



## *OENOLOGICAL ELECTROPUMPS*

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## OENOLOGICAL ELECTROPUMPS

**“ G. REVELLO ”** DICHIARA CHE L'ELETTROPOMPA PERISTALTICA, IDENTIFICABILE DAI RIFERIMENTI IN CALCE, È CONFORME AI REQUISITI ESSENZIALI DI SICUREZZA E DI SALUTE DI CUI ALLA DIRETTIVA **98/37/CEE, 91/368/CEE, 93/44/CEE, 93/68/CEE.**

Per la verifica della conformità, sono state consultate le norme:

<b>2006/95/CE</b>	–	Materiale elettrico destinato ad essere utilizzato entro taluni limiti di tensione
<b>2004/108/CE</b>	–	Compatibilità elettromagnetica
<b>UNI EN 292-1/2 1992</b>	–	Sicurezza del macchinario - Concetti fondamentali, principi generali di progettazione.
<b>EN 60204/1 1985</b>	–	Equipaggiamenti elettrici per macchine industriali - Requisiti generali.

**“G. REVELLO”** DECLARES THAT THE HOSE PUMP IDENTIFIED BY THE REFERENCE GIVEN BELOW, IS IN COMPLIANCE WITH THE MAIN SAFETY AND HEALTH REQUIREMENTS, AS STATED IN THE EEC DIRECTIVES **98/37/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC.**

As far as the conformity verification is concerned, the following rules have been consulted:

<b>2006/95/CE</b>	--	Electrical material for the use in certain voltage limits (modified by directive 93/68)
<b>2004/108/CE</b>	--	Electromagnetic compatibility (modified by directives EEC 92/31 and 93/68)
<b>UNI EN 292-1/2 1992</b>	--	Safety of the machine - Main concepts, general design principles
<b>EN 60204/1 1985</b>	--	Electrical equipments for industrial machines - General requirements

**“ G. REVELLO ”** DÉCLARE QUE LA POMPE PÉRISTALTIQUE, ET QUI S'IDENTIFIE AVEC LES RÉFÉRENCES CI-DESSOUS, EST EN CONFORMITÉ AVEC LES QUALITÉS REQUISES ESSENTIELLES QUI CONCERNENT LA SÉCURITÉ ET LA SANTÉ ET QUI SONT MENTIONNÉES DANS LES DIRECTIVES **98/37/CEE, 91/368/CEE, 93/44/CEE, 93/68/CEE.**

En ce qui concerne la vérification de la conformité, les normes suivantes ont été consultées :

<b>2006/95/CE</b>	--	Matériel électrique destiné à l'utilisation dans certaines limites de tension
<b>2004/108/CE</b>	--	Compatibilité électromagnétique
<b>UNI EN 292-1/2 1992</b>	--	Sécurité des machines - Concepts fondamentaux, principes généraux de projet.
<b>EN 60204/1 1985</b>	--	Equipements électriques - Exigences générales

Modello  
Model  
Modèle

**RPE 70**

Matricola  
Serial number  
N.d'identification

**01/10U**



## OENOLOGICAL ELECTROPUMPS

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## ***CHAPTER ONE***

### ***GENERAL GUIDANCE***



## **OENOLOGICAL ELECTROPUMPS**

Thank you for preferring our products; **"G. REVELLO"** is pleased to welcome you among its customers and wishes that you will be fully satisfied with the use of this machine.

This "OPERATION MANUAL" has been issued to enable to work with complete knowledge of the safety, operation, and maintenance norms of our electro-pump.

### **ADVICE**

To attain good efficiency, long life and satisfactory performance of the machine, WE RECOMMEND reading the instructions contained in this manual attentively and performing scrupulously all operations described, i.e. storage, handling, installation, start-up, use, and maintenance.

**BEFORE USING THE EQUIPMENT, IT IS ESSENTIAL THAT THE OPERATORS OF THE MACHINE have sufficient knowledge of the SAFETY NORMS of this manual.**

### **ATTENTION:**

This manual, referring to an electro-pump in standard version, but not covering all details and possible variations of its design, must be kept available for quick access during operation of the machine.

The technical characteristics, the data, and tables of this manual, are and remain the exclusive property of **"G. REVELLO"**.

Their reproduction and disclosure, even when only partial, to third parties are forbidden and will be prosecuted.

**"G. REVELLO" declines any responsibility in case of inconveniences, breakages, accidents, etc. due to the ignorance of, or failure to observe, the instructions and norms contained in this manual.**

**Additionally, the firm declines any responsibility for problems caused by:**

The execution of variations, modifications and/or installation of accessories without its authorization.

- ◆ Lack of maintenance
- ◆ Wrong manoeuvres
- ◆ Damages to the electrical equipment
- ◆ Environmental factors
- ◆ Natural catastrophes

### **RESERVE**

The descriptions and the pictures of this manual are NOT BINDING.

**"G. REVELLO"** reserves the right to make modifications to the pump at any moment to obtain aesthetic, commercial, and functional improvement (while maintaining the essential characteristic), without committing itself to update this manual immediately.

### **Use exclusively ORIGINAL SPARE PARTS**

**Do not wait for the components to be worn by use; perform their substitution at the right moment, to obtain better operation of the machine and lower working costs, since greater damages can be avoided.**

### **NOTES:**

- ◆ In case the customer did not find required information in this manual, contact our after-sales service.
- ◆ In event of doubts about the suitability of the electro-pump, it is advisable to contact the TECHNICAL SERVICE OF G. REVELLO.



## OENOLOGICAL ELECTROPUMPS



PERICOLO  
CORRENTE  
ELETTRICA

danger electrical tension



PERICOLO  
PARTI IN  
MOVIMENTO

danger driving parts



When referring to a hazard, the safety norms in this manual are recognizable through the symbol:

### ATTENTION:

**Besides the norms listed below, the chief operator of the machine must observe the provisions of the law in force about the safety and health of personnel in the workplace.**

The chief operator of the machine must know the safety devices installed on it and its modes of use; in addition, he/she must instruct other operators about the following:

- ♦ Safety norms and accident prevention
- ♦ Specific norms concerning the machine
- ♦ Position of the controls

The chief operator of the machine designates other operators, details their permissible operations, and the limits of their intervention for maintenance or repairs.

Only designated operators shall be allowed to work with the equipment.

### ATTENTION:

Always follow the safety norms and the instructions of this manual. **G. REVELLO** declines any responsibility for damages due to the improper use of the machine.

**THE TRANSPORT, THE DISCHARGE AND THE ASSEMBLY OF THE EQUIPMENT MUST BE PERFORMED ONLY BY AUTHORIZED AND SPECIALIZED PERSONNEL.**

**THE FEED TENSION MUST CORRESPOND TO THE VALUE REQUIRED**

Pay attention not to invert the phases.

**THE ELECTRICAL FEED SYSTEM MUST BE INSTALLED IN COMPLIANCE WITH THE NORMS IN FORCE**

Later on, perform periodic inspections to be sure that the feed cable is in perfect condition.



### ATTENTION DANGER:

**DO NOT ALLOW PEOPLE UNFAMILIAR WITH THE MACHINE TO APPROACH THE MACHINE.** The use, maintenance, inspections, and repairs of the machine must be performed only by authorised operators. Said operators must be physically and intellectually suitable people, not under the effect of alcohol, drugs, medicines or psychotropic drugs.

### ATTENTION:

**Disconnect the power when the machine is not in use.**



## **OENOLOGICAL ELECTROPUMPS**

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Before starting the machine, **CHECK** if there are any visible defects to the safety devices.

### **MAKE SURE THAT:**

- ♦ Individuals unfamiliar with the machine are not near the machine.
- ♦ There are no foreign objects (tools, rags, etc.) on the machine.
- ♦ After starting, the machine does not emit anomalous noise. In that case, stop it immediately and find its cause.
- ♦ All doors and safety panels have been properly closed

### **DO NOT USE**

- ♦ Loose clothing that could be caught in by moving parts (scarves, wrist watches, bracelets, rings, etc.)

