# **FUEL PUMP**



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## **USE AND MAINTENANCE** MANUAL

#### Α INDEX

- Α INDEX
- в EQUIPMENT AND MANUFACTURER IDENTIFICATION
- C **DEVICE DESCRIPTION**
- C1 MOVING AND TRANSPORT
- D **GENERAL WARNINGS**
- FIRST AID RULES E
- E GENERAL SAFETY RULES
- **TECHNICAL DATA** G
- ELECTRICAL SPECIFICATIONS н
- I. INSTALLATION
- DAILY USE J
- κ MAINTENANCE
- L **PROBLEMS AND SOLUTIONS**

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## AVAILABLE MODELS: • MODI PUMP M60-12

#### Producer: GAITER Sp. z o.o.



## **C** DEVICE DESCRIPTION

#### PUMP:

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

#### ENGINE:

Single-phase 4 pole, asynchronous induction motor, enclose type, self-ventilated, directly flanged on pump with thermal protect, to prevent motor burned.

## C1 MOVING AND TRANSPORT

Due to the relatively low weight and dimensions of the pumps, special lifting equipment is not required to move them. The pumps are carefully packed before dispatch. Check the packing when receiving the material and store in a dry place.

Whenever the packaging appears to have been damaged, check the motor pump for signs of damage during transport of handling.

WARNING: Before installing and using the pump, check the identification plate to make sure that the model and its characteristics correspond to those specified.

## **D** GENERAL WARNINGS

Important Precautions 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.

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.

9

NOTE: This symbol indicates useful information.

Maintenance

This manual should be complete and legible throughout. It should remain available to end users and specialist for installation and maintenance for consultation at any time

## E FIRST AID RULES

SPECIAL CAUTION	In case of problems resulting from eye / skin contact, inhalation or ingestion of the product, please refer to the safety data sheet.
IN CASE OF 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.

NOTE



Please refer to the safety data sheet for the product.





When operating the dispensing system, especially during refuel, do not smoke or use open fire.

## F GENERAL SAFETY RULES

**Protective clothing** 

It is recommended to wear protective clothing: Which is adapted to the activity being performed.

#### Main characteristics of clothing and equipment

Wear the following PPE during handling and installation:



Safety shoes

**Tight-fitting clothing** 

Protective gloves

Goggles



Instruction manual

GLOVES

P

Long-term contact with the product may cause skin irritation, always wear protective gloves during dispensing.



 $\Delta$ 

Never touch a wet plug or electrical outlet.

Do not switch on the dispensing system if the device is connected to the mains or essential parts are damaged. Such as inlet /outlet pipe or safety devices. Replace damaged tube immediately.

Before each use, check that the mains connection, cable and plug are not damaged. The mains cable must be replaced immediately by a qualified person.

ATTENTION

ATTENTION



Keep the electrical connection between plug and socket away from water.

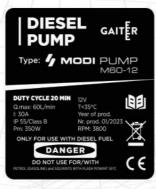
Incorrect extension cords can be dangerous. According to the regulations in force, only suitable extension cords that are marked for outdoor use may be used.

Several parts may become very hot during operation. May cause burns if touched.

## **G TECHNICAL DATA**

## G1 PUMP SPECIFICATION

TYPE of LIQUID	Diesel, Heating oil
Flow rate	up to 60 L/min
Voltage	12V
POWER	350 W
RPM	3800
BY-PASS	YES
Maximum length of the suction hose	2 m
Maximum suction height with/without non-return valve	3 m
Maximum operating time in one cycle	20 minutes
Operating temperature range	-15°C / +50°C
WEIGHT	7 kg



## **H** ELECTRICAL SPECIFICATIONS

1	PUMP	POWER SUPPLY			CURRENT
MODEL	RPM	Voltage (V)	Power (w)	Maximum (by-pass mode) [A]	
	MODI PUMP M60-12	3800	12	350	30

## I INSTALLATION

## MODI PUMP M60-12

## **I1 PRELIMINARY INSPECTION:**

- 1. Check that all elements are present. Ask for the missing parts from the manufacturer.
- 2. Check that the device has not been damaged during transport or storage.
- Carefully clean the suction and delivery inlets and outlets, removing any dirt or other packaging components that may be present.
- 4. Make sure the motor shaft turns freely.
- 5. Check that the electrical data correspond to the markings on the nameplate.
- 6. Always install in a lit place.
- 7. Install the pump in a ventilated place to avoid the accumulation of vapors.
- 8. We recommend the use of a suction filter.

