Euro 40/50/60-FD

Enoitalia Flexible Impeller Pumps with Frequency Drive

Addendum: Setup and Maintenance

- *One person should be assigned to maintain the pump. This person should train other operators. All maintenance should be performed by the primary operator only.*

Setup of the Pump

The pump has been tested at St. Patrick's of Texas prior to delivery.
The *only modifications needed are*

1. Change electrical plug to match your circuit.
2. Lubricate the impeller prior to use. Food grade silicone spray is sufficient prior to first use. Simply spray a bit inside the pumphead. This should be done each day prior to use. Seasonal lubrication and cleaning is discussed below.
3. Attach appropriate hoses to inlet and outlet.

Do NOT make any other adjustments to the pump.

Pump must be off and unplugged when making adjustments or performing maintenance.

Start up.
Attach remote cord and cord from control panel to motor.
Plug in power cord. 230 V, single phase.
Turn Main Power on.
Select Loc (local) or Rem (remote).
Turn pump on by choosing Flow Direction.
Adjust speed.

[If you select Remote, then Flow direction and speed are controlled by the remote wand.]

Keep the Control Panel dry.

Fig. 1. Control Panel.

St.Patrick's of Texas

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This manual and parts for Pumps are available online.

1. DO NOT RUN PUMP DRY. The impeller will become hot, greatly reducing its life.
2. Flow rates are for water. Wine/juice will be virtually the same. However, must will typically be 30-40% less.
3. Flush the pump with clean water after each use. Product or cleaning compounds can corrode the pump seals if left in the pumphead.
4. Life of the rubber impeller is shortened by lack of lubrication, abrasive products, solids, high or low temperature products. In other words, the impeller will last longer if lubricated daily, when pumping wine rather than must, when pumping ambient temperature wine vs cold wine.

Periodic Maintenance

1. Flush the pump with clean water after each use. Never leave product or chemicals in the pumphead after use.
2. Lubricate the rubber impeller daily. We recomend simply spraying a bit of food-grade silicone into the pumphead. *Lubrication of the impeller will extend life of the impeller.*
3. Clean and lubricate pumphead and impeller after every 80 hours of use (at least annually).
   See Fig. 2 and 3.
   Remove the metric allen bolts and pull of the pumphead.
   Pull impeller out of the pumphead. Clean pumphead and impeller---soapy water is sufficient.
   Lubricate the inside of the pumphead and the impeller with heavy food-grade grease.
   Remove the stainless steel back plate. [Tip the pump forward and tap the plate to jar it loose.]
   Clean shaft and all surfaces with soapy water. Lubricate all surfaces with heavy grease.
   Reassemble. Be careful. Do not overtighten the allen bolts. TIGHTEN LESS THAN POSSIBLE TO AVOID STRIPPING THE THREADS IN THE BOLT HOLES. Tighten in "round robin" fashion until snug. [Alternate between the bolts, tightening incrementally.] [If pumphead leaks during use, simply snug up the bolts a bit more.]
4. Wipe down control box with damp cloth as needed. DO NOT CLEAN MOTOR OR ELECTRICAL BOX WITH HOSE OR PRESSURE WASHER.

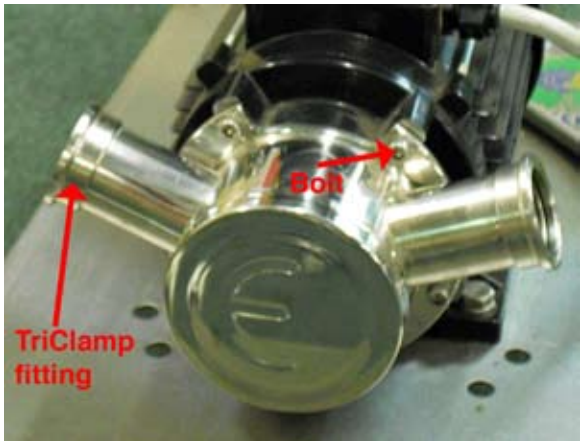

Fig. 2. Do NOT overtighten metric allen bolts.