### **USE:**

- ♦ Operators with long hair must wear hair net or hat/cap.
- ♦ Shoes with anti-slip soles.

### **ATTENTION DANGER:**

When the machine is working, it is strictly forbidden to deactivate the safety and accident-prevention devices.

### **ATTENTION:**

At the shift change the operator must inform the person who relieves him/her or his/her superior of any operation and/or safety defects, even if they did not cause the machine to stop.

### **ATTENTION:**

Do not attempt repair/service or interfere with the machine while it is operating. Maintain a safe distance from the moving parts.

Do not handle objects, detergents, etc. near the machine while it is operating.



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### ATTENTION DANGER:

Inspection, lubrication, adjustment and maintenance must be performed with the machine stopped and the power off.

### ATTENTION DANGER:

During performance of repairs, the safety devices can be disconnected only by specialized personnel, who shall pay utmost attention to avoid injury to people or damage to the machine.

### PRECAUTIONS TO BE FOLLOWED WHEN PERFORMING INTERVENTIONS ON THE MACHINE:

- ◆ Apply a warning plate on the control board
- ◆ All repairs must be performed by specialized personnel under the guide of the chief operator.
- ◆ After disconnecting the power, insure the power cannot be connected inadvertently.
- ◆ Ensure the power is disconnected before making any interventions on the electrical. Connect a ground wire to ensure the machine is fully discharged to ground.
- ◆ Do not allow people unfamiliar with the operation of the machine to be near the machine.
- ◆ **Do not clean the electrical components with water or other fluids.**

### ATTENTION:



Use acids, aggressive detergents, lye, etc, cautiously during cleaning. Follow scrupulously the instructions of the producer of cleaners. Use protective clothes, like glasses, gloves, overalls, etc.

### ATTENTION DANGER:

If there is more than one person performing repairs or maintenance, it is obligatory to warn them before starting the machine.



## OENOLOGICAL ELECTROPUMPS

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### AT THE END OF MAINTENANCE OR REPAIR, BEFORE STARTING UP THE MACHINE:

The chief operator of the machine will check that all repairs/maintenance have been finished, all safety devices are installed correctly, and people who are not operators of the machine, have been sent away.

### 6 MONTH INSPECTION:

Check all safety devices.

### YEARLY INSPECTION:

The machine must undergo a yearly inspection performed by a qualified maintenance worker to check that all safety guards are operational and the various parts of the machine are in good condition. After the inspection, apply a label to the machine indicating that the inspection has been performed.

### GENERAL ANNOTATION:

For any maintenance and repair employ exclusively **SPECIALIZED PERSONNEL** or contact the "AFTER SALE SERVICE G. REVELLO".

### ATTENTION:

"G. REVELLO" does not guarantee the results of the repairs and declines any responsibility for damages in case said works have not been performed by its personnel.

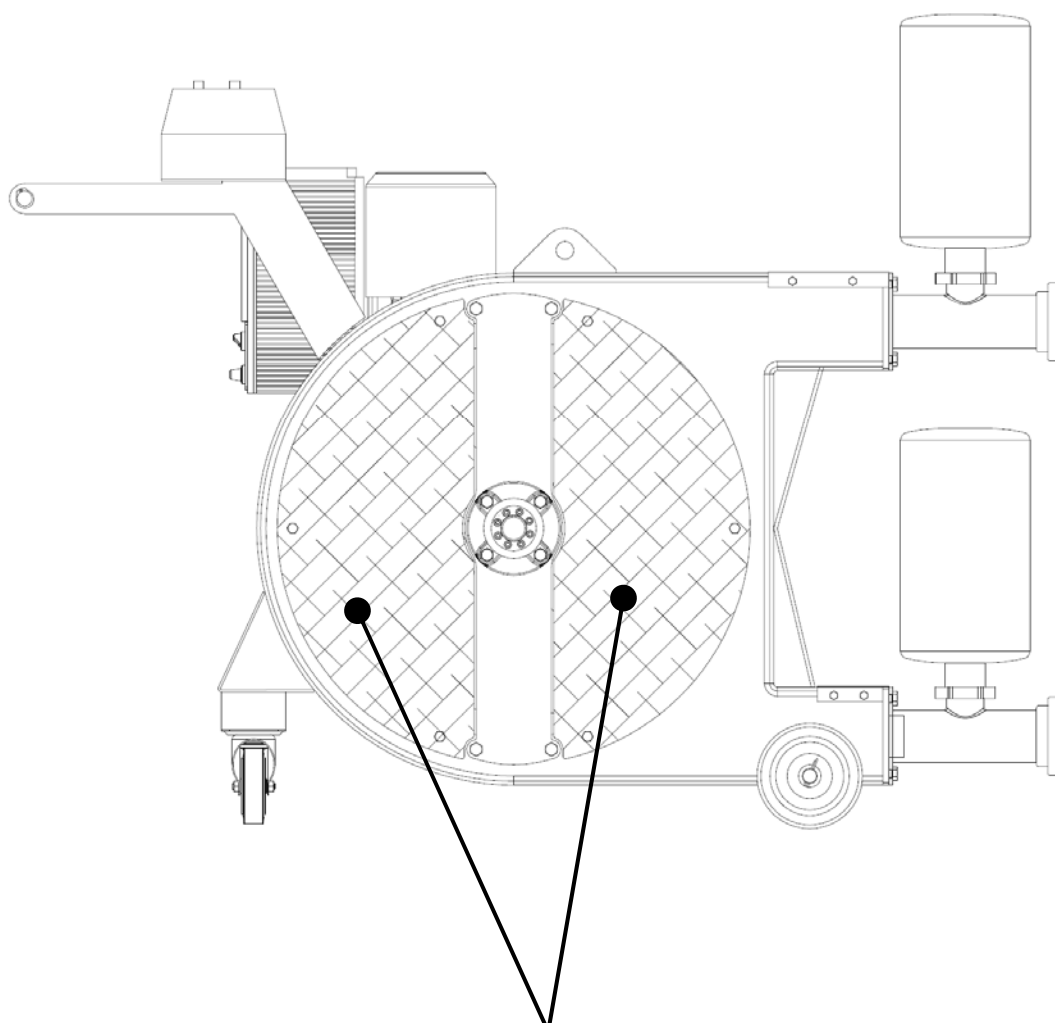
*As far as reasonably tested we state that our machines have been designed and manufactured for safety and to be used without any risks for the health if used correctly.  
Provided that the instructions of this manual are observed scrupulously, we cannot foresee all possible situations where our machines can represent risks for the health and the safety.  
In case of doubts concerning the suitability of the electro-pump for the intended application, it is advisable to contact **G. REVELLO** with the serial number of the machine.*

### DECALS OF DANGER AND ATTENTION:

The following pages show the various decals that you can find on the machines.

### ATTENTION:

The content of the decals can vary depending on special needs.



**THESE SAFETY GUARDS CAN ONLY BE REMOVED BY AUTHORIZED SPECIALIZED PERSONNEL WITH THE AID OF MECHANICAL TOOLS.**

**BEFORE REMOVING THE SAFETY GUARDS IT IS OBLIGATORY TO DISCONNECT THE POWER AND ACTIVATE THE EMERGENCY STOP BUTTON.**

**IT IS STRICTLY FORBIDDEN TO REMOVE THE SAFETY GUARDS WITH THE MACHINE IN OPERATION OR TO START THE MACHINE WITHOUT THE SAFETY GUARDS.**





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## ***CHAPTER TWO IDENTIFICATION***



## OENOLOGICAL ELECTROPUMPS



Every electro-pump bears an identification plate with clear and indelible data of the machine.

