





DEF3-TM series and DEF6-TM series Installation, Use and Maintenance Manual (aka M0195 B)



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Installation, use and maintenance

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ENGLISH

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2 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



The following symbols will be used throughout the manual to highlight safety information and precautions of particular importance:

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.

NOTE

This symbol indicates useful information.

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3 SAFETY INSTRUCTIONS

ATTENTION Mains - preliminary checks before inst Maintenance control FIRE AND

EXPLOSION

When flammable

fluids are present

in the work area.

such as gasoline

and windshield

wiper fluid, be

aware that flam-

mable fumes can



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. Use equipment only in will ventilated area.

Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline.

Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.

Ground all equipment in the work area.

Stop operation immediately if static sparking occurs or if you feel a shock. Do not use equipment until you identify and correct the problem.

Keep a working fire extinguisher in the work area.

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ignite or explode. To help prevent fire and explosion:

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PILSI SUZZARABLUE SIDE PRO/BASIC

ELECTRIC This equipment must be grounded. Improper grounding, setup or usage of SHOCK the system can cause electric shock. Turn off and disconnect power cord before servicing equipment. Electrocution Connect only to a grounded electrical outlets. or death Use only 3 wire extension cords in accordance with local electrical codes. Extension cords should have a ground lead. Ensure ground prongs are intact on power and extension cords. Do not expose to rain. Store indoors. Z Never touch the electric plug of socket with wet hands. Do not turn the dispensing system on if the power connection cord or other important parts of the apparatus are damaged, such as the inlet outlet plumbing, dispensing nozzle or safety devices. Replace damaged components before operation. Before each use check that the power connection cord and power plug are not damaged. If damaged, have power connection cord replaced before use by a qualified electrician. The electrical connection between the plug and socket must be kept well away from water. Unsuitable extension leads can be hazardous, in accordance with current regulations. only extension cords that are labelled for outdoor use and have a sufficient conduction path should be used outdoors. For safety reasons, we recommend that, in principle, the equipment be used only with a earthleakage circuit breaker (max 30 mA). Electrical connections must use ground fault circuit interrupter (GFCI). Installation operations are carried out with the box open and accessible electrical contacts. All these operations have to be done with the unit isolated from the power supply to prevent electrical shock! Do not operate the unit when fatigued or under the influence of drugs or EQUIPMENT alcohol. MISUSE Do not leave the work area while equipment is energized or under pressure. Misuse can Turn off all equipment when equipment is not in use. cause death or Do not alter or modify equipment. Alterations or modifications may void serious injury agency approvals and create safety hazards. Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not kink or over bend hoses or use hoses to pull equipment. Keep children and animals away from work area. Comply with all applicable safety regulations. Burn Hazard Equipment surfaces and fluid that is heated can become very hot during operation To avoid severe burns do not touch hot fluid or equipment. Toxic Fluid or Read MSDS's to know the specific hazards of the fluids you are using. **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.



3.1 SAFETY WARNINGS

ATTENTION Mains preliminary checks before installation Maintenance control ATTENTION Prohibitions

ATTENTION

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Before installation, make sure that the electric power supply network is fitted with a suitable earth-line and complies with the regulations in force. You must avoid any contact between the electrical power supply and the fluid that needs to be pumped.

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Before any checks or maintenance work are carried out, switch the system's power off by disconnecting the plug from the socket.

It is strictly forbidden to support or transport the system using a power supply cable. It is strictly forbidden to support or transport the system using a suction or outlet pipe.

In the event of a suspected contamination of the liquid in the car tank, sanitize the tank. Do not use the Urea Car Dispenser before recovery

3.2 GENERAL SAFETY RULES

| 3.2 GE | ENER/ | AL SAFETY RULES |
|----------------------|----------------|--|
| protective | | Wear protective equipment that is: |
| | | suited to the operations that need to be performed; |
| | | resistant to cleaning products. |
| characteristics | ; | |
| Personal | | Wear the following personal protective equipment during handling and instal- |
| protective | | lation: |
| equipment | $\overline{}$ | Safety shoes; |
| that must be wor | | Close-fitting clothing; |
| | | Protective gloves; |
| | (\mathbf{v}) | |
| | | Safety goggles; |
| Other equipment | | Instruction manual |
| Protective gloves | | Prolonged contact with the treated product may cause skin irritation; always wear protective gloves during dispensing. |
| WARNING | | 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, such as the inlet/outlet pipe, nozzle or safety devices. Replace the damaged pipe immediately. |
| | | Before each use, check that the network connection cable and power plug are not damaged. Have the network connection cable replaced immediately by a qualified electrician. |
| ATTENTION | \wedge | The electrical connection between the plug and socket must be kept well away from water. |
| | ف | Unsuitable extension leads can be dangerous. In accordance with current regula- tions, only extension cords that are labelled for outdoor use and have a sufficient conduction path should be used outdoors. |
| | | For safety reasons, we recommend that, in principle, the equipment be used only with a earth-leakage circuit breaker (max 30 mA). |

