ZONE 22

ZONE 1

3.2

equipmer

electricity

FORBIDDEN

IMPLEMENTED

3.3 INTENDED USE

paragraph "ELECTRICAL DATA".

LOWING FLUIDS:
- DIESEL - KEROSENE

ASPEN2/4

RE IS PRESENT

Voltage: +/- 5% of the nominal value

- AVGAS 100/100LL (pump only)

JET A / A1 (pump only)

OPEN WHEN ENERGIZED

tially explosive areas

Voltage: +/- 5% of the nominal value
Frequency: +/- 2% of the nominal value

Power supply from lines with values that do not fall within the indicated limits could cause damage to the ELECTRICAL AND electronic components.

THE PUMP CAN BE USED ONLY WITH THE FOL-

- PETROL - PETROL ALCOHOL MIXED MAX 15%

AUTOMATIC THERMAL PROTECTED MOTOR - NOT

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHE

and suction lines have been connected.

Before any operation, ensure to be out of poten-

The pump must never be operated before the delivery

Tighten the electrical box to ensure protection again the risk of explosion

The right clamping screws couple that grants this protection is 10nm

- Verify that all components are present. Request any missing parts from the manufacturer.

The pump must be powered by AC line, the nominal values of which are indicated on the table in the

mum acceptable variations from the elec

8.2 ELECTRICAL POWER SUPPLY

8.3 FLUIDS PERMITTED

INSTALLATION

NOTICE

 $\langle E_{\mathsf{X}} \rangle$

valve is closed (dispensing nozzle or line valve) Turn the ON/OFF switch on Open the delivery valve, solidly grasping the pipe

While dispensing, do not inhale the pumped product

If any treated fluid leaks out during dispensing, take all steps necessary to ensure the leaked fluid is cleaned up

Close the delivery valve to stop dispensing When dispensing is finished, turn off the pump THE WORKING OPERATIONS MUST ALWAYS BE GUARDED BY THE OPERATOR.

The by-pass valve allows functioning with deliery closed only for short periods (max. 3 min-To avoid damaging the pump, after use, make sure the pump is off. n case of a power break, switch the pump o straight away. 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 oreakage of the pump components. The screws class used for the assembly of explosic proof enclosures must be of quality higher or equal to 8.8 (ISO 898-1)

MAINTENANCE

WARNING

The PUMP IS DESIGNED AND CONSTRUCTED TO require a minimum of maintenance. Before carrying out any maintenance work, DISCONNECT THE PUMP 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 recom-

mendations for a good functioning of the pump

BEFORE ANY OPERATION, ENSURE TO BE OUT

lameproof joints are not intended to be repaired

Fluid temperature range shall be from -20°C to

OF POTENTIALLY EXPLOSIVE AREAS F FOR SAFETY REASONS IT IS FORBIDDEN REPAIR FLAMEPATH. NOT REMOVE THE PARTS "BOTTOM PLATE" (1), "MOTOR BOX" (2), "PUMP BODY" (3)

AND "TERMINAL BASE" (4) **Authorised** All maintenance must be performed by qualified personnel. Tam pering can lead to performance degradation, danger to persons and/or property and may result in the warranty and UL/ATEX CERTIFICATION being voided.

Check that the labels and plates found on the dispensing system do not deteriorate or become detached over time. ONCE A WEEK: - Check that the pipe connections are not loose to prevent any

Check and keep the filter installed on the suction line clean. Check the pump body and keep it clean and free of any im-

EVERY 18000 CYCLES OF IGNITION / SHUTDOWN, REPLACE THE TERMINAL COVER WITH LEVER

NOISE LEVEL

Under normal operating conditions, noise emission of all models does not exceed 74 dB at a distance of 1 metre from the electric pump.

