# GIOTTO

# OPERATING AND











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

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.



# **ELECTRIC DIAPHRAGM PUMP**

	NTRODUCTION	p.1
Α	WORKING PRINCIPLE	p.2
В	TECHNICAL DATA	p.2
С	DESCRIPTION OF THE EQUIPMENT	p.3
D	TRANSPORT AND UNPACKING	p.4
Ε	SAFETY RULES	p.4
F	SETTING-UP	p.5
G	WORKING	p. <u>8</u> '
Н	CLEANING AT THE END OF THE WORK	p.9
	ROUTINE MAINTENANCE	

L	WARNING PLATE	p.10
M	PROBLEMS AND SOLUTIONS	p.11
Ν	CORRECT PROCEDURE OF DECOMPRESSION	p.12
Q	SUCTION SYSTEM	p.13
P	COMPLETE HYDRAULIC BODY	p.14
Q	GIOTTO PETROL - GIOTTO LINER	p.16
R	COMPLETE COLOUR BODY	p.18
S	MOTOR	p.20
	TROLLEY	
11	ACCECCODIEC	n 00



Read this operator's manual carefully before using the equipment. An improper use of this machine can cause injuries to people or things.



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



It indicates a fire or explosion risk if this warning is not followed.



It is obligatory to wear suitable clothing as gloves, goggles and face shield.





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

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 LARIUS S.R.L. 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 WORKING PRINCIPLE

The **Larius Giotto** unit is defined as an "electric diaphragm pump". An electric diaphragm pump is used for high pressure paint spraying without air (known as "airless").

The pump is powered by an electric (internal combustion) motor coupled with a cam shaft. The shaft acts on the hydraulic piston as it pumps oil from the hydraulic case

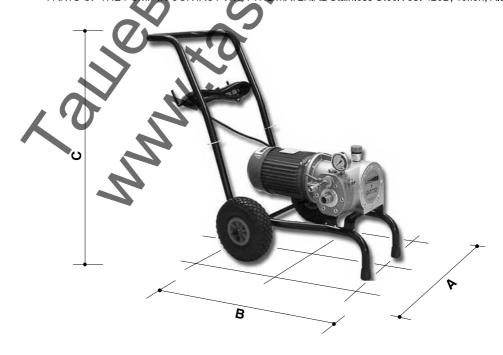
and sends the suction diaphragm into fibrillation. When the diaphragm moves, it creates a vacuum. The product is sucked up, pushed towards the pump outlet and sent to the guns through the flexible hose. A hydraulic valve on the hydraulic case head allows setting and checking the pressure of the paint product at the pump outlet. A second hydraulic safety valve to avoid over-pressure, ensures total equipment reliability.

В

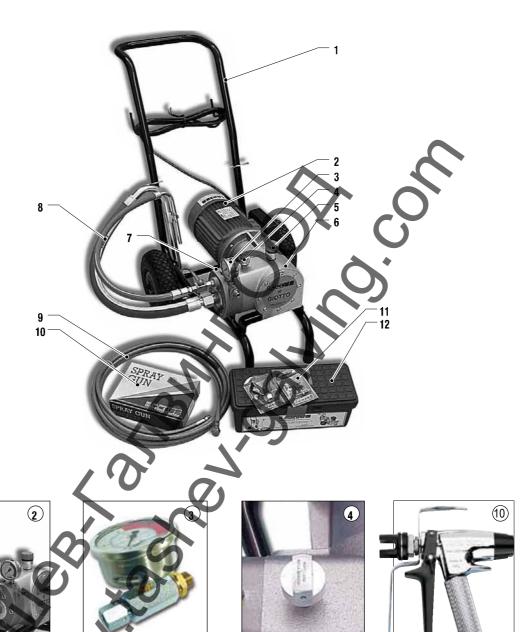
	GIOTTO
SUPPLY (single-phase, Three-phase internal combustion supply, petrol-diesel)*	220V 50Hz / 110V 60Hz 380V 50Hz
MOTOR POWER Mono-threephase Internal combustion	2,2 kW 4,5 kW
MAX. WORKING PRESSURE	210 bar
MAX. DELIVERY	8 L/min
MATERIAL OUTLET	M16 x 1,5 (M)
WEIGHT	50 Kg
LEVEL OF THE SOUND PRESSURE	≤ 75dB(A)
LENGTH	( <b>A</b> ) 1000 mm
WIDTH	( <b>B</b> ) 600 mm
HEIGHT	( <b>C</b> ) 850 mm

<sup>\*</sup>Available on request with special voltages

PARTS OF THE PUMP IN CONTACT WITH THE MATERIAL Stainless Steel AISI 420B, Teflon, Aluminium.



# © DESCRIPTION OF THE EQUIPMENT



POS.	Description		
1	Carriage		
2	Electric motor		
3	High pressure manometer		
4	Setting valve		
5	Hydraulic oil filling cap		
6	Hydraulic body		
1			

POS.	Description	
7	Complete colour body	
8	Suction and recirculation tube	
9	High pressure feed tube	
_10	LARIUS AT 300 gun	
11	Fast clean	
12	Tools box	

# D TRANSPORT AND UNPA-CKING

- 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 LARIUS 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 LARIUS.

