

**MANUALE D'ISTRUZIONE
NOTICE D'UTILISATION
INSTRUCTIONS MANUAL
BEDIENUNGSANLEITUNG**

V-OIL



**ELETTROPOMPA
ROTATIVA PER OLIO**

**POMPE ELECTRIQUE
POUR L'ASPIRATION DE L'HUILE**

**ROTARY ELECTROPUMP
FOR OIL**

**ROTIERENDE ELEKTRPUMPE
FÜR ÖL**



Description

Electro pumps for oil guaranteed both for the usage and for production materials. They provide all the requested performances, when used in a proper way with daily attention, as explained in the following instructions. The product is generally guaranteed for a year starting from the shipment date.

This machine is a rotary electro pump (volumetric model with blades) equipped with by-pass and self-ventilated motor which is flanged to the pump body.

These are reliable pumps, with high self-priming capacity, easy to clean and projected for a continuous usage even in presence of a high counter pressure. They are used in absence of corrosive phenomenon and they satisfy severe exigencies of oil pouring off.

Aim of this instructions manual is to provide safety specifications and indications to follow in order to avoid environment damages. Safety is not given just by reading this manual, but also by the right installation, daily maintenance and by a proper usage of the pump.

The electro pump is provided in a strong packaging with instruction manual, ready to be installed. Once it has been extracted from the packaging, check its integrity. For any anomaly you must apply to the supplier, giving info on the nature of defect.

Before installation, read carefully this documentation. Installation and working must be in accordance with safety laws of the country where the pump is going to be installed. Installation must be properly made, while the non-respect of safety rules may cause dangerous situations for people, damages to the equipment and it cancel any right to use the guarantee.

This manual, which has to be read by people who are going to work with the pump, must be conserved close to the pump for the whole life of the pump

Main components and accessories

The main parts of the electro pump are:

- Electric engine ▶ it turns the mechanical energy into electric one.
- Pump ▶ It conveys liquids (in this case gas oil)
- Suction and delivery point ▶ They allow the connection of the pump

Usage field

This electro pump for oil must be used just for superficial pouring off; it is not fit for submerged usage (with the electric engine under the liquid poured off).

The pump is a device which can be dangerous for some categories of people (for ex: Children and old or unable people); these people can't stay without surveillance during the usage.

The pump is used just for suction, convey or distribution of oil. Liquids must be not corrosive and cleaned, or contain in suspension very low percentage (2,3% max.) of solid particles in order not to wear the internal surfaces of the pump.

In extreme cases it is always better to apply on the suction tube a stronger filter (which is not given with the pump).

Do not use the pump in corrosive or explosive environments (dusts and flammable vapours or other gases) as the engine are not flameproof. To avoid damages or wrong workings to the pump, it must work in environments with temperature not lower than 5°C and not higher than 40°C with maximal humidity rate of 90%.

The electric engine of the pump is planned for a continuous rating working (the by-pass working is allowed just for few minutes) during which electromagnetic disturbs are not generated.

WARNING! It is forbidden the usage of the pump with solvents, fuels, with easy flammables or dense liquids, with corrosive fluids, with water and alimentary liquids.

Usage restrictions

- Read carefully this manual before the pump installation.
- Do not use the pump to draw in or pump liquids different from that mentioned in the paragraph “Usage field”
- Before starting check if the flux of gas oil is going to be gathered into an appropriate barrel.
- Pay attention not to direct the gas oil flux to persons or things, to electric boards or electric components under tension.
- Position the electro pump always in a way that the switch can't be accidentally turned on.
- Interrupt the power supply after every usage.
- Do not modify any part of the device in order not to compromise its functionality, the worker's safety and the guarantee validity.
- In a case of components breaking, please be sure that oil would not be dispersed into environment.
- Reparations with replacement of components must be done just with original spare parts.
- Because of safety reasons, the worker must check the pump each time he uses it. Reparations and replacements must be done by our assistance centres. A direct intervention can be dangerous and cause the lost of rights to use the guarantee.

WARNING! Please interrupt the power supply before any intervention on the device. If you have some doubts on its safety, please do not use it.

Power supply

According to the model of the electro pump there is a power supply whose value can be found on the paragraph “Technical data”.