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PIUSI SUZZARABLUE SIDE PRO/BASIC

FIRST AID RULES 3.3

dispensing system comes packed in a cardboard box bearing the following markings: - an arrow indicating the

- a label containing all the

information relating to the equipment (model,

Persons who have suffered electric shock

Disconnect the power source, or use a dry insulator to protect yourself while you move the injured person away from any electrical conductor. Avoid touching the injured person with your bare hands until he is far away from any conductor. Immediately call for help from qualified and trained personnel. Do not operate switches with wet hands.

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NOTE

4 The



DISPENSING SYSTEM PACKAGING ٨r Un TÀ <u>PIUS</u>

PACKAGE CONTENTS/PRE-INSPECTION 4.1

Foreword

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weight, etc.)..

TOP side:

To open the cardboard packaging, use a pair of scissors or a cutter, being careful not to damage the dispensing system or its components. Open the packaging and check that the following components provided as part of the equipment are available:

NOTE



In the event that one or more of the components described below are missing from inside the package, please contact Piusi S.p.A.technical support.

Check that the data on the plate correspond to the desired specifications. In the event of any anomaly, contact the supplier immediately, indicating the nature of the defects. Do not use equipment which you suspect might not be safe.

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Installation, use and maintenance

4.2 SIDE CONSISTS OF



5 MACHINE AND MANUFACTURER IDENTIFICATION

The dispensing system comes with an identification plate; this is attached to the pump and contains the following information:

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- type:
- lot number / Production year;
- technical data;
- use and maintenance handbook code

ATTENTION

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Before installing, always make sure the type of dispensing system is correct and suitable for the available power supply (Voltage/Frequency)

PIUSI SUZZARABLUE SIDE PRO/BASIC

PLATES POSITION 5.1

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The dispensing system is equipped with decals and/or plates to provide operators with the necessary important information. Make sure that these do not deteriorate or become detached over time.

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Should this situation arise, please contact our support department and arrange to have the damaged or missing plates sent back and replaced where necessary.

The decals present are as follows:



6 TECHNICAL SPECIFICATIONS

| Dimensions | | |
|--------------------------|-----------------------------|--|
| Length (A) * | 324 mm / 12,75" | |
| Depth (B) | 208 mm / 8,19" | |
| Height (C) | 393 mm / 15,47" | |
| Weight | | |
| BASIC Version | 13,2 kg / 29,10 lb | |
| PRO Version | 15,9 kg / 35 lb | |
| Technical Specifications | | |
| Voltage | 230 V | |
| Frequency | 50 Hz | |
| Power | 520 W | |
| Absorption | 2,4 A | |
| Revolutions | 2900 rpm | |
| Operating temperature | +23°F / +104°F / -5°C/+40°C | |
| Q-max | 10,5 gpm / 40 l/min | |
| P-max | 50,75 psi / 3,5 bar | |
| Protection | IP55 | |
| Reference manual | M0195 | |

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7 INTENDED USE

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| Intended use | The dispensing system "SUZZARABLUE" was designed and built for the distribution | | |
|-----------------|---|--|--|
| | of the product called AdBlue®, AUS32 or water. | | |
| Conditions of | The dispensing system "SUZZARABLUE" should be used by observing the | | |
| use | following conditions: | | |
| | Max. temperature of dispensed product: +35 °C. | | |
| | Min temperature of dispensed product: -11 °C. | | |
| | Max. temperature of dispensed product permitted by materials: +40°C. | | |
| | Voltage variation permitted: +/- 5% | | |
| | Equivalent continuous sound pressure level at the workstation: .75 dB(A) | | |
| | Make sure that the pump operates within its nominal operating parameters. | | |
| Flammable 🔥 | The system "SUZZARABLUE" was not designed for dispensing of diesel, | | |
| liquids and | petrol, flammable liquids with flash point <55°C/131°F, or for operation in | | |
| | petrol, flammable liquids with flash point <55°C/131°P, or for operation in | | |
| explosive atmo- | environments with potentially explosive atmosphere. The use in the above | | |
| • | environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden. | | |
| explosive atmo- | environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden. | | |
| explosive atmo- | environments with potentially explosive atmosphere. The use in the above | | |
| explosive atmo- | environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden. The use of the system for purposes different from those specified in section | | |
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| explosive atmo- | environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden. The use of the system for purposes different from those specified in section "Intended use" is strictly forbidden. Do not operate the system for any purpose other than the purpose de- | | |
| explosive atmo- | environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden. The use of the system for purposes different from those specified in section "Intended use" is strictly forbidden. Do not operate the system for any purpose other than the purpose de- scribed within this manual; all other use is considered "IMPROPER" and will | | |
| explosive atmo- | environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden. The use of the system for purposes different from those specified in section "Intended use" is strictly forbidden. Do not operate the system for any purpose other than the purpose de- scribed within this manual; all other use is considered "IMPROPER" and will result in Piusi S.p.A. disclaiming any responsibility for damage to property, | | |
| explosive atmo- | environments with potentially explosive atmosphere. The use in the above mentioned conditions is forbidden. The use of the system for purposes different from those specified in section "Intended use" is strictly forbidden. Do not operate the system for any purpose other than the purpose de- scribed within this manual; all other use is considered "IMPROPER" and will result in Piusi S.p.A. disclaiming any responsibility for damage to property, people, animals or to the system itself. | | |