			
Via Stazione, 18 - S.STEFANO BELBO (CN) - ITALY Tel. 0141 844129 - Fax 0141 843211			
1	MODEL	2	
3	SERIAL NR	Q.max.: GPM	4
5	YEAR	Q.min.: GPM	6
		VOLTS	

- 1) MODEL OF THE ELECTROPUMP
- 2) MAXIMUM DELIVERY
- 3) SERIAL NUMBER
- 4) MINIMUM DELIVERY
- 5) YEAR
- 6) TENSION (VOLTAGE)



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## *CHAPTER THREE* *INFORMATION*



## OENOLOGICAL ELECTROPUMPS

### ►► NOISE

The machine does not emit any noise above the critical threshold.

### ►► DISPOSAL OF WASTE

While performing its working cycle the machine does not produce any waste.

### ►► INFORMATION ABOUT DEMOLITION

The machine is manufactured of stainless steel and other ferrous and non-ferrous alloys. Elements of plastic material are mainly the cables for electrical supply, the components of the electrical system, and the box containing them. **We remind the user of the electro-pump that all material must be disposed in compliance with the norms and regulations in force in the country of the user.**

### ►► INFORMATION ABOUT STORAGE

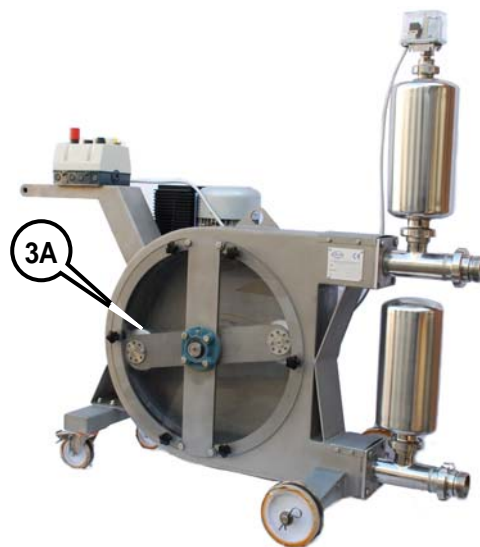
If the pump is not used for moderate or long periods, it is advisable that one of the compression rollers “3A” is ungeared to reduce pressure exerted by the rollers on the hose. This pressure can produce marks on the hose damaging it and resulting to malfunction at startup. Moreover, it is advisable to clean the electro-pump fully and cover it properly. Store the machine in a dry place protected from conditions such as dust, water, and large temperature changes.

### ►► WARRANTY

The manufacturer guarantees that his/her products are free from defects in the material and workmanship for a period of one year from the date of delivery, under normal conditions of maintenance and use.

The commitments and obligations deriving from this warranty are limited to the mere substitution and/or repair of the part or parts that after inspection are determined to be defective as to material or workmanship provided that they have not been altered in any way and have not been subject to improper use, negligence, or accident.

**The labour costs for repairs or substitution of the defective parts and the transport costs are not included in the warranty.**





## **OENOLOGICAL ELECTROPUMPS**

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***No warranty made by anyone other than the manufacturer will be regarded as valid and binding.***

The manufacturer reserves the right to modify his machines at any moment and without previous notice, in that case the manufacturer shall not be obliged to perform any changes in machines produced before. Upon delivery, check that the machine and its accessories, if any, have not been damaged during transport. Claims shall be presented in writing **within 6 (six) days**. The purchaser can exert his/her rights on the warranty only if he/she has observed the necessary conditions for its validity mentioned in the delivery contract.

### **►► LAPSE OF THE WARRANTY**

#### **The warranty lapses:**

- 1)** In case of improper operation of the pump
- 2)** When, due to repairs performed by the customer without the authorisation of **"G. REVELLO"** and to the use of non-original spare parts, the machine is damaged by cause of said repairs.
- 3)** In the event that the user does not follow the instructions of this manual.



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## ***CHAPTER FOUR***

### ***CHARACTERISTICS***



## OENOLOGICAL ELECTROPUMPS

The firm "**G. REVELLO**" has been manufacturing pumps since 1890, an experience handed over from father to son and always aimed at technological improvement following the guideline that a tool or equipment used to work must be essentially evaluated for its technical features giving the machine versatility and guaranteeing its durability.

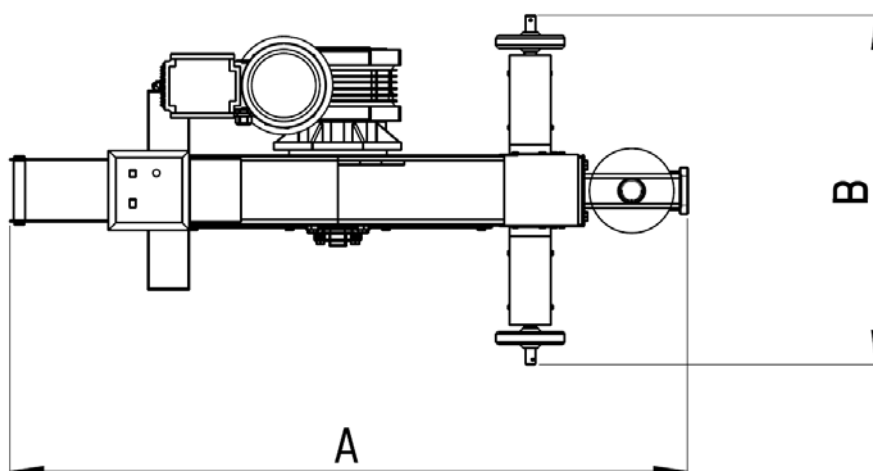
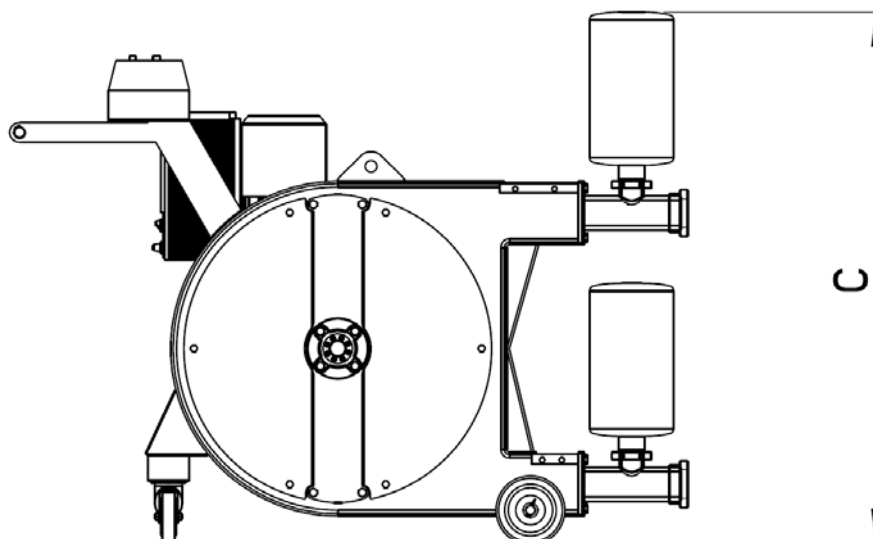
The hose pumps, also called peristaltic pumps, are self-priming pumps in which two rollers on a rotor, rotating alternatively, fill a hose with thick walls located in a guide with shaped profile and, thanks to the rotation, push the content of the hose (i.e. the pumped liquid) from the suction line to the discharge. With the relaxation of the hose a vacuum is created in the inlet line, thus resulting in continuous feed.

They are used to pump wine, waste waters, in the treatment of water in building, chemical, foodstuff, oil, paper, and pharmaceutical industry. They are also used to transfer liquids at high or moderate viscosity, very dense liquids, aggressive, abrasive liquids and products containing solid parts. Moreover, they can be used as vacuum pumps in evaporation plants.

