

PIUSI

E200



**MADE
IN
ITALY**

Installation, use and maintenance manual **EN**

BULLETIN MO855 EN_00

ENGLISH

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1 GENERAL WARNINGS AND MACHINE COMPLIANCE

1.1 DOCUMENT STRUCTURE

This manual has been prepared in accordance with the Machinery Directive 2006/42/EC and applicable technical standards. Its structure follows a logical sequence that guides the user from general product knowledge through to decommissioning, covering all phases of the product lifecycle. Operating and maintenance personnel must have adequate technical training, in accordance with the safety warnings.

The machine may only be used in accordance with these operating instructions. Any use not in accordance with the operating instructions is prohibited and may be dangerous to people and other machines/systems.

1.2 HOW TO USE THIS DOCUMENT

1.2.1 Meaning of Symbols

Symbols used in this manual:

The following symbols will be used in the manual to highlight particularly important indications and warnings:



General warning symbol.

Indicates that special attention should be paid to the described hazard.



Explosion hazard symbol.



Hot surfaces warning.



Electric shock hazard symbol.



Mandatory symbol.

Indicates the obligation to follow and comply with the instructions described there



Symbol indicating the requirement to use eye protection.



Symbol indicating the requirement to use respiratory protection. The mask must be selected based on the dusts/gases potentially present in the work environment, which may be harmful to personnel's health



Symbol indicating the requirement to use protective gloves.

Gloves must be selected based on temperatures, fluids, and all work conditions that may harm personnel health.



Symbol indicating the requirement for grounding.



NOTE

This symbol indicates useful information.



Sign prohibiting the use of open flames.



Prohibition sign.

Storage of the manual

This manual must be intact and readable in its entirety, the end user and the specialized technicians authorized for installation and maintenance must be able to consult it at all times.

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1.3 FACSIMILE COPY OF EU DECLARATION OF CONFORMITY

The undersigned PIUSI S.p.A.
Via Pacinotti 16/A z.i. Rangavino - 46029 Suzzara - Mantova - Italy
DECLARES under its own responsibility, that the equipment described below:
Description: PUMP DESTINED FOR TRANSFER OF GASOIL
Model: E200
Serial Number: refer to the Lot Number shown on the CE plate affixed to the product
Year of manufacture: refer to the year of manufacture shown on the CE plate affixed to the product.
complies with the following legislation:
- Machinery Regulation
- Electromagnetic Compatibility
- Electrical and electronic equipment

The technical file is available to the competent authority upon request to PIUSI S.p.A. or by sending an email to: doc_tec@piusi.com.

THE ORIGINAL DECLARATION OF CONFORMITY IS SUPPLIED SEPARATELY WITH THE PRODUCT

1.4 MACHINE AND MANUFACTURER IDENTIFICATION

MANUFACTURER Piusi S.p.A.
Via Pacinotti 16/A, Rangavino Industrial Zone
46029 Suzzara (Mantua) Italy

The device is equipped with an identification plate, affixed externally, which displays the following information:

- model;
- batch number / Year of manufacture;
- technical data;
- use and maintenance manual code.

PRODUCT CODE

MODEL

TECHNICAL DATA

PIUSI S.p.A.
46029 SUZZARA (MN)
ITALY

09/03/2026

Code: F00326A0A
E200 230/240V - 50Hz

230/240 V - 50 Hz - 1955 W - 10 A max - 2800 RPM - IP 55

Condensatore: 450 V - 30 µF Start: 450 V - 40 µF

S2 60 Duty Cycle Weight Kg. 19

UK CA CE

YEAR OF PRODUCTION



Always verify before installation that the model is correct and suitable for the actual power supply available (Voltage / Frequency).

Ensure that the nameplate does not deteriorate or become detached over time. If this situation should occur, please contact our customer service office to have the damaged or missing plates sent to you, so that they can be reapplied where originally intended.

2 SAFETY

2.1 WARNINGS



CAUTION

Electrical network - checks prior to installation

Absolutely avoid contact between the power supply and the liquid to be pumped.



FIRE AND EXPLOSION

When flammable liquids are present in the work area,

Flammable vapors may be present, which could cause a fire or explosion during use of the device.

To prevent fire and explosion hazards:

- Use the device only in ventilated areas
- Keep the work area free of debris, including scrap metal and solvent or gasoline tanks.
- Do not plug in or unplug or operate the switch in the presence of flammable vapors.
- All equipment in the work area must be grounded.
- Stop all action immediately if sparks or shock are present. Do not use the device until the problem is identified and resolved.
- Keep a working fire extinguisher in the work area.



