nary checks before installation FIRE AND **EXPLOSION** When flammable fluids

ELECTRICAL POWER SUPPLY

AND ACCESSORIES

PIPING CONNECTIONS

POSITIONING, CONFIGURATIONS

**ELECTRICAL CONNECTIONS** 

MACHINE AND MANUFACTURER

DANGER

Via Pacinotti Z.I. Rangavino

Via Pacinotti c.m.- z.i.Rangavir

Serial number: refer to Lot Number shown on CE plate affixed to product

roduct is in conformity with the legal provisions indicated in the directives

at Piusi S.p.A. or following request sent to the e-mail address: doc\_tec@piusi.com

MACHINE DESCRIPTION

with by-pass valve.

Inspectable suction filter.

46029 Suzzara - Mantova - Italia

Hereby states under its own responsibility, that the equipment described below:

Year of manufacture: refer to the year of production shown on the CE plate affixed to the

The documentation is at the disposal of the competent authority following motivated request

The person authorised to compile the technical file and draw up the declaration is Otto

46029 Suzzara (Mantova) Italy

**DECLARATION OF CONFORMITY** 

PANTHER 72

PIUSI S.p.A

Description : Pump for the transfer of diesel fuel

- Electromagnetic Compatibility Directive 2014/30/EU

Model: Panther 56; Panther 72; Panther 90

Machine Directive 2006/42/EC

Varini as legal representative

Suzzara, 20/04/2016

MOTOR

**FILTER** 

PACKAGING

MODEL

**PANTHER 56** 

**PANTHER 72** 

**PANTHER 90** 

- Low Tension Directive 2014/35/UE

PANTHER 90

INSTALLATION

CONNECTIONS

EVERY DAY USE

MAINTENANCE

EXPLODED VIEWS

OVERALL DIMENSIONS

PROBLEMS AND SOLUTIONS

DEMOLITION AND DISPOSAL

**IDENTIFICATION** 

**NOISE LEVEL** 

MODEL

AVAILABLE

MODELS

TURER

TECHNICAL

PERMITTED AND NON-PERMITTED FLUIDS

NOTES ON SUCTION AND DELIVERY LINES

are present in the work area, such as gasoline and windshield wiper fluid, be aware that

o not plug or unplug power cords or turn lights on or off when 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.

fumes can ignite or explode. **ELECTRIC** SHOCK

Electrocution or

MANUFACTURE

Motorin

legal representative

Otto Varini

PACKAGING

DIMENSION(mm

345 x 175 x 255

345 x 175 x 255

345 x 175 x 255

Self-Priming, volumetric, rotating electric vane pump, equipped

ynchronous motor, single-phase and three-phase, 2 pole, closed

type (protection class IP55 in conformance with EN 60034-5-86

regulations) self-ventilated, directly flanged to the pump body.

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 re-

On the packaging a label shows the following product information:

o ensure operator safety and to protect the dispensing system

this instruction manual before attempting to operate the dis-

This symbol indicates safe working practices for operators

This symbol indicates that there is risk of damage to the

This manual should be complete and legible throughout. It should

remain available to end users and specialist installation and mainte-

he text cannot be reprinted without the written permission of

safety information and precautions of particular importance:

and/or potentially exposed persons.

This symbol indicates useful information.

nance technicians for consultation at any time.

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equipment and/or its components.

NOTE

om potential damage, workers must be fully acquainted with

e following symbols will be used throughout the manual to highlight

The pump is equipped comes packed suitably for shipment

HANDLING AND TRANSPORT

iving the material and store in a dry place.

WEIGH1

**GENERAL WARNINGS** 

pensing system.