### TECHNICAL DATA SHEET

<b>ELECTROPUMP MODEL</b>	<b>RPE 70</b>			
<b>SERIAL NUMBER</b>	<b>01/10U</b>			
<b>DELIVERY ( Q )</b>	<b>Minimum (GPM)</b>	Rev./1'	14	6
	<b>Maximum (GPM)</b>		70	31
<b>PIPING</b>	<b>DIAMETRE mm.</b>	50		
<b>PREVALENCE</b>	<b>Mt.</b>	30		
<b>WEIGHT</b>	<b>Kg.</b>	130		
<b>ELECTRIC MOTOR</b>	<b>Kw</b>	1,5		
<b>SUPPLY</b>	<b>Volt</b>	230 V – single phase		
	<b>Hz</b>	60		
<b>RUBBER HOSE</b>	<b>Ø</b>	45x85		

## OENOLOGICAL ELECTROPUMPS



ELECTRO-PUMP MODEL	A (mm)	B (mm)	C (mm)
RPE70	1200	710	970
RPE150	1440	710	1250
RPE300	1550	870	1730



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## ***CHAPTER FIVE***

### ***DISPLACEMENT, TRANSPORT, INSTALLATION***

## **OENOLOGICAL ELECTROPUMPS**

The transport of the machines can be made as follows:

- ♦ **WITHOUT PACKING:** The machines are transported on trucks, without packing and protected only with a cellophane wrapping and blocking of front and rear wheels with wooden wedges or beams fixed with nails to the truck floor.
- ♦ **IN WOODEN CRATE.** In this case the machines are protected with cellophane and closed in wooden crates having a pallet as a base. The electro-pump is fixed to the pallet with wooden beams and fastened (on the pallet) with iron brackets fixed with bolts.
- ♦ **ON WOODEN PALLET.** The machines are fixed with wooden beams and fastened (on the pallet) with iron brackets fixed with bolts. The overall dimensions of the pumps are smaller than the dimensions of a pallet

### **ATTENTION:**

- ♦ When they are without packing, the pumps must be lifted by using approved hoisting straps in compliance with the safety regulations; moreover, they must have suitable capacity for the weight of the machine and equipped with a load-hook to be inserted in the point specified by the manufacturer (see picture at the bottom of this page).
- ♦ The pumps packed in wooden crates or on pallet must be loaded or unloaded from the transport with the aid of a fork lift.
- ♦ The pumps on pallets or in cages can be lifted only **after the load has been perfectly balanced on the forks of the forklift.**
- ♦ **"G. REVELLO"** declines **any responsibility for damages due to accidents caused by improper balancing of the load on the forks of the forklift.**
- ♦ The pump must be in an enclosed delivery truck **to avoid damaging the electrical components of the machine** in case of rain, snow, or bad weather.
- ♦ **Not perfect load balancing** (the machine with or without packing must always be in horizontal position) creates a situation of **great hazard** for the operators.
- ♦ In the winery, the pump can be easily moved thanks to the four (two fixed and two pivoting) wheels on which the electro-pump is mounted .

**POINT PREDIOSPOSED BY THE  
MANUFACTURER FOR THE INSERTION  
OF THE LOAD-HOOK. IT IS STRICTLY  
FORBIDDEN TO USE ANY OTHER  
SYSTEM OR SEIZING POINT FOR THE  
LIFTING OF THE MACHINE**





## OENOLOGICAL ELECTROPUMPS

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- + The electro-pump must be inspected upon delivery for any damage or missing parts. In addition, the customer must check all boxes or parcels containing spare parts or accessories packed with the pumps.
- + After removing the packing (when present) position the machine near the feed line or tank containing the liquid to be pumped.
- + The installation must be made on a level floor sufficiently rigid to support the weight of the electro-pump and the additional weight of the product and hoses.
- + To facilitate the installation and the maintenance of the electro-pump, it is advisable to have two hoses of about 5' each made of flexible material: one for the inlet and one for outlet.
- + It is very important that the suction hose be reinforced to prevent the vacuum created by the electro-pump from causing the collapse of the hose.
- + The internal diameter of the suction and delivery hoses must be 20-30% bigger than that of the hose of the electro-pump. In case there are bends in these hoses, it is advisable for the bend radii to be a minimum of 3 times the diameter of the hose. This also ensures longer life of the hose of the electro-pump.
- + Do not have bends in the hose near the inlet of the electro-pump. If filters are installed on the inlet of the pump, they must have open area at least 3 times the cross section of the suction hose.
- + In the event that very hot, dense, or viscous liquids are pumped, it is essential to have a low suction height to reduce load losses. In addition, it is advisable to operate **at a low RPM**
- + If products with low fluidity are pumped, it is possible to install the electro-pump with mouth under the level of the liquid. In this case it is advisable that the rotation speed of the electro-pump is **very low**.
- + If the outlet hose is very long, it is advisable to make it run vertical till the highest point and then give the hose a slight inclination (**Picture 5A**). In this case the diameters of the suction and delivery hoses shall be decided every time according to the load losses.
- + If a gate or valve is used, it is advisable to have a by-pass. (**Picture 5B**).

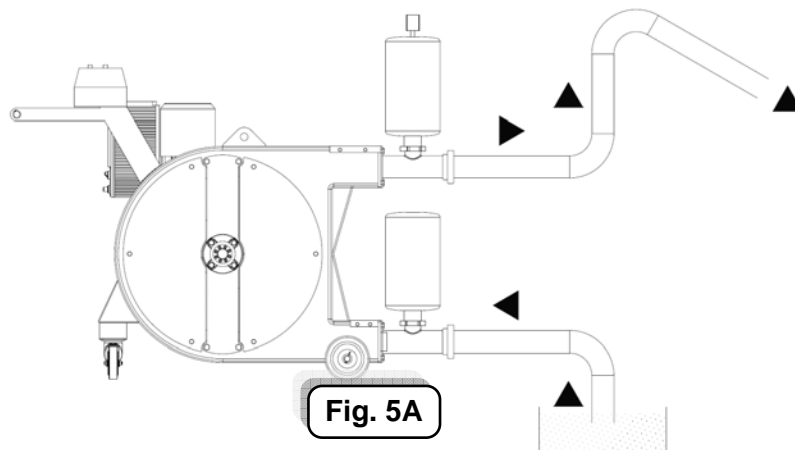


Fig. 5A

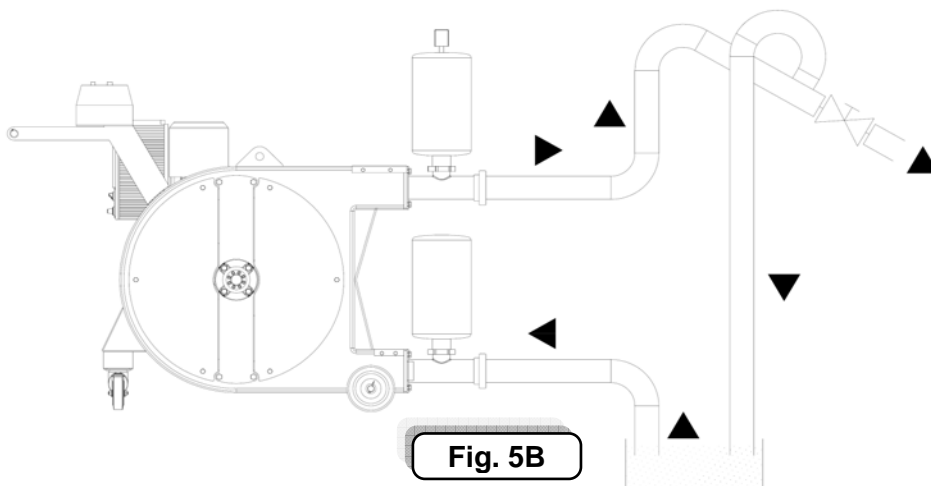


Fig. 5B

## ►► ...ELECTRICAL CONNECTION

### ATTENTION DANGER:

Repairs or maintenance of the electrical system can be performed only by **SPECIALIZED ELECTRICIANS**, who have been instructed about the safety and accident prevention norms and the technical characteristics of the machine.