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PIUS SUZZARABLUE SIDE PRO/BASIC

8 TREATED PRODUCT CHARACTERISTICS

Products permitted

Products not permitted



The "SUZZARABLUE" dispensing system was designed and built to dispense a special liquid, made from an aqueous urea solution, known as AdBlue[®]/ AUS32, based on the ISO 22241 standard SUZZARABLUE can also be used with water.

ATTENTION

All products not listed in the "Intended Use" and "Treated Product Characteristics" paragraphs are to be considered not permitted, improper and therefore prohibited.

Piusi S.p.A. accepts no responsibility for damage to persons or property caused by failure to comply with this requirement.

9 INSTALLATION

Foreword

Authorised installation personnel

ATTENTION

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The "SUZZARABLUE" dispensing system has been designed and equipped for IBC tank installation. <u>Any different form of installation must guarantee secure fastening.</u> All installations must be carried out by authorised and competent personnel only. Authorised persons must - install the system in dry and well-ventilated place; - ensure the correct installation of equipment required for the correct functioning of the pump; - only use accessories that have been supplied with the system. The use of accessories that are unsuitable and were not provided with the system is strictly prohibited. Piusi S.p.A. accepts no responsibility for damage to persons, property or the environment caused by failure to comply

with this requirement. The "SUZZARABLUE" dispensing system is for professional use only. As per the current legislation, the "SUZZARABLUE" dispensing system must be installed in premises that are sufficiently well-lit.

The "SUZZARABLUE" dispensing system has been specifically designed for use in a dry place. If installed outside, an adequate protective covering must be provided.

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Installation, use and maintenance

10 ASSEMBLY

Assemble as shown in the illustration. See components number at the cap. 42



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ATTENTION

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The "SUZZARABLUE" dispensing system is equipped with an IBC tank suction connection device. This must be installed before attempting to operate the system.

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INSTALLATION ONTO IBC TANKS

11 NOTE

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Different forms of installation, i.e. without the tanks indicated, are only permitted if they are capable of guaranteeing that the dispensing system will be firmly and stably fastened.

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Use the hooks and rope provided to firmly and stably fasten the dispensing system to the tank.



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longer than 3 minutes.

not in use.

OPERATION AND USE 12

Foreword

Directions on how to start and stop operation of the system are given below:



To remove any substance residue or foreign matters from the pipes, wash the system before putting it into operation. To wash the system, follow the same dispensing procedures using demineralized or deionized water and eventually rinse with AUS32 / D.E.F. During operation the motor may be hot: be careful.

ATTENTION

WARNING



For the proper functioning of the system, allow a 20-minute stop for every 20 minutes of dispensing. Operation of the pump without dispensing is only admitted for periods of no

We recommend that the pump remains switched off whenever the system is

If ever the voltage is lagging, push the switch to the OFF position and return the



WARNING





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FMPTY NOZZLE HOLDER

ATTENTION



nozzle to its rest position with its lever not activated.

Should any sealants be used on the suction and delivery circuit of the pump, make sure that these products are not released inside the pump.

Foreign bodies in the suction and delivery circuit of the pump could cause malfunctioning and breakage of the pump components.

In case of prolonged dry-running of the pump, the suction circuit may be empty and suction may become difficult. If so, fill the suction circuit with demineralised water

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13 LEAVING THE SYSTEM UNUSED FOR LONG PERIODS OF TIME

What to do

Whenever it is thought that the system will remain unused for at least 15 days, it must be emptied in order to prevent the product from crystallising inside. This shall be followed by a washing cycle..

