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2 MACHINE AND MANUFACTURER IDENTIFICATION

AVAILABLE MODELS: By-pass 3000 12 - 24 Vdc, Carry 3000, Battery kit 3000. CODE PRODUCT: F00335000, BY-PASS 3000. MODEL: 12V/24V, 12V/24V. TECHNICAL DATA: 12V/24V, 12V/24V. MANUFACTURER: Piusi S.p.A., Via Pacinotti 16/A, Z.I. Rangavino, 46029 Suzzara (Mantova) Italy.

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. HEREBY STATES under its own responsibility that the equipment described below: Description : PUMP INTENDED FOR DIESEL FUEL TRANSFER Model: BY-PASS 3000 12 - 24 VDC / CARRY 3000 / BATTERY KIT 3000. Serial number: refer to Lot Number shown on CE plate affixed to product. Year of manufacture: refer to the year of production shown on the CE plate affixed to the product.

4 MACHINE DESCRIPTION

PUMP: Self-priming, volumetric, rotating vane pump, equipped with by-pass valve. MOTOR: Brush motor, DC, low tension with intermittent cycle, closed type in protection class IP55 according to CEI-EN 60034-5, directly flanged to the pump body.

4.1 MOVING AND TRANSPORT

Forward: Due to the limited weight and dimensions of the pumps, special lifting equipment is not required to handle them. STORAGE: Store in a covered and dry place. PACKAGING: The pump is equipped comes packed suitably for shipment.

Table with 3 columns: MODEL, WEIGHT (Kg), PACKAGING DIMENSION (mm). Rows: BY-PASS 3000, CARRY 3000, BATTERY KIT 3000.

5 GENERAL WARNINGS

Warnings: To ensure operator safety and to protect the dispensing system from potential damage, workers must be fully acquainted with this instruction manual before attempting to operate the dispensing system. Symbols used in the manual: ATTENTION: This symbol indicates safe working practices for operators and/or potentially exposed persons. WARNING: This symbol indicates that there is risk of damage to the equipment and/or its components. Manual preservation: This manual should be complete and legible throughout. Reproduction rights: THIS MANUAL IS THE PROPERTY OF Piusi S.p.A. ANY REPRODUCTION, EVEN PARTIAL, IS FORBIDDEN.

6 SAFETY INSTRUCTIONS

ATTENTION: You must avoid any contact between the electrical power supply and the fluid that needs to be FILTERED. Before any checks or maintenance work are carried out, disconnect the power source. To help prevent fire and explosion: Use equipment only in well ventilated area. FIRE AND EXPLOSION: flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode. ELECTRIC SHOCK: Electrocutation or death.

EQUIPMENT MISUSE: Misuse can cause death or serious injury. Do not operate the device when fatigued or under the influence of drugs or alcohol. Do not alter or modify the device.

TOXIC FLUID OR FUMES HAZARD: Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines. Prolonged contact with the treated product may cause skin irritation; always wear protective gloves during dispensing.

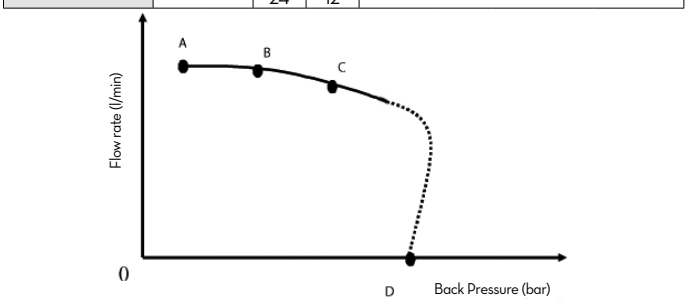
7 FIRST AID RULES: When operating the dispensing system and in particular during refuelling, do not smoke and do not use open flame.

8 GENERAL SAFETY RULES

Essential protective equipment characteristics: safety shoes, close-fitting clothing, protective gloves, safety goggles, instruction manual. Protective gloves: Prolonged contact with the treated product may cause skin irritation; always wear protective gloves during dispensing.

9 TECHNICAL DATA

9.1 PERFORMANCE SPECIFICATIONS. Table with columns: Functioning Point, Flow Rate, Voltage (V), Absorption (A), Typical Delivery Configuration (4 meters of 3/4" tube, K33 Meter, Manual dispensing nozzle, Automatic dispensing nozzle).



ATTENTION: The curve refers to the following operating conditions: Fluid Temperature 20°C, Suction Conditions. The tube and the pump position relative to the fluid level is such that a pressure of 0.3 bar is generated at the nominal flow rate.