**ATTENTION:** Make sure that the feed voltage corresponds to the value required. (SEE IDENTIFICATION PLATE). The feed cable shall be connected with a plug in compliance with the international safety standards. It is also intended that the whole electrical system to which the machine is connected must be in compliance with the prescriptions of the norms in force.



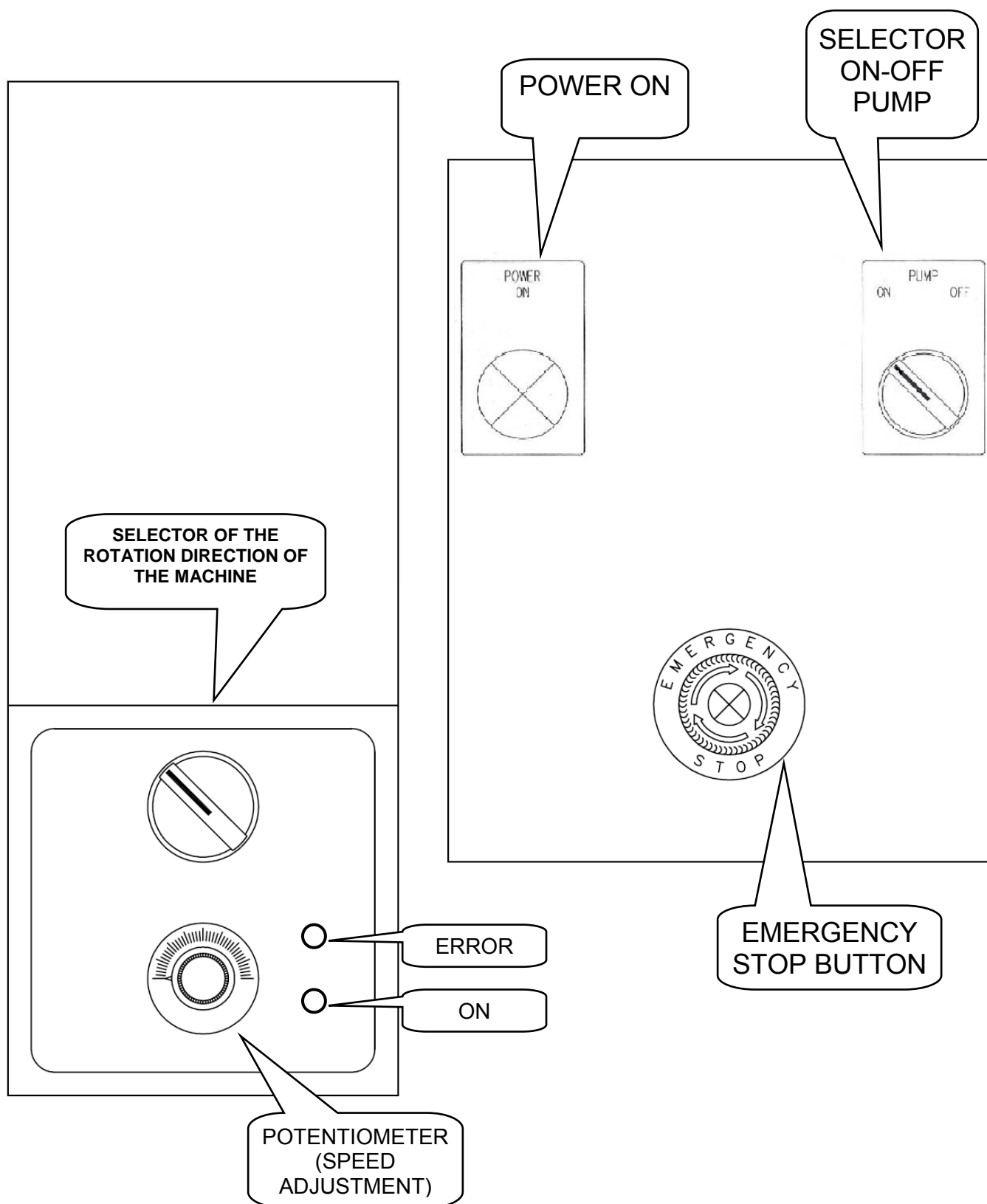
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## ***CHAPTER SIX***

### ***CONTROLS OF THE MACHINE***

## OENOLOGICAL ELECTROPUMPS





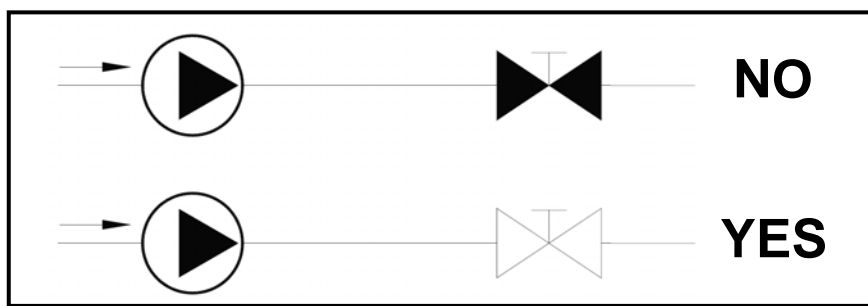
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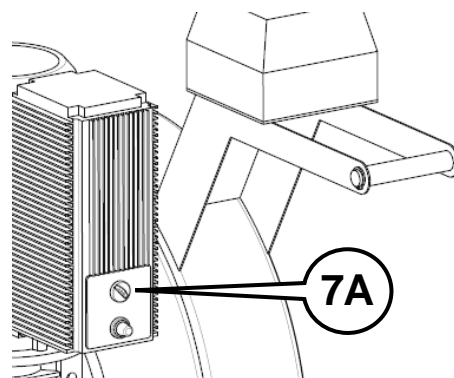
## ***CHAPTER SEVEN USE OF THE MACHINE***

►► **BEFORE STARTING THE ELECTROPUMP MAKE SURE THAT:**

- 1) The voltage of the motor corresponds to the line voltage.
- 2) Make sure that all mechanical safety covers have been properly installed.
- 3) Check that the suction and delivery hoses are properly connected.
- 4) Check that the valve on the outlet pipe (when installed) **IS OPEN**



- 5) Choose the direction of rotation by using the selector “7A” located on the variable speed drive (inverter).
- 6) Check the suction capacity. Good suction is obtained with correct calibration of the rotor. After starting the electro-pump it is possible to perform an empirical sensorial test of the value of the vacuum by putting the palm of your hand on the suction inlet. A more precise test of the value of the vacuum requires using a vacuum-gauge.
- 7) After the above-mentioned checks, the electro-pump is ready to work.



## OENOLOGICAL ELECTROPUMPS

### ►► MALFUNCTIONS AND TROUBLESHOOTING

This section provides the description of the problems that can arise when using the machine; additionally, it describes the possible causes of malfunction and remedies.

#### • TEMPERATURE OF THE ELECTROPUMP

The temperature of the electro-pump can increase due to:

- + Use of an unsuitable lubricant.
- + Product at too high of temperature
- + Worn-out bearings.