PROBLEM	tact the authorised dealer no POSSIBLE CAUSE	CORRECTIVE ACTION
THE MOTOR IS NOT TURNING	Lack of electric power	Check the electrical co nections and the safe systems.
	Rotor jammed	Check for possible damage or obstruction of the rotaling components.
	Motor problems	Contact the Service D
THE MOTOR TURNS SLOWLY WHEN STARTING	Low voltage in the electric power line	
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 r spect to the level of the tank or increase the crossection of the piping
	High loss of head in the de- livery circuit (working with the by-pass open)	Use shorter piping or
	By-pass valve blocked	Dismantle the valve, cleand/or replace it
	Air entering the pump or the suction piping	Check the seals of the co nections
	A narrowing in the suction piping	Use piping suitable f working under suction pre sure
	Low rotation speed	Check the voltage at the pump. Adjust the voltage and/or use cables of green er cross-section
	The suction piping is resting on the bottom of the tank	Raise the piping
INCREASED PUMP NOISE	Cavitation occurring	Reduce suction pressure
	Irregular functioning of the by-pass	Dispense until the air purged from the by-pa system
	Presence of air in the fluid	Verify the suction connetions
LEAKAGE FROM THE PUMP BODY	Seal damaged	Check and replace the se
THE PUMP DOES NOT PRIME THE LIQUID	Suction circuit blocked	Remove the blockage fro the suction circuit
	Malfunction of foot valve fit- ted on suction circuit	
	The suction chambers are dry	Add liquid from pump del ery side
	The pump chambers are dirty or blocked	
THE HEAT SENSOR ACTIVATES UNDER NORMAL OPERAT-	Operating fault	Contact the technical support

ENGLISH (Translated from Italian)

EVERY DAY USE

PROCEDURE the tanks. In the absence of an appropriate slot, solidly

grasp the delivery pipe before beginning dispensing. Before starting the pump make sure that the delivery

and safe as specified on the product technical sheet.

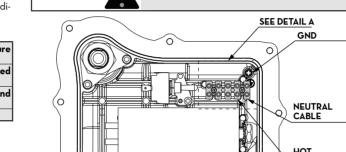
40°C

In the event of installation in zones which are not classified, it is sufficient to observe the minimum safety

CABLE

DETAIL A

standards already mentioned in this manual. The owner has the responsibility to verify that all the local and national regulations have been observed.
 Ensure that the connection cable to the power. supply is protected from all heat sources and sharp edges. Failure to observe the above mentioned rules can



GND MOTOR

ACCESSORIES

The pump must be secured in a stable manner.

damage the pump and/or cause injury to persons, as well as causing pollution.

9.2 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, as well as

reduce the resistance of the system using pipes that are shorter or that have a greater diameter, as well as line accessories with smaller resistances (e.g. an automatic dispensing nozzle with greater flow rate capacity).

SUCTION

During the start-up phase, when the suction pipe is empty and the pump is wet cal distance of 2m.

that the presence of an automatic dispensing nozzle on the delivery side will prevent the air trapped during the installation from being released and, therefore, the correct priming of the pump. For this reason, it is always advisable to prime the pump without an automatic delivery nozzle, verifying the proper wetting of

this point, the pump may begin to cavitate resulting in a drop of the flow rate and an increase in the noise levels of the system.

In light of this, it is important to guarantee small back pressures on the suction side, by using short pipes with diameters that are equal to or larger than those

cross-section and foot valves with minimum possible resistance on the suction side. It is very important to keep the suction filters clean because, when they become clogged, they increase the resistance of the system.

due to water hammering

THE INSTALLER IS RECOMMENDED TO INSTALL A

CONNECTIONS 10.1 ELECTRICAL CONNECTIONS

WARNING

Before any operation, ensure to be out of potentially this the installer's responsibility to carry out the elec-trical connections in compliance with the relevant

Comply with the following (not exhaustive) instruc-tions to ensure a proper electrical connection:

- During installation and maintenance make sure that powe supply to the electric lines has been turned off.