ELECTRIC SHOCK - Electric shock or death

To prevent the risk of electric shock:

- Turn off and unplug the power cord after use
- Make sure plug and socket of extension cords are intact.
- Unsuitable extension cords can be dangerous
- Outdoors, use only extension cords suitable for the specific use, according to current regulations.
- The connection between plug and socket must remain away from water.
- Never touch the plug and socket with wet hands
- Do not turn on the appliance in case the mains connection cable or important parts of the appliance, e.g., the suction/suction hose, nozzle, or safety devices are damaged. Replace the damaged hose immediately before use
- As a general rule of electrical safety, it is always recommended to power the device by protecting the line with a circuit breaker or disconnect switch with a capacity and current rating appropriate for the electrical line



Caution: Hot Surfaces



IMPROPER USE OF THE APPLIANCE

Improper use of the device may cause serious injury or death

To prevent risks from improper use:

- Do not operate the appliance while fatigued or under the influence of drugs or alcohol.
- Do not leave the work area while the appliance is on or in operation.
- Turn off the appliance when not in use.
- Do not alter or modify the apparatus. Alterations or modifications may invalidate approvals and cause safety hazards.
- Arrange hose and power cords away from passing areas, sharp edges, moving parts and hot surfaces.
- Do not kink the hose or use a stronger hose.
- Do not bend the flexible hoses excessively.
- Do not use the flexible hoses to pull the appliance.
- Keep children and animals away from the work area
- Comply with all applicable safety regulations.
- Do not exceed the maximum values specified for operating conditions. See the Technical Data table.
- Use liquids and solvents compatible with the wet parts of the equipment. See technical data in all machine manuals. Read manufacturer's warnings for liquids and solvents. For more information on the material, request the safety data sheet (MSDS) from your distributor or dealer.
- Check the machine daily. Immediately repair or replace worn or damaged parts with original manufacturer's replacement parts only.
- Ensure that the equipment is classified and approved in accordance with the environmental regulations of the location of use.
- Use the appliance only for its intended use. Contact your distributor for more information.

DANGER OF TOXIC FUMES AND FLUIDS.

To prevent risks from toxic fumes:



- For issues arising from the treated product with eyes, skin, inhalation and ingestion refer to the MSDS of the fluid used
- Store treated fluids in suitable containers that comply with applicable regulations.
- Prolonged contact with treated product may cause skin irritation; always use protective gloves when dispensing.

2.2 NOISE LEVEL

At the point of maximum noise emission (in bypass mode), the electric pump reaches a sound power level of $L_{wa} = 93 \text{ dB(A)}$, measured at a distance of 1 meter; therefore, the use of PPE such as hearing protection must be taken into account by the user when assessing workplace risks in accordance with Legislative Decree 81/2008.

2.3 RESIDUAL RISKS

Despite careful design and the implementation of appropriate safety measures, certain residual risks may persist when using the electric pump for transferring diesel fuel, and these cannot be completely eliminated. The user must be aware of these risks and take the necessary precautions. The main residual risks identified are:



Contact with diesel fuel:

During transfer operations, accidental diesel fuel spills may occur, resulting in a risk of contact with the skin and/or eyes. The use of personal protective equipment (gloves and goggles) is recommended.



Inhalation of vapors:

Using the pump in poorly ventilated areas can cause diesel vapors to accumulate, which can be harmful if inhaled in large quantities. It is important to always operate in well-ventilated areas.



Electrical hazard:

Although the pump is equipped with protection against power surges and short circuits, improper use (such as having wet hands while connecting or disconnecting the power supply) may result in a risk of electric shock.

Environmental spills:

Accidental leaks may cause soil or water contamination. Exercise caution during transfer and ensure the proper collection and disposal of spilled diesel fuel.

Noise and vibrations:

Prolonged use of the pump may expose the operator to noise and vibrations. It is recommended to limit the duration of continuous operations and, if necessary, to use hearing protection.

Hot surfaces:

Contact with the pump by an operator without the use of protective equipment may pose a risk of minor burns.”



Note:

The pump is not suitable for transferring flammable fluids other than diesel fuel. Improper use can pose serious safety risks.



The user is required to read this manual carefully and follow all safety instructions provided.

2.4 PERSONAL PROTECTIVE EQUIPMENT



Essential features of protective equipment

Wear protective equipment that is:

- suitable for the operations to be performed;
- resistant to the cleaning products used.