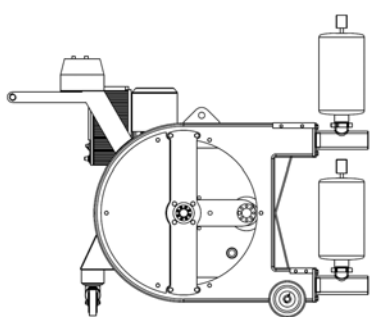


Fig. F7A

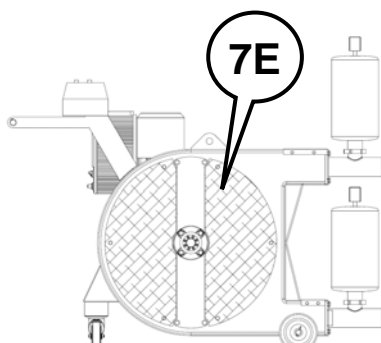


Fig. F7B

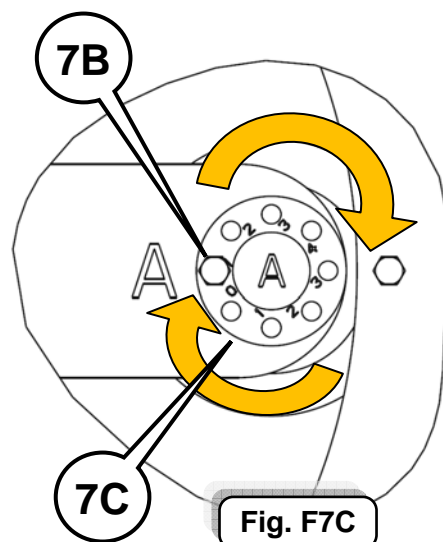


Fig. F7C

- + Incorrect or non optimal adjustment of the rollers that exert excessive pressure on the hose. To adjust the pressure of the rollers, follow these steps:
  - ☞ Stop the electro pump with the roller holder in horizontal position (see picture F7A)
  - ☞ Disassemble at least one of the mechanical safety covers "7E" (see picture F7B)
  - ☞ Remove bolt "7B" and rotate the flange "7C", numbered from 0 to 4, in clockwise or anticlockwise direction to increase or reduce the pressure of the roller on the hose. It is essential that after completing the adjustment, one of the numbered holes of flange "7C" is in correspondence to one serving as seat for the fixation bolt "7B", in order to be able to lock the roller in the desired (see picture F7C). **ATTENTION: With the flange in position "0", the roller exerts the minimum pressure on the hose while in position "4" it exerts the maximum pressure.**
  - ☞ Assemble the mechanical safety cover, rotate the rollers 180° and perform the adjustment of the second roller following the same procedure.
- + Electro-pump running at too high of speed.



## **OENOLOGICAL ELECTROPUMPS**

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### **• DELIVERY-PRESSURE**

The flow rate or delivery pressure of the electro-pump can be lower than the rated values due to:

- + valves on the suction or delivery pipe are closed
- + incorrect adjustment of the rollers (make reference to the previous chapter to change their adjustment)
- + breakage of the hose, in this case the body of the electro-pump would be filled by the product
- + partial blockage of the suction line or lack of product in the feed tank
- + the electro-pump has not been set within its limits: too high of speed rate, too long of suction and delivery hoses, too high of viscosity of the product, or air leak in the suction line.

### **• VIBRATION AND WATER HAMMER OF THE ELECTRO-PUMP AND PIPES**

This type of electro-pump has a pulsating flow that can generate vibrations on the electro-pump itself and on the pipes in the presence of the conditions described below:

- + Suction and delivery hoses not correctly attached.
- + High rotation speed of the electro-pump combined with long hoses and high specific gravity of product.
- + Suction or delivery hoses of too small diameter.
- + The two expansion chambers on the suction and delivery pipes serve to reduce the vibrations and any water hammer of both the electro-pump and the pipes.

### **• LOW DURABILITY OF THE HOSE**

Generally the durability of the hose is the result of the following parameters:

- + Chemical attack, (material not resistance to the chemical properties of the pumped fluid)
- + High speed of the electro-pump. A low RPM increases the durability of the hose.
- + Delivery pressure and temperature of the product: high pressure and/or high temperature of the product imply higher levels of stress on the electro-pump and the reinforcement of the hose.

### **• FRICTION DRIVE OF THE HOSE IN THE BODY OF THE ELECTRO-PUMP**

The causes of the hose being driven in the body of the electro-pump can be the following:

- + Insufficient lubricant.
- + Too high inlet pressure.
- + Hose that cannot be compressed due to parts or objects in the hose preventing the flow of the pumped liquid.
- + The hose cannot be compressed and could be pushed inside the body of the electro-pump.



*OENOLOGICAL ELECTROPUMPS*

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## ***CHAPTER EIGHT***

### ***PERIODIC INSPECTIONS AND MAINTENANCE***



## **OENOLOGICAL ELECTROPUMPS**

### **►► MAINTENANCE PROGRAM**

The best performance, lower operating costs, and the longest life of the electro-pump can be obtained with accurate inspections and a maintenance program.

The procedures described in this manual do not substitute for the experience of our technical staff.

### **►► ORDINARY INSPECTION**

- + Check the performance of the machine; make sure that the noise, the vibrations, and the temperature of the bearings of the electro-pump and the motor are within the normal threshold values.
- + Check the outlet flow rate, the pressure, and the suction of the electro-pump.
- + If the performances of the electro-pump do not meet the requirements and it has not been modified, check if any parts are worn-out.
- + Check that there is no anomalous leakage of the liquid being pumped.

### **►► OIL IN THE REDUCER**

CHECK THE LEVEL OF THE OIL IN THE REDUCER PERIODICALLY; if necessary, fill it up. Change the oil completely after **two thousand hours**.

### **►► DISASSEMBLY AND RE-ASSEMBLY**

#### **ATTENTION!!!**

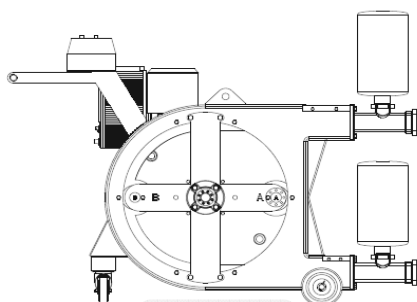


- + The pump may have pumped dangerous and toxic liquids; therefore, it is essential to wear skin and eye protection.
- + The liquid must be collected and disposed of in compliance with the environmental laws in force.
- + In case the machine is returned to the factory for complete overhaul, in case it has conveyed toxic or aggressive liquids, it must first undergo a scrupulous decontamination by the customer.

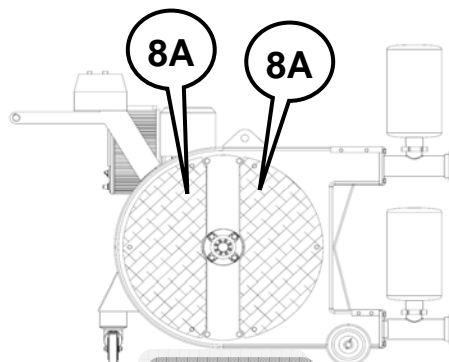
### **►► REPLACEMENT OF A WORN HOSE**

- 1) Remove inlet and outlet hoses from the pump.
- 2) Start the electro-pump and bring the roller holding arm into horizontal position (see Picture F8A on the following page).
- 3) Disconnect the power, activate the emergency stop button and remove the mechanical safety covers "8A" (see picture F8B on the following page).