- Use cables with minimum sections, rated voltages and instal-lation type that are suitable for the characteristics indicated in paragraph "TECHNICAL DATA" and the installation environment.

- Always make sure that the cover of the terminal strip box is closed before switching on the power supply, after having checked the integrity of the seal gaskets that ensure the IP55 protection

grade. For those screws use a 10 nm clamping couple All motors are equipped with a grounding terminal.

Make sure all the plant is properly grounded.

THE EXTERNAL EARTHED CABLE MUST HAVE A MINIMUM SECTION OF 4 mm2 THE INTERNAL EARTHED CABLE MUST HAVE A

MINIMUM SECTION OF 2 mm2 Be sure to use a cable gland, with sufficient prote tion grade (exd)

IF YOU NEED TO INSTALL A THREAD ADAPTOR IN THE CABLE ENTRY HOLE, IT IS NECESSARY TO MAKE SURE THAT IT IS CERTIFIED ATEX WITH THE "Ex db" PROTECTION AND THE CABLE GLAND IN STALLED MUST HAVE MINIMUM 5 FULL THREADS

ENGAGED

Check that the pump has not suffered any damage during Carefully clean the suction and delivery inlets and outlets, removing any dust or other packaging material that may be

Check that the electrical data corresponds to those indicated on the data plate. Install in a well-lit place nstall the pump at a height of min. 80 cm

If valves in the circuit are to be installed, ake sure they are equipped with overpressure system.

Clean the tank and make sure it is well-ventilated recommended opening pressure: 3 psi) Apply the quick coupling to the tank correctly a Do not block the drainage holes

9.1 POSITIONING, CONFIGURATIONS AND

NOTICE



It is the installer's responsibility to provide the line ac-cessories necessary for the safe and proper function-ing of the pump. The accessories that are not suitable to be used with the previously indicated material could

To maximise performance and prevent damage that coul affect pump operation, always demand original accessories

the accessories installed, could create back pressure that are greater than the maximum predicted pressure, thereby causing the pump's electronic controls to

Self-priming pumps are characterized by excellent suction capacity.

with the fluid, the electric pump unit is able to suck liquid from a maximum vertiis important to note that it could take up to 1 minute for the pump to prime and

the pump.

Always install a foot valve to prevent the suction pipe from being emptied and to keep the pump wet at all times. In this way, the pump will always start up immediately the next times it is used. When the system is in operation, the pump can operate with back pressures of up to 0.5 bars on the suction inlet; beyond

vertical distance between the pump and the fluid must be kept as short as possible, and it must fall within the 2m maximum required for primina. If the stance is greater, a foot valve must be installed to allow the suction pipes to ill up and the diameter pipes must be larger. It is however recommended that pump not be installed if the vertical distance is greater than 3m

If the suction tank is higher than the pump, an anti-siphon valve should be installed to prevent accidental diesel fuel leaks. Dimension the installation in order to control the back pressures

It is a good system practice to install vacuum and air pressure gauges right at the inlets and outlets of the pump, which allow verification that operating conditions are within anticipated limits. To prevent the suction pipes from being emptied when the pump stops, a foot valve should be installed.

cations i.e. arrow on the pump head, to identify suction and

FOREWORD

10.2 PIPING CONNECTIONS

Wrong connection can cause serious pump damage Before connection, make sure that the piping and the suction tank are free of dirt and solid residue that could damage the pump and its accessories. NEVER COLLECT THE FLUID
FROM THE BOTTOM OF THE TANK SINCE IT MAY CON-

1/2 NPT

GND WIRING BOX

- Before carrying out any connection, refer to the visual indi-

TAIN IMPURITIES Before connecting the delivery pipe, partially fill the pump body, from delivery side, with the liquid that needs to be pumped in order to facilitate priming.
 Do not use conical threaded fittings, which could damage the threaded inlet or outlet openings of the pump if exces-

- Check that the quantity of fluid in the suction tank is greater than the amount you wish to transfer. Make sure that the residual capacity of the delivery tank is areater than the quantity you wish to transfer.