## **12 PUMP INSTALLATION:**

Pumps can be installed in any position (the pump axis can be vertical and horizontal).

Attach the pump with bolts of the correct size to the mounting holes in the pump base.



ENGINES CAN EXPLODE. DO NOT install them there, WHERE are flammable substances or vapours.

It is the installer's responsibility to provide the necessary accessories to ensure correct and safe operation of the pump. Accessories that are not original may damage the pump and/or cause injury and contamination.

Always use original accessories to maximize performance and prevent damage that could affect pump performance.

## J DAILY USE

### INITIAL PROCEDURES:

The pump is for professional use only.

- 1. If using a flexible pipe, attach the ends of the pipe to the tank.
- In the absence of an appropriate socket, solidly grasp the delivery pipe before beginning dispensing
- Before starting the pump, make sure that the discharge valve is closed (dosing nozzle or line valve).
- Turn on the ON/OFF switch. The bypass valve allows operation with a closed only for a short time.
- 4. Open the discharge valve by firmly grasping the end of the pipe the nozzle.
- 5. When dispensing, do not inhale the pumped product.
- 6. After closing the supply valve/nozzle, turn off the pump as soon as possible.
- 7. If liquid is spilled during pouring, cover it with soil or sand to soak it up and limit the spread.



Make sure the pump is turned off after use. In the event of a power cut, switch off the pump immediately.

## K MAINTENANCE



MAINTENANCE MUST BE PERFORMED ONLY BY AUTHORIZED AND QUALIFIED PERSONNEL.

ATTENTION:	Due to this design, the pump requires simple maintenance. Before performing any maintenance, disconnect the pump from any electrical and hydraulic power sources. The use of personal protective equipment (PPE) is mandatory during maintenance. In any case, keep the following basic recommendations in mind for the proper functioning of the pump
ONCE	Check for loose pipe connections to prevent leakage.
A WEEK:	Check and keep the filter installed in the suction line clean.
ONCE	Check the pump housing and keep it clean and free from contamination.

ONCE A MONTH:

Check that the power cables are in good condition.



Do not put your fingers into the pump openings while the pump is running

PROBLEMS	POSSIBLE REASONS	SONS SOLUTIONS		
PROBLEMS	POSSIBLE REASONS	SOLUTIONS		
	No electricity	Check the electrical connection and security systems.		
THE PUMP MOTOR DOES NOT START	Locked rotor	Check for possible damage or obstruction of the rotors components.		
	Engine problems	Please contact the service department.		
AFTER STARTING THE ENGINE IS NOT RUNNING WITH FULL POWER	Low electricity voltage on the voltage line	Restore the voltage within the predicted limit.		
LOW FLOW OR NO FLOW	Low liquid level in the tank	Refill the tank.		
	Foot valve blocked	Clean or replace valve.		
	Filter clogged	Clean the filter.		
	Excessive suction pressure	Lower the pump with respect to the level of t tank or increase the cross-section of the tubin		
	High loss of head in the delivery circuit (working with the by-pass open)	Use shorter pipes or of greater diameter.		
	By-pass valve blocked	Dismantle the valve, clean and/or replace it.		
	Air entering the pump or the suction pipe	Check the seals of the connections.		
	Pipe suction constriction	Use suitable pipes for high pressure operation.		
	Low rotation speed	Check the voltage at the pump Adjust the voltage and/or use cables of greater cross-section.		
	The suction pipe is not correctly positioned at the bottom of the tank	Lift up the pipe.		
NOISY PUMP RUN	Cavitation occurring	Reduce suction pressure.		
	Irregular functioning of the by-pass	Dispense fuel until the air is purged from the by-pass system.		
	Air present in the diesel fuel	Verify the suction connections.		
PUMP BODY LEAK	Seal damaged	Check and replace the seal.		