Wear the following personal protective equipment during handling and installation:



Safety shoes;



Protective gloves



Tight-fitting clothing;



Safety goggles;



Other equipment

Instruction manual: consider this manual as a safety device.

3 OVERVIEW OF THE MACHINE

3.1 DESCRIPTION OF THE MACHINE

PUMP

Self-priming volumetric rotary vane electric pump, equipped with a bypass valve.

MOTOR

Single-phase, 2-pole, enclosed asynchronous motor (protection class IP55 according to EN 60034-5), self-ventilated, directly flanged to the pump housing.



ATTENTION:

All operations must be performed exclusively by qualified personnel.

3.2 INTENDED USE

Transfer of diesel fuel, synthetic paraffinic fuels (HVO/XTL), and biodiesel, within the limits and specifications indicated by the manufacturer.

Intended for use in industrial, agricultural, or automotive settings for transfer, refueling, and transfer operations between tanks or vehicles, in compliance with applicable regulations.

Proper use of the pump, as described in this manual, helps ensure its safety, durability, and proper operation. Any use not in accordance with the instructions may pose risks to people, property, and the environment, as well as void the manufacturer's warranty.

**PERMITTED FLUIDS**

The pump is suitable exclusively for the transfer of the following fluids:

- DIESEL with a viscosity of 2 to 5.35 cSt (at 37.8°C), in accordance with UNI EN 590; minimum flash point (PM): 55°C
- Synthetic paraffinic fuels HVO/XTL compliant with EN 15940

**PROHIBITED FLUIDS:**

- Petrol
- Flammable liquids with a flash point (PM) < 55°C
- Liquids with viscosity > 20 cSt
- Water
- Food-grade liquids
- Corrosive chemicals
- Solvents

3.3 REASONABLY FORESEEABLE MISUSE

Any use of the pump other than that specified in the “Intended Use” section is considered improper and may pose safety hazards to people, cause damage to the system and the environment, and void the warranty.

By way of example, reasonably foreseeable improper uses include:



- Transfer of fluids listed among prohibited fluids
- Use with flammable fluids with a flash point below 55°C
- Use in environments classified as explosion-hazardous (ATEX)
- Use for transferring high-temperature or high-pressure fluids that are not compatible with the pump's technical specifications.
- Installation or operation without adequate safeguards (e.g., without a filter, without a properly wired electrical connection, without grounding where required).
- Unauthorized modification or alteration of the pump or its components.
- Use by untrained personnel or in the absence of necessary safety measures.



The company disclaims all liability for damages resulting from improper use, unintended use, or use contrary to the instructions provided in this manual.

3.4 TECHNICAL SPECIFICATIONS

3.4.1 Technical specifications of the pump

E200					
Power supply	Max. Flow Rate (l/min)	Max Current (A)	Power (W)	Duty cycle	Noise Level [dB (A)]
230V/240V 50 Hz	200	10	2300	(S2) 60	93

DATA COLLECTION CONDITIONS:

Fluid: Diesel
Temperature 20 °C

Suction conditions: The pipe and the position of the pump in relation to the fluid level are such that a vacuum of 0.3 bar is generated at the nominal flow rate.

To achieve the best performance, it is very important to reduce suction pressure losses as much as possible by following the following guidelines:

- Keep the suction pipe as short as possible
- Avoid unnecessary bends or constrictions in the hoses
- Keep the intake filter clean
- Use a pipe with a diameter equal to or greater than the minimum specified (see HYDRAULIC CONNECTIONS)

**NOTES ON ELECTRICAL POWER SUPPLY**

The pump must be powered by a single-phase AC line with the nominal values indicated in the table in the “TECHNICAL SPECIFICATIONS” section. The maximum acceptable variations for the electrical parameters are:

Voltage: $\pm 5\%$ of the nominal value

Frequency: $\pm 2\%$ of the rated value

**CAUTION**

Powering the pump from lines with values outside the specified limits may cause damage to electronic components as well as a reduction in pressure.

WORKING CYCLE

The motors are designed for continuous operation. Under normal operating conditions, they can operate continuously without restrictions.

**WARNING**

Operation in bypass mode is permitted only for short periods (3 minutes maximum).