ATTENTION

Piusi S.p.A.

rn off and disconnect power cord before servicing equipment. Connect only to a grounded electrical outlets. lse only 3 wire extension cords in accordance with local electrial codes. Extension cords should have a ground lead. nsure ground prongs are intact on power and extension cords. Do not expose to rain. Store indoors. lever 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 de vices. Replace damaged components before operation. Before each use check that the power connection cord and power plug are not damaged. If damaged, have power connecion cord replaced before use by a qualified electrician. he electrical connection between the plug and socket must be

Before any checks or maintenance work are carried out, discon-

Keep work area free of debris, including rags and spilled or open

This equipment must be grounded. Improper grounding, setup

To help prevent fire and explosion:

ontainers of solvent and gasoline.

kept well away from water. Insuitable extension leads can be hazardous in accordan with current regulations, only extension cords that are labelled or outdoor use and have a sufficient conduction path should be used outdoors. For safety reasons, we recommend that, in principle, the equipment

e used only with a earth-leakage 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 f drugs or alcohol. o not leave the work area while equipment is energized or un-

**EQUIPMENT** MISUSE Misuse can cause death or serious injury

der pressure. Turn off all equipment when equipment is not in use. Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards. oute 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. Do not exceed the maximum operating pressure or the tem erature of the part with lower nominal value of the system. See

Technical Data in all equipment manuals. Jse fluids and solvents that are compatible with the wetted part of the system. See Technical Data in all equipment manuals. Read the manufacturer's instructions of the fluids and solvents. For more information on the material, request the safety data sheet (MSDS) from the distributor or dealer. Check the equipment every day. Immediately repair or re-

place worn or damaged parts only with original spare parts of the manufacturer. Make sure the equipment is classified and approved compliant Use the equipment only for the intended use. Contact your distributor for more information.

Keep hoses and cables far from traffic areas, sharp edges, moving parts and hot surfaces.

TOXIC FLUID OR FUMES HAZARD

o not bend or overbend the hoses or use the hose to pull the equipment. Read MSDS's to know the specific hazards of the fluids you are using. Store hazardous fluid in approved containers, and dispose of it cording to applicable guidelines. rolonged contact with the treated product may cause skin irritation: always wear protective gloves during dispensing.

FIRST AID RULES

disconnect the unit from the mains, or use a dry insulator as protection while moving the electrocuted person far from any ductor. Do not touch the electrocuted pers hands until he/she is far from any conductor. Ask qualified and rained people for help immediately nen operating the dispensing system and in particular during

SMOKING PROHIBITED When operating the dispensing system and in partic refuelling, do not smoke and do not use open flame.

**GENERAL SAFETY RULES** Wear protective equipment that is suited to the operations that need to be performed;

Essential proteclive equipment characteristics Personal protec tive equipmen

resistant to cleaning products. Wear the following personal protective equipment during han dling and installation:

etv shoes se-fitting clothing;



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

struction manua

**ATTENTION** 

Never touch the electric plug or socket with wet hands. Do not switch the dispensing system on if the network con-nection cable or important parts of the apparatus are dam-aged, such as the inlet/outlet pipe, nozzle or safety devices. Replace the damaged pipe immediately.

**ENGLISH (Translated from Italian)** 

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. **ENGLISH (Translated from Italian)** 

AND ACCESSORIES

ATTENTION

ATTENTION

**DELIVERY** 

FLOW RATE

EFFECTS ON

**FLOW RATE** 

WARNING

CAVITATION

WARNING

**ATTENTION** 

11.2

the system in mind.

vertical or horizontal)

pours could be present.

- Automatic dispensing

- Manual dispensing nozzle

of the pumps.

DELIVERY

POSITIONING, CONFIGURATIONS

In the case of installation in the open air, proceed to

The pump must be secured in a stable way using the

holes on the bed of the motor and vibration damping

THE MOTORS ARE NOT OF THE ANTI-EXPLOSIVE-

TYPE. Do not install them where inflammable va-

The broad range of pump accessories make it suitable

The pumps are furnished without line acces-sories

- MeterFlexible tubing
It is the responsibility of the installer to provide the necessary line accessories to ensure the correct and

safe operation of the pump. The accessories that are not suitable to be used with the previously indicated

material could damage the pump and/or cause injury

To maximise performance and prevent damage that

could affect pump operation, always demand original

NOTES ON SUCTION AND DELIVERY LINES

The choice of pump model must be made keepingthe characteristics of

Length and diameter of pipe, flow rate of dispensed liquid, accessories

fitted, can create back pressures above those allowed. In this case, the

pump mechanical control (bypass) will trip to reduce the flow rate.

shorter and/or larger diameter pipes, as well as line accessories with low

The pumps are self-priming and characterized by good suction capacity. During the start-up phase, with an empty suc-

tion tube and the pump wetted with fluid, the electric pump

unit is capable of suctioning the liquid with a maximum dif-

It is important to point out that the priming time

an automatic dispensing nozzle on the delivery line prevents the evacuation of air from the instal-

ing the proper wetting of the pump.