10 ELECTRICAL SPECIFICATIONS. Table with columns: PUMP MODEL, FUSES, ELECTRICAL POWER, CURRENT. Rows: VERSION 12V, VERSION 24V.

(*) referred to operations in by-pass mode.

11 OPERATING CONDITIONS

11.1 ENVIRONMENTAL CONDITIONS: Temperature: min. +23°F / max. +104°F, max. 90% RH. 11.2 ELECTRICAL POWER SUPPLY: N.B. THE PUMP SHOULD BE POWERED BY A SAFE SOURCE. 11.3 DUTY CYCLE: The pumps have been designed for intermittent use and a 30-minute duty cycle under conditions of maximum back pressure.

11.4 FLUIDS PERMITTED / FLUIDS NOT PERMITTED

FLUIDS PERMITTED: DIESEL FUEL, BIO DIESEL B0, BIO DIESEL B20/B30. FLUIDS NON PERMITTED AND RELATED DANGERS: GASOLINE, INFLAMMABLE LIQUIDS, LIQUIDS WITH VISCOSITY > 20 cSt, WATER, FOOD LIQUIDS, CORROSIVE CHEMICAL PRODUCTS, SOLVENTS.

12 INSTALLATION

12.1 PRELIMINARY INSPECTION: Verify that all components are present. Check that the machine has not suffered any damage during transport or storage. Carefully clean the suction and delivery inlets and outlets.

12.2 POSITIONING THE PUMP

The pumps can be installed in any position (with pump axis in vertical or horizontal position). THE MOTORS ARE NOT OF THE ANTI-EXPLOSIVE-TYPE. DO NOT install them where inflammable vapours could be present.

12.3 NOTES ON SUCTION AND DELIVERY LINES

The selection of the pump model must be made taking into account the characteristics of the system. The combination of the length of the pipe, the diameter of the pipe, the flow rate of the diesel or other liquid, as well as the accessories installed on the line, could create back pressure that is greater than the maximum predicted pressure.

SUCTION: The self-priming pumps have a good suction capability. During the start-up phase, when the suction pipe is empty and the pump is wet with the fluid, the electric pump unit is able to suck liquid from a maximum vertical distance of 2m.

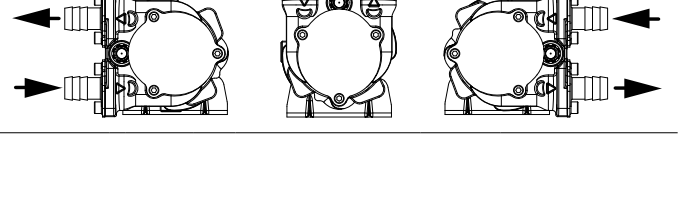
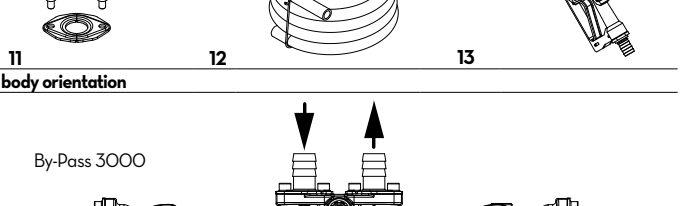
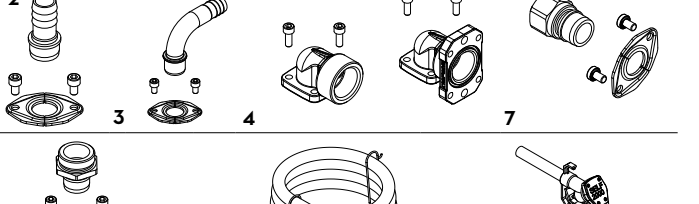
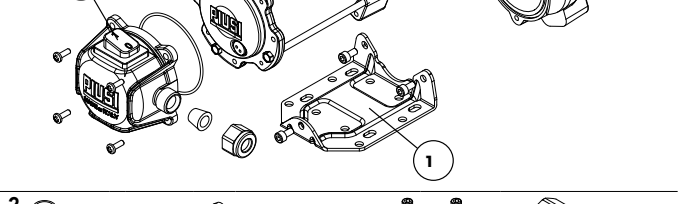
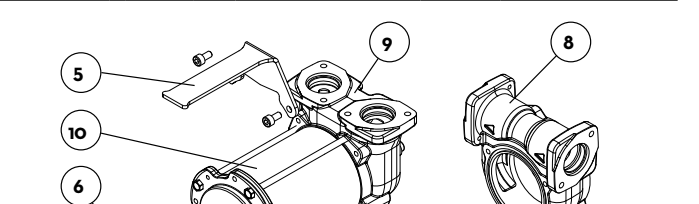
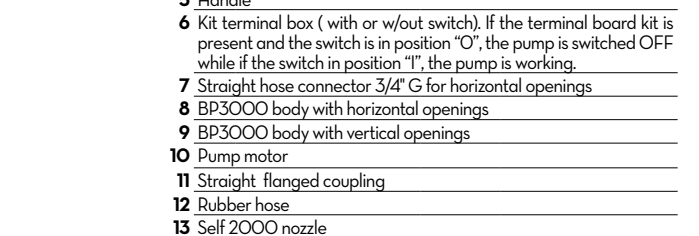
ATTENTION: It is always advisable to prime the pump without an automatic delivery nozzle, verifying the proper wetting of the pump. Always install a foot valve to prevent the suction pipe from being emptied and to keep the pump wet at all times.

