

ENGLISH (Translated from Italian)

A TABLE OF CONTENTS

TABLE OF CONTENTS
TABLE AND MANUFACTURER IDENTIFICATION
DECLARATION OF INCORPORATION OF THE
ELECTRIC MOTOR AND ELECTRICAL MACHINERY

B MACHINE AND MANUFACTURER IDENTIFICATION



C DECLARATION OF INCORPORATION OF THE PARTLY-COMPLETED MACHINERY

The undersigned Piusi Inc. Via Pacinotti c.m., Zl. Rangovio 46029 Suzzara - Mantova - Italy

HEREBY STATES under its own responsibility, that the partly-completed machinery: Description: partly-completed machinery for lubricant oil transfer model: VISCOMAT 70 / VISCOMAT 90

To which the essential safety requirements have been applied and complied with what indicated in annex I of the machine directive applicable to the product and shown below:

The documentation is at the disposal of the competent authority following motivated request at Piusi Inc. or following request sent to the email address: dpc\_tec@piusi.com

D MACHINE DESCRIPTION

PUMP: Self-priming, volumetric, rotating electric vane pump equipped with by-pass valve. MOTOR: Asynchronous motor, single-phase or three-phase, 2 or 4 pole, closed type, Protection class IP55 according to regulation EN 60034-5-80.

Table with 4 columns: PUMP MODEL, A (mm), PACKING SIZE, TOTAL WEIGHT. Rows include SINGLE-PHASE 70, THREE-PHASE 70, and THREE-PHASE 90.

E GENERAL WARNINGS

Important precautions: To ensure operator safety and to protect the pump from potential damage, workers must be fully acquainted with this instruction manual before performing any operation.

F FIRST AID RULES

In the event of problems developing following EYE/SKIN CONTACT, INHALATION or INGESTION of the treated product, please refer to the PRODUCT SAFETY DATA SHEET.

Persons who have suffered electric shock: Please refer to the safety data sheet for the product.

ENGLISH (Translated from Italian)

G GENERAL SAFETY RULES

- Essential protective equipment characteristics: Personal protective equipment that must be worn: safety shoes, close-fitting clothing, protection gloves, safety goggles, instructions manual.

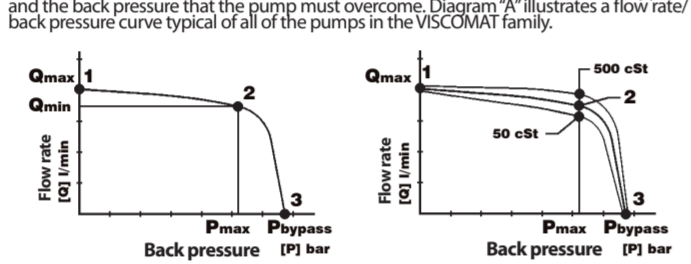
DANGER

Never touch the electric plug or socket with wet hands. Do not switch the dispensing system on if the network connection cable or important parts of the apparatus are damaged.

ATTENTION

The electrical connection between the plug and socket must be kept well away from water. Unsuitable extension leads can be dangerous.

H TECHNICAL DATA



Point "1" is the point at which the pump is functioning with practically no back pressure in which case the pump supplies the maximum flow rate (Qmax). Point "2" is the functioning point characterized by the maximum back pressure (Pmax).

Table with 4 columns: PUMP MODEL, BY PASS CONDITION, Max. back pressure condition, Max. flow rate condition. Rows include VISCOMAT 70 M, VISCOMAT 90 T, VISCOMAT 70 100/50, VISCOMAT 70 100/60, VISCOMAT 70 110/50, VISCOMAT 70 110/60, VISCOMAT 90 230/50, VISCOMAT 90 230/60.

I ELECTRICAL DATA

Table with 4 columns: PUMP MODEL, CURRENT, Voltage, POWER, CURRENT, SPEED. Rows include VISCOMAT 70 M, VISCOMAT 70 T, VISCOMAT 90 T, VISCOMAT 70 100/50, VISCOMAT 70 110/50, VISCOMAT 70 110/60, VISCOMAT 90 230/50, VISCOMAT 90 230/60.