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14 WASHING THE DISPENSING SYSTEM

Foreword

The dispensing system requires washing in order to remove product crystallisation which may damage the plant. Wear personal protective equipment (PPE) when performing the wash

ATTENTION

DISPOSAL

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cycle. Use only demineralised water to wash the system. Liquids resulting from washing must be disposed of in accordance with the laws prevailing in the country of use.

By following the same modes of delivery described above, the dispensing system can be washed by sucking up demineralised water from the clean container and collecting the resulting mixture in a different disposable container.

15 MAINTENANCE

| Safety instruc- tions | The dispensing system was designed and built to require a minimal amount of maintenance. Before carrying out any maintenance work, disconnect the dispensing system from any electrical and hydraulic power source. During maintenance, the use of personal protective equipment (PPE) is compulsory. In any case always bear in mind the following basic recommendations for a good func- tioning of the pump |
|--|---|
| Authorised maintenance personnel | All maintenance must be performed by qualified personnel. Tampering can lead to performance degradation, danger to persons and/or property and may result in the warranty being voided. |
| Measures to be | |
| taken | the pump in an environment where the temperature is no lower than $O^{\circ}C/32^{\circ}F$. |
| | Check that the labels and plates found on the dispensing system do not deteriorate |
| | or become detached over time. |
| ONCE A | Check that the pipe connections are not loose to prevent any leaks; |
| WEEK: | Check and keep the filter installed on the suction line clean. |
| ONCE | - Check the pump body and keep it clean and free of any impurities; |
| A MONTH: | - Check that the electrical supply cables are in good condition. |

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16 TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|--------------------------|-------------------------------------|-------------------------------------|
| THE MOTOR IS NOT TURNING | Lack of electric power | Check the electrical connections |
| | | and the safety systems. |
| | Rotor jammed | Check for possible damage or |
| | | obstruction of the rotating com- |
| | | ponents. |
| | Motor problems | Contact the Service Department |
| THE MOTOR TURNS SLOWLY | Low voltage in the electric power | Bring the voltage back within the |
| WHEN STARTING | line | anticipated limits |
| 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 tubing |
| | High loss of head in the delivery | Use shorter tubing or of greater |
| | circuit (working with the by-pass | diameter |
| | open) | |
| | By-pass valve blocked | Contact the Service Department |
| | Air entering the pump or the suc- | |
| | tion tubing | tions |
| | A narrowing in the suction tubing | Use tubing suitable for working |
| | | 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 tubing is resting on | |
| | the bottom of the tank | |
| | Freezing of the pump or motor. | Thaw the pump and check for |
| | | damage. Starting a frozen pump |
| | | can cause damage to the motor |
| | | and to the pump itself |
| | Leaks in the pump outlet pipe. | Check the seal at the pipe's con- |
| | | nections and inspect the pipe for |
| | | possible damage. |
| | Failure to prime | fill the suction hose with deminer- |
| | | alised water |
| INCREASED PUMP NOISE | Cavitation occurring | Reduce suction pressure |
| | | Dispense until the air is purged |
| | pass | from the by-pass system. |
| | Presence of air in the liquid to be | |
| | pumped. | serily the suction connections |
| LEAKAGE FROM THE PUMP | Pump damage | Contact the Service Department |
| LEARAGE FROM I HE PUMP | Pump damage | Contact the Service Department |

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Installation, use and maintenance

17 DEMOLITION AND DISPOSAL

If the system needs to be disposed, the parts which make it up must be de-Foreword livered to companies that specialize in the recycling and disposal of industrial waste and, in particular: Disposing of packing The packaging consists of biodegradable cardboard which can be delivered materials to companies for normal recycling of cellulose. Metal Parts Disposal Metal parts, whether paint-finished or in stainless steel, can be consigned to scrap metal collectors. Disposal of electric and These must be disposed of by companies that specialize in the disposal electronic components of electronic components, in accordance with the indications of directive 2012/19/EU (see text of directive below). European Directive 2012/19/EU requires that all equipment marked with this Information regarding the symbol on the product and/or packaging not be disposed of together with environment for non-differentiated urban waste. The symbol indicates that this product must clients residing not be disposed of together with normal household waste. It is the responsiwithin the European bility of the owner to dispose of these products as well as other electric or Union electronic equipment by means of the specific refuse collection structures indicated by the government or the local governing authorities. Disposing of RAEE equipment as household wastes is strictly forbidden. Such wastes must be disposed of separately. Any hazardous substances in the electrical and electronic appliances and/or the misuse of such appliances can have potentially serious consequences for the environment and human health. In case of the unlawful disposal of said wastes, fines will be applicable as defined by the laws in force. Miscellaneous parts Other components, such as pipes, rubber gaskets, plastic parts and wires, disposal must be disposed of by companies specialising in the disposal of industrial waste.

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