Voltage may change of +/- 5% its value, while the frequency one may change of +/- 2%. In each electro pump there is a push-button start/stop, which is on the top of the electric engine, in a rugged box. The starting or the stop is given by the two position of the switch:

Pos. 0 = stop position (opened circuit) → the pump is deactivated.

Pos. 1 = working position (closed circuit) → the gas oil way out is on the outlet (OUT).

Do not switch on/off the push-button with wet or sweaty hands, as in presence of micro damages of it there might be electric shock.

WARNING! If the pump stops working during the usage, please interrupt the power supply before any intervention.

WARNING! The power supply with values different from those indicated may cause damages to the electric devices.

Choice and connection of feeder

- Use feeders with minimum section 3 x 1 mm²
- Use high quality feeders like H 05 – VVF type or similar.
- Do not damage the feeder passing over it with machines or equipment.
- Do not pose the feeder over damp surfaces or wet land.

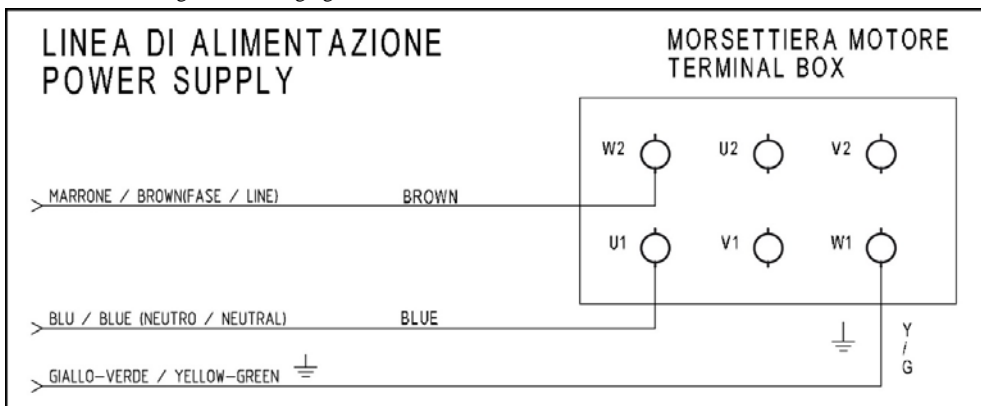
The feeder integrity must be always checked before every usage of the electro pump. If there are abrasions or damages, please ask for authorized staff intervention.

WARNING! The feeder can be changed just by the producer or by staff authorized by our retailer.

Electric connection

- Before connect the feeder, please check if the net voltage is the same of the one shown in the plate of the gas oil electro pump.
- Please find a socket of the electric net, for the connection, with all the safety requirements.

In gas oil electro pump the single-phase engine is protected from surcharges through thermo probe and it is provided with 1m cable ending with warning light.



WARNING! Install the feeder following all the safety rules, respecting the local legislation in force: it can be done just by authorized staff.

Installation, starting and self-priming effect

During installation and maintenances, please be sure that the electric net is not under tension. After cleaning suction and delivery points, removing slugs, remaining threads or dust, connect tubes with the electro pump making the installation for the first starting of the machine. Do not use joints with conical thread, which can damage the thread point of the electro pump (please check it on the paragraph “Technical specifications”). Before any starting, help the priming process checking that the suction tube and pump are filled in with oil. Start the engine and after 30 seconds, if the priming didn't start, stop the pump and check if the suction tube has some air infiltrations. The tightening of connection points and hose clamps must be always checked. The suction tube must be rigid or spiral because, if it is used a non-rigid one, it can crush itself owing to the depression created during pump working. If the suction is done on a depth higher then 3 meter it is necessary to use a foot valve and/or a check valve. During the usage, the pump must be closer to the tank of the pumped oil. Best results are given by reducing pressure loss (during the suction), elbow and contraction of tubes, using tubes of a non-minimum diameter and maintaining cleaned the suction filter. Never let the pump work dry (without oil inside the body of the pump). The electro pump can be installed both in vertical and horizontal position, having care to fix it on the support plane with bolts suitable for the fixing holes present on the base of the electric engine.