When the system is functioning, the pump can work with pressure at the inlet as high as 0.5 bar, beyond which cavitation

It is important to ensure low vacuums at suction mouth by using:

use foot valves with minimum possible resistance keep the suction filters clean because, when they become

The difference in height between the pump and the

fluid level must be kept as small as possible and,

at any rate, within the 2 meters anticipated for

the priming phase. If this height is exceeded, it will

always benecessary to install a foot valve to allow

for thefilling of the suction tube and provide tubing

ofwider diameter. It is recommended that thepump

not be installed at a difference in heightgreater than

In the case that the suction tank is higher than the

tallation in order to control the back pressures

pump, it is advisable to install an anti-siphon valve to prevent accidental diesel fuel leaks. Dimension the

IT IS THE INSTALLER'S RESPONSIBILITY TO

CARRY OUT THE ELECTRICAL CONNECTIONS

IN COMPLIANCE WITH THE RELEVANT STAN-

Comply with the following (not exhaustive)

During installation and maintenance make sure that

power supply to the electric lines has been turned off.

- Use cables with minimum sections, rated voltages and

installation type that are suitable for the characteristics indicated in paragraph "TECHNICAL DATA" and the in-

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 en-

All motors are equipped with a grounding terminal that

is to be connected to the ground line of the electrical

Verify that the terminal strip blades are positioned

according to the diagram provided for the available

Verify the correct direction of rotation of the motor

(see the paragraph overall dimensions), and, if not correct, invert the connection of the two cables in

The pumps are supplied without electrical safety equipment such as fuses, motor protectors, systems

o prevent accidental restarting after power failure

or others. It is indispensable to install an electric

panel, upstream from the pump's power supply line,

equipped with an appropriate residual current oper-ated circuit breaker. It is the installer's responsibility

o perform the electrical connections with respect

the power supply plug or on the terminal strip.

nstructions to ensure a proper electrical connection

d, they increase the resistance of the system.

short pipes with larger or identical diameter to that reco

increase of system noise and pump damage. .

due to water hammering.

**ELECTRICAL CONNECTIONS** 

sure the IP55 protection grade.

power supply voltage.

CONNECTIONS

DARDS.

reduce bends to the utmost

use large-section suction filters

can be as long as one minute and the presence of

lation, and, therefore, prevents proper priming. For this reason, it is always advisable to prime the pump without an automatic delivery nozzle, verify-

The installation of a foot valve is recommended to

prevent the emptying of the suction tube and keep the pump wet. In this way, the pump will subsequent-ly always start up immediately.

mena can begin, with a consequent loss of flow rate and

**HOW TO REDUCE** To avoid these problems, system flow resistances must be reduced using

ference in height of 2 meters.

resistances (e.g., automatic nozzle for higher flow rates).

to persons, as well as causing pollution.

Following is a list of the most common line accessories

whose use is compatible with the proper functioning

- Foot valve with filter

Rigid and flexible tubing

for many different uses, installations and applications.
The supporting base can be positioned in different

protect the pump by providing a protection roof.