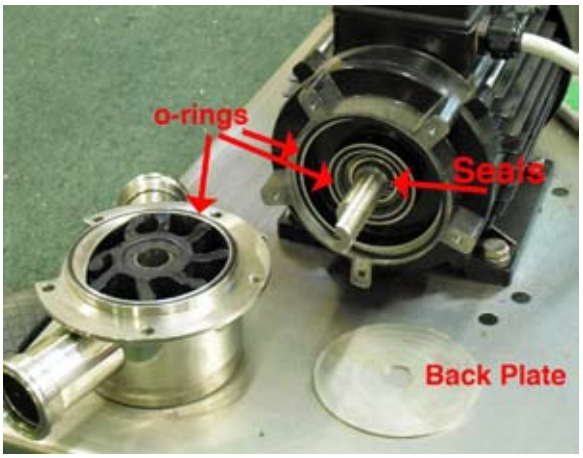

Fig. 3. Remove, clean, and lubricate pumphead regularly.

DO NOT

1. DO NOT use OZONE to clean a pump. Ozone will destroy all rubber and plastic components and should NEVER be used on equipment with rubber or plastic components.
2. DO NOT use a HOSE or PRESSURE WASHER to clean a pump. Simply wipe down with clean damp cloth. Pressure washers should NEVER be used on equipment with bearings or electrical components.
3. DO NOT use METABISULFITE (or any harsh chemicals) for cleaning or sanitizing. Metabisulfite is not a sanitizer nor a cleaner and should NEVER be used as such. Metabisulfite is corrosive to most metals including stainless steel. **The most common cause of failure of the pump seals is corrosion caused by chemicals left in the pumphead.**
4. DO NOT change parameters of the frequency drive.
5. DO NOT RUN PUMP DRY. The impeller will become hot, greatly reducing its life.

Special Notes for Frequency Drives

1. The Frequency Drive requires about 30 seconds to power down. You cannot restart the pump during this period. Thus, if you turn off the pump, then you must wait about 30 seconds to turn the power back on.
2. GFIC (Ground Fault Interrupter Circuit) may be a problem with any Frequency Drive. If you run the pump and it trips the GFI, then you will likely need to remove the GFIC.

Problems and Solutions

Problem: See Fig. 2. **Leak at inlet or outlet TriClamp fitting**. The TriClamp ferrule is threaded onto the pumphead pipe. Use pipe wrench to remove the fitting. Apply teflon tape and reassemble.

Problem: See Fig 4. **Leak at arrow 1**. This is not a serious problem. Simply snug up the metric allen bolts (do not overtighten). If this does not solve the problem, replace the large oring. (There are 3 orings in the pumphead. Two are behind the back plate. The one in front of the back plate is the cause of a leak at arrow 1.

Problem: See Fig 4. **Leak at arrow 2**. This is caused by defective seals and is a serious problem. Seals must be changed (see Fig. 3). This is a serious problem that can result in destruction of the motor (if the liquid makes its way into the windings of the motor.). The leak at arrow 2 is from a hole on bottom of housing. This hole helps to protect the motor. If you must continue to use the pump, tip pump forward to assist with draining liquid from this hole and preventing the liquid from running back into the motor windings.

The seals of the pumps will last for several years with proper care. The greatest cause of corrosion of the seals is chemicals or product left in the pumphead.

Seals for pumps are available on the Enoitalia Parts page of our website.

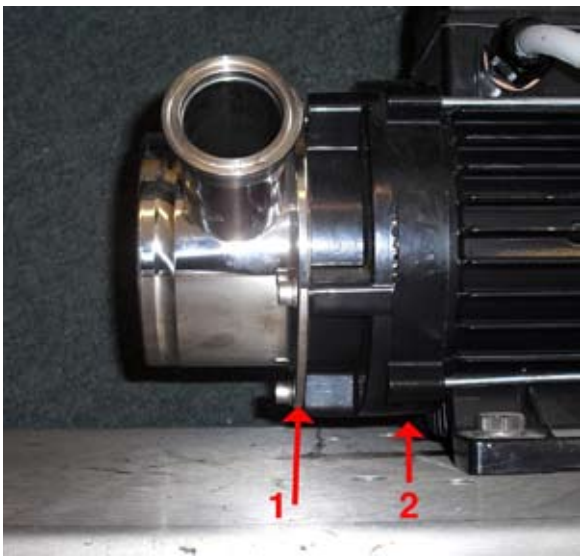

Fig. 4. Leak at Arrow 1 is minor and easily resolved by snugging up the pumphead (or changing a large oring). Leak at Arrow 2 is due to corroded seals and must be resolved promptly.