3.5 ENVIRONMENTAL CONDITIONS

OPERATING ENVIRONMENTAL CONDITIONS

Temperature Range: minimum $-20\text{ }^{\circ}\text{C}$ / maximum $+50\text{ }^{\circ}\text{C}$

Relative humidity: max 90%



- **The specified temperature limits apply to both the pump components and the electronic control driver components and must be observed to prevent possible damage or malfunction**
- **Under unsuitable environmental conditions, some parts of the pump may show slight signs of oxidation that do not affect the pump's proper operation.**

4 TRANSPORTATION, HANDLING, AND STORAGE

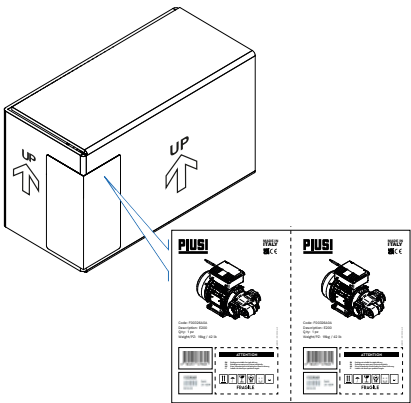
Given the limited weight and size of the devices, handling does not require the use of lifting equipment. The devices are carefully packaged prior to shipment. Check the packaging for damage upon receipt and store in a dry place.

PACKING

The devices are supplied in packaging suitable for shipping.

A label bearing the following information is affixed to the packaging:

- name
- code
- weight



STORAGE

- Store in a covered, dry place.
- Keep the unit away from dirt and vibrations

STORAGE ENVIRONMENTAL CONDITIONS

Storage humidity: Max 90%

Storage temperature: Min -10 °C / Max +50 °C

STORAGE / PACKAGING DIMENSIONS

Model	Weight (kg)	Packaging dimensions (mm)
E200	19	450 x 200 x H250

5 ASSEMBLY, INSTALLATION, AND COMMISSIONING

5.1 ASSEMBLY OF THE MACHINE

The device is supplied ready for installation.



CAUTION

It is the installer's responsibility to provide the necessary line accessories for the safe and proper operation of the pump. The selection of accessories unsuitable for use as specified may cause damage to the pump or injury to persons, as well as environmental pollution



It is the installer's responsibility to affix this label to the machine where the pump will be put into operation

5.2 ELECTRICAL CONNECTIONS



For proper installation and electrical maintenance of the system, please follow these instructions:

1. During installation and maintenance of the system, ensure that the power supply lines are de-energized
2. Use cables with a minimum cross-sectional area, rated voltages, and installation method appropriate for the system's specifications
3. Verify the correct direction of rotation of the motor
4. Always connect the pump's ground terminal to the system's ground line.



CAUTION

It is the installer's responsibility to use a cable with a diameter suitable for the cable gland to ensure IP55 protection.

It is the installer's responsibility to perform the electrical connection in compliance with applicable regulations.

Pumps with single-phase motors are supplied with a 2-meter cable . and plug.

To replace the power cord, open the capacitor box cover and follow the wiring diagram shown in the image on the right. Single-phase motors are equipped with a phase capacitor and a two-pole switch. The capacitor specifications are listed for each model on the pump's nameplate.

The pump is supplied with a capacitor box, terminal block, power cord, and switch.

The pump is sold with the cable already installed; the customer does not need to do this



CAUTION

The pumps are supplied without safety devices such as fuses, motor protectors, or systems to prevent accidental restarting after power outages.

Even the switch, if present, serves only to start and stop the pump and cannot in any way replace a suitable ground-fault circuit interrupter (GFCI).

It is therefore the installer's direct responsibility to connect the pump to the main electrical panel in compliance with the regulations in effect in the area where the system will be used.

5.3 HYDRAULIC CONNECTIONS



PRELIMINARY NOTES

Before connecting the pump, ensure that the tank, fittings, and piping used are clean and free of debris or manufacturing residues. Before connecting the discharge line to the pump, we recommend partially filling the pump housing with diesel fuel to lubricate it and facilitate the priming process.



CAUTION

The use of unsuitable piping can cause damage to the pump or injury to people, as well as pollution. Loose connections (threaded connections, flanges, gaskets) can cause serious ecological and safety problems. Check all connections daily after initial installation. If necessary, tighten all connections.



WARNING

Do not use couplings or fittings with tapered threads, as these could damage the pump's connection ports if overtightened.

CONNECTIONS

We recommend using PIUSI suction and discharge hoses, which are specifically designed for the pump in use; alternatively, follow the dimensions and specifications listed in the table below.