## OENOLOGICAL ELECTROPUMPS

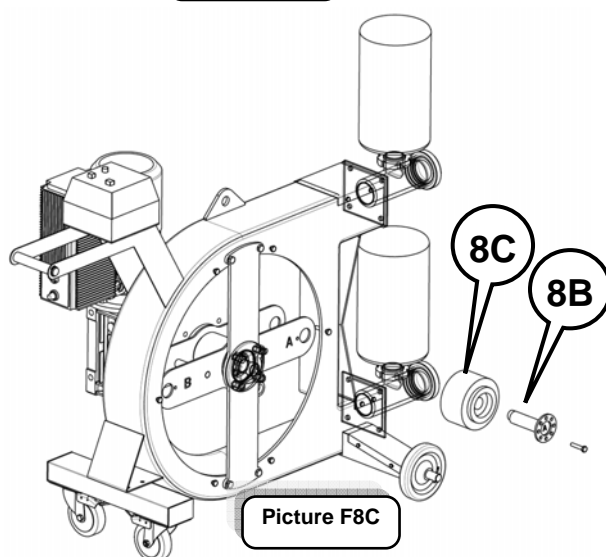


Picture F8A

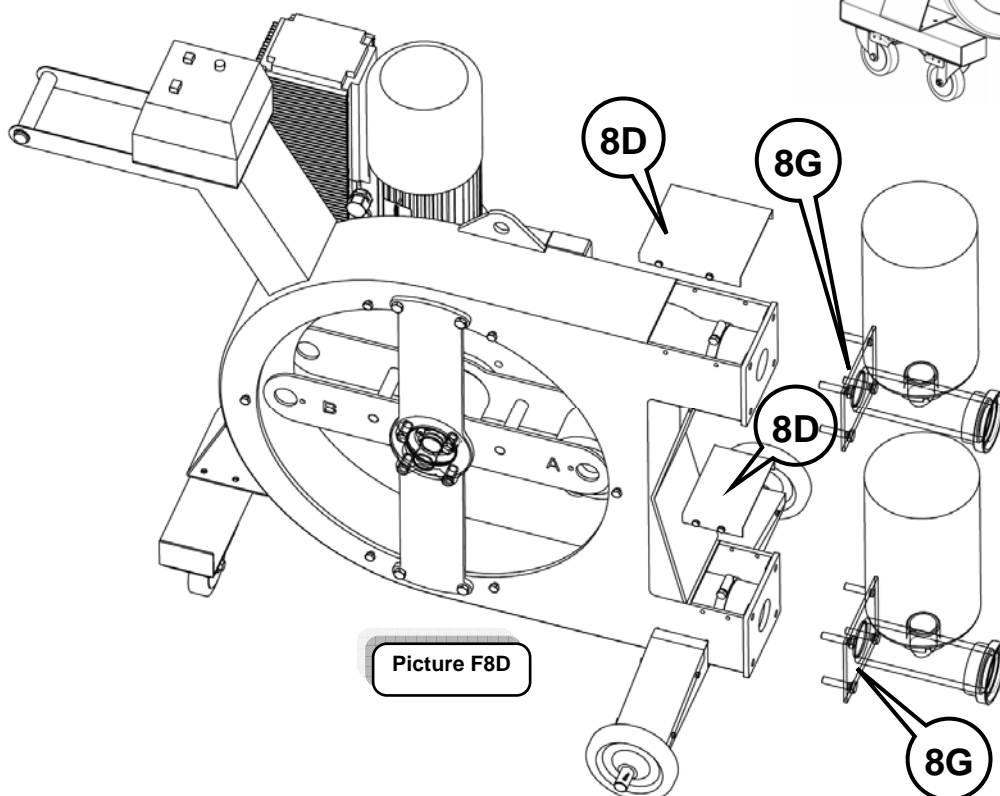


Picture F8B

- 4) Take out the eccentric shaft "8B" associated with the roller "8C" which is not pressed on the hose and dismount the roller from the arm (see picture F8C).
- 5) Reinstall the mechanical safety covers "8A".
- 6) Start the electro-pump, rotate the roller holding arm 180° so that the other roller is not pressing on the hose.
- 7) Remove the mechanical safety covers "8A" again, according to the step 3.



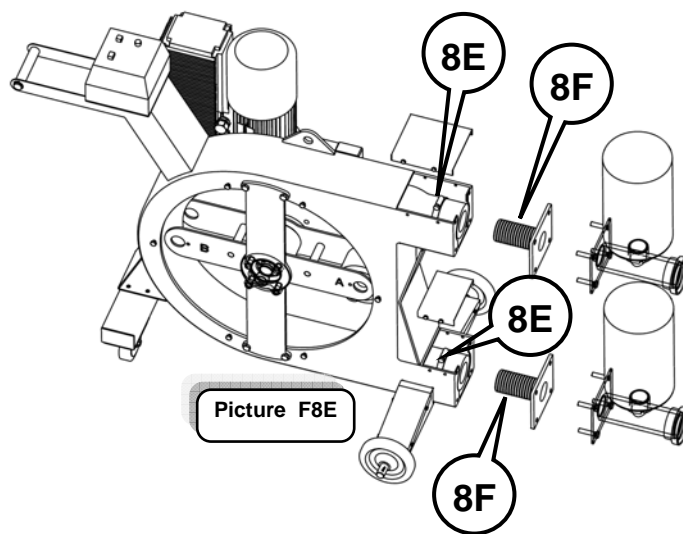
Picture F8C



Picture F8D

## ENOLOGICAL ELECTROPUMPS

- 8) Perform the disassembly of the connection holding flanges “8G” and the covers “8D” (see picture F8D).
- 9) Loosen the clamps “8E” blocking the hose on the hose holder (see picture F8E).
- 10) Disassemble the hose holder “8F” from the worn-out hose (see picture F8E).
- 11) Remove the hose from the body of the electro-pump.
- 12) Carefully clean the body of the electro-pump.



### ● MOUNTING THE NEW HOSE

- 1) Check the length of the hose, if necessary, comparing it with the one of the previously disassembled hose.
- 2) Position the curved hose inside the body of the electro-pump
- 3) Insert the clamps on the hose.
- 4) Insert the lower hose holder on the hose so that the end of it makes contact with the relevant flange.
- 5) Tighten the clamps of the lower hose holder and fasten both the hose holding flange and the one holding the connections by using the relevant bolts. to the body of the electro-pump
- 6) Re-install the mechanical protection cover “8A” (see picture F8B in the preceding page). Start the electro-pump, rotate the roller holding arm 180° and assemble the other roller with its eccentric bolt in position 0.
- 7) Insert the upper hose holder on the hose in such a way that its end contacts the relevant flange.
- 8) Tighten the clamps of the upper hose holder.
- 9) Operate the electro-pump at very slow speed, at the same time push the upper connection of the hose inwards to make the hose adhere perfectly to the perimetric surface of the body of the electro-pump.
- 10) Stop the electro-pump; fasten the both the hose holding flange and the one holding the connection by using the relevant bolts.
- 11) Calibrate the rotor by adjusting the eccentric bolts of the rollers. Place the two eccentric bolts in position 0. The ideal calibration will be obtained by rotating the eccentric bolts from hole to hole. It is important to reach the fine adjustment of the two rollers gradually since too much pressure on the hose would shorten its life without improving the performance of the electro-pump. At every adjustment operate the electro-pump slowly to check its tightness during suction by placing the palm of your hand on the suction end (suction cup effect). Repeat the operation gradually until finding the proper calibration. **N.B.: the adjustment of the flange “7C” recommended by the manufacturing company corresponds to position “2”.**