WARNING! Check the suction tube and be sure it is free of obstructions, not crushed or bended and completely dipped into the oil.

WARNING! Before effecting any intervention on the pump, please interrupt the electric connection and, in case of doubts about the safety of the machine, do not use it.

Handling

- To transport or stock an electro pump does not require particular cautions neither involves risks, as its weight and dimensions are reduced.
- Weight and dimensions of the electro pump are written on page 14.
- The pump is pre-assembled, ready to be used and packed in a way that parts will not suffer damages during transport.

- Packing (that is not dangerous neither polluting) must not be dispersed on environment, instead it has to be collected in proper centres.
- If after usage it is necessary to stock or transport the pump, empty the body of the pump and suction tubes.
- During the usage of the electro pump, please use safety gloves and shoes and work following all the safety rules.
- **Liquids used in the pouring off must be spilled in appropriate tanks following local rules in force.**

Maintenance

Working parts during the working of the pump are pre-lubricated. Never use oils or gears over working parts as they can be damaged. Spare parts and accessories must be original and authorized by the producer in order to guarantee maximal safety of the electro pump during the working phase. If the pump is modified without permission of producer, he is not liable anymore for damages caused by the pump. These pumps are planned in order to ask the lowest maintenance, but we suggest you to check weakly tube connections in order to avoid oil losses and check monthly feeders, the filter and pump body to preserve quality and efficiency. If stocked or not used for a long time, please preserve the pump (especially the electric engine) from humidity, rain and any other atmospheric event. Do not disperse parts of the pump on the environment once the pump had been demolished. Please ask for appropriate centres.

WARNING! Please only use original spare parts in order to assure the guarantee validity.

Anomalies and remedies

DEFECTS	CAUSES	REMEDIES
The engine does not work or runs very slowly	There is no voltage	Check cut-outs and net voltage
	The rotor is blocked	Remove the cover and check and/or clean the rotor
	The condenser is not efficacious	Replace the component
	Voltage drop or low rate	Bring the voltage to normal values
The engine works but even running there is no pumping effect or it is very low	The filter is obstructed	Clean the filter
	The foot valve is obstructed	Clean or replace the valve
	The suction tube is obstructed	Clean or replace the suction tube
	Suction too high	Draw up the pump to the gas oil static level
	Presence of air during the suction	Check the connections tightness
	Working in by-pass	Reduce the charge losses of the circuit
	The by-pass valve is blocked	Unlock, clean or change the by-pass valve
	The suction tube narrows	Use right tubes during depression process
The thermo probe starts working	The electric engine is overheating	Check voltage and ventilation
		The pumped oil is not fluid enough
	The rotor is blocked	Unlock the rotor and clean the pump body
	The electric engine is damaged	Ask for authorized staff help
The pump body loses oil	Seals are damaged	Replace seals

Please note: If anomalies persist, please ask for producer help or zone retailer.

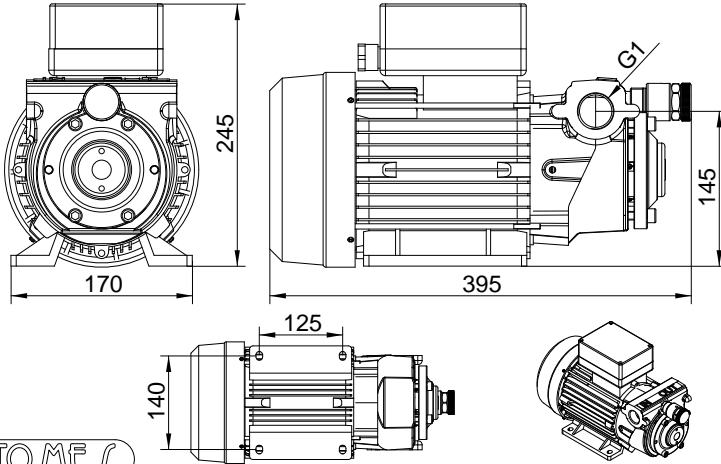
**Dati tecnici - Caractéristiques techniques –
Technical specifications - Technische Daten**