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.

# **E** SAFETY RULES

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.

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.

- 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.
- 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 EQUIP-MENT.
- 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.

- ALWAYS USE THE FLEXIBLE HOSE SUPPLIED WITH STAN-DARD 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 SOL-VENTS IN CLOSED PLACES.
- NEVER USE THE TOOLING IN PRESENCE OF POTENTIALLY EXPLOSIVE GAS.

Always check 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.



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.

### **Electrical safety precautions**

- Check the "ON/OFF" switch is on the "OFF" position before connecting the cable to the mains.
- Never carry a plugged-in equipment.
- Disconnect the equipment before storing it and before performing any maintenance operation or replacing of accessories.
- Do not carry the equipment neither unplug it by pulling the electric cable.

Protect the cable from heat, oil and sharp edges.

 When the tool is used outdoors, use only an extension cable suited for outdoor use and so marked.

Never attempt to tamper with the calibre of instruments.

Take care when the pumping rod is moving.

Stop the machine whenever someone is within its vicinity.

• Repairs of the electrical equipment should only be carried out by skilled personnel, otherwise considerabledanger to the user may result.

### **SETTING-UP**

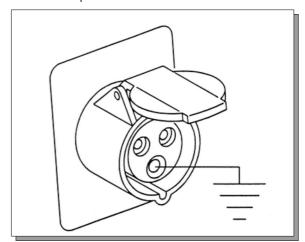
### CONNECTION OF THE FLEXIBLE HOSE TO THE GUN

- Connect the high pressure flexible hose to the pump and to the gun ensuring to tighten the fittings (the use of two wrenches is suggested).
  - **NEVER** use sealants on fittings' threads.
- It is recommended to use the hose provided with the standard kit (ref. 35017).

**NEVER** use a damaged or a repaired flexible hose.

### **CHECK ON POWER SUPPLY**

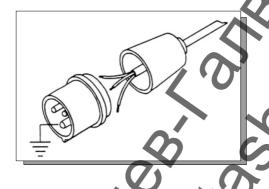
• Check the plant is earthed.



• Check the mains voltage corresponds to the equipment's rating (F1).



The supply cable is provided without plug.
 Use a plug which guarantees the plant earthing.
 Only a technician or a skilled person should perform the connection of the plug to the electric cable.

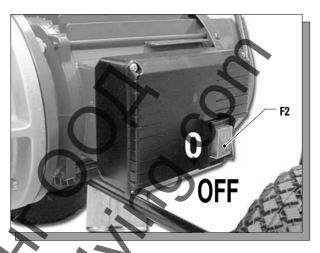


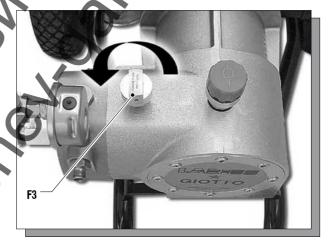
Should anyone use an extension cable between the tooling and the socket, it must have the same characteristics as the cable supplied (minimum diameter of the wire 2.5 mm²) with a maximum length of 50 mt. Higher lengths and lower diameters can provoke

excessive voltage falls and also an anomalous working of the equipment.

### CONNECTION OF THE TOOLING TO THE POWER SUPPLY

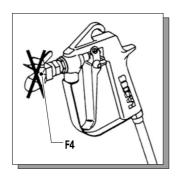
- Check the ON/OFF switch (F2) is on the "OFF" position (0) before connecting the cable to the mains.
- Place the pressure control knob (F3) on the "MIN" position (turn counterclockwise).





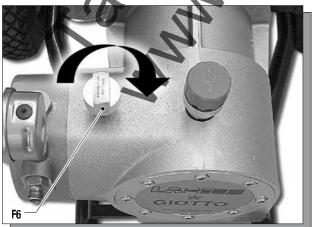
### WASHING OF THE NEW EQUIPMENT

- The equipment has already been adjusted at our factory with light mineral oil left inside the pumping group as protection.
   Therefore, wash with diluent before sucking the product.
- Lift the suction pipe and dip it into the solvent tank.
- Ensure the gun (F4) is without nozzle.



- Open the re-circulation tap.
   Turn the unit ON-OFF switch (F5) on the "ON" position (I).
- Rotate the pressure setting knob (F6) slightly clockwise s that the machine operates at minimum power.





- Point the gun at a container keeping the trigger pressed (so as to drain the oil inside) till a clean solvent comes out. Now, release the trigger.
- Remove the suction pipe and take away the solvent tank.
- Point the gun at the solvent tank and press the trigger so as to recover the residual solvent.
- As the pump idles, press the ON/OFF switch (**F5**) on the position "**OFF**" (0) to stop the tooling.



Absolutely avoid to spray solvents indoors. In addition, it is recommended to keep away from the pump in order to avoid the contact between the solvent fumes and the electric motor.

- Now the machine is ready. Should you use water paints, besides the solvent wash, a wash with soapy and then clean water is suggested.
- Insert the gun trigger lock and assemble the nozzle.