THIS PUMP IS NOT PROVIDED FOR FURTHER REGULATION OF DELIVERY AND PRESSURE Fluid leaks can damage objects and injure persons. Never start or stop the pump by connecting or cut

ting out the power supply.

Prolonged contact with some fluids can damage the skin. The use of goggles and gloves is recom-IF THE PUMP **DOES NOT**

with fluid from the delivery line); that the suction pipe guarantees against air infiltranstallazione uso e manutenzione

Installaltion, use and maintenance

PIUSI Fluid Handling EX100

230 V • 50 Hz

230 V • 60 Hz

250 V • 50 Hz

SEE "DECLARATION OF CONFORMITY" SHEET

MACHINE DESCRIPTION

TRIC VANE PUMP, EQUIPPED WITH BY-PASS VALVE. BRUSH MOTOR POWERED BY ALTERNATE CUR-WITH INTERMITTENT CYCLE, CLOSED TYPE IP55 PROTECTION CLASS ACCORDING TO CEI EN 60034-5, FLANGE-MOUNTED DIRECTLY



3.1 DEFINITION OF CLASSIFIED ZONES

ZONE 1 Note: Said zone can also include:

Place where an explosive atmosphere made up of a mix of air and inflammable substances in the form of gas, vapour or mist is volve the inside of tanks, pipes and containers, etc.

places in the immediate vicinity of zone O; places in the immediate vicinity of supply openings places in the immediate vicinity of filling and and emptying

and fragile glass and ceramic components, or components made of



which, if it does occurs, only persists for a short time. Note: Said zone can include, among others, places surrounding the zones O or 1. Place where an explosive atmosphere in the form of a cloud of

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DEFINITION OF CLASSIFIED ZONES
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GENERAL SAFETY RULES TECHNICAL DATA **OPERATING CONDITIONS** ENVIRONMENTAL CONDITIONS ELECTRICAL POWER SUPPLY

FLUIDS PERMITTED INSTALLATION POSITIONING, CONFIGURATIONS AND **ACCESSORIES**

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DIMENSIONS AND EXPLODED VIEWS MACHINE AND MANUFACTURER **IDENTIFICATION**

IDEITI	IDENTIFICATION					
CE	(Ex) 0948 2 G		uzzara (MN) taly	ELECTRIC FUEL PUMP TYPE EX140		
0948			A T4 Gb	L.N.		
DEMKO 19 A	DEMKO 19 ATEX 2155 X		19.0005X	Date		
230V 50 Hz	5 A	1450 rpm		Ta -20° / +40°C		
Insulation Cla	Insulation Class F Du		NUOUS S1	Q.max 140 l/m - P.max 1,8 bar		
A WARNING:	A WARNING: Automatic thermal protected motor - not open when energized					

Example of technical data plate. The values vary depending on the model purchased. AVAILABLE MODELS: EX100 230V/50 Hz · 230V/60 Hz · 250V/50 Hz

EX14O 23OV/50 Hz · 23OV/60 Hz · 25OV/50 Hz MANUFACTURER: PIUSI S.p.A., Via Pacinotti 16/A - z.i. Rangavino

THE PUMPS COMPLIES WITH THE FOLLOWING MARKING ATEX Electrical apparatus constructed and tested for use in an explosive atmosphere, in accordance with Annex II of Directive 2014/34/EU. GROUP II Equipment intended for use in places with presence of explosive atmosphere, other than underground sites, mi-

nes, tunnels, etc., identified according to the criteria of the Directive 2014/34/EU (ATEX)

2 CATEGORY 2 Equipment designed to be capable of functioning in con formity with the operated parameters established by the manufacturer and ensuring a high level of protection;