Modello – Modèle – Model - Modell:		0383	0384	0385	0386	0377	0378
Connessione entrata/uscita – Connexion entrée/sortie – Connection in/out let - Ein-/Auslass-Verbindung:	<i>inch</i>	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
Portata – Portée – Capacity - Durchfluss:	<i>l/min</i>	30	40	66	66	88	80
Prevalenza – Hauteur d'élévation – Lift - Förderhöhe:	<i>mt</i>	100	100	100	100	60	60
Potenza – Puissance – Power - Leistung:	<i>Hp</i>	2	2	2,5	2,5	2,5	2,5
Giri motore – Tours moteur – Engine runs - Motordrehzahl:	<i>rpm</i>	1400	1400	1400	1400	1400	1400
Grado di protezione motore – Degré de protection – Degree of engine protection -	-	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55
Schutzgrad Motor:							
Tensione di rete – Tension – Net voltage - Netzspannung:	<i>V</i>	230	400	230	400	230	400
Frequenza di rete – Fréquence – Net frequency - Netzfrequenz:	<i>Hz</i>	50	50	50	50	50	50
Condensatore – Condensateur – condenser - Verdichter:	-	40 µF	-	50 µF	-	50 µF	-
Peso – Poids – Weight - Gewicht:	<i>kg</i>	26	24	27	25	28	25

Dimensioni Ingombro - Dimensions et encombrements – Overall dimensions - Gesamtabmessungen

OETP0383Ingombro

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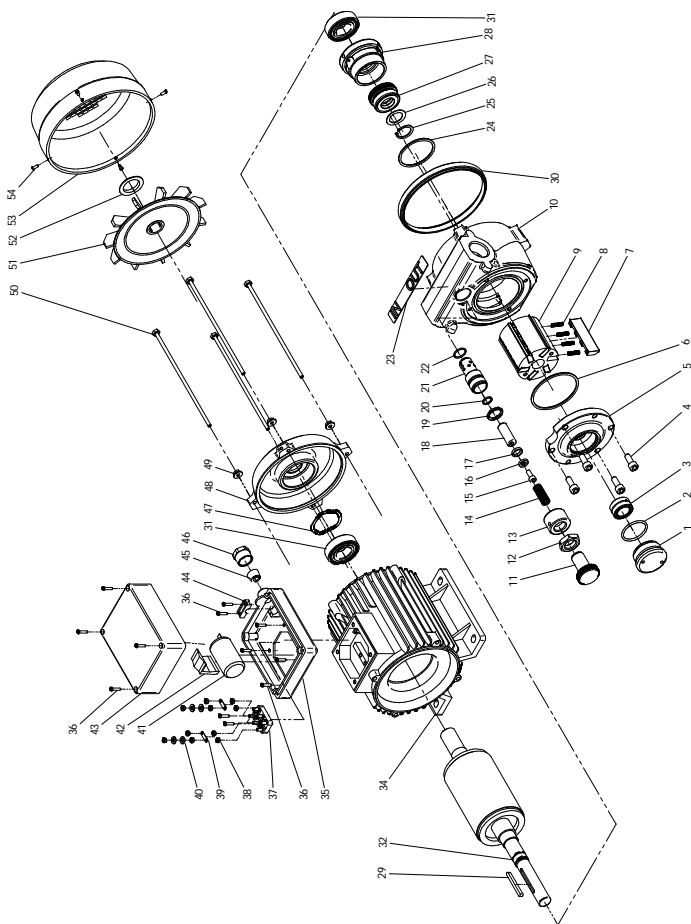


TOMES.
FLUID MANAGEMENT TECHNOLOGY

Parti di ricambio - Pièces de rechanges – Spare parts - Ersatzteile

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OETP0377 Kit di ricambio



431 cod. HSN0013
Cuscinetto 13x25x5,8 SF 1,6
441 cod. HSN0009
compressore 150F 150F
453 cod. HSN0008
Coperchio HES24