### PREPARATION OF THE PAINT

- Make sure the product is suitable to be used with a spray gun.
- Mix and filter the product before using it. For filtration, use CLOSE-MESH (ref.214) and LARGE-MESH (ref.215) LA-RIUS METEX braids.

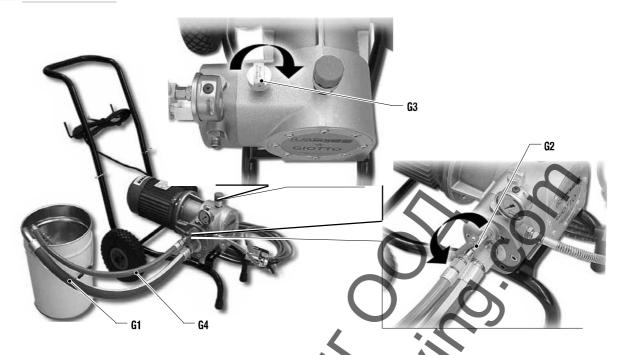


Make sure the product to be used is compatible with the materials employed for manufacturing the equipment (stainless steel and aluminium). Because of that, please contact the supplier of

the product.

Never use products containing halogen hydrocarbons (as methene chloride). If these products come into contact with aluminium parts of the equipment, can provoke dangerous chemical reactions with risk of explosion.

# **G WORKING**



### START OF THE PAINTING OPERATIONS

- Use the tooling after performing all the SETTING UP operations above described.
- Dip the suction pipe (G1) into the product tank.
- Open the re-circulation valve (G2).
- Press the ON/OFF switch of the equipment and turn a little the pressure control knob (G3) clockwise, so as the machine works at the idle speed.
- Make sure the product recycles from the return tube (G4).
- Close the re-circulation valve.
- At this point the machine will continue to suck the paint product until the delivery hose is completely full. Afterwards, the product will re-circulate automatically.

### **SPRAY ADJUSTMENT**

- Slowly turn clockwise the pressure control knob to reach the pressure value in order to ensure a good atomization of the product.
- An irregular and marked spray on the sides indicates a low working pressure. On the contrary, a too high pressure causes a high fog ("olersprant and waste of product.
- In order to avoid overthickness of paint, let the gun advance sideways (right left) when spraying.
- Always paint with regular parallel bands coats.
- Keep a safety and constant distance between the gun and the support to be painted and also keep yourselves perpendicular to it.

NEVER point the spray gun at yourselves or at other people. The contact with the casting can use serious injuries. In case of injuries caused by the gun casting, seek immediate medical advice specifying the type of the product injected.



The drain valve is a safety valve too. When working at the maximum pressure available, releasing the gun trigger sudden increases of pressure can occur. In this case, the drain valve opens automatically eliminating part of the

product from the recirculating tube. Then it closes so as to go back to the first working conditions.

# III CLEANING AT THE END WORK

• Reduce pressure to the minimum (turn counterclockwise the pressure control kno H1)).



- Press the ON/OFF switch (H2) placed on the box of the electric motor, to stop the equipment.
- First release the residual pressure from the gun by holding it pointed down towards the paint container, then open the re-circulation valve.
- Lift the suction pipe and replace the product tank with that
  of the solvent (ensure it is compating with the product lengused).
- Unscrew the gun nozzle (do not forget to clean it with sollent):
- Turn the ON-OFF switch (H2) on the ON position and rotate the pressure setting knob (H1) slightly clockwise.
- Make sure the solvent recycles the washing fluid from the return tube.
- Close the re-circulation valve
- Point the gun at the product tank and, keeping the trigger pressed, release the remaining product till a clean solvent comes out. Now, release the trigger.
- Lift again the suction pipe and remove the solvent tank.

- Now point the gun at the solvent tank and press the trigger so as to recover the residual solvent.
  - As the pump starts idling, press the ON/OFF switch to stop the equipment.
- In case of long storage, we recommend you to suck and to leave light mineral oil inside the pumping group and the flexible hose.



Follow the washing procedure before using again the equipment.

# **III** ROUTINE MAINTENANCE

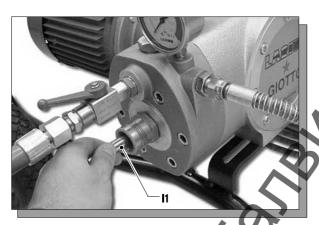
### TOP UP HYDRAULIC OIL

With each start up, check the hydraulic oil level by looking through the gauge on the side of the hydraulic body. If necessary, use "AGIP OSO 46 type hydraulic oil" to top up the level.

### **RELEASE THE SUCTION VALVE**

If the pump malfunctions, release the suction valve fitted on the head of the pump in the following way:

 Remove the suction hose fitting and release the valve by inserting a rigid rod (I1) with a diameter of no more than 15 mm.



### **CLEANING THE COMPRESSION VALVE**

When the compression valve must be removed, clean it with specific solvents depending on the type of paint used and refit all parts by inverting the removal order.

