

ervation

rights

NOTE

All motors come with a short cable used for production testing. To connect the motor to the line, open the terminal strip cover, remove the above mentioned cable and connect the line according to the following chart:

vices such as fuses, motor protectors, and systems to prevent accidental restarting after periods of power failure or any other kind. It is the installer's responsibility to carry out the electrical connection with respect to the applicable regulations

- During installation and maintenance make sure that power to the electric lines has been turned off. Employ cables characterized by minimum cross-sections,

- For three-phase motors, ascertain the correct rotation direction by referring to paragraph - DIMENSIONS. - All motors are equipped with a ground terminal to con-nect to the ground line of the electrical network.

IT IS THE INSTALLER'S RESPONSIBILITY TO CARRY OUT THE ELECTRICAL CONNECTIONS IN COMPLI-

VISCOMAT series pumps are self-priming and, therefore, able to draw oil from the tank even when the suction hose is empty on start-up. The priming height (distance between the surface of the oil and the inlet opening) must not exceed 2,5 meters.

Never start or stop the pump by connecting or cutting Prolonged contact with some fluids can damage the skin. The use of goggles and gloves is recommended.

that the suction hose guarantees against air infiltration and is correctly immersed in the fluid to be drawn. that any filters installed are not blocked. that the delivery hose allows for the easy evacuation of

EN (Translated from Italian)

P EVERY DAY USE

FOREWORD

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AUTOMATIC

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OPERATION

MANUAL OP- 1

No particular preliminary operation is required for every day use of VISCOMAT pumps.

Before starting the pump, make sure that the ultimate shut-off device (delivery nozzle or line valve) is closed. If the delivery has no shut-off device (free delivery) make sure that if is correctly positioned and appropriately at-tached to the delivery tank. turn the on-switch present on some pump models (single-phase) or the start/stop switch installed on the electrical power line. make sure that the tank is filled with a quantity of oil great-er than the quantity to be supplied (running dry could damage the pump).

Never start the pump by simply inserting the plug in the outlet.

R

Informat

Open the delivery valve or activate the delivery gun, griping it securely Fluid exits at high pressure from a delivery gun fed by a VISCOMAT pump. Never point the outlet of the gun towards any part of the body.

Close the delivery gun or the line valve to stop delivery. The pump will immediately enter by-pass mode. Running in by-pass mode with the delivery closed is only allowed for brief periods(2 to 3 minutes maximum).When the thermo-protector trips, turn-off the electric power and wait for the motor to cool.

Stop the pump. In certain applications it can be advantage ous to provide for the automatic starting/stopping of the pump by means of a pressure switch that monitors the pressure of the delivery line. The functional logic of this type of installation is as follows:

the pump is stopped, the delivery gun is closed and the delivery line is under pressure. the delivery gun is then opened, with the consequent sud-den lowering of pressure in the delivery line.

the pressure switch, at the moment that the pressure drops below the value "Pm"automatically starts the pump

allowing delivery. during delivery the pump delivers against a back pressure that, depending on the conditions of the delivery line, could turn out to be higher or lower than the pressure

at the moment the delivery gun is closed, the pressure will increase rapidly and the pressure switch, at the moment in which the pressure exceeds the value "Pa" will automati-cally stop the pump.

The values of "Pa" and "Pm" are characteristics of the pressure switch used and are often adjustable within a certain range. For the safe and proper functioning of the pump in these types of applications it is absolutely indispensable to make sure that: "Pa" is sufficiently lower than the bypass pressure, to as-sure that the pump will stop as soon as the gun is closed and that the pump will not run a long time in by-pass 1

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- "Pm" is several bar lower than "Pa" to avoid the pump starting when not wanted due to small pressure drops not caused by opening the gun. the foot valve guarantees an effective seal, to avoid fre-quent unwanted cycling on and off caused by its leakage.

whenever the system is entirely composed of metal tubing, or, at any rate, of highly rigid tubing, one should consider installing an accumulator capable of preventing small leaks (from the foot valve, for example) from causing a pressure drop sufficient to automatically start the pump. Failure to comply with the above can damage the pump

Q MAINTENANCE

Safetv instruc-ONCE A WEEK: ONCE A MONTH:

- On a monthly basis check and clean the filters placed at the pump On a monthly basis, check that the electric power supply cables are in good condition.

Under normal operating conditions noise emission for all models does not exceed the value of 70 dB "A" at a distance of 1 Meter from the electric pump.