The pump can be installed in any position (pump axis

be kept well away from water. Unsuitable extension leads can be dangerous. In accordance with current regulations, only extension cords that are la belled 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

TECHNICAL DATA

	PANTHER 56						PANTHER 72		PANTHER 90
Voltage/ Frequency (V/Hz)	230/50	230/60	120/60	110/50	400/50	400/60	230/50	400/50	230/50
Absorption (A)	3.0	3.9	7.5	5.5	1.3	1.4	4.2	1.6	4.9
Power (W)	350	500	600	500	500	500	500	500	700
RPM	2900	3400	3450	2800	2900	3400	2900	2900	290
Nominal Flow Rate(l/min)	56	68	56	56	56	68	72	72	90
Max Back Pressure (bar)	1,5	1,5	1,5	1.4	1,5	1,5	1.3	1.3	2
Type of Service (SI-continuous; S3-periodic intermittent)	S1	S1	S1	S1	S1	S1	S1	S1	S3

20°C The tube and the pump position relative to the fluid level is such that a pressure of 0.3 bar ited at the nominal flow rate

Under different suction conditions higher pressure values can be created that reduce the flow rate compared to the same back pressure values. To obtain the best performance, it is very important to reduce loss of suction pressure as much as possible by following these instructions: Shorten the suction tube as much as possible Avoid useless elbows or throttling in the tubes Keep the suction filter clean · Use a tube with a diameter equal to, or greater than, indi-

The operating pressure of the pump is of 3 bar.

# OPERATING CONDITIONS

**ENVIRONMENTAL CONDITIONS** 

**TEMPERATURE** RELATIVE **HUMIDIT** 

NOTE

**FLUIDS** 

FLUIDS NON

RELATED

DANGERS

ATTENTION

PRELIMINARY

min. -20 °C / max +60 °C max. 90% The environment must conform to directive 89/654/EEC on

work environments. In case of non-EU countries, refer to directive EN ISO 12100-2 § 4.8.6. The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction.

ELECTRICAL POWER SUPPLY Depending on the model, the pump must be supplied by a single-phase alternating current line whose nominal values are own in the table in Paragraph "TECHNICAL DATA". The maximum acceptable variations from the electrical pa-

Voltage:+/- 5% of the nominal value requency:+/- 2% of the nominal value Power from lines with values outside the indicated limits can ATTENTION damage the electrical components.

10.3 DUTY CYCLE

The electrical pumps Panther 56 and Panther 72 are designed for continuous use under conditions of maximum back pressure. The electrical pump Panther 90 is designed for alternating use with duty cycle 30" ON and 30" OFF. Functioning under by-pass conditions is only allowed for short periods of time (max. 3 minutes).

10.4 PERMITTED AND NON-PERMITTED FLUIDS

#### DIESEL FUEL at a viscosity of from 2 to 5.35 cSt (at a temperature of PERMITTED

C), Minimum Flash Point (PM): 55°C, according to UNI EN 590

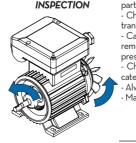
ATTENTION - FIRE - EXPLOSION - GASOLINE - INFLAMMABLE LIQUIDS with - FIRE - EXPLOSION

- LIQUIDS WITH VISCOSITY > 20 cSt - MOTOR OVERLOAD WATED - PUMP OXIDATION - FOOD LIQUIDS - CONTAMINATION OF THE SAME - CORROSIVE CHEMICAL - PUMP CORROSION - INJURY PRODUCTS TO PERSONS

INSTALLATION

- SOLVENTS

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



parts from the manufacturer. 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

erify that all components are present. Request any missing

- FIRE - EXPLOSION - DAMAGE

TO GASKET SEALS

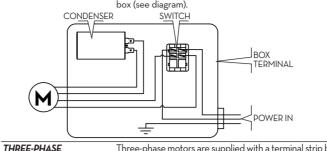
Check that the electrical data corresponds to those indicated on the data plate. ways install in an illuminated area Make sure that the motor shaft turns freely.

or the applicable regulations. The characteristics of the capacitor are shown on the identification plate for each pump model. he switch has the sole function of starting/ stopping the pump and cannot in any way substitute for the main circuit breaker provided for in the applicable regulations.

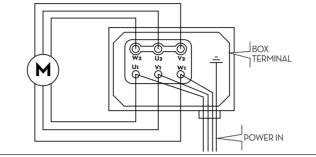
**ENGLISH** (Translated from Italian)

SINGLE-PHASE single-phase motors are supplied with a pre-existing 2 -MOTORS meter cable with electric plug. To change the cable, open the terminal strip cover and connect the line according to the following diagram.

Single-phase motors are supplied with a bi-polar switch nd capacitor wired and installed inside the terminal strip box (see diagram).