### REPLACING HYDRAULIC OIL

After operating for 100 hours, replace the oil in the pump;

- Discharge the waste oil through the **hydraulic filter** fitted at the bottom of the pump casing.
- Clean and, if necessary, replace the worn seals.
- Replace the filter in its seat by screwing it tightly.
- Fill the pump with the recommended oil until it reaches the maximum level.
- Then, substitute the oil every 250 hours



### **CLEANING THE MOTOR COOLING FAN GUARD**

Clean the motor cooling fan protection guard periodically to ensure the best cooling.

# **WARNING PLATE**



# M PROBLEMS AND SOLUTIONS

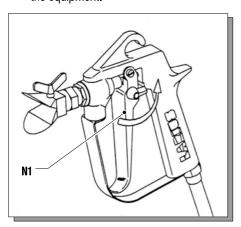
Problem	Cause	Solution
The equipment does not start	<ul> <li>Lack of voltage;</li> <li>Considerable drops in mains voltage;</li> <li>ON-OFF switch disconnected;</li> </ul>	<ul> <li>Check the correct connection to the power supply;</li> <li>Check the extension cable;</li> <li>Ensure the ON-OFF switch is on the "ON" position and turn clockwise the pressure control knob;</li> </ul>
	<ul> <li>Setting valve faulty pressure;</li> <li>Breakdown of motor electric control box;</li> <li>The product is solidified inside the pump;</li> </ul>	<ul> <li>Verify and replace it, if necessary;</li> <li>Verify and replace it, if necessary;</li> <li>Open the drain valve to release pressure in the circuit and stop the machine. Remove the compression valve and clean it;</li> </ul>
The equipment does not suck the product	<ul> <li>Suction filter clogged;</li> <li>Suction filter too fine;</li> <li>The equipment sucks air;</li> </ul>	<ul> <li>Clean or replace it;</li> <li>Replace it with a larger-mesh filter (with Tablense products, remore the Tabler);</li> <li>Check the suction pipe;</li> </ul>
The equipment suck but does not reach the pressure desired	<ul> <li>Lack of product;</li> <li>The equipment sucks air;</li> <li>The drain valve is open;</li> <li>Suction or delivery valve dirty;</li> </ul>	<ul> <li>Add the product;</li> <li>Check the suction pipe;</li> <li>Close the drain valve;</li> <li>Disassemble the colour body group;</li> </ul>
When pressing the trigger, the pressure lowers considerably	<ul> <li>Nozzle too big or worn;</li> <li>The product is too dense;</li> <li>The filter of the gun-butt is too fine;</li> </ul>	<ul> <li>Replace it with a smaller one;</li> <li>Dilute the product, if possible;</li> <li>Replace it with a larger-mesh filter;</li> </ul>
The pressure is normal but the product is not atomized.  Leakage from the seal-tightening screw	<ul> <li>The nozzle is partially clogged;</li> <li>The product is too dense;</li> <li>The filter of the gun-butt is too fine;</li> </ul>	<ul> <li>Clean or replace it;</li> <li>Dilute the product, if possible;</li> <li>Replace it with a larger-mesh filter;</li> </ul>
The atomization is imperfect	The nozzle is worn;	Replace it;

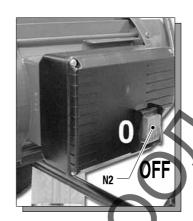


Always close the air compressed supply and unload the plant pressure before performing any check or replacement of pump parts (see "correct procedure of decompression").

# **N** CORRECT PROCEDURE OF DECOMPRESSION

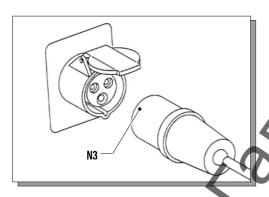
- Insert the gun clamp (N1).
- Move the ON/OFF switch (N2) to the OFF position (0) to stop the equipment.

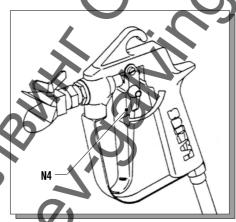




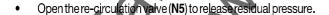


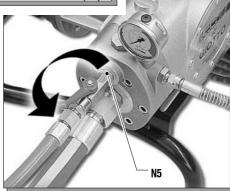
Disconnect the power supply cable (N3).





 Release the gun clamp (N4). Point the gun at the tank of the product and press the trigger to release pressure. At the end of the operation, insert the gun clamp.