L OPERATING CONDITIONS

L1 ENVIRONMENTAL CONDITIONS

TEMPERATURE: min. +23 °F / max. +104 °F. RELATIVE HUMIDITY: max. 90%. LIGHTING: The environment must conform to directive 89/654/EEC.

ATTENTION

The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction. The temperature range also depends on the variability of the viscosity of the oil itself with temperature.

ATTENTION

The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction. It is understood, nevertheless, that for a given oil, the real functioning temperature range also depends on the variability of the viscosity of the oil itself with temperature.

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L2 ELECTRICAL POWER SUPPLY

NOTE: Depending on the model, the pump must be fed by three-phase or single-phase alternating current whose nominal values are those indicated in the Table of paragraph ELECTRICAL CONNECTIONS.

ATTENTION

Power from lines with voltages outside the indicated limits can damage the electrical components.

L3 WORKING CYCLE

NOTE: The motors are intended for continuous use. Under normal operating conditions they can function continuously with no limitations.

ATTENTION

Functioning under by-pass conditions is only allowed for brief periods of time (2-3 minutes maximum). When ever a particular installation carries the risk of functioning in by-pass mode for longer periods of time, it is necessary that the by-passed flow not be recirculated inside the pump, but be returned to the suction tank.

L4 PERMITTED AND NON-PERMITTED FLUIDS

PERMITTED: OIL WITH a VISCOSITY FROM 50 TO 500 cSt (at working temperature). NOT PERMITTED: GASOLINE, WATER, CORROSIVE CHEMICAL PRODUCTS, SOLVENTS.

M INSTALLATION

PRELIMINARY INSPECTION: Verify that all components are present. Request any missing parts from the manufacturer.

ATTENTION

The pump must never be operated before the delivery and suction lines have been connected.

M1 HYDRAULIC CONNECTION

NOTE: In the case of installation in the open air, proceed to protect the pump by providing a protection roof. The pump must be secured in a stable way using the holes on the bed of the motor and vibration damping devices.

ATTENTION

THE MOTORS ARE NOT OF THE ANTI-EXPLOSIVE-TYPE. DO NOT install them where inflammable vapours could be present.

IMPORTANT NOTE

Make sure that the hoses and the suction tank are free of dirt and filling residue that might damage the pump and accessories.

ATTENTION

The use of hoses and/or line components that are inappropriate for use with oil or have inadequate nominal pressures can cause damage to objects or people as well as pollution.

M2 CONSIDERATIONS REGARDING DELIVERY AND SUCTION LINES

DELIVERY: The choice of pump model to use should be made keeping in mind the viscosity of the oil to be pumped and the characteristics of the system attached to the delivery of the pump.

SUCTION

VISCOMAT series pumps are characterized by excellent suction capacity. In fact, the characteristic flow rate/back pressure curve remains unchanged even at high pump suction pressure values.

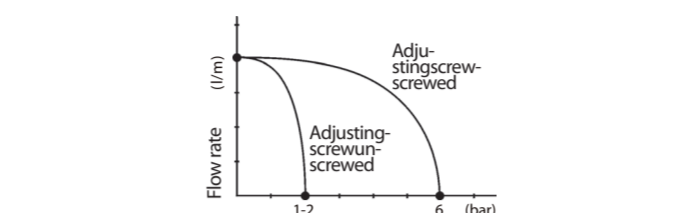
ATTENTION

It is a good system practice to immediately install vacuum and air pressure gauges at the inlets and outlets of the pump which allow verification that the operating conditions are within anticipated limits.

ENGLISH (Translated from Italian)

M3 MAXIMUM PRESSURE DECREASE

VISCOMAT series pumps are equipped with an adjusting screw to adjust the by-pass valve pressure (pos. 10 in the exploded view).

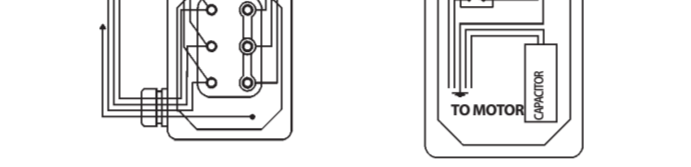


As a result, plant specifications being equal the flow rate of the pump will be decreased due to the earlier opening of the by-pass valve.