E200		
	Suction	Discharge
Pump Connection Thread	1-1/2" G - BSP	1-1/2" G - BSP
Recommended minimum internal diameters	ø38 mm	ø38 mm
Recommended nominal pressure	10 Bar	10 Bar
Piping suitable for under vacuum	•	

5.4 INSTALLATION



PRELIMINARY CHECKS

1. Check that all components are present. Request any missing parts from the manufacturer.
2. Check that the machine has not been damaged during transport or storage.
3. Carefully clean the suction and discharge ports, removing any dust or residual packaging material
4. Ensure that the motor shaft rotates freely
5. Check that the electrical specifications match those indicated on the nameplate
6. Always install in a well-lit area
7. Install the pump in a well-ventilated area to prevent the buildup of vapors
8. We recommend installing a suction filter.

PUMP POSITIONING

The pump can be installed in any position (vertical or horizontal pump axis)

The pump must be securely fastened using the supplied mounting bracket and fastening screws.

For mounting hole center distances, see the "DIMENSIONS" section.



MOTORS ARE NOT OF THE DEFLAGRATION-PROOF TYPE.

Do not install where flammable vapors may be present.

It is the responsibility of the installer to provide the necessary line accessories for safe and proper operation of the pump. The choice of accessories that are unsuitable for use, as indicated above, may cause damage to the pump and/or to people, as well as causing pollution.

To maximize performance and avoid damage that may affect the pump's functionality, request original accessories.

CONSIDERATIONS REGARDING THE DISCHARGE AND SUCTION LINES

MANDATORY

To ensure proper pump operation, it is necessary to:

- Reduce system resistance by using shorter pipes and/or pipes with a larger diameter.
- Use line accessories with lower resistance (e.g., an automatic spray gun for higher flow rates).

ASPIRATION

During startup, with the suction line empty and the pump primed with fluid, the pump unit can draw liquid from a maximum head of 2 meters.

Priming may take up to 1 minute.

The presence of an automatic spray gun on the discharge side prevents air from being evacuated from the system and thus prevents proper priming.



CAUTION

It is always advisable to perform priming operations without an automatic nozzle, ensuring the pump is properly wetted.

CAVITATION

It is recommended to always install a foot valve to prevent the suction pipe from emptying and to keep the pump wet.

The pump can operate with negative pressures at the suction inlet of up to 0.5 bar; beyond this, cavitation may occur.

To ensure low suction vacuum:

- use short pipes with a diameter greater than or equal to the recommended size,
- minimize bends, and
- use suction filters with a large cross-sectional area
- use foot valves with the lowest possible resistance.



CAUTION

It is very important to keep the suction filters clean because if they become clogged, they increase the system's resistance.

HEAD DIFFERENTIALS

The head difference between the pump and the fluid level must be kept as low as possible, but in any case no more than 2 meters.

If this height is exceeded, a foot valve must always be installed, and larger-diameter piping must be used.

However, it is recommended not to install the pump for head differences greater than 3 meters.



WARNING

If the suction tank is higher than the pump, it is advisable to install a siphon-breaker valve to prevent accidental diesel fuel leaks.

Size the installation to limit overpressure due to water hammer.

It is recommended to install level gauges and pressure gauges immediately upstream and downstream of the pump to verify that operating conditions are within the specified limits.

Provide for the installation of a suction filter (at the installer's expense).

6 OPERATION

6.1 FIRST START-UP

PRELIMINARY STEPS

1. Check that the amount of diesel fuel in the suction tank is greater than the amount you wish to transfer
2. Ensure that the remaining capacity of the discharge tank is greater than the amount you wish to transfer
3. Do not run the pump dry; this can cause serious damage to its components
4. Ensure that the pipes and line accessories are in good condition. Diesel fuel leaks can cause damage to property and injury to people
5. Never start or stop the pump by turning the power on or off.



CAUTION

During the priming phase, the pump must discharge the air initially present in the entire installation from the delivery line. It is therefore necessary to keep the drain open to allow the air to escape.

If an automatic nozzle is installed at the end of the delivery line, air evacuation may be difficult due to the automatic shut-off device that keeps the valve closed when the line pressure is too low. It is recommended to temporarily remove the automatic gun during the initial start-up phase.