### WARNING B

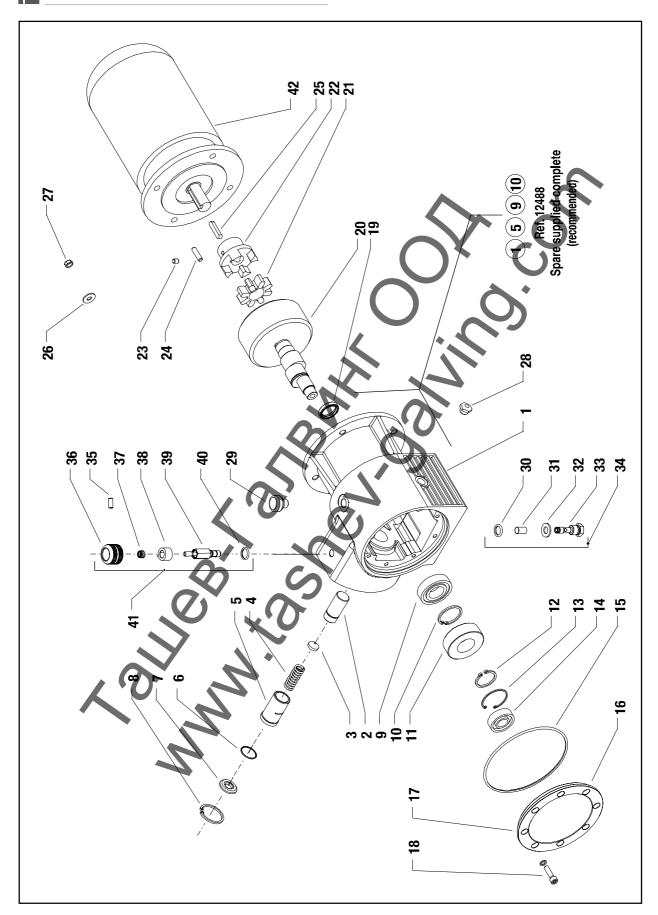
If the equipment is still under pressure after performing the operations above described because of the nozzle or the flexible hose clogged, proceed as follows:

- Loosen very slowly the gun nozzle.
- · Release the clamp.
- Point the gun at the container of the product and press the trigger to release pressure.
- Loosen very slowly the fitting of connection from the flexible hose to the gun.
- Clean or replace the flexible hose and the nozzle.