N CONNECTIONS

N1 ELECTRICAL CONNECTIONS

FOREWORD: 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.



WARNING: Single-phase motors are supplied with a bipolar switch and capacitors wired and installed inside the terminal strip box (see chart).

ATTENTION

Pumps are supplied without electrical safety devices such as 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.

WARNING

Comply with the following (not exhaustive) instructions to ensure a proper electrical connection:

- 1 During installation and maintenance make sure that power to the electric lines has been turned off. 2 Employ cables characterized by minimum cross-sections, rated voltages and installation type adequate to the characteristics indicated in paragraph ELECTRICAL SPECIFICATIONS and the installation environment.

ATTENTION

IT IS THE INSTALLER'S RESPONSIBILITY TO CARRY OUT THE ELECTRICAL CONNECTIONS IN COMPLIANCE WITH THE RELEVANT STANDARDS.

O INITIAL START-UP

FOREWORD: 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.

ATTENTION

Fluid leaks can damage objects and injure persons. Wetting the Pump. Before starting the pump, wet the inside of the pump body with oil through the inlet and outlet openings.

ATTENTION

The priming phase may last from several seconds to a few minutes, depending on the characteristics of the system. If this phase is excessively prolonged, stop the pump and verify:

- 1 that the pump is not running completely "dry". 2 that the suction hose guarantees against air infiltration and is correctly immersed in the fluid to be drawn. 3 that any filters installed are not blocked. 4 that the delivery hose allows for the easy evacuation of the air.

ATTENTION

For a complete and proper verification of points 2) and 3), the installation of vacuum and air pressure gauges at the inlet and outlet of the pump is recommended.

ENGLISH (Translated from Italian)

P EVERY DAY USE

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

MANUAL OPERATION

1 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 it is correctly positioned and appropriately attached to the delivery tank.

ATTENTION

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

ATTENTION

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.

ATTENTION

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.

ATTENTION

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.

ATTENTION

Failure to comply with the above can damage the pump.

Q MAINTENANCE

SAFETY INSTRUCTIONS: VISCOMAT series pumps are designed and constructed to require a minimal amount of maintenance.

ONCE A WEEK: On a weekly basis, check that the tubing joints have not loosened, or any other leakage.

ONCE A MONTH: On a monthly basis, check the pump body and keep it clean if any impurities.

ON A MONTHLY BASIS: Check and clean the filters placed at the pump inlet.

ON A MONTHLY BASIS: Check that the electric power supply cables are in a good condition.

R NOISE LEVEL

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

Table with 3 columns: PROBLEM, POSSIBLE CAUSE, CORRECTIVE ACTION. Rows include THE MOTOR IS NOT TURNING, THE MOTOR TURNS SLOWLY WHEN STARTING, LOW OR NO FLOW RATE, LEAKAGE FROM THE PUMP BODY, THE PUMP DOES NOT PRIME THE LIQUID.

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T DEMOLITION AND DISPOSAL

FOREWORD: If the system needs to be disposed, the parts which make it up must be delivered to companies that specialize in the recycling and disposal of industrial waste and, in particular, DISPOSAL OF OTHER PARTS.

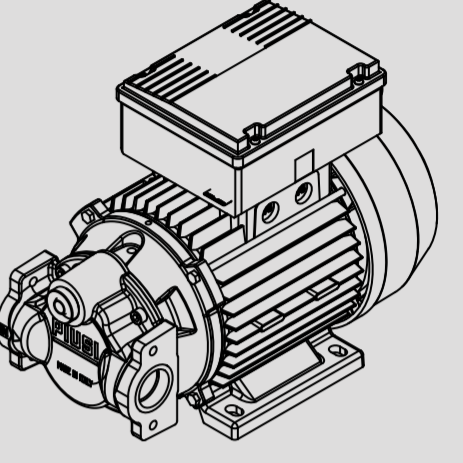
DISPOSAL OF PACKING MATERIALS: The packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose.

DISPOSAL OF METAL PARTS: Metal parts, whether paint-finished or in stainless steel, can be consigned to scrap metal collectors.

DISPOSAL OF ELECTRIC AND ELECTRONIC COMPONENTS: These must be disposed of by companies that specialize in the disposal of electronic components, in accordance with the indications of directive 2002/96/CE (see text of directive below).