Three-phase motors are supplied with a terminal strip box and terminal strip. To connect the electric motor to the electric power line, open the terminal strip cover and connect the cables according to the diagram.



12.2 PIPING CONNECTIONS

**FOREWORD** Before carrying out any connection, refer to the visual indications i.e. arrow on the pump head, to identify suction and delivery. ATTENTION

PRELIMINARY - Check that the machine has not suffered any damage during transport - Clean the inlet and outlet openings, removing any dust or residual pack ing material. Make sure that the motor shaft turns freely.

Check that the electrical specifications correspond to those shown on the identification plate. CONNECTING Before connection, make sure that the tubing and the suction tank are free of dirt and thread residue that could damage the pump and its ac-

Nominal recommended pressure 10 har

Before connecting the delivery tube, partially fill the pump body with diesel fuel to facilitate priming,

- Do not use conical threaded joints that could damage the threaded pump openings if excessively tightened. Minimum recommended nominal diameter: 1"1/4

Use tubing suitable for functioning under suction pressure.

DELIVERY

Use tubing suitable to resist back pressures of 0.8 bar Minimum recommended nominal diameter: 1" Nominal recommended pressure: 10 bar ATTENTION It is the installer's responsibility to use tubing with ad-

equate characteristics.
The use of tubing unsuitable for use with Diesel fuel can damage the pump, injure persons and cause pollution.
Loosening of the connections (threaded connections, langing, gasket seals) can cause serious ecological and

Check all the connections after the initial installation and on a daily basis after that. Tighten the connections, if nec-

## INITIAL START-UP

**FOREWORD** 

Check that the quantity of fluid in the suction tank is greater :han the amount you wish to transfer. Make sure that the residual capacity of the delivery tank is greater than the quantity you wish to transfer. Make sure that the piping and line accessories are in good

Extreme operating conditions can raise the motor tem-

ATTENTION

Do not run the pump dry for more than 20 minutes. This can cause serious damage to its components. Fluid leaks can damage objects and injure persons. Never start or stop the pump by connecting or cutting out the power supply
- Single-phase motors are provided with an automatic thermal

ATTENTION

perature and, consequently, cause the thermal protection switch to stop it. Turn off the pump and wait for it to cool before resuming use. The thermal protection automati-cally turns off when the motor is sufficiently cool. During the priming phase, the pump must discharge all the air that is initially present from the delivery line. Therefore it is necessary to keep the outlet open to permit the evacu-

ection switch.

IF THE PUMP

AT THE END OF

THE INITIAL

DOES NOT

ATTENTION

ation of the air. If an automatic type dispensing nozzle is installed on the end of the delivery line, the evacuation of the air will be difficult because of the automatic stopping device that keeps the valve closed. It is recommended that the automatic nozzle be temporarily removed during initial start-up.

Depending on the system characteristics, the priming phase can last from several seconds to a few minutes. If this phase is rolonged, stop the pump and verify: that the pump is not running completely dry (fill with fluid rom the delivery line); that the suction pipe guarantees against air infiltration;

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. hen 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 suction pressure is not greater than 0.5 bar; that the delivery back pressure does not exceed the maximum back pressure for the pump.

PIUS Fluid Handling

## **EVERY DAY USE**

ATTENTION

USE PROCEDURE 1 If using flexible tubing, attach the ends of the tubing to the tanks. In the absence of an appropriate slot, solidly grasp the

**ENGLISH** (Translated from Italian)

delivery tube before beginning dispensing. Before starting the pump make sure that the delivery valve is closed (dispensing nozzle or line valve).

Turn the ON/OFF switch to ON. The by-pass valve allows func tioning with the delivery closed for only brief periods. Open the delivery valve, solidly grasping the end of the tubing.

Close the delivery valve to stop dispensing. When dispensing is finished, turn off thepump. To avoid damaging the pump, after use, make sure the

pump is off. In case of a power break, switch the pump off straight unctioning with the delivery closed is only allowed for brief periods (2-3 minutes maximum). After use, make sure the pump is turned off.