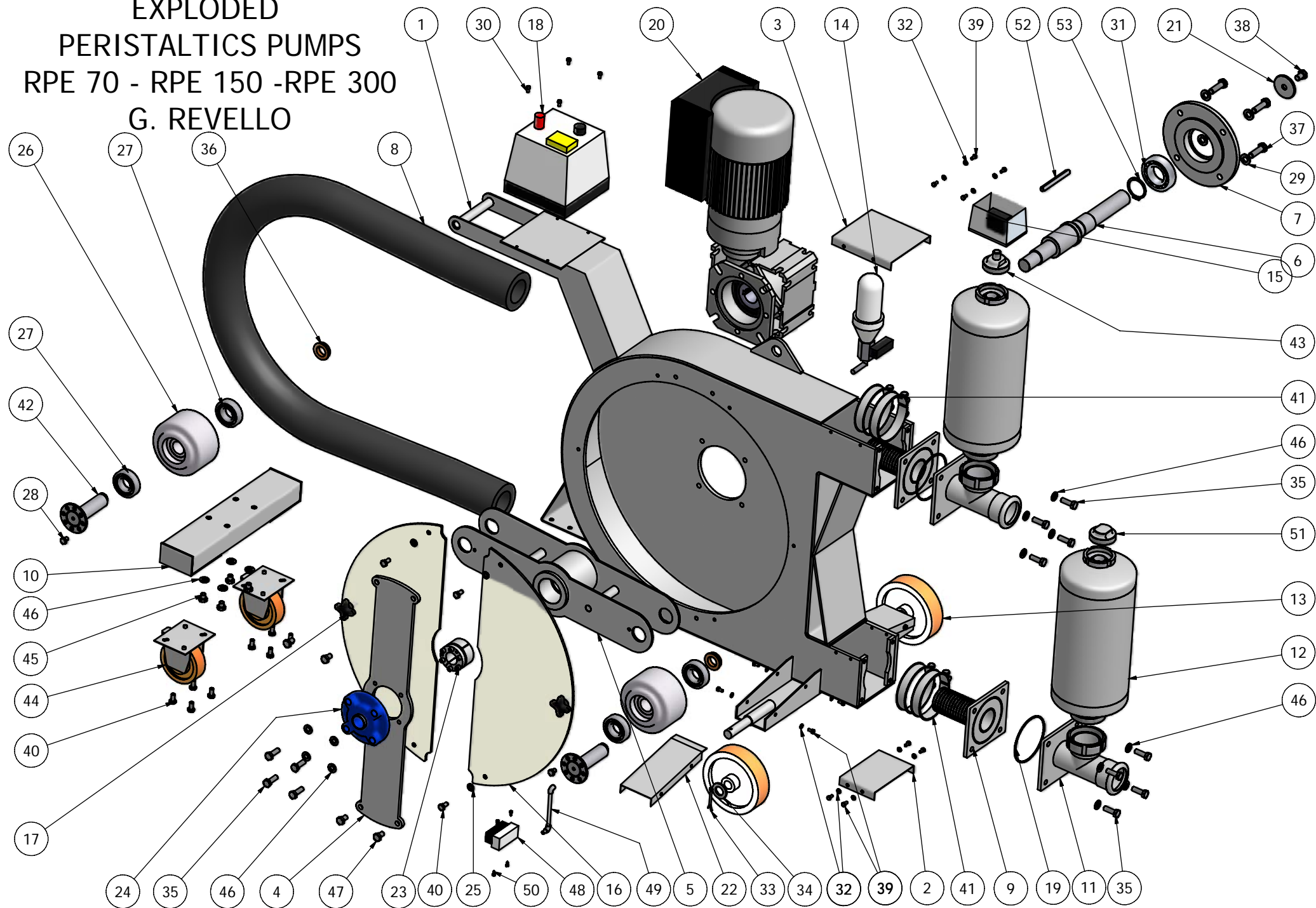


## *OENOLOGICAL ELECTROPUMPS*

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### *ADDENDUMS*

EXPLODED  
PERISTALTICS PUMPS  
RPE 70 - RPE 150 -RPE 300  
G. REVELLO



# CATALOGO RICAMBI POMPE PERISTALTICHE

## SPARE PARTS OF PERISTALTIC ELECTROPUMPS

## DISTINCTS ARTICLES DE POMPE PERISTALTIQUE

POS.	DESCRIZIONE	DESCRIPTION	POMPA RPE 70	POMPA RPE 150	POMPA RPE 300
1	Corpo pompa	Pump-casing	RPE 70.100	RPE 150.100	RPE 300.100
2	Carter	Carter	RPE 70.002	RPE 150.002	RPE 300.002
3	Carter	Carter	RPE 70.003	RPE 150.003	RPE 300.003
4	Piastra	Piaster	RPE 70.014	RPE 150.014	RPE 300.014
5	Rotore	Rotor	RPE 70.105	RPE 150.105	RPE 300.105
6	Albero	Shaft	RPE 70.027	RPE 150.027	RPE 300.027
7	Flangia	Flange	RPE 70.018	RPE 150.018	RPE 300.018
8	Tubo	Hose	RPE 70.110	RPE 150.110	RPE 300.110
9	Flangia con portagomma	Flange with hose nipple	RPE 70.115	RPE 150.115	RPE 300.115
10	Carrello	Cart	RPE 70.120	RPE 150.120	RPE 300.120
11	Flangia con TEE	Flange with TEE	RPE 70.125	RPE 150.125	RPE 300.125
12	Campana	Bell	RPE 70.130	RPE 150.130	RPE 300.130
13	Ruota	Wheel	RPE 70.135	RPE 150.135	RPE 300.135
14	Dosatore	Automatic lubricator	RPE 70.140	RPE 150.140	RPE 300.140
15	Pressostato	Pressure switch	RPE 70.145	RPE 150.145	RPE 300.145
16	Riparo	Shelter	RPE 70.019	RPE 150.019	RPE 300.019
17	Volantino	Locking knob	RPE 70.150	RPE 150.150	RPE 300.150
18	Impianto elettrico	Electric box	RPE 70.155	RPE 150.155	RPE 300.155
19	O.R.	O.R.	RPE 70.160	RPE 150.160	RPE 300.160
20	Motoriduttore con invert	Gearmotor with invert	RPE 70.165	RPE 150.165	RPE 300.165
21	Rondella inox	Stainless steel washer	RPE 70.030	RPE 150.030	RPE 300.030
22	Carter	Carter	RPE 70.001	RPE 150.001	RPE 300.001
23	Calettatore	Locking assemblies	RPE 70.170	RPE 150.170	RPE 300.170
24	Supporto per cuscinetto	Cast iron flanged units	RPE 70.175	RPE 150.175	RPE 300.175
25	Rondella inox	Stainless steel washer	RPE 70.180	RPE 150.180	RPE 300.180
26	Rullo	Roll	RPE 70.024	RPE 150.024	RPE 300.024
27	Cuscinetto a sfere	Radial ball bearing	RPE 70.185	RPE 150.185	RPE 300.185
28	Vite inox	Stainless steel bolt	RPE 70.190	RPE 150.190	RPE 300.190
29	Rondella inox	Stainless steel washer	RPE 70.195	RPE 150.195	RPE 300.195
30	Vite inox	Stainless steel bolt	RPE 70.200	RPE 150.200	RPE 300.200
31	Cuscinetto orientabile	Self-aligning ball bearing	RPE 70.205	RPE 150.205	RPE 300.205
32	Rondella inox	Stainless steel washer	RPE 150.70	RPE 150.210	RPE 300.210
33	Coppiglia	Cotter pin	RPE 70.215	RPE 150.215	RPE 300.215
34	Rondella inox	Stainless steel washer	RPE 70.220	RPE 150.220	RPE 300.220
35	Vite inox	Stainless steel bolt	RPE 70.225	RPE 150.225	RPE 300.225
36	Boccola	Bushing	RPE 70.029	RPE 150.029	RPE 300.029
37	Vite inox	Stainless steel bolt	RPE 70.230	RPE 150.230	RPE 300.230
38	Vite inox	Stainless steel bolt	RPE 70.235	RPE 150.235	RPE 300.235
39	Vite inox	Stainless steel bolt	RPE 70.240	RPE 150.240	RPE 300.240
40	Vite inox	Stainless steel bolt	RPE 70.245	RPE 150.245	RPE 300.245
41	Fascetta di serraggio	Collar clamp	RPE 70.250	RPE 150.250	RPE 300.250
42	Perno	Shaft	RPE 70.255	RPE 150.255	RPE 300.255
43	Riduzione	Reduction nipple	RPE 70.260	RPE 150.260	RPE 300.260
44	Ruota	Wheel	RPE 70.265	RPE 150.265	RPE 300.265
45	Vite inox	Stainless steel bolt	RPE 70.270	RPE 150.270	RPE 300.270
46	Rondella inox	Stainless steel washer	RPE 70.275	RPE 150.275	RPE 300.275
47	Vite inox	Stainless steel bolt	RPE 70.280	RPE 150.280	RPE 300.280
48	Spatola	Brush	RPE 70.285	RPE 150.285	RPE 300.285
49	Kit tubi	hoses kit	RPE 70.290	RPE 150.290	RPE 300.290
50	Vite inox	Stainless steel bolt	RPE 70.295	RPE 150.295	RPE 300.295
51	Tappo	Cork	RPE 70.300	RPE 150.300	RPE 300.300
52	Chiavetta	Key lock	RPE 70.305	RPE 150.305	RPE 300.305
53	Seeger	Seeger	RPE 70.310	RPE 150.310	RPE 300.310



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