PRIME

The priming phase can last from a few seconds to a few minutes, depending on the system's characteristics. If this phase is prolonged, stop the pump and check:

- that the pump is not running completely dry
- that the suction line is free of leaks;
- that the suction strainer is not clogged
- that the suction head is not greater than 2 meters . (if the height exceeds 2 meters, fill the suction pipe with fluid)
- that the discharge piping ensures proper air venting

Once priming is complete, verify that the pump operates within the specified range, specifically:

- that under maximum backpressure conditions, the motor power consumption falls within the values indicated on the nameplate
- that the suction vacuum does not exceed 0.5 bar
- that the discharge backpressure does not exceed the maximum backpressure specified for the pump.

6.2 DAILY USE

6.2.1 Safety



Before use, ensure that you are wearing the correct PPE



Eye protection.



Respiratory protection. The mask must be selected based on the dusts/gases potentially present in the work environment, which may be harmful to personnel's health



Protective gloves.

Gloves must be selected based on temperatures, fluids, and all work conditions that may harm personnel health.

6.2.2 Using the pump



The pump is intended for professional use only.

USAGE PROCEDURE

1. If using hoses, secure their ends to the tanks. If there are no suitable holders, hold the end of the delivery hose firmly before starting dispensing
2. Before starting the pump, ensure that the discharge valve is closed (dispensing gun or line valve)
3. Operate the run switch. The bypass valve allows operation with the delivery line closed only for short periods (3 minutes maximum)
4. Open the discharge valve, holding the end of the hose firmly
5. Avoid inhaling the pumped product during dispensing
6. If any pumped liquid spills during dispensing, contain it with soil or sand to absorb it and limit the spill
7. When dispensing is complete turn off the pump

CAUTION

After use, ensure that the pump is turned off

In the event of a power outage, immediately shut off the pump



7 MAINTENANCE



Maintenance operations must be performed only by authorized and properly trained personnel.

SAFETY WARNINGS

The pump has been designed and built to require minimal maintenance.

Before performing any type of maintenance, the pump must be disconnected from all electrical and hydraulic power sources.

Personal protective equipment (PPE) must be worn during maintenance

In any case, please take into account the following minimum recommendations for proper pump operation:

ONCE A WEEK

- Check that the pipe joints are not loose, in order to prevent possible leaks.
- Check and keep clean the line filter installed on the suction side (see diagram).

ONCE A MONTH

- Inspect the pump housing and keep it free of any debris
- Check and keep the pump filter and any other installed filters clean.
- Check that the power supply cables are in good condition

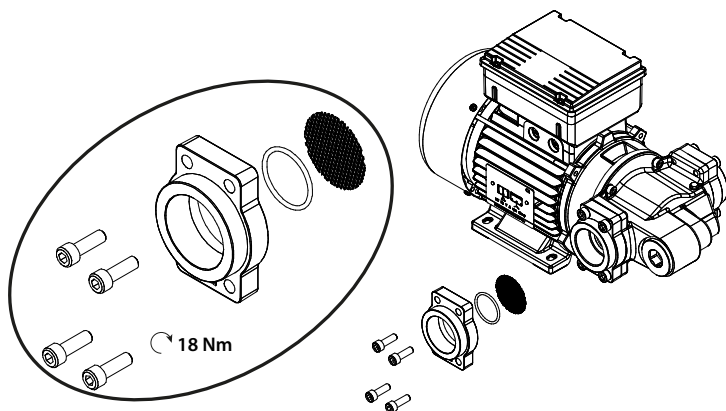


CAUTION

Do not insert your fingers into the inlets while the pump is running.



Do not clean with high-pressure devices



8 TROUBLESHOOTING

For any problems, it is a good idea to contact the nearest authorized service center in your area.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
THE MOTOR DOES NOT RUN	Lack of power supply	Check electrical connections and safety systems
	Locked rotor	Check for possible damage or obstruction to rotating parts.
	Thermal motor protector tripping	Wait for motor to cool down, check restart, search for cause of over temperature.
	Motor problems	Contact the Service Department
ENGINE TURNS SLOWLY DURING STARTING	Low supply voltage	Bring voltage back within expected limits
LOW FLOW OR NONE	Low intake tank level	Fill tank
	Foot valve blocked	Clean and/or replace the valve
	Clogged filter	Clean the filter
	Excessive suction depression	Lower the pump from the tank level or increase the piping section
	High pressure drop in discharge circuit (open by-pass operation)	Use shorter or larger diameter piping
	Blocked by-pass valve	Dismantle the valve, clean it and/or replace it
	Air ingress into pump or suction pipe	Check connections for tightness
	Suction hose restriction	Use a hose suitable for working under vacuum
	Low rotational speed	Check voltage at pump; adjust voltage or/and use larger gauge cables
	Suction line rests on bottom of tank	Raise the tubing
HIGH NOISE. OF THE PUMP	Presence of cavitation	Reduce vacuum at suction
	Irregular operation of the by-pass	Dispense until air present in by-pass system is purged
	Presence of air in liquid	Check connections at suction
LEAKS FROM PUMP BODY	Damage to the seal	Check and replace seal if necessary