# **SUCTION SYSTEMS**

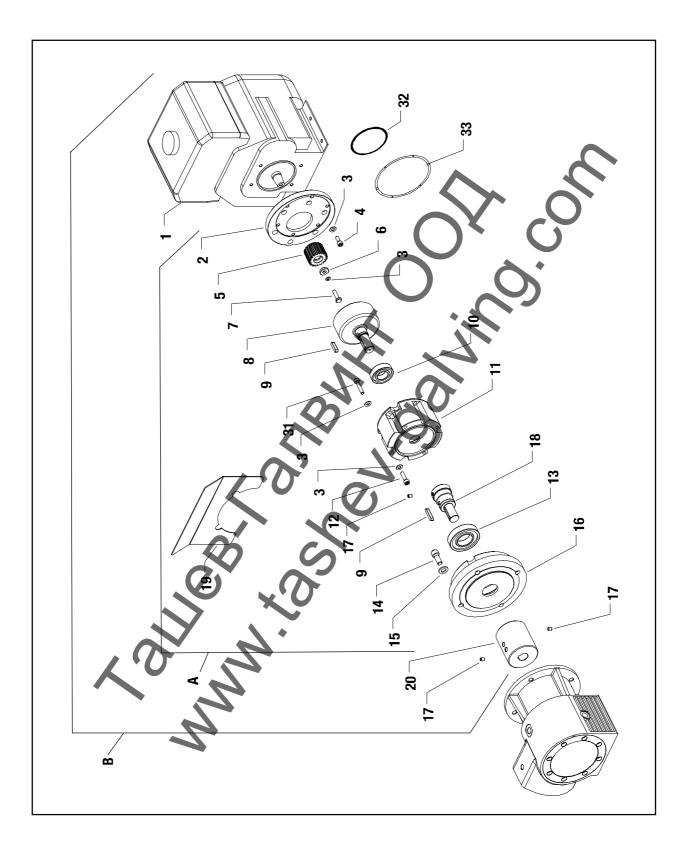


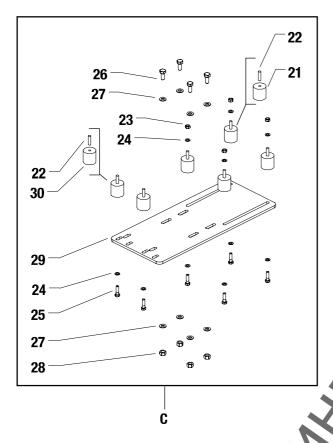
# COMPLETE HYDRAULIC BODY

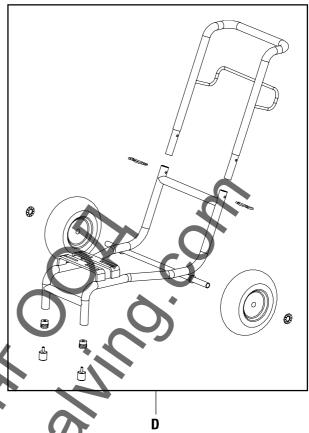


Pos.	Code	Description	Pos.	Code	Description
1*	12455	Hydraulic support	23	81009	Dowel
2	12456	Hydraulic piston	24	81012	Spline
3	82019	Spring pad	25	81014	Key
4	82021	Spring	26	81033	Washer
5*	82017	Cylinder liner	27	95158	Nut
6	82022	O-Ring	28	32007	Oil level plug
7	82023	Spring housing	29	32108	Plug
8	81020	Elastic ring	30	32012	<b>0-</b> Ring
9*	31125	Bearing	31	258	Filter
10*	81020	Elastic ring	32	32010	Washer
11	12457	Bearing	33	12461	Oil filter body
12	12467	Elastic ring	34	12475	Oil filter screw
13	12466	Elastic ring	35	32017/1C	Dowel
14	12465	Bearing	36	32017	Knob
15	12464	O-Ring	37	32017/2	Spring
16	12459	Cover	38	32016	Safety catch
17	12462	Washer	39	32155	Valve body
18	901568	Screw	40	32014	O-Ring
19	31128	Gas-ring	41	32150	Pressure regulation
20	12491	Pulley assembly	42	81001	Electric motor 230V 50HZ
21	81038	Shock absorber	42	81002	Electric motor 400V 50Hz three-phas
22	12460	Half-loint Page 1	42	81003	Electric motor 115V 60Hz
21 22	81038 12460 -9-10 spare se	Shock absorber	42	81002	Electric motor 400V 50Hz three-p

# GIOTTO PETROL – GIOTTO LINER

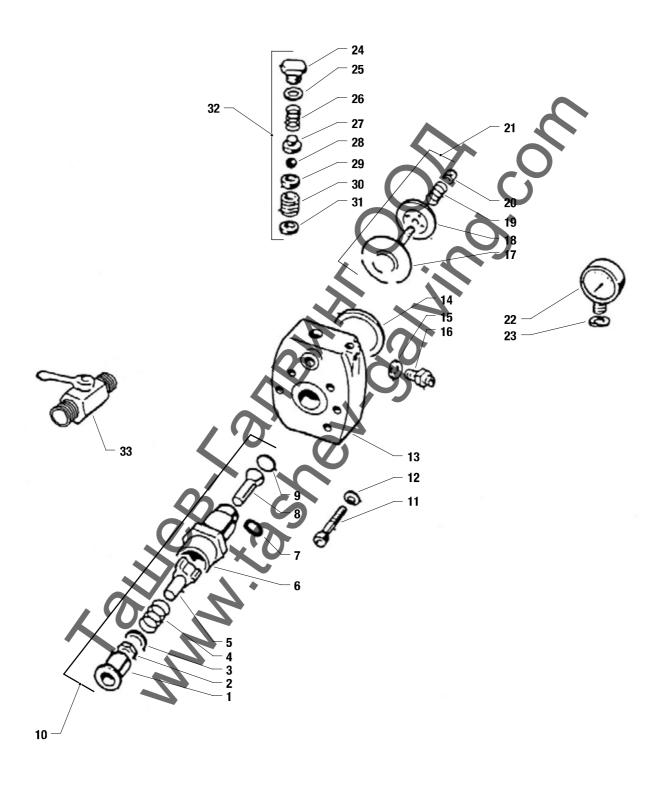






Pos.	Code	Description	Pos.	Code	Description
Α	18260	Complete gearbox - petrol membra-	15	95114	Washer
		ne version	16	18268	Hydraulic flange
B+C+D	18342	Complete gearbox kit - Giotto petrol	17	81009	Dowel
		version with trolley	18	18269	Reduction
B+C	18346	Complete Giotto liner kit	19	18264	Plating guard
1	4415	Motor	20	18258	Ball seat
2	18261	Flange motor	21	81107	Vibration damper
3	34009	Washer	22	18942	Threaded pin
4	96031	Screw	23	52017	Nut
5	18262	Pinion	24	32024	Washer
6	18263	Washer	25	34008	Screw
7	8385	Screw	26	95156	Screw
8	18265	Toothed bell	27	81033	Washer
9	18919	Tab	28	95158	Nut
10	42255	Bearing	29	18254	Fixing plate
11	18266	Gearbox cone	30	700711	Vibration damper
12	34008	Screw	31	7059	Screw
13	18267	Bearing	32	18282	Motor gasket
14	18344	Screw	33	18283	Gearbox gasket