Equipment intended for use in the presence of gas; Equipment suitable for installation in Zone 1. **EXPLOSIVE** ATMOSPHERE Equipment designed and realized in accordance with standards IEC 60079 and IEC 80079 and harmonized Ex PREFIX

standards EN 60079 and EN 80079 series (for presumption of conformity to 2014/34/EU), which provides a level of protection against explosive atmospheres igni-tion suitable for the installation in the declared Zone db PROTECTION Electrical apparatus not able to ignites a potentially ex-

plosive atmosphere because compliant with the requirements IEC 60079-1 & EN 60079-1. h PROTECTION Non-Electrical apparatus not able to ignites a potentially explosive atmosphere because compliant with the requirements ISO 80079-36 & ISO 80079-37 and EN ISO 80079-36 & EN ISO 80079-37 (Type 'c') Group II. Equipment intended for use in places with pre-sence of explosive gas atmosphere other than mines su-

sceptible to firedamps. Group Subdivision IIA: a typical gas is propane

T4 TEMPERATURE Temperature class T4 = Maximum surface temperature CLASS 135°C EQUIPMENT Level of protection "b" - EPL "Gb": the equipment is not

PROTECTION a source of ignition in normal operations and expected LEVEL malfunction. Is suitable for the installation in Zone 1.

CONFORMITY

SELF-PRIMING, VOLUMETRIC, ROTATING ELEC-

MOTOR EQUIPPED WITH AUTOMATIC THERMAI OVERLOAD PROTECTION. SHOULD THE PROTEC-TION ACTIVATE, TURN OFF THE PUMP AND WAIT FOR

FOREWORD Definition of zones as shown in directive 99/92/EG ZONE O

ontinuously present, either for long periods or frequently. lote: Generally speaking, said conditions, when they occur, in Place where it is probable that an explosive atmosphere, made up of a mix of air and inflammable substances in the form of gas, vapour or mist, can occur occasionally during normal operation

places in the immediate vicinity of appliances, protection systems

places in the immediate vicinity of inadequately sealed stuffing oxes, e.g., on pumps and valves with stuffing box. Place where it is improbable that an explosive atmosphere, made up of a mix of air and inflammable substances in the form gas, vapour or mist, can occur during normal operation, but

embustible powders in the air is continuously present, either for long periods or frequently. Note: Generally speaking, said conditions, when they occur, involve the inside of tanks, pipes and containers, etc.

FIRST AID RULES

Place where it is probable that an explosive atmosphere, in the form of a cloud of combustible powders in the air, can occur occasionally Contact with during normal operation. Note: Said zone can include, for example, among others, places in the immediate vicinity of powder loading and emptying points and places where powder layers form or which, during normal op-

eration, could produce an explosive concentration of combustible

Place where it is improbable that an explosive atmosphere, in

he form of a cloud of combustible powders in the air, occur dur-ng normal operation but which, if it does occur, only persists for

Note: This zone can comprise, among others, places near appli-

ances, protections systems and components containing powder, out of which the powder can come out due to leaks with the for-

nation of powder deposits (e.g., milling salt, where the powder

ZONE O

IGNITION HAZARDS AND PROTECTIVE MEANS

sion-proof enclosure

less than 100 mm ²

PLANT OPERATION RESTRICTIONS IT IS FORBIDDEN:

0; 20; 21; 22

7 Use in case of lightnings

Due to the limited weight and dimensions of the pumps, special lifting equipment is not required to handle them. The pumps are carefully packed before dispatch.

Check the packing when receiving the material and store in a dry place.

3.4 HANDLING AND TRANSPORT

GENERAL WARNINGS

The pump does not reach the temperature on the ex-

ternal surface of 135 °C under any conditions of use

Moving parts do not generate sparks and this instruction indicates how to avoid external impact

All electrical components are located inside the explo-

All materials used are in continuity or have a dimension

PUMP FOR TRANFERRING FUEL SUITABLE FOR

OPERATING IN ZONES CLASSIFIED"1"AND "2", AC-

THE DETERMINATION OF THE AREAS (ZONES) IS

Using the appliance for fluids other than those listed at paragraph "Fluids permitted" and for uses other than

those described at the item "authorised use" is forbid-

other than that contemplated by the manufacturer

To integrate other systems and/or equipment not considered by the manufacturer in the executive project.