ATTENTION: It is important to keep the suction filters clean because, when they become clogged, they increase the resistance of the system. The vertical distance between the pump and the fluid must be kept as short as possible.

ATTENTION: If the suction tank is higher than the pump, an anti-siphon valve should be installed to prevent accidental product leaks. Size the installation to contain the back pressures caused by water hammering.

12.4 CONFIGURATION AND ACCESSORIES: The wide range of accessories and the possibility to fit the base in different positions allow the pump to be used for different installations.

- LIST OF ACCESSORIES: 1 Fixing bracket, 2 Straight hoselets, 3 90° Curved hoselets, 4 Coupling 90° with flange 1", 5 Handle, 6 Kit terminal box, 7 Straight hose connector, 8 BP3000 body with horizontal openings, 9 BP3000 body with vertical openings, 10 Pump motor, 11 Straight, flanged coupling, 12 Rubber hose, 13 Self 2000 nozzle.



12.5 LINE ACCESSORIES

ATTENTION: It is the responsibility of the installer to provide the necessary line accessories to ensure the correct and safe operation of the pump. IT IS THE INSTALLER'S RESPONSIBILITY TO APPLY THE FOLLOWING SIGNALS ON THE MACHINE ANYWHERE PUMP WILL BE USED.

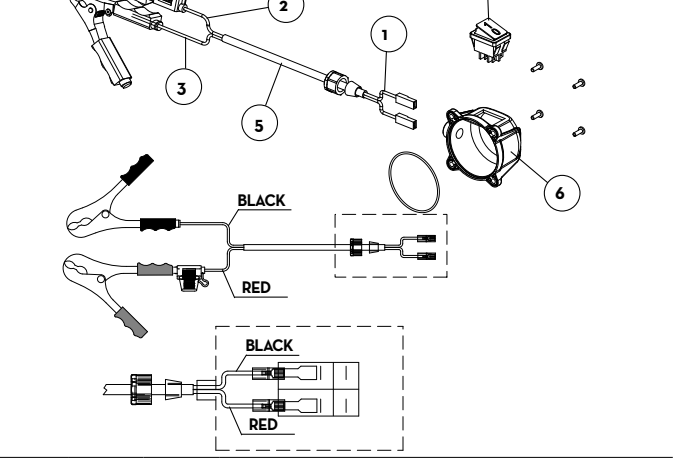
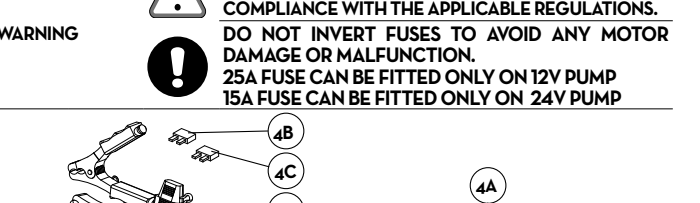
13 CONNECTIONS

13.1 ELECTRICAL CONNECTIONS: GENERAL WARNING: Comply with the following (not exhaustive) instructions to ensure a proper electrical connection.

- 1 Before installation and maintenance make sure that power supply to the electric lines has been turned off. 2 Use cables with minimum cross-sections, rated voltages and installation type that are suitable for the characteristics indicated in paragraph "ELECTRICAL SPECIFICATIONS". 3 Always close the cover of the terminal strip box before switching on the power supply.

