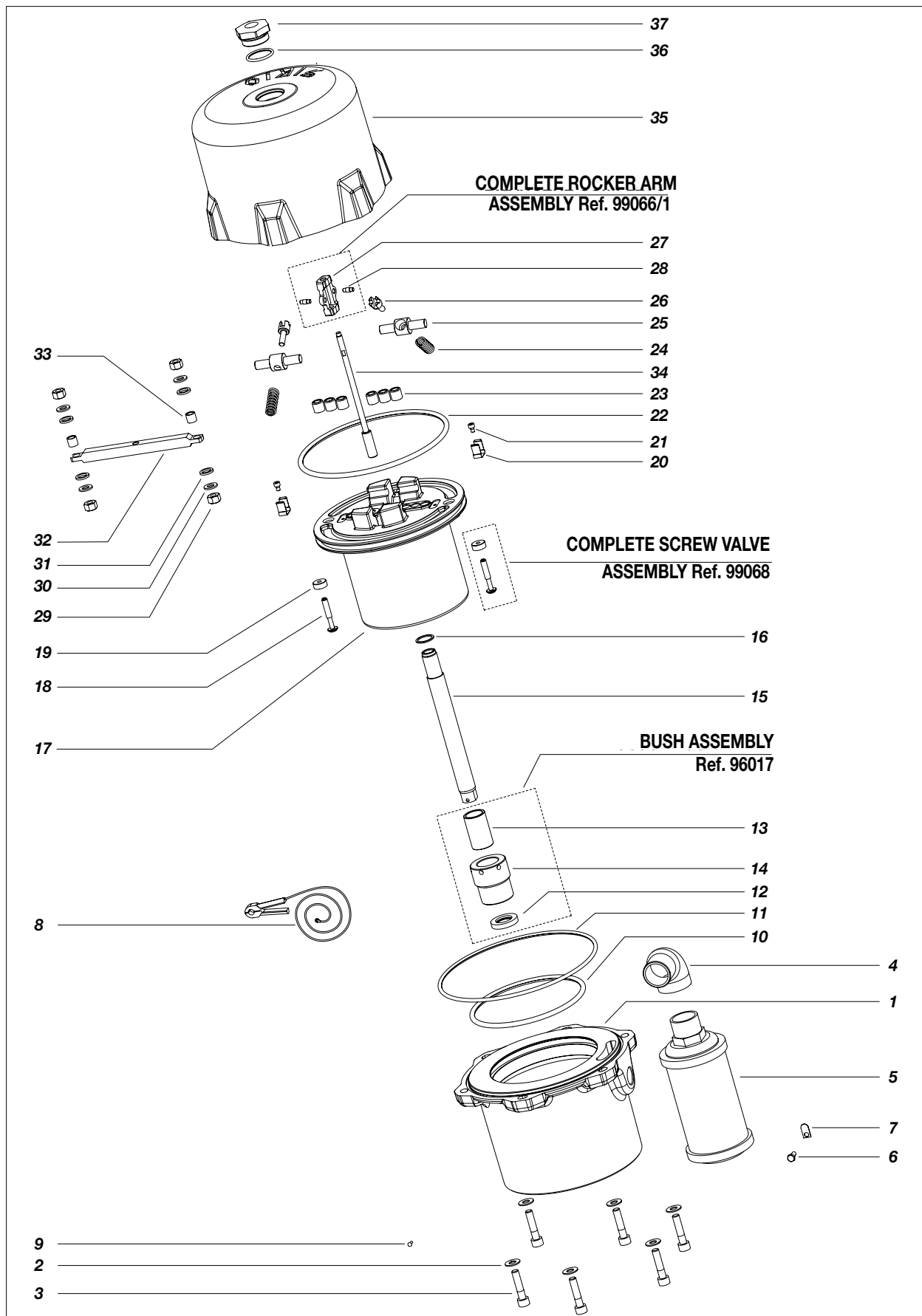


Fig. 1

Pos.	Code	Description	Q.ty
	99100	Complete motor	-
1	99050	Motor base	1
2	33005	Washer Ø 10	6
3	16111	Screw	6
4	20172	Elbow Fitting	1
5	99054	Sound Absorbing Filter	1
6	96211	Screw Te	1
7	96210	Grounding Plate	1
8	5010	Grounding Cable	1
9	34021	Rivet Ø2.5x5	12
10	99056	O-ring 226	1
11	99055	O-ring 3925	1
12	Assembled 96017	96019 Seal Ring	1
13		96017/1 Brass Bearing	1
14		96017/2 Guide Bushing	1
15	96016	Piston rod	1
16	33031	Washer	1
17	99051	Piston	1
18	Assembled 99068	99057 Valve Screw	2
19		99058 Valve Gasket	2