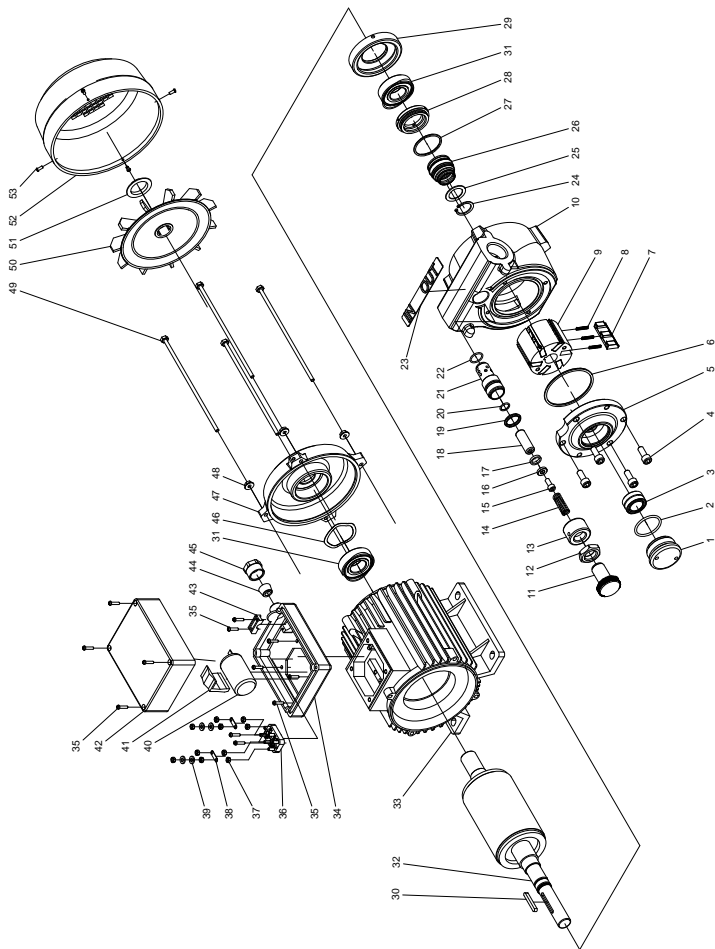
#	code	name	Qty
	RHV0012	KIT BV-PASS	
14*	HK010093	Molla 13x25x5,8 SF 1,6	1
17*	HSE00013	MCCLARIA forgiata V oil	1
18*	HSE00013	Cuscinetto diametro 3,8	1
20*	HSE00013	Cuscinetto 30x54	1
22*	HSE00149	Cuscinetto 20x48	1
	RCSN0005	KIT CUSCINETTO ANTERIORE	
2*	HSE00186	Cuscinetto 37x43	1
3*	HCSN0027	Cuscinetto IMU 20-16	1
	RPAL0019	KIT PALETTE	
7*	HPI00012	Paletta 150li	6
8*	HK010104	Molla compr. 20x40,4 S 18INOX p.ventilatore	24
	RHTD0265	KIT TENUTE	
24*	HSE00073	O-ring 4x12	1
25*	HK010097	Arredo elastico 22 DINM1	1
26*	HK010051	Perforato 50x22 S1	1
27*	HSE000356	ROSGRATO VP-BT PMAR 122 BFF	1

TO.M.E.S.
FLUID MANAGEMENT TECHNOLOGY

OETP038 Kit di ricambio

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- 461 code HCSN0013
Cuscinetto 6208-2Z 52x25 H 15
- 440 code HCND0007
Condensatore 40uf 450V
- 452 code HCV0008
Copripenna M12x39