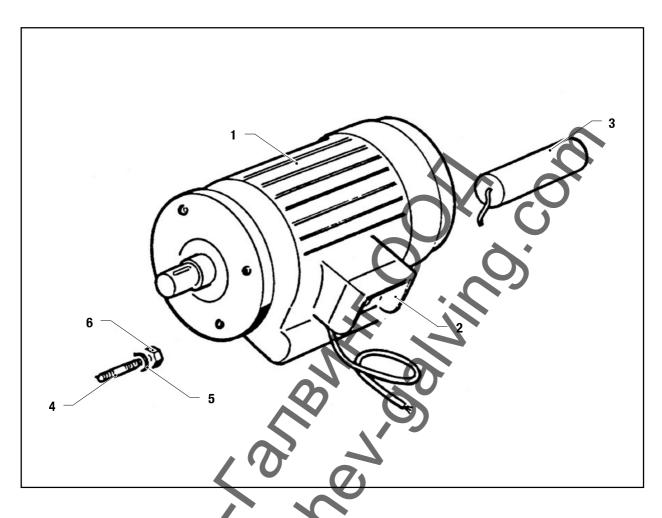
# R COMPLETE COLOUR BODY



-         83000         Complete colour body         17         83002/1         Diaphragm           1         96099         Cylinder liner         18         83002/2         Oil distributor           2         33024         Self-tightening nut         19         83002/3         Spring           3         33023         Washer         20         83002/4         Sealing block           4         53006/1         Spring         21         83002         Complete diaphragm           5         33021         Shutter guide         22         33008         Manometer           6         33020         Suction valve body         23         33009         Washer           7         33020/1         Ball seat         24         33032         Plug           8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$8006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29
2         33024         Self-tightening nut         19         83002/3         Spring           3         33023         Washer         20         83002/4         Sealing block           4         53006/1         Spring         21         83002         Complete diaphragm           5         33021         Shutter guide         22         33008         Manometer           6         33020         Suction valve body         23         33009         Washer           7         33020/1         Ball seat         24         33032         Plug           8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$3006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Uhion for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert
3         33023         Washer         20         83002/4         Sealing block           4         53006/1         Spring         21         83002         Complete diaphragm           5         33021         Shutter guide         22         33008         Manometer           6         33020         Suction valve body         23         33009         Washer           7         33020/1         Ball seat         24         33032         Plug           8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$3006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32
4         53006/1         Spring         21         83002         Complete diaphragm           5         33021         Shutter guide         22         33008         Manometer           6         33020         Suction valve body         23         33009         Washer           7         33020/1         Ball seat         24         33032         Plug           8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$3006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
5         33021         Shutter guide         22         33008         Manometer           6         33020         Suction valve body         23         33009         Washer           7         33020/1         Ball seat         24         33032         Plug           8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$3006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33026         Gasket           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
6         33020         Suction valve body         23         33009         Washer           7         33020/1         Ball seat         24         33032         Plug           8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$8006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
7         33020/1         Ball seat         24         33032         Plug           8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$3006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
8         33019         Conical shutter         25         33031         Gasket           9         33018         Gasket         26         \$3006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
9         33018         Gasket         26         \$3006         Spring           10         33017         Complete suction valve         27         33029         Spring seat           11         83004         Screw         28         33028         Ball           12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
10   33017   Complete suction valve   27   33029   Spring seat     11   83004   Screw   28   33028   Ball     12   33005   Washer   29   33027/2   Union for ball seat     13   83001   Colour body fusion   30   33027/1   Ball seat     14   83003   Diaphragm insert   31   33026   Gasket     15   33007   Washer   32   83033   Complete valve exhaust
1
12         33005         Washer         29         33027/2         Union for ball seat           13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
13         83001         Colour body fusion         30         33027/1         Ball seat           14         83003         Diaphragm insert         31         33026         Gasket           15         33007         Washer         32         83033         Complete valve exhaust
33007   Washer   32   83033   Complete valve exhaust
—   Social   Macrisi   Striptics faire stringer
16 33006 Feed tube union 33 33013/2 Cock

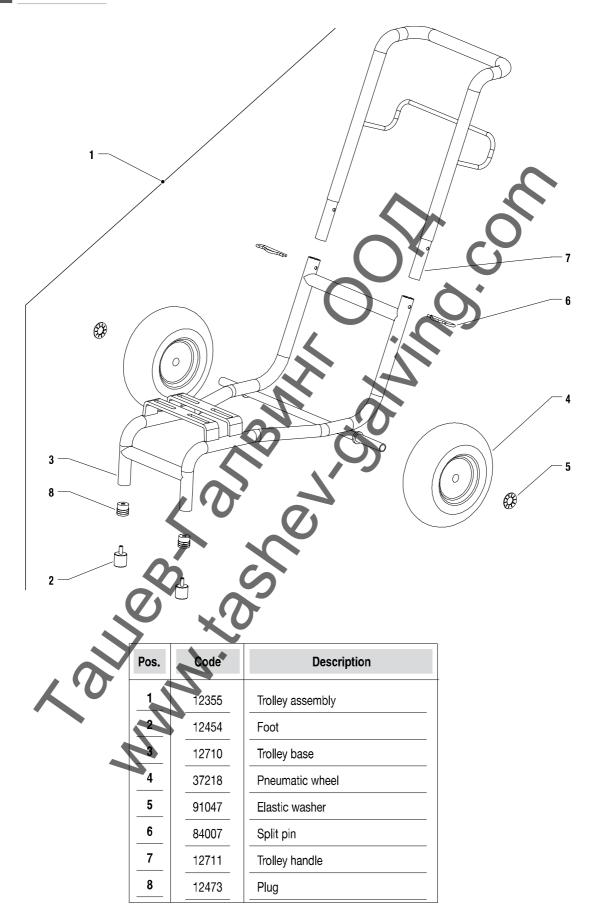
# **S** MOTOR

### **ELECTRIC MOTOR**



	Pos.	Code	Description
.0	1	81001	Electric motor 230V 50HZ
Χ.0	1	81002	Electric motor 400V 50Hz three-phase
	1	81003	Electric motor 115V 60Hz
	2	86003	Electic box
	3	86001	Condenser
	4	81012	Stud bolt
	5	81033	Washer
	6	95158	Nut