PUMP DOES NOT DRIVE LIQUID	Suction circuit is obstructed	Remove obstruction from suction circuit
	Malfunction of any foot valve installed on suction circuit	Replace foot valve
	Suction chambers are dry	Add liquid from pump discharge side
	Pump chambers are dirty or obstructed	Remove obstructions from suction and discharge valves

9 DEMOLITION AND DISPOSAL

PREMISE

In case of demolition of the system, the parts of which it is composed should be entrusted to companies specialized in industrial waste disposal and recycling, and in particular:

DISPOSAL OF PACKAGING

The packaging consists of biodegradable cardboard that can be handed over to companies for normal pulp recovery.

DISPOSAL OF METAL PARTS

Metal parts, whether painted or stainless steel, are normally recoverable by companies specializing in metal scrapping.

DISPOSAL OF ELECTRICAL AND ELECTRONIC COMPONENTS

They must mandatorily be disposed of by companies specialized in the disposal of electronic components, in accordance with the guidance of Directive 2012/19/EU (see directive text below).



ENVIRONMENTAL INFORMATION FOR CUSTOMERS RESIDING IN THE EUROPEAN UNION

The European Directive 2012/19/EU requires that equipment marked with this symbol on the product and/or packaging must not be disposed of together with unsorted municipal waste. The symbol indicates that this product should not be disposed of together with normal household waste. It is the owner's responsibility to dispose of both these products and other electrical and electronic equipment through the specific collection facilities designated by the government or local public agencies.

Disposal of Waste Electrical and Electronic Equipment (WEEE) as household waste is strictly prohibited. This type of waste must be disposed of separately.

Any hazardous substances in electrical and electronic equipment and/or improper use of such equipment can have possible serious consequences for the environment and human health.

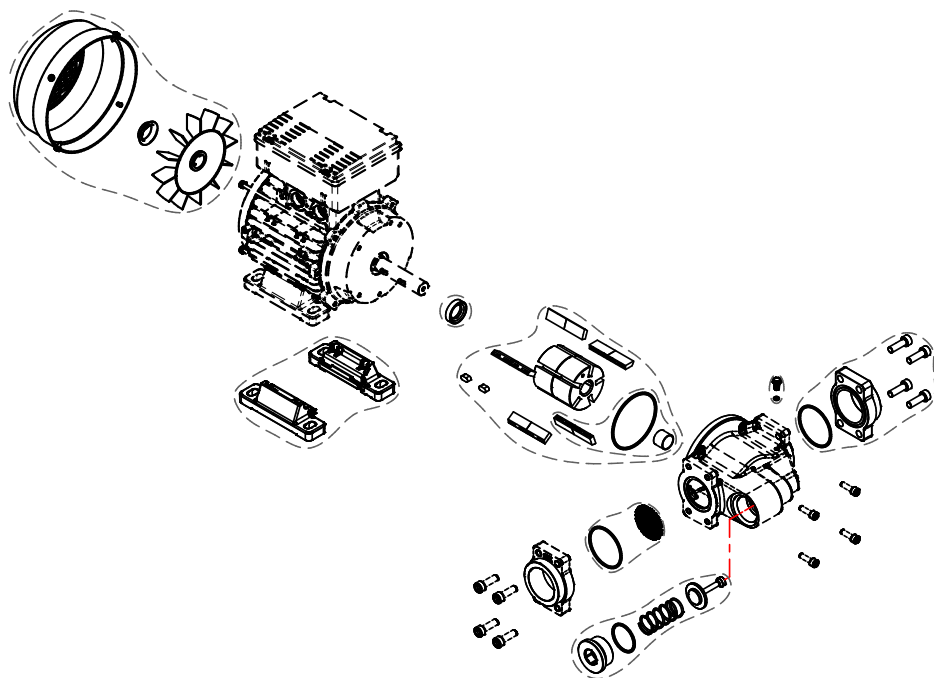
If such waste is disposed of improperly, the penalties provided for in current regulations may be applied