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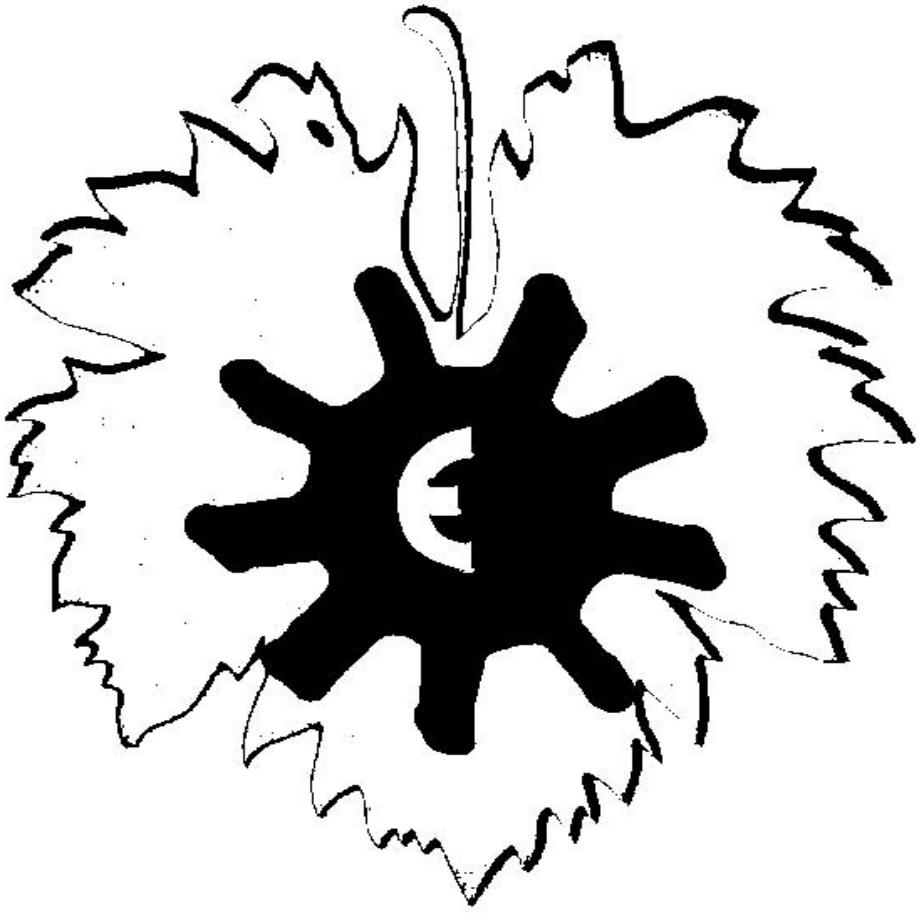

Instructions for use and technical manual

“EURO” Self priming electric pumps

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E. C. DECLARATION OF COMFORMITY

The firm Enoitalia S.r.l. having its registered and operative head office in the borough of Cerreto Guidi (FI), Pieve a Ripoli, in via Prov. Pisana 162 operating in the wine production sector as the manufacturer and retailer of the machinery :
SELF PRIMING PUMPS WITH RUBBER IMPELLERS “EURO 30- 40- 50-60”

DECLARES

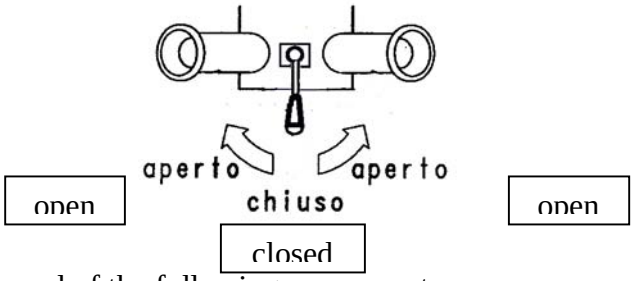
That its machinery conforms to the health and safety requirements of the EEC 89/392 Machinery regulations and subsequent additions; and their conformity with regulations:

EN 292-1 Sicurezza del macchinario - Concetti fondamentali, principi generali di progettazione Parte
EN 292-2 Sicurezza del macchinario- Concetti fondamentali, principi generali di progettazione Parte 2: Specifiche e principi tecnici
EN 294 Sicurezza del macchinario - Distanze di sicurezza per impedire il raggiungimento di zone pericolose con gli arti superiori l: Terminologia, metodologia di base
EN 349 Sicurezza del macchinario - Aperture minime per evitare lo schiacciamento di parti del corpo umano
EN 418 Sicurezza del macchinario - Impianto di arresto di emergenza, aspetti funzionali - Principi per la progettazione
EN 953 Sicurezza del macchinario - Requisiti generali per la progettazione e la costruzione di ripari (fissi, mobili)
EN 954-1 Sicurezza del macchinario - Parti dei sistemi di comando correlate alla sicurezza - Parte l: Principi generali per la progettazione
EN 7346 Rumore emesso da macchine ed impianti - Metodo per la misurazione della potenza sonora.
EN 60204 Impianto elettrico delle macchine - Parte l: Requisiti generali
EN 60947-4-1 Interruttori e comandi a bassa tensione - Parte 4: Contattori elettromeccanici ed avvia tori di motori
EN 60947-5-1 Interruttori e comandi a bassa tensione - Parte 5: Dispositivi dei circuiti di comando ed elementi di commutazione - Parte l: Dispositivi elettromeccanici dei circuiti di comando.
IEC 227-1 Cavi isolati con cloruro di polivinile con voltaggi nominali fino a *450n50* v - Parte l: Requisiti generali
IEC 245-1 Cavi isolati con gomma con voltaggi nominali fino a 450/750 V- Parte 1: Requisiti generali
UNI 9456 Macchine Agricole- Ripari e schermature – Definizioni e prescrizioni

A manual of instructions for use is supplied with the above said machinery for its correct use and the correct performance of maintenance or repair operations without risk.

This self priming electric pump with a rubber impeller is suitable for decanting delicate liquids of an alimentary type even where particles in suspension are present (like wine, milk, oil, stemmed grapes, fruit juices), and a vast range of chemical substances.
The electric pump can rotate in either direction. The main part of the pump is made entirely from AISI 304 stainless steel or, upon request from AISI 316, while the impeller is made entirely from rubber for alimentary use (Certificate N° 2218 dated 05/11/98; N° 2218/b dated 05/11/98; N° 2844 dated 30/11/98 in accordance with the D. M. dated 21/03/73 and D. M. n° 220 dated 26/04/93).

In all the models the pump is easy to open so that normal cleaning and maintenance procedures can be carried out by qualified personnel.
Some models are equipped with BY-PASS: a valve in AISI 304 stainless steel situated on the main part of the pump which enables the flow to be adjusted as desired.



The electric pump is composed of the following components:
-MOTOR with stainless steel shaft
-TROLLEY (except for Euro 20)
-PUMP SUPPORT
-RUBBER IMPELLER
-SHAFT IN STAINLESS STEEL AISI 304 or AISI 316 in models Euro 50 and Euro 60

2. POSITIONING, TESTING AND INSTALLATION

The electric pump should be firmly positioned on a stable surface horizontal to the ground. The level of the liquid to be decanted should be at a maximum depth of not more than 5/6 metres from the center axis of the pump. The suction intake should be at least 10- 15 cm below the level of the liquid.

Before installing check the following: Before plugging in the machine, confirm that the voltage of the motor (or the frequency drive) corresponds with that supplied at the mains and that the switch is turned to the OFF (0) position. The electrical safety of this machine is only guaranteed where the electrical installation has been efficiently grounded, in accordance with current regulations. Testing and any installation of necessary electrical components must be carried out by qualified personnel. The use of adaptors or multiple sockets is not recommended; when they are essential only use products conforming to current safety regulations, and respect the maximum supply in terms of current and power.

Attaching hoses: the hoses should be of the rigid, reinforced type and should be attached to the pump using the special adjustable metal bands, avoiding excessive tightening which would produce a restriction of the hose and prevent a steady flow of the liquid. Before turning on the machine and attaching the hoses the main part of the pump should be filled up to half its capacity with the liquid to be decanted.