# T TROLLEY



# **U** ACCESSORIES



Code 11090: AT 300 1/4" Code 11000: AT 300 M16x1,5



Code 11039: Green (30M) - Code 11038: White (60M)

Code 270: FILTER 100 MESH Code 271: FILTER 60 MESH



PISTON GUNSTOCK FILTERS

Code 11037: Yellow (100M) - Code 11019: Red (200M)



Code 147: HIGH PRESSURE GAUGE M16x1,5 Code 150: HIGH PRESSURE GAUGE GJ 1/4"



Code 85014: FILTER 40 MESH - Code 85012: FILTER 20 MESH Code 37215: FILTER 40 MESH inox - Code 37216: FILTER 20 MESH inox



Code 217550: MX 750 - Code 217560: MX 1000 E - Code 217570: MX 1100 E



MANUAL GUN LX-T Code 14310: NOZZLE 4 mm Code 14311: NOZZLE 6 mm Code 14312: NOZZLE 8 mm



Code 18241: GRAVITY HOPPER 50 lt



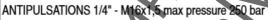
HIGH PRESSURE HOSE 3/8" - M16x1,5 max pressure 425 bar

Code 18063: 7,5 mt Code 18064: 10 mt Code 18065: 15 mt



ANTISTATIC HOSE 3/16" - M16x1,5 max pressure 210 bar

Code 6164: 5 mt Code 55050: 7.5 mt Code 35018: 10 mt



Code 35013: 5 mt Code 35014: 7,5 mt Code 35017: 10 mt Code 18026: 15 mt



	Nozzles code	
SFC07-20	SFC19-60	SFC29-80
SFC07-40	SFC21-20	SFC31-40
SFC09-20	SFC21-40	SFC31-60
SFC09-40	SFC21-60	SFC31-80
SFC11-20	SFC23-20	SFC33-40
SFC11-40	SFC23-40	SFC33-60
SFC13-20	SFC23-60	SFC33-80
SFC13-40	SFC25-20	SFC39-40
SFC13-60	SFC25-40	SFC39-60
SFC15-20	SFC25-60	SFC39-80
SFC15-40	SFC27-20	SFC43-40
SFC15-60	SFC27-40	SFC43-60
SFC17-20	SFC27-60	SFC43-80
SFC17-40	SFC27-80	SFC51-40
SFC17-60	SFC29-20	SFC51-60
SFC19-20	SFC29-40	SFC51-80
SFC19-40	SFC29-60	



Code 18280: GASKET

Code 18270: SUPER FAST-CLEAN base UE 11/16x16



GUN E頭ENS順N Art. 153: c區面 - Art. 153: c區面 Art. 155: c區面 - Art. 156: c區和00



Rif. 12451: 380V / 50 Hz

Rif. 12452: 110V / 60 Hz

Rif. 12453: Petrol

Rif. 12484: Diesel

Rif. 12481: 380V / 50 Hz

Rif. 12482: 110V / 60 Hz

**Rif. 12483:** Petrol

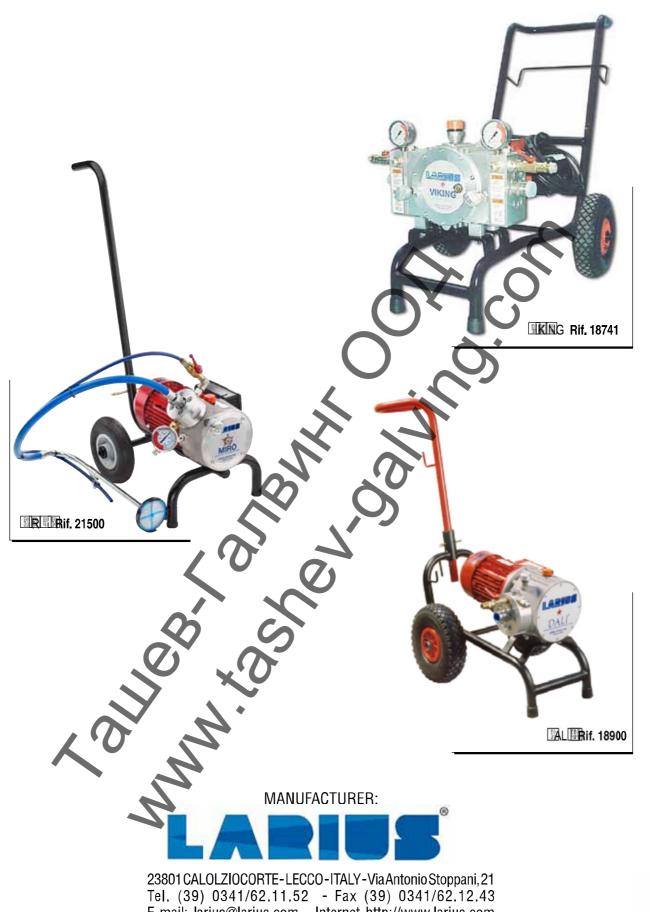
Rif. 12485: Diesel



# L'innovazione. Quella vera.



### AIRLESS DIAPHGRAGM PUMPS



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