INFORMATION REGARDING THE ENVIRONMENT FOR PRODUCTS RESIDING WITHIN THE EUROPEAN UNION: 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 waste.

DISPOSAL OF MISCELLANEOUS PARTS: Other components, such as pipes, rubber gaskets, plastic parts and wires, must be disposed of by companies specializing in the disposal of industrial waste.



USE AND MAINTENANCE MANUAL BEDIENUNGS- UND WARTUNGSANLEITUNG

DEUTSCH (Übersetzt aus dem Italienischen)

A INHALTSVERZEICHNIS
B ANGABEN ZU MASCHINE UND HERSTELLER
C EINBAUERKLÄRUNG ÜBER DIE QUASI-MASCHINEN
D BESCHREIBUNG DER MASCHINE
E ALLGEMEINE WARNHINWEISE
F ERSTE-HILFE-MASSNAHMEN
G ALLGEMEINE SICHERHEITSVORSCHRIFTEN
H TECHNISCHE MERKMALE
I ELEKTRISCHE ANSCHLÜSSE
M ANMERKUNGEN ZU FÖRDER- UND ANSAUGLEITUNGEN
N VERBINDUNGEN UND ANSCHLÜSSE
O ERSTER START
P TÄGLICHER EINSATZ
Q WARTUNG
R GERÄUSCHPEGEL
S STÖRUNGEN UND DEREN BEHEBUNG
T DEMONTAGE UND ENTSORGUNG
U ÜBERSICHTSBILDTAFELN / EXPLODED DIAGRAMS
V AUSSENMASSE / DIMENSIONS

PIUSI S.p.A. logo and technical specifications table including model, year, and technical features.

ERHÄLTICHE MODELLE: 100/110/230/400V AC
HERSTELLER: Piusi S.p.A.

EINBAUERKLÄRUNG ÜBER DIE QUASI-MASCHINEN
Die unterzeichnete Firma Piusi S.p.A. übernehmt die Verantwortung für die Quasimaschine.

DEUTSCH BESCHREIBUNG DER MASCHINE
PUMPE: Selbstsaugende, selbstregulierende, selbstschützende, selbstschützende, selbstschützende, selbstschützende.

DEUTSCH BESCHREIBUNG DER MASCHINE
PUMPE: Selbstsaugende, selbstregulierende, selbstschützende, selbstschützende, selbstschützende, selbstschützende.

Table with 4 columns: Modell, Abmessung der Verpackung, Gesamtschwerk, Gewicht. Lists models like VISCOMAT 70 M and their dimensions.

ALLGEMEINE WARNHINWEISE
Wichtige Hinweise
Vor der Ausführung von Arbeiten an der Pumpe sollte die Maschine vom Netz getrennt werden.

ERSTE-HILFE-MASSNAHMEN
Der Kontakt zwischen der Stromspannung und der zu pumpenden Flüssigkeit vermeiden.

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DEUTSCH (Übersetzt aus dem Italienischen)

G ALLGEMEINE SICHERHEITSVORSCHRIFTEN
Wesentliche Eigenschaften der Schutzanweisung
Zu tragende persönliche Schutzanweisungen
Sicherheitshandschuhe
GEFAHR

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L2 STROMVERSORGUNG
HINWEIS
ACHTUNG
L3 ARBEITSZYKLUS
HINWEIS
ACHTUNG
L4 ERLAUBTE UND VERBOTENE FLÜSSE
ZULÄSSIG SIND

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DEUTSCH (Übersetzt aus dem Italienischen)

M3 VERRINGERUNG DES HÖCHSTDRUCKS
HINWEIS
ACHTUNG
L3 ARBEITSZYKLUS
HINWEIS
ACHTUNG
L4 ERLAUBTE UND VERBOTENE FLÜSSE
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T DEMONTAGE UND ENTSORGUNG
Vorbemerkung
Entsorgung der Verpackung
Entsorgung der Elektronik- und Elektronikbauteile
Umweltbezogene Informationen für die in der Europäischen Union ansässigen Kunden
Entsorgung weiterer Bauteile

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U ÜBERSICHTSBILDTAFELN / EXPLODED DIAGRAMS
V AUSSENMASSE / DIMENSIONS

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