IMPORTANT: never turn on the machine when empty (without any liquid in it). The first time the machine is used it should be given a preliminary wash to remove any residues which might have remained after manufacturing.

3. FUNCTIONING

The self priming EURO electric pumps are powered by electric motors (manufactured in the full respect of all current safety regulations), the switch of which, when the machine is off, should always be turned to OFF or "0"
To turn on the machine: turn the switch to the desired speed or to the "1" position in models where speed regulation is not provided. The intake of the pump which will suck up the liquid to be decanted, is determined by the direction of rotation of the impeller, which can be determined by observing the rotation of the fan visible at the back of the machine.
Once the pump has been turned on, it should be primed in a few seconds. If more than 10 seconds pass without this happening, then you must turn off the motor, disconnect the power supply and check that the hoses have been properly attached or that there are no holes in the feed hose since this could cause an infiltration of air.
If the machine is equipped with a by-pass, then this valve can be adjusted to regulate the flow as desired, increasing it (valve closed) or decreasing it (valve open).
IMPORTANT: when starting the pump, the by-pass must be closed; for the suction of solid particles the by-pass must always be closed.
To turn the machine off just turn the switch to "OFF" or "0"
In the event of an emergency stop then turn the machine on again in the opposite direction then immediately invert the direction so as to eliminate particulates which might hinder the rotation of the impeller.

4.WASHING AND MAINTENANCE

After use, the machine should be washed so as to maintain its mechanical and hygienic features. Allow the machine to operate for a few minutes with clean water, then empty the hoses and the main part of the pump completely of any water. If you do not plan to use the pump for some time, then pour a few drops of glycerine oil (or food grade lubricant) into the pump before turning it on for a few seconds.
Maintenance: all the parts of the pump are checked and adjusted in the factory before packing. For this reason the machine doe snot require any special maintenance, but just needs periodic checks which will also make it last longer.
IMPORTANT: Such periodic inspections should be carried out by qualified personnel with the machine unplugged.
The following aspects should be checked:
- wear and tear of the impeller
- check sealing orings
- check bearings

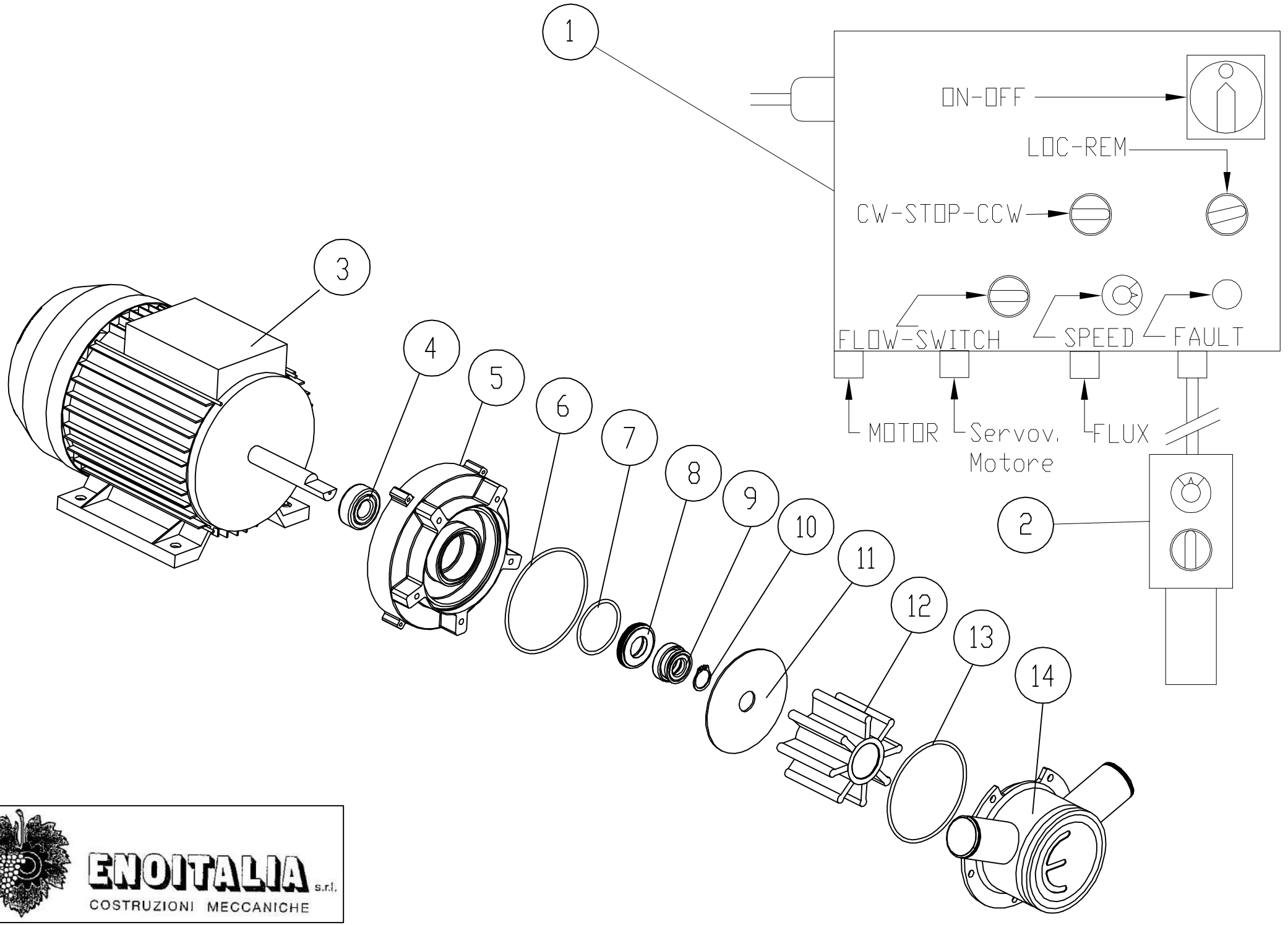
In the event repairs are necessary, only use original spare parts ordered from the retailer or directly from the manufacturer.