DISPOSAL OF OTHER PARTS

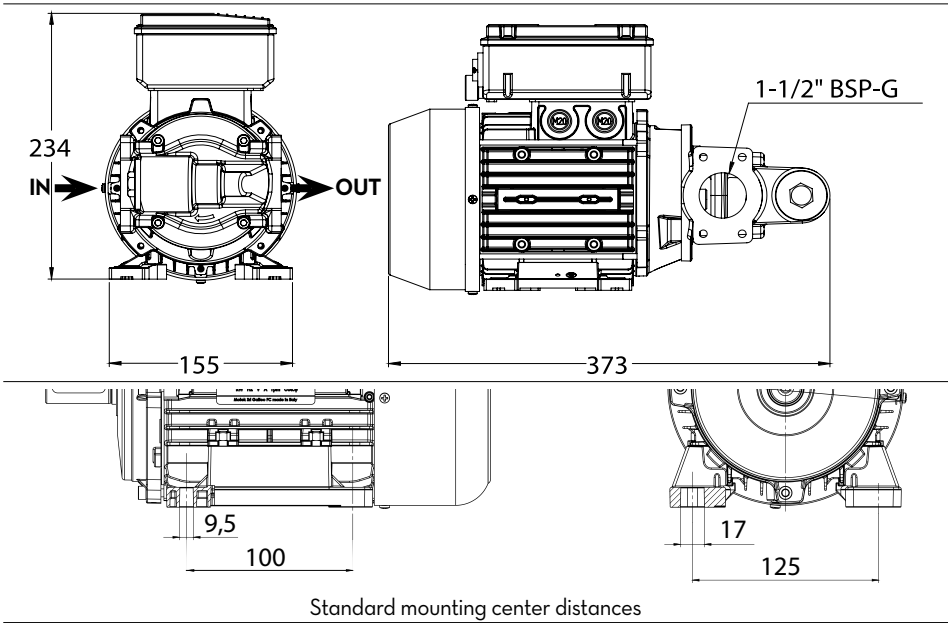
Additional constituent parts, such as hoses, rubber seals, plastic parts and wiring harnesses, are to be entrusted to companies specializing in industrial waste disposal.

10 DOCUMENTS AND DRAWINGS

10.1 EXPLODED VIEW OF SPARE PARTS



10.2 DIMENSIONS



10.3 ELECTRICAL DIAGRAMS

DIAGRAM 1

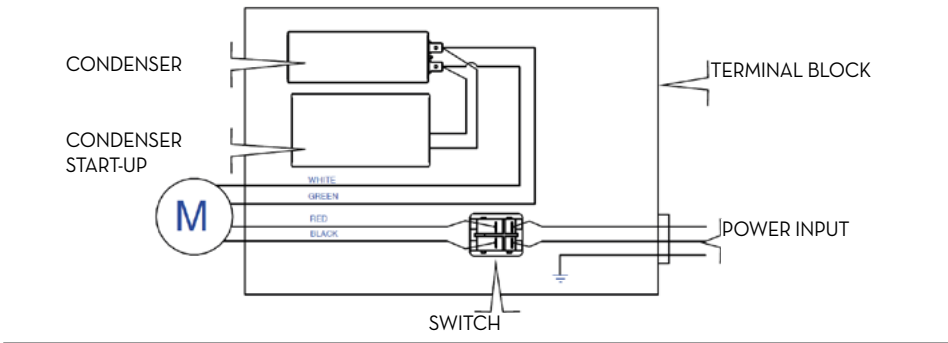
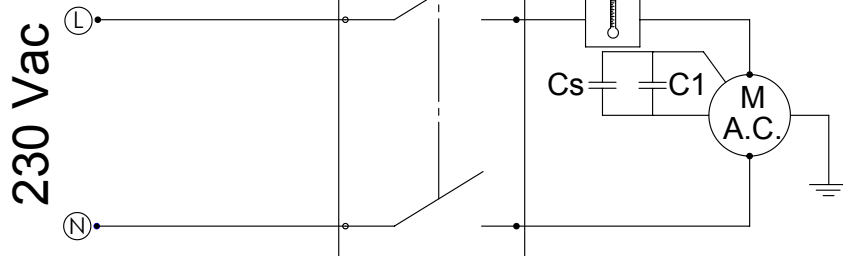


DIAGRAM 2

- S1 ON-OFF switch
M Motor
T Circuit Breaker
C1 Phase capacitor
Cs Start capacitor



The translations, except for the original Italian text, were generated with the support of artificial intelligence and may contain inaccuracies. In case of discrepancies, the Italian version shall prevail.



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