A lack of electric power, with the consequent accidenta stopping of the pump, can be caused by:

- A safety device tripping

- A drop in line voltage
In either case, act as follows:

Attach the end of the delivery to the slot provided on the Turn the ON/OFF switch to the OFF position Resume operations as described in Paragraph L - DAILY

USE, after determining the cause of the stoppage.

Close the delivery valve

### MAINTENANCE

Safety instruc- Panther 56, Panther 72 and Panther 90 pumps are designed and constructed to require a minimum 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 functioning of the pump 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. ONCE A WEEK:

Check that the pipe connections are not loose to prevent any leaks Check and keep the filter installed on the suction line clean. Check the pump body and keep it clean and free of any impurities; Check and keep the pump filter clean and any other filters installed - Check that the electrical supply cables are in good condition.

#### **NOISE LEVEL**

In normal operating conditions, noise emissions of all models do not exceed 75 dB at a distance of 1 metre from the electric pump.

## PROBLEMS AND SOLUTIONS

PROBLEMS AND SOCIOTIONS							
r any problems contact the authorised dealer nearest to you.							
OBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION					
IE MOTOR IS NOT IRNING	Lack of electric power	Check the electrical connections and the safety systems.					
	Rotor jammed	Check for possible damage or obstruction of the rotating components.					
	The motor protecting thermals- witch has tripped	Wait for the motor to cool, verify that it restarts, and research the cause of the overheating					
	Motor problems	Contact the Service Department					
IE MOTOR TURNS OWLY WHEN ARTING	Low voltage in the electric powerline	Bring the voltage back within the anticipated limits					
	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 circuit(working with the by-pass open)	Use shorter tubing or of greater- diameter					
W OR NO FLOW TE	By-pass valve blocked	Dismantle the valve, clean and/					

Air entering the pump or thesuc- Check the seals of the connec tion tubing tions A narrowing in the suction tubing Use tubing suitable for workingunder suction pressure Check the voltage at the pump. Low rotation speed Adjust the voltage and/or use cablesof greater cross-section The suction tubing is resting on Raise the tubing the bottom of the tank Cavitation occurring Reduce suction pressure INCREASED PUMP Irregular functioning of the by- Dispense until the air is purged NOISE from the circuit Air present in the diesel fuel Verify the suction connections **EAKAGE FROM THE** Seal damaged Check and replace the mechani-

**PUMP BODY** Remove the blockage from the Suction circuit blocked suction circuit Malfunction of foot valve fitted Replace foot valve THE PUMP DOES NOT on suction circuit PRIME THE LIQUID The suction chambers are dry Add liquid from pump delivery side The pump chambers are dirty or Remove the blockages from the suction and delivery valves

#### DEMOLITION AND DISPOSAL If the system needs to be disposed, the parts which make it up must be

dustrial waste and, in particular: he packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose. Metal parts, whether paint-finished or in stainless steel, can be consigned to scrap metal collectors.

delivered to companies that specialize in the recycling and disposal of

These must be disposed of by companies that specialize in the disposa tric and electronic 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 Information this symbol on the product and/or packaging not be disposed of together with non-differentiated urban waste. The symbol indicates that this

European Union

regarding product must not be disposed of together with normal household waste.

It is the responsibility of the owner to dispose of these products as well **environment for** as other electric or electronic equipment by means of the specific refuse collection structures indicated by the government or the local governing 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 conse quences for the environment and human health. case of the unlawful disposal of said wastes, fines will be applicable as defined by the laws in force. Other components, such as pipes, rubber gaskets, plastic parts and

wires, must be disposed of by companies specialising in the disposal of industrial waste.

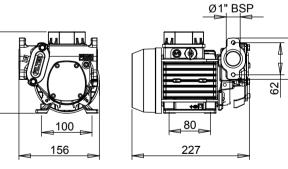


**EXPLODED VIEWS** 

#### OVERALL DIMENSIONS MONOFASE - SINGLEPHASE

186 Panther 72-90 Ø1" GAS 150 Panther 56 236.5 100

TRIFASE - THREEPHASE













parts disposal

BULLETIN MOO42 DITEN\_OC

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