Possible causes of malfunctioning

PROBLEM	REMEDY
The pump isn't exerting enough pressure	Check the state of wear and tear of the impeller.
Liquid is leaking from the main part of the pump	Check and if necessary replace the sealing orings
Liquid is leaking from the flange of the motor or the support of the pump	Check and if necessary replace the sealing orings
Breakage of one or more fins of the impeller	Replace the impeller with an original spare part ordered from the retailer or directly from the manufacturer
It's difficult to get the machine started.	Check that the machine is getting enough power from the mains. Don't use extension cords which might cause a lowering of the voltage.

5. WARNINGS

- Store the machine in a dry place, where it is not exposed to bad weather and protect it from getting damp
- Do not use the machine for decanting inflammable or explosive liquids or in an explosive environment, since the motor is not anti-deflagration.
- The temperature of the liquids being decanted should be between +5 °C and 65 °C; higher temperatures would compromise the general performance of the impeller.
- Before turning on the machine check that it has not been damaged during transport (breakage or dents).
- Never plug it in, turn it on or perform any other operation on the electrical parts with wet hands
- Do not remove the protective guard (on the models where it is provided) while the machine is in use, or while washing
- Before using the machine carefully read this manual, and keep it safely for future reference
- The firm Enoitalia S.r.l. is not liable for damage deriving from modifications made by others to the machinery.
- The firm Enoitalia S.r.l. reserves the right to make manufacturing modifications at any moment without being obliged to make these public.



ENOITALIA s.r.l.
COSTRUZIONI MECCANICHE

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LISTA COMPONENTI: POMPA MOD. EURO 50 MVE