To connect the appliance up to energy sources other than those contemplated by the manufacturer

those indicated by the manufacturer.

1 To use the appliance in a construction configuration

To use the appliance in places where there is risk of

CORDING TO DIRECTIVE 99/92/EC

TO BE CARRIED OUT BY THE USER

owders mixed with the air.

comes out of the mills and deposits).

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

Disconnect the power source, or use a dry insulator to protect yourself while you move the injured person away from

ENGLISH (Translated from Italian)

any electrical conductor. Avoid touching the injured person with your bare hands until he is far away from any conductor. nediately call for help from qualified and trained personnel. Do not operate switches with wet hands. Please refer to the safety data sheet for the product

NOTICE

DO NOT SMOKE NEAR THE PUMP AND DO NOT USE THE PUMP NEAR FLAMES.

GENERAL SAFETY RULES

IT IS ESSENTIAL TO GET TO KNOW AND UNDER-STAND THE INFORMATION CONTAINED IN THIS IT IS ESSENTIAL TO GET TO KNOW AND OBSERVE

THE SAFETY SPECIFICATIONS FOR FLAMMABLE BEFORE USING THE PUMP IT'S IMPORTANT TO TRAIN OPERATORS, INSTALLERS AND MAINTENANCE STAFF TO LET THEM WORK IN A PARTICULAR AREA NO. 1 AS MENTIONED BY DIRECTIVE 99/92/EC
IN CASE OF CONTACT WITH THE PRODUCT AND

FOR GOOD STANDARD OF BEHAVIOUR, wear protective equipment which is: · suited to the operations that need to be performed; resistant to products used TO DO SO, PLEASE REFER TO THE RELEVANT

ECHCNICAL DATASHEETS OF THE FLUID USED. close-fitting clothing safety shoes

afety goggles Other devices

instructions manua Prolonged contact with the treated product may cause skin irritation; always wear protective gloves uring dispensing. NOTICE To prevent electric shock and detonation of sparks, all pumping system must have proper grounding, including tank and any accessories.

2 To use the appliance with fixed guards tampered with or and/or fires classified in the following zones: WARNING To use the commercial devices for purposes other than

Enforce regulations for electrical installation All wiring and electrical connections must be per-formed by authorized and suitably trained personnel. 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 immedi-

ause serious accidents

Failure to observe the above mentioned rules can

OO NOT OPEN THE WIRING BOX IN CLASSIFIED AREA

The electrical connection between the plug and socket must be kept well away from water. The pump is equipped with current-sensing protection. If it activates turn off the pump immediately. The pump is equipped with protection against overheating and overload risks. Should such devices activate, the pump shuts down automatically, but the master switch is not turned off. It is important to stop the pump using its switch. The pump restarts after its normal operating conditions have been restored.

TECHNICAL DATA

EX100 250/50 250 50 4 1000 1450 100 2

 EX 14O 23O/50
 25O
 5O
 5
 115O
 145O
 14O
 2

 EX14O 23O/6O
 23O
 6O
 4.5
 92O
 175O
 14O
 2

EX140 250/50 | 250 | 50 | 4 | 1125 | 1450 | 140 | 2 | S1

THREADS ENGAGED

mm² or 14 AWG

min. -4 °F / max +104 °F

min. -20 °C / max +40 °C min. -4 °F / max +104 °F

min. -20 °C / max +40 °C

OPERATING CONDITIONS

ENVIRONMENTAL CONDITIONS

EX 100 230/50 230 50 4,5

POWER CORD INPUT 1/2" NPT

EX100 230/60

EX 140 230/50

POWER CORD

8.1

TEMPERATURE

TEMPERATURE

WARNING

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. The following symbols will be used throughout the manual to highlight safety information and precau-