- 4 ON/OFF switch. For connection the installer shall have to use a cable of adequate diameter for the cable gland to ensure protection grade IP55. 5 power cable complete of pinners for connection to the battery.

ATTENTION: IT IS THE RESPONSIBILITY OF THE INSTALLER TO CARRY OUT THE ELECTRICAL CONNECTIONS IN COMPLIANCE WITH THE APPLICABLE REGULATIONS. DO NOT INVERT FUSES TO AVOID ANY MOTOR DAMAGE OR MALFUNCTION.



13.2 CONNECTING THE PIPING

- FOREWORD: 1 Before any connections, please refer to the indications (sticker on the pump) to detect suction and delivery univocally. 2 Before connecting, make sure that the pipes and the suction tank are free of dirt and thread residue.

SUCTION PIPES: Recommended minimum nominal diameter: 3/4" nominal recommended pressure: 10 bar. DELIVERY PIPES: Recommended minimum nominal diameter: 3/4" nominal recommended pressure: 10 bar.

14 INITIAL START-UP

- GETTING STARTED: 1 Check that the quantity of diesel fuel in the suction tank is greater than the amount you wish to transfer. 2 Make sure that the residual capacity of the delivery tank is greater than the quantity you wish to transfer.

ATTENTION: Extreme operating conditions with working cycles longer than 30 minutes can cause the motor temperature to rise, thus damaging the motor itself. Each 30-minute working cycle should always be followed by a 30-minute power-off cooling phase.

PRIMING: The priming phase can last from several seconds to a few minutes, as a function of the characteristics of the system. That the pump is not running completely dry. That the suction tubing is not allowing air to seep in.

15 DAILY USE

FOREWORD: This pump is for professional use only. USE PROCEDURE: 1 If using flexible tubing, attach the ends of the tubing to the tanks. 2 Before starting the pump make sure that the delivery valve is closed (dispensing nozzle or line valve).

ATTENTION: After use, make sure the stop is turned off. In case of a power break, switch the pump off straight away.

16 MAINTENANCE

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

SAFETY WARNINGS: Thanks to the design, the pump requires simple maintenance. Check that the pipe connections are not loose to prevent any leaks. Check and keep the filter installed on the suction line clean.

17 NOISE LEVEL

Under normal working conditions the noise emission from all models does not exceed the value of 70 db at a distance of 1 meter from the electric pump.

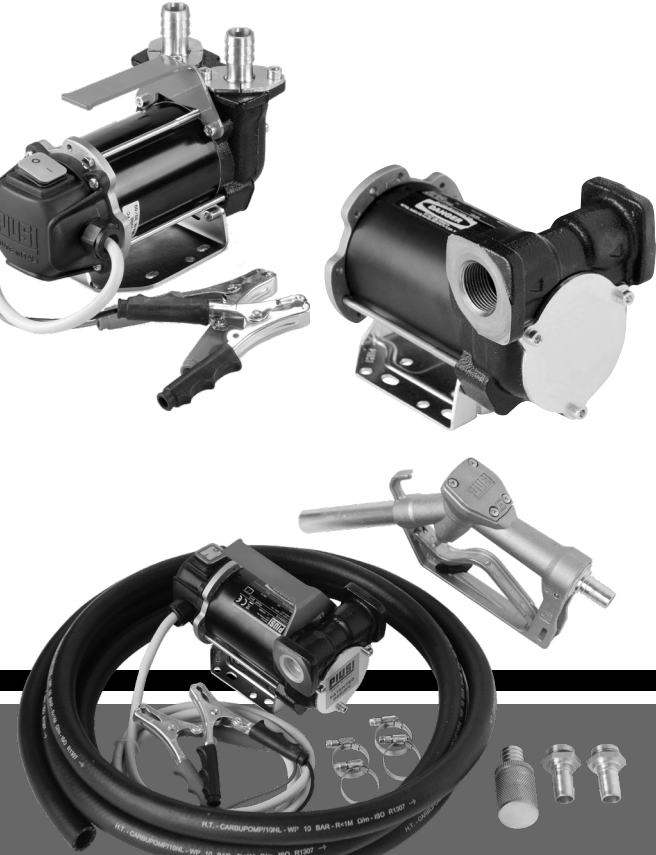
18 PROBLEMS AND SOLUTIONS

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

19 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: The packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose.

BY-PASS CARRY BATTERY KIT 3000



Manuale di Installazione uso e manutenzione. Installazione, uso and maintenance manual. BULLETIN M0192 D ITEM... 00

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