Pos.	Q.	Descrizione	Cod.
1	1	Scatola comandi e inverter	E 54
2	1	Comandi remoti	E 55
3	1	Motore elettrico	ME 50
4	1	Cuscinetto	R 50
5	1	Flangia	E 53
6	1	Or	G 2157
7	1	Or	G 3212
8	1	Tenuta meccanica parte fissa	G 96230
9	1	Tenuta meccanica parte rotante	G 91541
10	1	Seeger	S 50
11	1	Disco	E 52
12	1	Girante gomma	E 51
13	1	Or	G 2157
14	1	Corpo pompa	E 50
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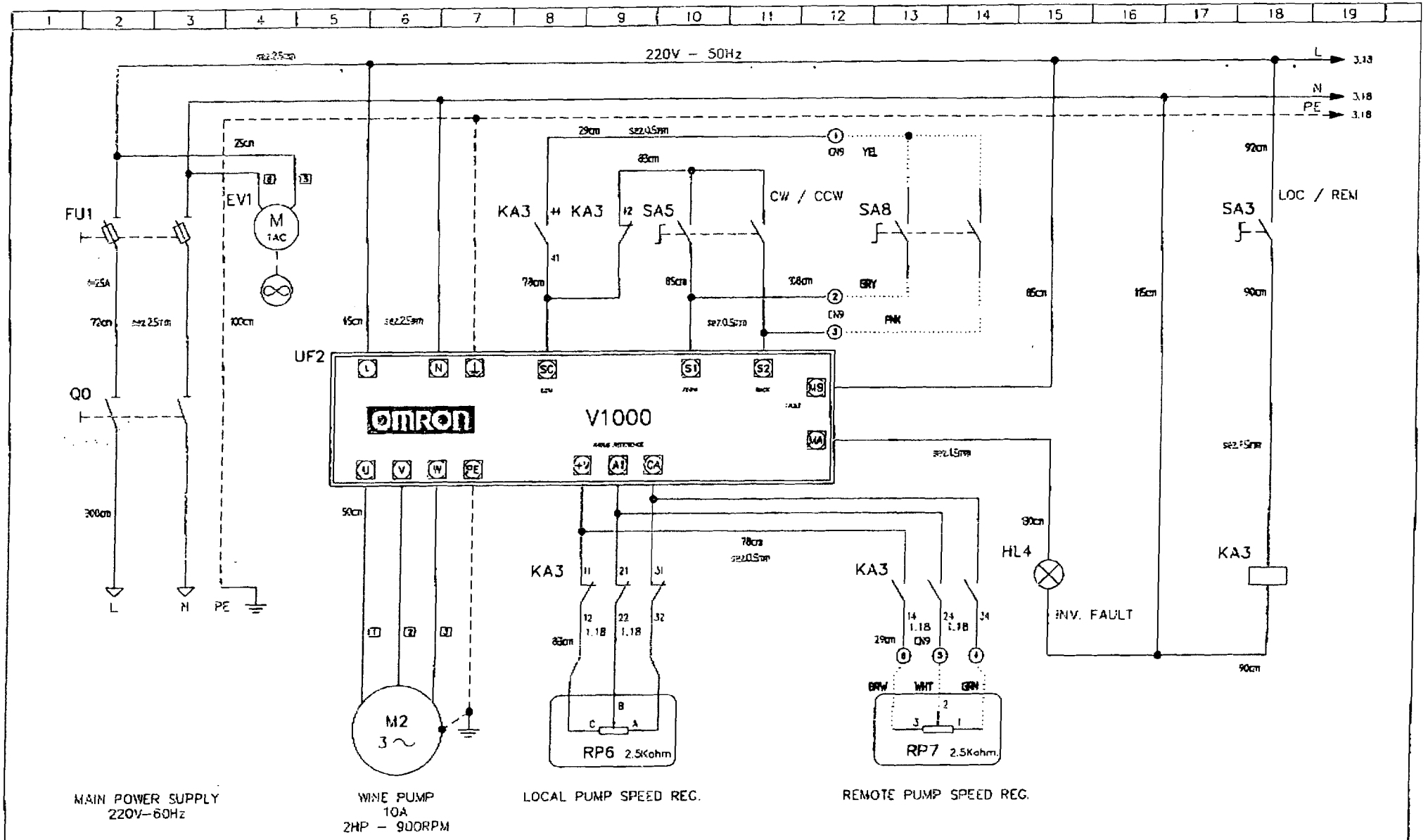

ENOITALIA s.r.l. MACCHINE ENOLOGICHE – WINE MAKING MACHINES 50050 PIEVE A RIPOLI–CERRETO GUIDI–ITALY TEL. 071 588091 FAX 588080	DIS. N. : 36405 CAD : SPAC N. FILE : 3640501 REVISIONE DEL : EMISSIONE 22–03–2005	MACCHINA/*MACHINE* SINGLE PHASE PUMP CONTROL PANEL LAVORAZIONE/*REFERENCE* –	DATA : 22–03–2005 COMMESSA : 06006 ESECUTORE : –	FOGLIO/*SHEET* 1 SEGUE/*NEXT* /