Symbols used in the manua WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury

NOTICE

WARNING

NOTICE is used to address pratices not related to personal injury This manual should be complete and legible through-out. It should remain available to end users and spe-cialist installation and maintenance technicians for

consultation at any time. This manual belongs to Piusi S.p.A., which is the sole proprietor of all rights indicated by applicable laws, including, by way of example, laws on copyrights. All the rights deriving from such laws are reserved to Piusi S.p.A.: the reproduction, including partial, of this manual, its publication, change, transcription and notifica tion to the public, transmission, including using remote communication media, placing at disposal of the pub-

lic, distribution, marketing in any form, translation and/ or processing, loan and any other activity reserved by he law to Piusi S.p.A.. THIS MANUAL IS VALID ONLY FOR AC PUMPS ALWAYS USE THE RIGHT VOLTAGES TO CONNECT

BEFORE PROCEEDING WITH THE REFUELLING OF THE AIRCRAFT, ENSURE THAT THE SYSTEM IN-TENDED FOR SUCH ACTION COMPLIES WITH THE REGULATIONS IN FORCE IN THE COUNTRY OF USE USE THE PUMP ONLY WITH FLUIDS PERMITTED. DO NOT USE WITH FLUIDS NOT PERMITTED TO AVOID DAMAGING THE PUMP. THE GUARANTEE APSES IN CASE OF MISUSE OF THE FLUID. DO NOT USE THE PUMP WITH LIQUID FOOD PROD-

UCTS AND/OR WATER-BASED FLUIDS.

Do not use in case of lightnings

DO NOT OPERATE THE PUMP DRY TO AVOID DAM-Before connection, make sure that the piping and the suction tank are free of dirt and solid residue that could damage the pump and its accessories. NEVER COLLECT THE FLUID FROM THE BOTTOM OF THE TANK SINCE IT MAY CONTAIN IMPURITIES Keep a working fire extinguisher in the work area.

Do not operate the unit when fatigued or under the fluence of drugs or alcohol. Do not alter or modify equipment. Alterations of modifications may void agency approvals and create afety hazards. Keep children and animals away from work area. Comply with all applicable safety regulations.

BEFORE USING THE PUMP SWITCH OFF ALL THE

BEFORE USING THE PUMP SWITCH OFF ALL THE ELECTRONIC DEVICES (I.E. MOBILE PHONES, REEDEDS ETC.)



The temperature limits shown apply to the pump components and must be respected to avoid pos-

IF YOU NEED TO INSTALL A THREAD ADAPTOR

IN THE CABLE ENTRY HOLE, IT IS NECESSARY

THE "Ex db" PROTECTION AND THE CABLE

GLAND INSTALLED MUST HAVE MINIMUM 5 FULL

Minimum section recommended for cables up to 6 m:

Recommended sheath: HO7RN-F T90°; SJT T90°

TO MAKE SURE THAT IT IS CERTIFIED ATEX WITH

DELIVERY

Should the heat sensor activate under normal use conditions, please contact the technical support. intervene and reducing the dispensed flow considerably. In these cases, to guarantee correct operation of the pump, it is necessary to

INITIAL START-UP

sively tightened.

PRIME

AT THE END OF

START-UP

Depending on the system characteristics, the prim ing phase can last from several seconds to a few ninutes. If this phase is prolonged, stop the pump that the pump is not running completely dry (fill

that the suction filter is not clogged; that the suction height is not higher than 2 mt. that all air has been released from the delivery pipe. When priming has occurred, verify that the pump is operating within the anticipated range, in particular: that under conditions of maximum back pressure the power absorption of the motor stays within the values shown on the identification plate: that the delivery back pressure does not exceed

the maximum back pressure for the pump.

Fluid Handling

TADE

BULLETIN MO492 ITEN _ OO

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