S PROBLEMS AND SOLUTIONS

any problems contact the authorised dealer nearest to you.		
ROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
HE MOTOR IS NOT URNING	Lack of electric power	Check the electrical connec- tions and the safety systems.
	Rotor jammed	Check for possible damage or obstruction of the rotating components.
	The motor protecting thermals witch has tripped	Wait until the motor cools, ver- ify that it starts again, look for the cause of overheating
	Motor problems	Contact the Service Depart- ment
HE MOTOR TURNS LOWLY WHEN TARTING	Low voltage in the electric power line	Bring the voltage back within the anticipated limits
	Excessive oil viscosity	Verify the oil temperature and warm it to reduce the excessive viscosity
OW OR NO FLOW ATE	Low level in the suction tank	Refill the tank
	Foot valve blocked	Clean and/or replace the valve
	Filter clogged	Clean the filter
	Excessive suction pressure	Lower the pump with respect to the level of the tank or increase the cross-section of the piping
	High loss of head in the deliv- ery circuit (working with the by-pass open)	Use shorter piping or of greater diameter
	By-pass valve blocked	Dismantle the valve, clean and/or replace it
	Air entering the pump or the suction piping	Check the seals of the con- nections
	A narrowing in the suction piping	Use piping suitable for work- ing under suction pressure
	Low rotation speed	Check the voltage at the pump. Adjust the voltage and/ or use cables of greater cross- section
	The suction piping is resting on the bottom of the tank	Raise the piping
	Excessive oil viscosity	Verify the oil temperature and warm it to reduce the excessive viscosity
NCREASED PUMP IOISE	Cavitation occurring	Reduce suction pressure
	Irregular functioning of the by-pass	Dispense until the air is purged from the by-pass system
	Presence of air in the fluid	Verify the suction connections
EAKAGE FROM THE UMP BODY	Seal damaged	Check and replace the seal
HE PUMP DOES NOT RIME THE LIQUID	Suction circuit blocked	Remove the blockage from the suction circuit
	Malfunction of foot valve fit- ted on suction circuit	Replace foot valve
	The suction chambers are dry	Add liquid from pump deliv- ery side
	The pump chambers are dirty or blocked	Remove the blockages from the suction and delivery valves

(Translated from Italian) T DEMOLITION AND DISPOSAL

If the system needs to be disposed, the parts which make it up must be delivered to companies that specialize in the recycling and dis-posal of industrial waste and, in particular: DISPOSAL OF OTHER PARTS: Foreword Disposal of pack-ing materials The packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose. Disposal of metal Metal parts, whether paint-finished or in stainless steel, can be con-signed to scrap metal collectors. **Disposal of electronic** tric and electronic components of electronic components, in accordance with the indications of directive 2002/96/CE (see text of directive below).

EN

European Directive 2002/96/EC requires that all equipment marked with this symbol on the product and/or packaging not be disposed of together with non-differentiated urban waste. The symbol indi-cates that this product must not be disposed of together with nor-mal household waste. It is the responsibility of the owner to dispose of these products as well as other electric or electronic equipment by means of the specific refuse collection structures indicated by the government or the local governing authorities. regarding the clients residing within the Euro

pean Unior Disposal of mis-cellaneous Other components, such as pipes, rubber gaskets, plastic parts and wires, must be disposed of by companies specializing in the disposal of industrial waste. eous parts





GAS

USE AND MAINTENANCE MANUAL

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VISCOMAT series pumps are designed and constructed to require a minimal amount of maintenance. On a weekly basis, check that the tubing joints have not loosened, to avoid any leakage. - On a monthly basis, check the pump body and keep it clean of any

NOISE LEVEL

RODLEM	FOSSIBLE CAUSE	CORRECTIVE ACTION
THE MOTOR IS NOT FURNING	Lack of electric power	Check the electrical connec- tions and the safety systems.
	Rotor jammed	Check for possible damage or obstruction of the rotating components.
	The motor protecting thermals witch has tripped	Wait until the motor cools, ver ify that it starts again, look for the cause of overheating
	Motor problems	Contact the Service Depart- ment
THE MOTOR TURNS SLOWLY WHEN STARTING	Low voltage in the electric power line	Bring the voltage back within the anticipated limits
	Excessive oil viscosity	Verify the oil temperature and warm it to reduce the excessive viscosity
LOW OR NO FLOW RATE	Low level in the suction tank	Refill the tank
	Foot valve blocked	Clean and/or replace the valve
	Filter clogged	Clean the filter
	Excessive suction pressure	Lower the pump with respect to the level of the tank or increase the cross-section of the piping
	High loss of head in the deliv- ery circuit (working with the by-pass open)	Use shorter piping or of greater diameter
	By-pass valve blocked	Dismantle the valve, clean and/or replace it
	Air entering the pump or the suction piping	Check the seals of the con- nections
	A narrowing in the suction piping	Use piping suitable for work- ing under suction pressure
	Low rotation speed	Check the voltage at the pump. Adjust the voltage and or use cables of greater cross- section
	The suction piping is resting on the bottom of the tank	Raise the piping
	Excessive oil viscosity	Verify the oil temperature and warm it to reduce the excessive viscosity
	Cavitation occurring	Reduce suction pressure
NCREASED PUMP NOISE	Irregular functioning of the by-pass	Dispense until the air is purged from the by-pass system
	Presence of air in the fluid	Verify the suction connections
LEAKAGE FROM THE PUMP BODY	Seal damaged	Check and replace the seal
	Suction circuit blocked	Remove the blockage from the suction circuit
	Malfunction of foot valve fit-	Replace foot valve

ATTENTION