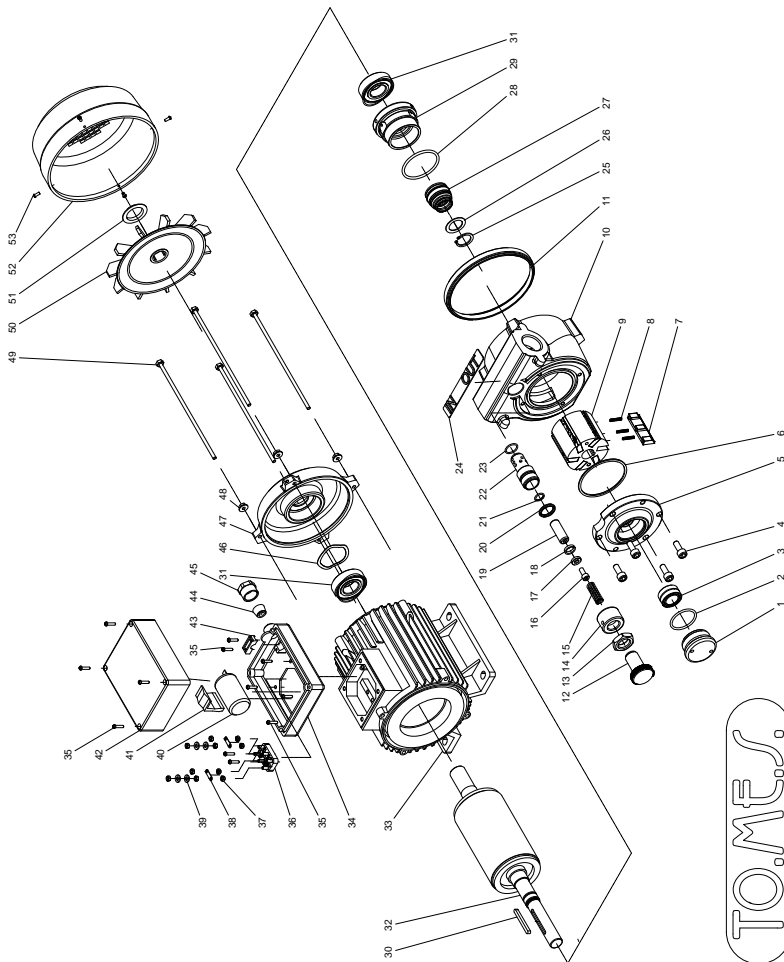
#	code	name	Qty
RBYP0010 KIT BY-PASS			
14	HMCLO122	Molla by-pass 12x35 S1 SF 1.8	1
17	HGRZ0012	MOLATA Pompa Voil	1
19	HGRZ0028	Giunzione rubinetto 3/8	1
20	HGRZ0101	O-Ring 3063	1
22	HGRZ0049	O-ring 2088	1
RGSN0005 KIT CUSCINETTO ANTERIORE			
2	HGRZ0186	O-ring 37x3	1
3	HCSN0027	Cuscinetto NK120-16	1
RGRZ0009 KIT TENUTE			
6	HGRZ0163	O-ring 4300	1
24	HANL0097	Anello elastico 25 DN4M1	1
25	FRDLO071	Rondella 30x22 S 1	1
26	HGRZ0173	O-ring 45x22x6 BP BT PR FN 1	1
27	HGRZ0066	O-Ring 3156	1
RPAL0023 KIT PALETTE			
7	HPFA0029	Paletta 100L	6
8	HMCLO104	Molla comp. 20x40x4 S1 18N0X 18 p.variable	18



OETP0385 Kit di ricambio

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- #31 code HCSN0013
Cuscinetto 6005-2Z 52x25 H 16
- #10 0308 HCSN0010
Cuscinetto 6005-2Z 52x25 H 16
- #32 code HCRV0003
Cappaventosa MEC300



#	code	name	Qty
		REVP010 KIT BYPASS	
15	HVIC01022	Moil by pass 12x36 S9 SF1.8	1
18	HGRZ0012	Garanzione laterale S.8	1
20	HGRZ0228	C-Ring 30x33	1
21	HGRZ0101	C-Ring 20x26	1
23	HGRZ0049	C-Ring 20x26	1
		RCSN0005 KIT CUSCINETTO ANTERIORE	
2	HGRZ0186	C-Ring 37x43	1
3	HCSN0227	Cuscinetto NKL 20-16	1
		RGRZ0053 KIT TENUTE	
6	HGRZ0163	C-Ring 43x50	1
25	HANL0065	Anello elastico 22 DN471	1
26	HRD0080	Rombole 30x22 S.1	1
27	HGRZ0372	BP PF L.35.40x22x8 BP PR FN	1
		HGRZ0373 1Z XFGF	
28	HGRZ0212	C-Ring 42x2	1
		RPAL0037 KIT PALETTE	
7	HPTA0001	Paletta 120it	6
8	HVIC01014	Moil compr. 20x40x4 S.18NCK18	18
		Protezione	