Pos.	Code	Description	Q.ty
20	96011	Guide Spring	2
21	96025	Screw Tce	2
22	99059	O-ring 8850	1
23	96009	Seal Bushing	6
24	99061	Exchange Spring	2
25	99060	Roller	2
26	96007	Fork	2
27	Assembled 99066/1	96008/1 Rocker lever	1
28		96024 Fork pin	2
29	4108	Nut	4
30	32024	Washer Ø 8	4
31	96111	Gasket	4
32	99062	Crosspiece	1
33	96112	Guide Bushing	2
34	96010	Guide Rod	1
35	99053	Motor cylinder	1
36	95075	O-ring	1
37	96001	Cap	1

**GASKETS KIT MOTOR -
CODE 40094**

Pos.	Description	Q.ty	
13	O-ring	1	
14	O-ring	1	
21	Assembled 99068	Valve Screw	2
22		Valve Gasket	
26	Seal Bushing	6	
33	Washer Ø 8	4	
34	Gasket	4	
39	O-ring	1	

**MOTOR MOVEMENT INVERSION DEVICE -
CODE 40095**

Pos.	Description	Q.ty
27	Exchange Spring	2
28	Roller	1
29	Fork	2
31	Fork pin	2

T ATEX AND CONFORMITY DECLARATION

	<p>TECHNICKÁ INŠPEKCIA, a.s. SLOVENSKÁ REPUBLIKA</p>					
<p align="center">ACKNOWLEDGEMENT OF RECEIPT no. 1775/5/2016</p>						
<p align="center">Technická inšpekcia, a. s., Trnavská cesta 56, 821 01 Bratislava Notified body: 1354,</p>						
<p align="center">confirms, that Technical File Documentation prepared by</p>						
<p align="center">Larius s.r.l. Via Antonio Stoppani, 21 23801 CALOLZIOCORTE (LC) - ITALY</p>						
<p>has been received and stored according to the Article 13.1(b) (ii) of Directive 2014/34/EU on equipment and protective systems intended for use in potentially explosive atmospheres</p>						
<p align="center">Scope of Ex Equipment:</p> <p>HIGH PRESSURE PAINT SPRAYING AUTOMATIC AND MANUAL GUNS WITH AIR-LESS TECHNOLOGY Series: AUTOMATIC PAINT SPRAY GUNS LA95 and MAUNUAL PAINT SPRAYING GUNS AT250-AT300 - L91X PAINT SPRAYING AUTOMATIC AND MANUAL GUNS WITH MIST-LESS TECHNOLOGY Series: AUTOMATIC PAINT SPRAY GUNS L200 and MAUNUAL PAINT SRAYING GUNS L400 LOW PRESSURE AUTOMATIC PAINT SPRAYING GUNS Series: L100 - MA98 PAINT SPRAYING PNEUMATIC PUMP Series: SIRIO</p>						
<p align="center">Marking:  II 2 G Ex h IIB T6 Gb</p>						
<p align="center">Technical File Documentation according to the Annex VIII Article 2 of Directive 2014/34/EU</p>						
<table border="1"> <thead> <tr> <th>Doc. no.</th> <th>Issue</th> </tr> </thead> <tbody> <tr> <td>Fascicolo tecnico Secondo la direttiva 2014/34/EU</td> <td>Data 24/11/2016 Rev. 0</td> </tr> </tbody> </table>			Doc. no.	Issue	Fascicolo tecnico Secondo la direttiva 2014/34/EU	Data 24/11/2016 Rev. 0
Doc. no.	Issue					
Fascicolo tecnico Secondo la direttiva 2014/34/EU	Data 24/11/2016 Rev. 0					
<p align="center">Technical documentation will be stored for 10 years until December 12th, 2026.</p>						
<p>Bratislava, December 12th, 2016</p>		<p align="center"> On behalf of Technická inšpekcia, a.s. Ing. Dušan Perniš General Director</p>				
<p>301087 PDDKA2-413</p>						



CE DECLARATION OF CONFORMITY



Company



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Declares under his owns responsibility that the product:

SIRIO 22:1 **Pneumatic extrusion pump**

complies with the directives: - EC Directive 2006/42 Machinery Directive
- Direttiva 2014/34/UE
- Direttiva ATEX

nonchè alle seguenti
norme armonizzate: - EN 13463-1
- UNI EN ISO 12100-1/-2
Machinery safety, basic concepts, general principles of design. Basic terminology, methodology. Technical principles.
- UNE EN ISO 80079-36:2017
- EN 809:1999+A1
- EN 1127+1

This declaration relates exclusively 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

Pierangelo Castagna
Managing Director

Calolziocorte, 8 ottobre 2024
Luogo / Data



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